

Towards customer-oriented electronic markets – *A survey among digital natives in the financial industry*

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Abstract

The financial industry is in midst of a fundamental transformation. Changes in customer behavior and the impact of information technology are believed to change the financial industry from hierarchical to market-based structures. Although electronic markets in the financial services industry are well known in B2B processes such as e.g. stock exchanges, only little research has been undertaken. This research indicates in a survey among digital natives that the use of electronic and mobile channels, cross-channel management, multi-vendor integration, online social networks and non-banks as service providers are becoming much more relevant in the future and thus support the hypothesis of a shift towards a more customer-oriented B2C electronic market model in the financial industry.

Keywords: Customer interaction, electronic markets, financial industry, banks

1 Introduction

The interaction of customers with companies currently faces a paradigm shift. In the past customer interaction for many companies meant marketing existing products through different channels. This inside-out view, which dominated many industries for a long time, is now being complemented by an outside-in view that sets the customer in the heart of companies' activities (Gulati, 2010). Enablers of this development are driven by changing customer behavior on the one hand and information technology (IT) on the other hand. The financial industry is particularly affected by this development because it is an information-based business where most processes may be IT-supported.

First, the behavior of financial services customers is changing. A study of the Spanish market reveals that today bank customers (97%) use multiple channels to interact with their bank (Cortiñas, Chocarro, & Villanueva, 2010). Most customers (88%) prefer the online channel instead of branches (51%). This development is projected to rise with the emergence of the so-called "digital natives". However, current studies report that innovative functionalities of that are valued by "digital natives" are usually not within the scope of the established IT-systems offered by banks (Anand, 2011; Hoppermann, 2011; McKinsey & Company, 2010).

Second, IT enables a change in existing financial industry market structures. Over the last decades banks have undertaken large investments in IT and developed individual applications to support their businesses. But these systems mainly focus on operational functionalities around established banking products (inside-out view), e.g. a bank's checking or securities account (Tallon, 2010). In contrast to this, non-banks are emerging and provide innovative IT-solutions, which include the possibility to compare bank products and to obtain neutral advice. Among the examples are Covestor or Prosper (Seo & Rietsema, 2010).

Although, electronic markets are well known in the financial industry for a long time especially in the area of stock exchanges, their primary focus has been on business-to-business (B2B) processes (Gisiger & Weber, 2005). Those electronic infrastructures offered benefits for banks regarding cost-efficiency and led to cooperation among banks and non-banks. While this is important from the bank's inside-out perspective, the outside-in perspective implies the identification and support of customer needs across different companies. Customers have relationships with more than one bank as well as with other financial services providers (FSP). Their goal is to have transparency and ease-of-use across all their financial touch points (Hedley et. al., 2006). Although, so-called personal finance management (PFM) tools, such as Quicken, Starmoney, Gnucash or iOutBank, are first solutions in this direction, they are limited to transaction-related processes in payment and do only offer limited functionality for investment or finance processes. More sophisticated solutions would require a shift towards B2C electronic market models that allow customers to individually bundle services from different FSPs (Heinrich, Zellner, & Leist, 2011).

This research aims at extending existing research on B2C electronic markets in the financial industry that had a strong focus on B2B processes in the past (e.g. (Gomber & Lutat, 2007; Kundisch, 2003; Louis & Rao, 1999)). For this, an empirical survey among customers was conducted, which examines their future intentions and requirements towards interaction with banks and other FSPs from an outside-in view. The paper is organized in 5 sections. Section 2 describes the basic theories and concepts of electronic

markets as coordination mechanisms. Section 3 presents the current situation of the financial industry and develops the hypotheses model, which is tested against the collected data in section 4. Finally, section 5 summarizes the major findings.

2 Electronic markets

Electronic markets have been a research topic since 25 years. Malone et al. already proposed the shift from hierarchical structures towards market structures due to advances in information and communication technology in their electronic market hypothesis (EMH) (Thomas W. Malone, Yates, & Benjamin, 1987). Summaries of electronic market research of (Alt & Klein, 2011) and (Standing, Standing, & Love, 2010) show, that electronic markets either focus on B2B relationships (see e.g. (Thomas W. Malone, Yates, et al., 1987) (Kaplan & Sawhney, 2000)) or analyse electronic markets on a micro-level, covering highly specific subjects in a certain domain. The summary of an analysis of current electronic market research regarding the research focus of this paper shows three shortcomings:

First, although some researchers argue that there is no significant distinction between B2C and B2B electronic markets (c.f. (Porter, 2001)), more recent works see IT-based developments, such as e.g. online social networks, mobile devices or natural user interfaces (c.f. (Jain, Lund, & Wixon, 2011)) as enablers for consumer-driven markets that significantly differ from traditional B2B markets, as the barrier for average consumers in integrating into electronic networks lowers. (c.f. (Glassberg & Merhout, 2007), (Standing et al., 2010), (Heinrich et al., 2011)).

