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BANK ATTACKERS

The Future of Banking – with Banks

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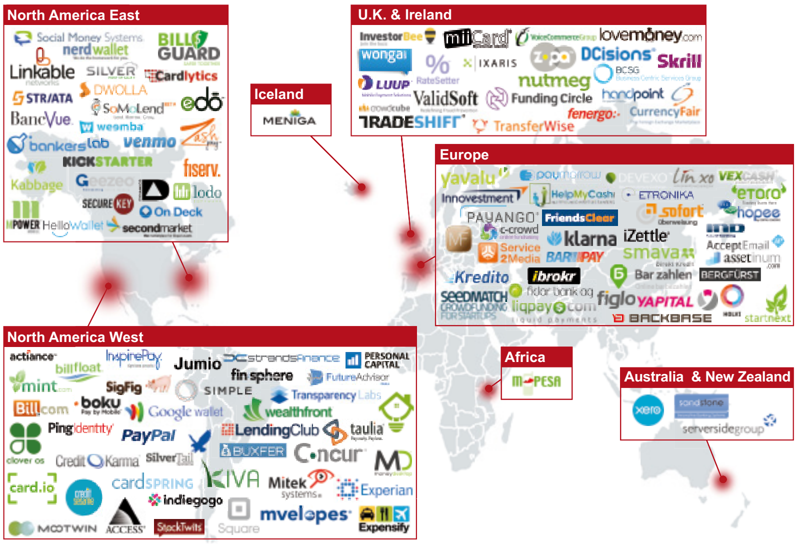
White Paper

1 Introduction

Technological innovations are stirring up the market for financial services

The market for financial services is currently astir with developments. Regulatory demands continue to increase while clients' demands have intensified as a result of the financial crisis. Technological innovations are having an impact on the market and are being adapted ever more quickly. Simultaneously, new players are flooding the market with innovative products and services that are meeting changed customer and user behaviors (Fig. 1).



Source: COREinstitute 2012. The logos depicted are the property of the respective companies.

Fig. 1: Global Overview of Players Examined in the Field of Financial Services

Established financial institutes can use market developments in order to grow

Without a doubt, established financial institutes are facing enormous challenges as a result of this development. However, in contrast to the public and the media's perception of a crisis in the finance industry, this development brings great opportunities with it – particularly for the established financial institutes. They have undergone technological transformations and achieved a high degree of flexibility; furthermore, they possess clear competitive advantages in relation to new players. This position provides financial institutes with the strategic opportunity to be more active than before. They can use the changes occurring in the market for financial services to expand their business models and establish a new type of quality for customer interaction.

The goal of the following discussion is to develop this thesis and to offer concrete options that banks can use to realize this potential. First, we will provide an overview of the current developments in the market for financial services and will analyze the new market actors based on their level of innovation in the segments of payment transactions, asset management, lending operations, and personal finance management. This will be followed by an analysis of the banks' current position, focusing on the extent to which financial institutes have industrialized themselves, and their competitive advantages. Finally, we will discuss which fundamental and concrete options can be derived from this analysis for future action by banks. Our expertise is based on long-term studies that we have carried out in the USA, Great Britain and in Germany. A list of the market players examined in our research can be found in the annex.

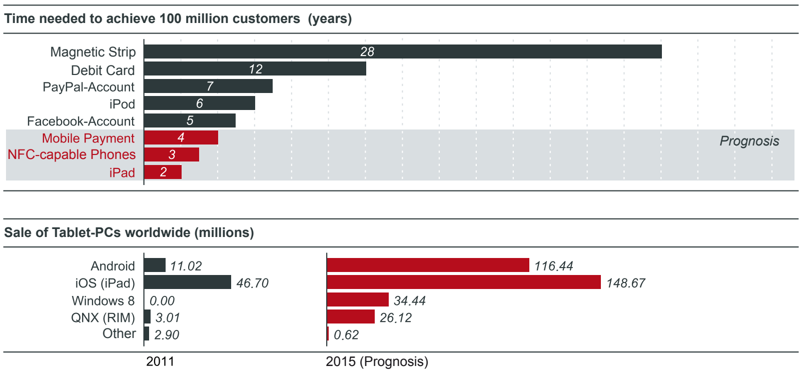
2 Developments in the Financial Services Market

Technological innovations are driving market developments

The current developments in the market for financial services are being driven by two factors in particular: a market push by technological innovations and a market pull in the shape of changed customer behavior. Some of the technological innovations are reaching the market in the form of hardware, such as expanded memory capacity or increased bandwidths or bandwidth usage. Other innovations are the result of these developments, such as real-time data provision, globally accessible, well educated, and cheap labor, or products at the nexus with users that are further developing the frontend for mobile use.