Second, research on electronic markets approaches are in most cases micro-level focused (c.f. (Standing et al., 2010)). This gap is also addressed by (Alt & Klein, 2011), who call for further electronic markets research that is “taking a broader, systemic and interdisciplinary” approach, at a time where academia “seem to be geared towards increasingly specific micro analyses”. Among the examples is an analysis of Twitter regarding its potential for business engagement (Zhang, Jansen, & Chowdhury, 2011) or money trading in multiplayer online games (Constantiou, Legarth, & Olsen, 2011).

Third, current research lacks empirical evidence about the design of future B2C electronic markets in the financial services industry from an outside-in view. Various studies concentrate either on a retrospective customer analysis or miss a specific focus on digital natives (e.g. (Advertising Age, 2011), (Pricewaterhouse Coopers, 2011), (Google, 2011), (American Banker Association, 2011)). There is insufficient data about predictive analysis of customer behavior in electronic markets.

Electronic markets research differentiates three major topologies for the coordination of services among customers and providers: Hierarchies, networks and markets. (c.f. (Lee & Clark, 1996), (Thorelli, 1986), see table 1). As shown in Table 1, they differentiate regarding interaction and coordination structures. While interaction describes activities that occur between multiple entities which have an effect upon one another, coordination is described as the process of managing dependencies among these activities (Thomas W Malone & Crowston, 1994).

As already shown by (T. W. Malone, Yates, & Benjamin, 1987) IT can have an impact on these coordination mechanisms and is able to create electronic market structures

even for products and services with higher complexity and asset specificity. Examples from other than the financial services industry show the transformative potential of IT on existing value chains in service businesses (see e.g. (Grewal, Chakravarty, & Saini, 2010), (Gordijn, Osterwalder, & Pigneur, 2005) and (Kagermann, Österle, & Jordan, 2010)). For instance, the convergence of the media, computer and telecommunication industry made the traditional physical distribution of data storage media in the music industry uneconomical, which lead to fundamental change in market structure (Allon & Gurvich, 2007). Today, Apple Corporation Apple Corporation is not only a manufacturer of hardware solutions, but has also become the world's largest distributor of multimedia content and software.

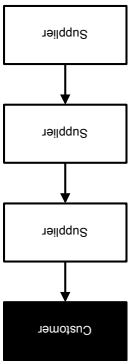
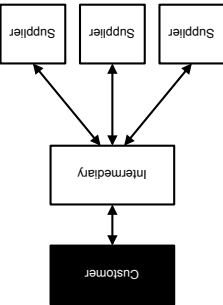
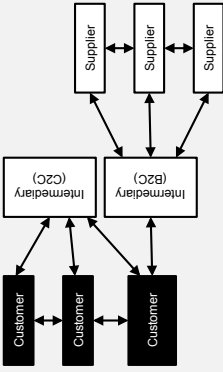
	Electronic hierarchies	B2B Electronic markets	B2C electronic markets*
			
Coordination structure	- Flow through adjacent steps by controlling and directing activities at a higher level in the managerial hierarchy. (Thomas W. Malone, Yates, et al., 1987) "Buyers do not select a supplier from a group of potential suppliers; they simply work with a single predetermined one" (Thomas W. Malone, Yates, et al., 1987)	"Inter-organizational information system that allows the participating buyers and sellers in some market to exchange information about prices and product offerings." (Bakos, 1997) - Electronic systems that facilitate the exchange of information, goods, services and payments. (Bakos, 1998)	- In-between-form of hierarchies and "administered markets" (Provan & Kenis, 2007) "Networks may comprise only a small part of one or several markets" (Thorelli, 1986) - Distinct customer focus through consumer-driven models and the role of customer-to-customer-networks (Homburg, Workman, & Jensen, 2000)
Characteristics	- Focus on electronic and offline channels (Tuunainen, 1998) - Single-channel focus: Ranks as a compensation to lacking ubiquitous real-time information (Kelly, 1998) - Selected vendor transaction through central procurement department (Croom, 2000) - Mostly industry specific network participants (Timmers, 1998)	- Focus on electronic channels (e.g. EDI) (Tuunainen, 1998) - Single-channel focused: Enable trading partners to be identified and execute transactions (Standing et al., 2010) - Heavily depends on intermediaries and market makers (Sarkar, Butler, & Steinfield, 1998) (Giaglis, Klein, & O'Keefe, 2002) - Single vendor integration through powerful central authority (Kelly, 1998) - Mostly industry specific participants (Timmers, 1998)	- Electronic and mobile channel focus: Distinctive relevance of electronic and mobile channels (Lazer et al., 2009) - Cross-channel focused: Enable customers to access services through different channels (Neslin & Shankar, 2009) - Social network focus: Social networks complement C2C services (Kudaravalli & Faraj, 2008) - Industry and non-industry actors focus: Complementary services through non-industry network participants (Epp & Price, 2011) - Multi-vendor focus: Flexible multi-vendor integration through interoperability of services on market platform (Brohman et al., 2009)
Interaction	Bilateral based on permanent relationship (Kaplan & Sawhney, 2000)	Bilateral based on occasional transactions (Kaplan & Sawhney, 2000)	Multilateral based on long term relationships (Thorelli, 1986)
Information	Scarce information, sequential flow (Kelly, 1998)	High amount of information ((Kumar, 2009), p. 25 ff.), (Kelly, 1998)	- Plentiful information or too much information (Kelly, 1998) - High information flow (Kelly, 1998) - Decentralized or conflicting information sources (Castells, 2010)
Governance	Managerial decisions (Thomas W. Malone et al., 1987)	Market forces (supply and demand) (Thomas W. Malone et al., 1987)	Market forces supplemented by power, influence and trust (Thorelli, 1986)

Table 1: Overview of infrastructure typologies (Compiled by the authors)

* proposed model

3 Model & hypothesis development

3.1 Electronic markets in the financial industry

Electronic markets are well known in the financial industry especially in the area of stock exchanges due to the immateriality of its goods (Axelrod, 1981). In a broader context, these electronic markets represent so called “financial market infrastructures” (FMI) which especially gained importance in the light of on going disintermediation in the financial sector (Kundisch, Sackmann, & Ruch, 2008). Since banks were aware that cost-efficiency dominates differentiation in interbank processes, cooperation among banks led to disintermediation through FMIs for multiple banks and increasingly also non-banks. These FMIs typically encompass institutions for business-to-business (B2B) payment and securities processing between e.g. banks and stock exchanges (Gisiger & Weber, 2005).

End customers only use services of a FMI via their banks, which assemble those and other services for them. In the past, banks developed individual solutions to provide these services and to integrate their processes with the FMI in B2B interbank processes (e.g. electronic exchanges). More recently, standard software packages (so-called core banking systems) have emerged, such as SAP and Temenos that automate backoffice B2B transactions in payment, securities and finance processes. Those systems are typically enhanced by dedicated frontoffice, customer-facing B2C applications such as e.g. CRM and online banking systems.

As already mentioned in the introductory section, current online banking systems predominantly provide transaction-oriented functionality and do not enable customers to use:

- all relevant financial services via electronic and especially mobile channels,
- services over an extended cross-channel management,
- functionalities of online social networks,
- financial services from new market participants like non-banks,
- services from multiple financial vendors.

The following section derives the hypotheses along these five characteristics of the B2C electronic market model as described in section 2.

3.2 Model development

Figure 1 shows a model of the traditional customer-bank relationship in its most basic occurrence, according to the model of electronic hierarchies (see Table 1). A customer interacts with his primary and usually single bank through the most suitable channel offered by the company. In this case “channel” is defined as the organizational unit in which a bank goes to the market, serves and sells to customers (IBM Business Consulting Service, 2005) In the past, retail customers typically used single or few channels for interactions (c.f. (Geraci, Katki, McMonegal, Meyer, & Porteous, 1991)).

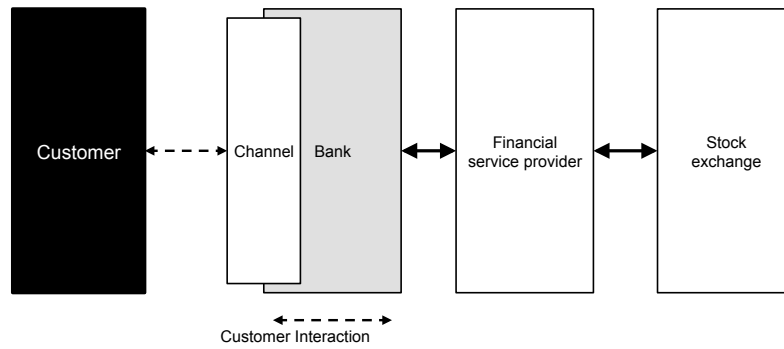


Figure 1: Simplified model of former customer-bank-interaction (own illustration)