Innovative technologies and new customers are meeting on the market

These technological innovations are occurring parallel to a complementary transformation in the behavior, expectations, and needs of customers and users. This transformation points to a new customer paradigm: that of the "digital natives" or Generation Y. The generation born after 1980 is characterized by a number of changed behavior patterns that can be traced to its members' socialization in a world of modern information and communication media. The members of this generation are used to being addressed from numerous electronic services in parallel channels. They expect improvement and enhancement from these services in the fields of mobility, interconnection, communication, and information. The dynamic of this development can be seen in the increasing speed with which technological innovations are being adapted (Fig. 2).

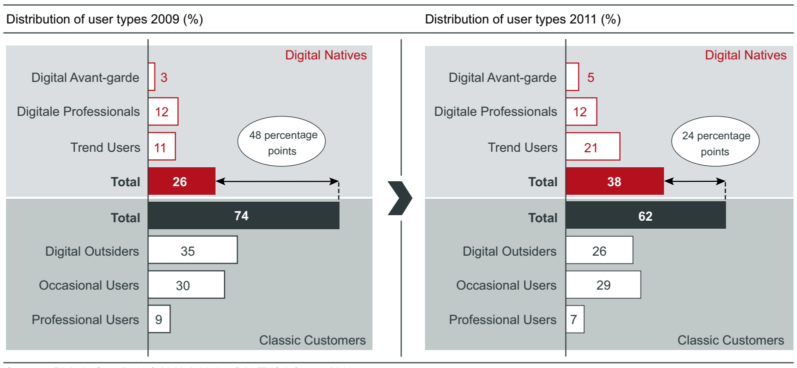


Sources: TowerGroup 2010; Gartner 2010; Gartner 2011.

Fig. 2: Increasing rate of adaption of technological innovations

New interactions lead to changes in products, markets, and business models

The two drivers of technological innovation and customers' changing behavior patterns are fundamentally transforming the financial services market. While users have increased expectations regarding the availability of information and data, new products are increasingly catering to these expectations. The more that innovative products offer their customers new options for action, the more customers demand such options. As a result, previously established concepts of information and data sovereignty are no longer valid. Today, the market is on the cusp of the transformation from "classic" to new, modern forms of interaction. At the moment, the majority of customers still functions according to the classic paradigm, but over the past two years, the gap between them and the digital natives has decreased by half. While 74% of users belonged to the group of classic customers in 2009, by 2011, this group had decreased to only 62% of users. During this period, the share of customers socialized in a digital world grew from 26% to 38% (Fig. 3).

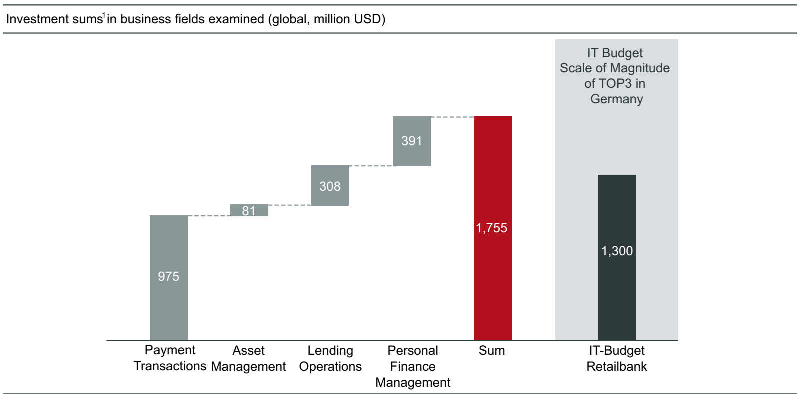


Sources: Digitale Gesellschaft 2011; Initiative D21/TNS Infratest 2011.