Changing customer requirements, the disruptive impact of technology and new market participants lead to changes in customer-bank-interaction (see section 1), which is described by the customer-oriented electronic network model hypothesis. In order to validate this hypothesis the survey among digital natives includes the following hypotheses (see figure 2):

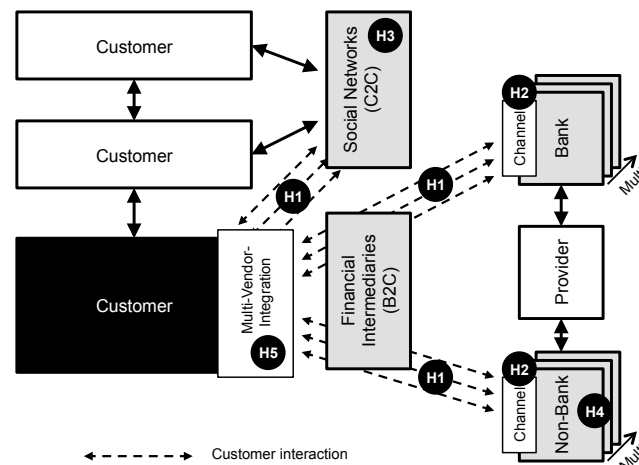


Figure 2: Proposed model for future customer-bank-interaction (own illustration, c.f. table 1)

H1: Electronic and especially mobile channels gain importance in future customer interaction.

H2: Customer demand for an extended cross-channel management with financial service providers.

H3: Features and characteristics of online social networks will be adopted by customers and have an impact on financial services.

H4: Customers use financial services from new market participants like non-banks.

H5: Customers demand the ability to integrate multiple financial vendors.

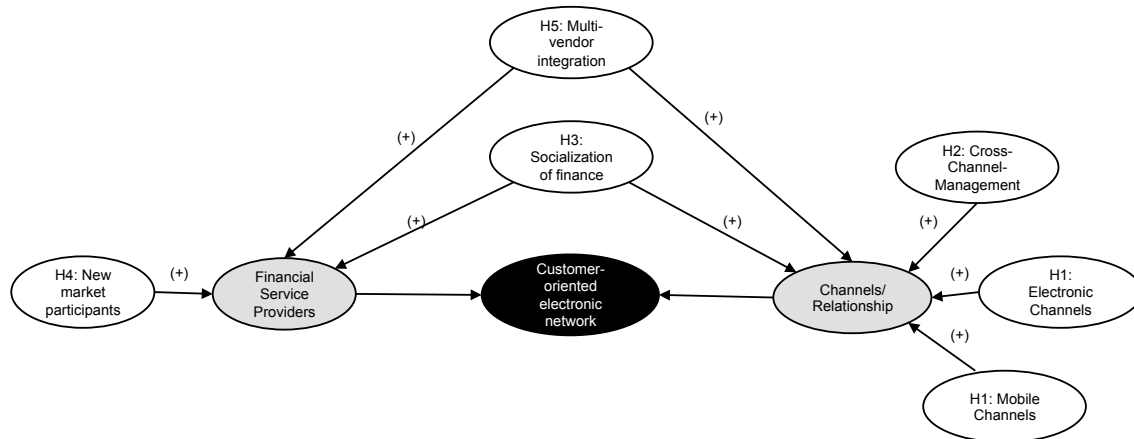


Figure 3: Hypotheses model

3.3 Changing customer behavior

Electronic channels have emerged with the rise of the Internet, increasingly substituting personal channels. A survey by the American Banker Association (Coelho & Easingwood, 2008) shows that the preference for online channels in the USA has doubled to 62 per cent just in the last year. Today, where 77 per cent of the world populations are mobile subscribers and 85 per cent of new handsets are web enabled, this development still continues and even accelerates. It is forecasted, that in 2015 between 500 Million and 1 Billion people use mobile banking (American Banker Association, 2011). Studies also show that banks believe in the growth of the mobile channel (KPMG, 2011). Despite these optimistic predictions, other studies draw a different picture: A study from Ernst & Young for example shows that the uptake in mobile banking will be small in developed countries (Ernst & Young, 2011). Another study of (BuzzBack Market Research, 2011) shows that almost two-third of the surveyed customers are not interested in any mobile banking services. This discrepancy shows demand for further research. Reasons for adoption have to be examined, especially the gap between business based forecasts and customer based surveys is striking.

Besides the rising use of electronic channels, customers want to switch channels during certain processes and transactions, a requirement called cross-channel-management (IBM Business Consulting Service, 2005). If for example an online personal financial management tool is used for an appraisal of creditworthiness, this information should be used from the bank consultant, too. A study by Deutsche Bank shows, that customers are becoming increasingly “hybrid” (Rudolph & Emrich, 2010). They want tangible benefits by choosing available channels and combine them in their best way, e.g. by doing research online but purchase offline ((Deutsche Bank Research, 2010), (Banker, Chen, Liu, & Ou, 2010)). This leads to the following hypotheses:

H1: Electronic and especially mobile channels gain importance in future customer interaction.

H2: Customer demand for an extended cross-channel management with financial service providers.

3.4 Finance becomes „social“

About 1.2 billion individuals already use online social networks. That is 17 per cent of the world's population (Cortiñas et al., 2010). Given that number, there is clear indication that parts of peoples' life has moved to the so-called "social web". "Socialization" of finance means the use of the "social media" and its corresponding technologies to create and support financial services for customers in direct interaction with other customers ((Comscore, 2011), (King, 2010).

Finance is a present topic in the social web, as studies show, e.g. (Fulton, 2008), (Way, Wong, & Gibbons, 2011), (Fracassi, 2010), (Fiserv, 2010). Looking at developments of the recent years shows, that online social networks have led to alternative financial intermediates based on social networking-concepts. Various examples for the use of "social"-elements can be found in customer-facing applications (c.f. (Thomas Meyer & Deutsche Bank Research, 2010), (Wessels & Drennan, 2010)). Examples for such new services are payments with alternative currencies over via social networks, such as Facebook Credits or Bitcoins. Other examples are private lending platforms like Smava or Prosper, which focus on lending and borrowing activities that occur directly among individuals using social networks and bypassing traditional financial services middlemen (Lammers, Loehndorf, & Weitzel, 2004). The most likely use for social networks in financial services may be customer advisory processes. In this case, online social communities enable individuals to ask their online-peer-group for financial advice or to easily join communities of believed experts (Baxley & Hergenroeder, 2008). Hypothesis three sees the features of online social networks as a further characteristic of future B2C electronic markets.

H3: Features and characteristics of online social networks will be adopted by customers and have an impact on financial services.

3.5 New players enter the market

An example for the success of new, non-bank players in the financial industry is the payment-provider PayPal. Founded in 1998 it currently has over 100 million active accounts and is still inventing new products like offline payment services (Socialware, 2011). Non-Banks are, according to (Thompson, 2011), financial institution service providers, customer-facing innovators and technology-led innovators which either have no regulatory banking license or which have their origins in other sectors. Examples for the first group are Personal Finance Management-platforms, such as e.g. Meniga or Mint.com, independent wealth-managers like Yavalu.com or social lending platforms such as Prosper, Kiva, or Auxmoney. These companies are very often start-ups, which provide financial services to customers and frequently position themselves between banks and customers as intermediaries or offer complementary services for banks. Another group of providers are formed by companies, which are well known, but are new to the financial sector. Examples are technology companies like Google and telecommunication providers like Vodafone, which for example offer competing solutions for payment processing in retail (e.g. Google Wallet, Mpass) (Weichert, 2008).

The reasons for this steady growing number and very often successful non-bank providers are not well researched yet. (Jeremy Quittner, 2010) sees one key success

factor for their success in the strong track record of non-banks in identifying customer needs, embracing under-served populations and enhancing efficiency. Other reasons may be that banks consciously decide to not get involved because of investment requirements and reputation risks (Tarantino & Cernauskas, 2010). Banks are also more restricted from a regulatory point of view in expanding their business (Spence, Leipziger, & Commission on Growth and Development, 2010) p. 47 ff. This leads to the fourth hypothesis.

H4: Customers use financial services from new market participants like non-banks.

3.6 Demand for multi-vendor integration

Studies show a significant change in customer loyalty (Weichert, 2008) as well as rising expectations towards service providers (Roberts, 2010). The traditional model of a life long customer relationship with a single bank becomes increasingly obsolete. A growing number of customers take charge of their own finance and use different service providers for different purposes. As the Internet provides more access to financial information, especially customers become more financial literate and are able to manage their financial life by their own.

Besides consumer based studies and research (c.f. (Lusardi & Mitchell, 2009), (van Rooij, Lusardi, & Alessie, 2011), (Lusardi & Mitchell, 2010)), an evidence for this is the success of personal finance management tools like mint.com, or moneyStrands. “Personal Finance is the application of the principles of finance to the monetary decisions of individuality or family unit. These tools support customers by providing abilities to plan, operate and monitor financial tasks and aggregate data from various sources” (Accenture, 2008). They are either run by non-banks such as mint.com or by banks like for example BBVA in Spain or PostFinance in Switzerland (based on moneyStrands).