Fig. 3: Classic and new types of users

New players are establishing new business models

Different players have identified these developments and are using them in specific ways. The amount of venture capital flowing into the market is significant and will continue to rise with further successes. This risk capital is in large part being used to finance startups that are driving change in the financial services market through product and service developments. The sum of the startups we analyzed for our research alone amounts to US$ 1.7 billion (Fig. 4). The number of these enterprises is rising steadily and the amount of investment is also continually increasing. Another group of players comes from the established industries outside of the financial services sector. In this case it is particularly retail groups and mobile telecommunications firms that are pushing to get onto the market due to the high number of transactions in their value-added chains.



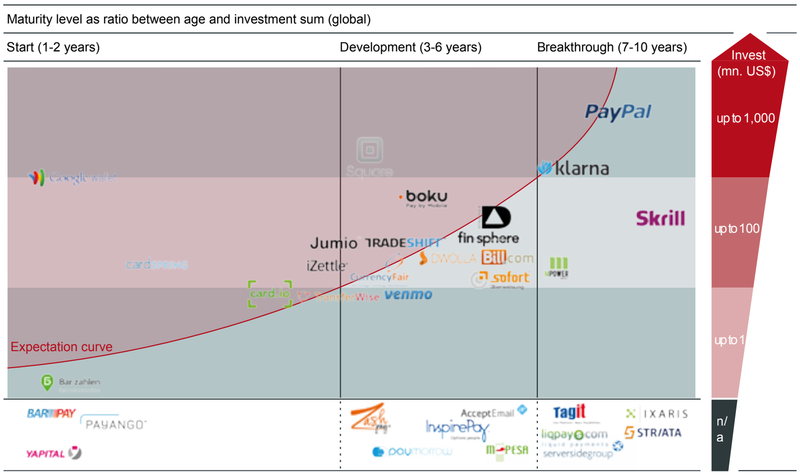
[1] The study used exclusively publicly available data to examine these firms.
Source: COREinstitute 2012.

Fig. 4: VC investments in comparison with typical IT budgets of large retail banks

3 Analyses of Segments in the Banking Sector

The sum of all investments and the continually growing number of players makes clear that developments in the financial services market will become increasingly dynamic. In order to provide an overview of the current developments, we will look at exemplary innovative products and services in four separate segments of the banking sector: payment transactions, asset management, lending operations and personal finance management. Using these examples, we will point out the central business models and their degrees of innovation. At the beginning of each section, graphics will provide information about the selected players within the respective segment. The section on the payment segment is more comprehensive than the others as this segment is characterized by internal differentiation and as developments and investments are currently most concentrated in this segment (Fig. 4).

3.1 Payment Transactions

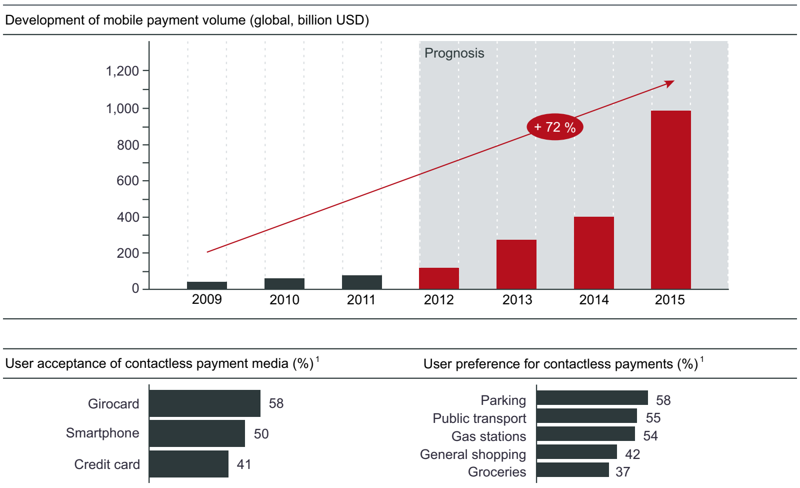


Source: COREinstitute 2012. The logos depicted are the property of the respective companies.

Fig. 5: Players in the payment transactions segment

In the payment transactions segment, new products and services are catering to two channels: mobile and online payments. Within the field of mobile payment, service providers are offering the option of paying via mobile devices. Two different systems exist, each based on a different type of technology. One system enhances mobile devices' capabilities through additional hardware that enables the devices to read debit and credit cards. The other system equips either debit or credit cards or mobile devices with Near Field Communication Technology. By contrast, options are being created within the field of online payment to allow payment transactions via the internet. The market possesses great potential. Experts predict that the field of mobile payment will grow globally to almost US$ 1 trillion by the year 2015 due to the high acceptance of payment methods and of opportunities to use these methods (Fig. 6).