Another catalyst for this development may be the emergence of non-banks as already mentioned before. The information required and generated by these providers may be integrated in two ways: Either by the primary FSP (aka. Bank) or via the customers resp. a service provider mandated by the customer (Foundation, 2004).

As a result of increasingly heterogeneous relationships to many FSPs, there will be a need for service integration by the customer. In times of a one-bank –relationship, the principal bank simplified customers` life by being a one-stop-shop for all financial needs. As the variety of relationships is expected to rise, new integrated and centralized interaction points will emerge. They will contribute to the new technologies and customers requirements and add an element which traditional banks have not delivered – neutrality (c.f. (“Open Bank Project,” 2012)).

Based on the characteristics of the previous examples, Multi-vendor integration is seen as the customer’s ability to integrate multiple FSPs through interfaces into a single point of contact. It enables the customer to prepare, collect, integrate, reflect and to take action (Lu, 2011). The requirement of multi-vendor integration leads to the following hypothesis:

H5: Customers demand the ability to integrate multiple financial vendors.

4 Methodology and results

4.1 Data Collection and Sample Characteristics

The following survey was conducted among digital natives, from December 2011 until January 2012. Digital natives are defined as born after 1980 and they share a high technological affinity (Li, Dey, & Forlizzi, 2010). This group is believed to represent future customers, which will definitely be the case under a demographic point of view. A request for participation in this survey was sent to students of several universities in German speaking countries (Austria, Germany, Switzerland) to reach this specified target group. Students have been chosen to ensure a basic level of understanding in the technological and financial aspects of the survey.

The data was collected via an online survey, which consisted of three parts. The first part included questions about demographic characteristics and a self-assessment about technological affinity and financial literacy, in order to estimate a potential bias by the sample. The second part analysed the potentials of innovative technologies by customers (Mobile payments, tablet advisory, banking apps, Personal finance management, Peer-to-peer lending, alternative currencies). Each technology was explained with a concrete example (mostly via short video clips). Additionally, the interviewees were asked, if they understand the concept, if they already use such a technology today (e.g. smartphones for banking apps, member of an online social community) and if they could imagine using it themselves by 2015. This part also asked for reasons for using/not using new solutions, in order to assure the understanding of the interviewees and provide insights about acceptance and potentials of the mentioned technologies. The third part asked about the participants' requirements for future bank and financial service provider interaction, covering our proposed hypotheses.

The question design was targeted specifically for an online survey. Therefore closed questions were preferred— especially in the third part, where the interviewees had to agree/disagree to several statements. These statements were fitted to the hypotheses and formulated in a simple and unambiguous way from a consumer's point of view. This was done to ensure feedback in a desired quantity and quality (c.f. (Marsden & Wright, 2010)) Most questions were asked in the way if the interviewee "could imagine to" something. Each statement could be clearly proved or refused by the participants. As a third variant, each question could also be skipped.

5 Data and results

The self-assessment of the interviewees shows an unbiased sample group in terms of financial literacy and perceived image of the financial industry. They surveyed persons describe themselves slightly more aware than the average. A Likert-scale has been used for the evaluation, because the self-assessment of part one used ordinal data, which is clearly ranked. Since the perceived distances in general are larger for the groups towards the extremes (very bad and very good), there is no normal deviation and many statistical methods are not applicable (like t-test or mean value). Therefore only the median is highlighted (c.f. (Robertson, 2012)).

Affinity and image	Likert-scale in % (1 – very bad; 5 – very good)				
n = 253	1	2	3	4	5
Technological affinity	1.19	3.95	21.74	40.32	32.81
Image of financial industry	5.14	22.53	48.61	20.55	3.16
Financial literacy	7.11	24.90	35.97	24.90	7.11

Table 2: Self-assessment of participants

286 complete questionnaires have been submitted, whereby 253 provide to be valid for the target group digital natives (born after 1980; the youngest participant was 18 years old). The vast majority (88 per cent) of the target sample are students or graduates. The number of valid answers per question is shown in the n-value. The difference to 253 shows the unanswered questions. The following questions asked the participants for a future self-assessment, which was defined as year 2015.