Payment transactions are being unlinked from cash registers and cards



[1] Multiple answers possible.
Source: IE Market Research 2011.

Fig. 6: Development of the market for mobile payment

Several businesses are active in the market for mobile card-reader systems. The most well-known of them is the US firm "Square", created by Twitter co-founder Jack Dorsey, and the Swedish "iZettle", which is active in the Scandinavian market and plans to expand its services to other European countries in the near future. Most recently, several large players announced that they would launch their own products on the market in 2012: PayPal will offer a mobile payment service in the US, Canada, Australia and Hong Kong with "PayPal Here", and plans to expand this service to Europe as well; NCR – a global market leader in the field of cash machines, scanner registers and data warehousing – will distribute its "NCR Silver" service via its global retailer network starting in mid-2012.

Card reader systems bundle the power of the whole cash register in a single app

The products consist of a gadget that is attached to a mobile device (iOS devices such as iPhones and iPads or Android devices), allowing the mobile device to read debit and credit cards. Customers authorize the payments with a digital signature on the merchants' mobile device. This hardware is accompanied by apps whose functionality reproduces entire cashier systems, ranging from the manual entry of card data to the comprehensive presentation of transaction data for businesses, such as inventories and the movement of goods as well as personalized customer data and mailings in the framework of customer relationship management.

Current card models are being changed radically

With these services, businesses are building on the existing ecosystem of traditional card payment transactions and are expanding it to include a mobile component. In general, these products can turn any mobile device into a point of sale (POS). This approach takes the burden of technological transformation off the customers by locating the service with merchants and businesses. On the one hand, this allows service providers to win new clients among businesses for whom such card payment options via expensive services would not be profitable. On the other hand, this technology can also be provided to large companies, such as the partnership that "PayPal Here" hopes to establish with Home Depot in the US, and as "NCR Silver" is also planning to do with larger firms.

New fee models are replacing today's card fees

The business model behind these products consists of levying a fee for each transaction. Depending on the provider, this fee amounts to about 2.75% of the revenue and includes the transaction costs charged by the credit card organizations. While "Square" and "iZettle" provide their add-on devices to businesses free of charge, NCR seems to be planning to introduce a fee model for the provision of hardware that will vary depending on the revenue of and the scope of functions required by the individual business.

Since their founding in 2010, "Square" and "iZettle" have successfully established themselves in their markets. In November 2011, "Square" had 750,000 merchants as clients and ended its fiscal year with over US$ 2 billion in revenue. By April 2012, over one million merchants were processing more than US$ 4 billion worth of transactions via "Square". In addition, it was recently announced that Barack Obama and Mitt Romney are using "Square" in their campaigns to accept donations via mobile credit card payments (Profile, Fig. 7).

Name	Square
Founded	2010
Key People	Jack Dorsey, Jim McKevey
Location	San Francisco, USA
Website	www.squareup.com
Sector	Payment Transactions
Facts	Mobile payment system that enables the acceptance of credit card payments via phone or iPad
Payment process	Mobile card-reading system
Places accepted	> 1 million merchants
Transaction volume	> US$ 4 billion per year
Additional integrated capabilities	Complete cashier system as well as an app for contactless payments
Accepted credit cards	MasterCard, American Express, Visa, Discover
Fees	2.75% of the transaction volume of each payment

Fig. 7: "Square" Profile

Contactless payment turns any smartphone into a card

Instead of card-based systems, other companies are betting on Near Field Communication (NFC) as the main new technology. NFC makes it possible to send information between NFC chips at close range via radio waves. Compared to other cable- and contactless types of linkage, this connection can be established very rapidly and the cost of equipping products with these chips is low. Germany began using NFC chips to encode data on national identity cards in 2010.

Electronic wallets are replacing cards

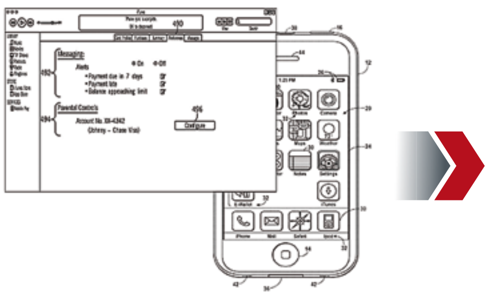
It is critical for the field of payment transactions that payments can be conducted using this technology. Mobile devices can be equipped with NFC chips, allowing customers to pay via smartphone. NFC has the potential to advance to one of the main payment methods of the future. However, as a new technology, NFC is also accompanied by the challenge of establishing an entirely new ecosystem for these kinds of payment transactions. That is why very few products currently make use of this transformation of the smartphone into a wallet.