Channel	for transactions (n - valid answers)	for advisory (n - valid answers)	for support (n - valid answers)
Branch, Adviser	32% - dispensable 39% - desirable 29% - indispensable (n = 250)	7% - dispensable 15% - desirable 78% - indispensable (n = 248)	15% - dispensable 33% - desirable 52% - indispensable (n = 248)
Online Banking	5% - dispensable 15% - desirable 80% - indispensable (n = 251)	26% - dispensable 48% - desirable 26% - indispensable (n = 245)	10% - dispensable 34% - desirable 56% - indispensable (n = 247)
Mobile Banking	43% - dispensable 42% - desirable 15% - indispensable (n = 251)	67% - dispensable 28% - desirable 5% - indispensable (n = 245)	49% - dispensable 38% - desirable 14% - indispensable (n = 247)
Self-Service-Terminal/ATM	12% - dispensable 33% - desirable 55% - indispensable (n = 252)	60% - dispensable 27% - desirable 13% - indispensable (n = 238)	29% - dispensable 41% - desirable 30% - indispensable (n = 245)
Telephone	60% - dispensable 25% - desirable 15% - indispensable (n = 249)	30% - dispensable 39% - desirable 31% - indispensable (n = 246)	24% - dispensable 41% - desirable 35% - indispensable (n = 247)
E-Mail/Mail/Fax	52% - dispensable 32% - desirable 16% - indispensable (n = 247)	32% - dispensable 42% - desirable 26% - indispensable (n = 243)	26% - dispensable 42% - desirable 32% - indispensable (n = 246)

Table 3: Future Banking-Channels

The given channels have been supplemented by common examples in the German speaking market. Three channels are indispensable for the majority of the customers in future: Branch/adviser, online banking and self-service. They cover interaction in every area. On the other hand, there is no interaction channel, which is really dispensable. Despite the often-proposed decline of the brick-and-mortar channel, the branch and adviser will stay highly relevant for advisory tasks. Mobile banking is not as important in the German speaking market as recent non-customer-based studies have suggested (H1).

For testing significance of the following results, a one-sample t-test is conducted on a per-question basis. It has been used because a mean value and a standard deviation

exists, population is normally distributed and there are over thirty valid responses. Significant results are highlighted. Relevant interim values for reconstructing the test, like mean value, standard deviation and t-value are additionally given.

Question	„Agree“ “ (%) ; n)	„Do not agree“ (%) ; n)	Valid answers	Mean Value	Standard deviation	t- value	2-tailed probability
I want to be able to choose the interaction channel to my bank anytime	96% 238	4% 9	n = 247	0.9636	0.18776	38.803	0.0
I want to be able to switch channels anytime, even during the process	91% 221	9% 23	n = 234	0.9057	0.29279	21.646	0.0

Table 4: Cross-channel-management (including one-sample t-test)

The need for cross-channel-management (H2) has been clearly named as a requirement by over 90 per cent of the interviewees, for freedom to choose channel as well as to switch between the channels at any time.

Question	„Agree“ (%) ; n)	„Do not agree“ (%) ; n)	Valid answers	Mean Value	Standard deviation	t-value	2-tailed probability
I could imagine to transfer money over online social networks	15% 37	85% 209	n = 246	0.1504	0.3581	-15.31	0.0
I could imagine to lend/borrow money over online social networks	11% 26	89% 220	n = 246	0.1057	0.3081	-20.08	0.0
I could imagine to consume financial information in online social networks passively	76% 187	24% 60	n = 247	0.7571	0.4297	9.403	0.0
I could imagine to ask questions or vote in financial belongings in online social networks	64% 157	36% 89	n = 246	0.6382	0.4815	4.502	0.00001
I could imagine to give advice or share own content on financial information in online social networks actively	46% 114	54% 132	n = 246	0.4634	0.4997	-1.148	0.2519
I could imagine to use online social networks for service features	51% 110	49% 135	n = 245	0.4490	0.4984	-1.602	0.11038

Table 5: Social finance (including one-sample t-test)

Online social networks do not deliver an appropriate infrastructure for doing finance. The majority denies doing financial transactions like payments or borrowing/lending via social networks. But social networks will be used as a service channel and for neutral information for customers. But the higher the involvement level, the lower the readiness for participation in social networks (H3).