The most well-known of these is "Google Wallet", which was launched in the US in September 2011 and is an example of what is possible with these services that go by the name of "Wallet". The innovative potential of these services lies in the replacement of the physical with a virtual wallet. In addition to their credit card data, customers can save loyalty cards, vouchers and gift cards to their smartphones; they can receive information in stores about promotions and products via their smartphones; and recurring payment transactions, such as for public transport, are greatly simplified. Google does not levy any fees of its own for the use of "Google Wallet". Its business model consists of placing personalized ads as part of the service.

Mobile telecommunications firms in particular are driving the development of wallet solutions for smartphones. In part, the wallet services will first be offered without NFC functionality, but providers plan to include this function as part of further development. In 2010, AT&T, T-Mobile and Verizon Wireless founded a joint venture in the US by the name of “Isis”, whose pilot project is to be launched in mid-2012. At the beginning of March 2012, MasterCard and “BOKU”, a US firm focusing on payment solutions, announced that they had formed a partnership. They have approached mobile telecommunications providers in order to offer wallets in the form of apps on mobile devices for the providers’ clients. A partnership between VISA and Vodafone is headed in the same direction. Vodafone will offer its European customers its own Vodafone Wallet later this year, while Telefónica O_2 has already launched its “O_2 Wallet” in Great Britain. Apple is also becoming involved in this field with its patented “iWallet”. “iWallet” offers customers the ability to control accounts, for example, by setting a limit for accounts such as for children or employees, or limiting the account to specific businesses and product groups (Fig. 8).

With virtual wallets, mobile telecommunications providers and businesses are taking over the card business

Comprehensive Apple patent for mobile payment since March 2012



- Apple obtained a further **patent** for **mobile payment and NFC** on 06.03.2012
- iWallet is being positioned as a **comprehensive solution** for the **control and processing of payment transactions**
- The patent combines mPayment with a **control system** for mobile payments via subordinate accounts
- **Payment management** for businesses and private customers
- The **iTunes-Store** acts **as the backend** for payment processing

Source: United States Patent 8,127,982, United States Patent and Trademark Office 2012.

Fig. 8: Apple’s Patent “iWallet”

Starbucks is among the pioneers in the field of mobile payment via smartphone. In the US and Great Britain, it provides its own service for paying in its branches. In the face of the more comprehensive wallet functionalities, the alliances in Europe are focusing more on payment via NFC smartphone. In France, the banks Crédit Mutuel, Societé Général and BNP Paribas as well as the mobile phone service providers Bouygues Telecom, Orange and SFR worked together to create “Cityzi”, which was launched in May 2010. First offered in Nice and later in other regions of France, the service allows customers to pay using their smartphones at various retailers and for public transport. In mid-2011, BNP Paribas and Orange started another project named “Kix”. France is taking on a pioneer role in Europe in this field, and payment via NFC smartphone is to be expanded to further cities and regions during the year 2012. In the Netherlands, a consortium going by the name of “Sixpack”, comprising KPN, Vodafone, ABN Amro, ING and Rabobank – T-Mobile recently left the group – intends to start its own service in 2013. Raiffeisen Bank is also offering a similar NFC product in Austria. In Germany, the providers Telekom, Telefónica O_2 and Vodafone have announced that their „mPass“ project will have a new focus on smartphone payments. However, since then each of these mobile phone providers has presented its own wallet solution.

Wallet models are expanding rapidly

NFC cards are banks' attempt to save their business

In contrast to these systems, whose specific goal is the transaction of payments via smartphones, other financial institutes in Europe are choosing a two-step strategy. Before the technology is transferred to mobile devices, customers will first receive new debit and credit cards with NFC capability thanks to an additional chip. In general, banks are forming alliances with large retail and gas station chains as well as regional transport businesses in order to implement this strategy. In Austria, Raiffeisen Bank has been distributing NFC capable credit cards since mid-2011. In Spain, La Caixa, BBVA and Bankia have been working on "Barcelona Contactless" and "Madrid Contactless" projects since early 2012. In northern Germany, the "girogo" project was launched in April 2012 and is being promoted by the savings banks in particular.