Question	„Agree“ (%; n)	„Do not agree“ (%; n)	Valid answers	Mean Value	Standard deviation	t-value	2-tailed probability
I could imagine to use companies from outside the financial industry to do financial transactions	53% 126	47% 111	n = 237	0.5317	0.50005	0.9743	0.3309
I could imagine to use formerly unknown companies (start-ups) to do financial transactions	46% 109	54% 126	n = 235	0.4638	0.49975	-1.110	0.26835
I already use alternative financial service providers (e.g. PayPal)	59% 147	41% 101	n = 248	0.5927	0.49232	2.9666	0.003307
I am unsatisfied by the usage of new technologies by my current bank	23% 51	77% 169	n = 220	0.2318	0.422956	-9.405	0.0
My customer needs are insufficiently covered by my current bank	24% 58	76% 169	n = 242	0.2397	0.427766	-9.467	0.0
I trust my money most to traditional banks	80% 189	20% 47	n = 236	0.8008	0.400212	11.548	0.0

Table 6: Alternative financial service providers (including one-sample t-test)

About every second person surveyed, considers non-banks as a viable choice for doing finance in the future – this is also true for formerly unknown start-ups. But despite the current financial crisis, the perception of banks meeting their customers’ needs is high. Three out of four persons are satisfied with their banks in respect of meeting customers’ needs and usage of technology. So, even if non-banks and start-ups are getting out of the niche, banks still have a huge surplus in trust.

Question	„Agree“ (%; n)	„Do not agree“ (%; n)	Valid answers	Mean Value	Standard deviation	t-value	2-tailed probability
I intentionally use several financial service providers (for best service, best price, etc.)	62% 143	38% 87	n = 230	0.6217	0.4860	3.7988	0.000186
I do not want to deal with the search for a suitable financial service provider	30% 70	70% 164	n = 234	0.2991	0.4589	-6.695	0.0
I want all services from a single company	32% 74	68% 156	n = 230	0.3217	0.4682	-5.774	0.0000001
I want an independent and centralized place to go for my financial belongings	65% 149	35% 81	n = 230	0.6478	0.4787	4.6834	0.0000048

Table 7: Multi-vendor ability (including one-sample t-test)

About two-third of the digital natives agreed to the multi-vendor-hypothesis (H5). The majority of the customers does intentionally use several FSPs and does not care searching for the most appropriate ones. Even if they explicitly do not want a one-stop provider for all services, they are searching for an (not specified) independent place where all their financial belongings are integrated.

6 Findings

Changes in customer behavior and the role of IT have been described as possible enablers for change of current market structures in the financial services industry. These are characterized by one-to-one relationships between banks that provide online banking systems to their customers on the downstream B2C side and FMIs as electronic markets on the upstream B2B side. The overall hypothesis of this paper assumes that B2C electronic markets follow a different logic as B2C electronic market models with five distinctive characteristics that were used as hypotheses for an online survey among digital natives, in order to collect data from an outside-in point of view. The survey conducted reveals all proposed five hypotheses are proved true which confirms the higher ranking B2C electronic market hypothesis of this paper:

First, electronic channels gain massively importance over traditional, non-electronic channels. But also branches will remain relevant for advisory processes. This leads to a paradox for financial institutions. On the one hand they must be able to serve almost all services through electronic channels, but on the other hand customers demand a variety of channels to choose from and cross channel access for a broad selection of services. Especially for the mobile channel the results indicate that the business potentials do not seem not as high as prior provider driven studies suggested. But this may change as first convincing solutions emerge on the market, e.g. for mobile payments.

Second, online social networks in finance are not a new sales channel until now. They will primarily be used as an independent information source. Consumers are not willing to transfer real values over existing online social networks. Privacy and security concerns may be the main reasons here.

Third, although, for now banks will remain the first choice institution for financial services for 80 per cent of the participants, already half of the customers surveyed are ready to use financial services from start-ups or industry foreign companies. This will lead to a more heterogeneous market and hints towards a more disintermediated value chain structure.

Fourth, customers want to integrate services from multiple vendors. In contrast to existing approaches (i.e. integrated universal banks) customers are not willing to restrict to solutions of one provider, but instead demand a centralized service, which addresses all relevant customer needs in a neutral, provider-independent way.

Of course, the results of this paper have to be seen in broader context, since this survey covers only a limited population. Digital natives are still a minority, but will become the largest group due to demographic reasons one day. More profoundly, the differences inside this group have not been examined. Solely the technological affinity may differ widely (c.f. (Zur & Zur, 2011)). Another valuable contribution would be, if other service-based industries are affected in a similar ways and also move towards a customer-oriented electronic market model. Also the German speaking market may have its specifics, like strong privacy and security concerns. Future research could validate, whether the same findings are true for other countries or regions. Another limitation may be found in the survey design. The closed questions with “agree” and “disagree” force the participant to put their selves to the extremes. This is sufficient for a macro level analysis, but more specific examination may require other approaches. A last limitation is the timeframe. Even in having a future focus, this survey represents a snapshot of customers today’s perception.

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