Online payment services are opening up new payment options for retailers

In the field of online payments, businesses are offering their customers the option of making payments online. They are concentrating on simple and adaptable services. The "Klarna" service was launched in 2005 and is today active in six European markets as the leader in the field of online invoice payments. "Klarna" enables businesses to expand their payment options to include payment by invoice. This is particularly attractive for those retailers for whom this payment option was previously too risky. "Klarna" delivers the payment to the business immediately after a purchase has been made, while the customer does not pay until after receiving the goods. If a payment is late, it is "Klarna's" responsibility to handle it, not the merchant's.

"Skrill", previously known as "Moneybookers", has a transaction volume of over € 8 billion and is also an established provider in this segment. The payment service offers a portfolio of more than 100 payment options in over 200 countries and 40 currencies. It allows merchants to offer their customers a variety of payment options. Furthermore, it enables merchants to adapt the options to their specific countries and customer bases.

DWOLLA	
Name	Dwolla
Founded	2010
Key People	Ben Milne, Greg Anfinson
Location	Des Moins, USA
Website	www.dwolla.com
Sector	Payment Transactions
Facts Online and mobile payment and transfer system	
Payment process	Money transfer via email, phone, Twitter and Facebook
Places accepted	> 8,000 merchants
Transaction volume	> US$ 350 million per year
Fees	Amounts under 10 dollars are free of charge, anything over that costs US$ 0,25 per transaction
Optional offers	Credit line of US$ 500 per user and month
Additional product	FiSync, web-based service for real-time transactions between financial institutes

Fig. 9: "Dwolla" Profile

The US startup "Dwolla" is one of many businesses within the field of new payment transaction systems that provide the option of bundling all payments. The basic idea of these services is that payments are no longer transacted via credit cards, cash or direct withdrawal, but through a special account that is set up a single time. Customers can pay everywhere with this account and no longer need to choose from different channels. They can even send money via online social networks. "Dwolla" has over 80,000 users and annual revenue of more than US$ 350 million (Profile, Fig. 9).

The products and services in the field of payment transactions are characterized by the fact that they provide users and customers with mobility or increased mobility, and that they simplify and automate payment options for merchants and their customers while also bundling complex process steps in a single function and combining these with adaption options.

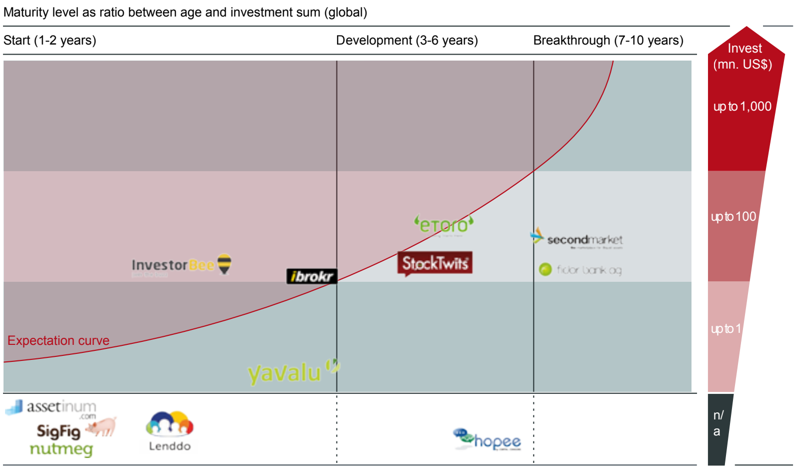
New players offer not only payment processing but also account management services

Aside from the new functions, the innovative aspect of the business models lies in the disconnection of the means of payment and the processing of payments from account management. Until now, these elements were all closely linked in the existing ecosystem. Banks in their function as account managing institutes issue debit and credit cards, and the transactions conducted with the cards are linked to an account in one way or another. New players are breaking through this circle with their products and services. Instead of starting with account management and issuing a payment method from the account, the new players are creating a means of payment and then offering further services based on it. For banks, this means that they receive less information about their customers and profit less from the transaction fees that they charge merchants.

Telephone and internet companies can take over accounts

The consequences of these changes are not yet foreseeable. At the moment it is clear that many players are trying to head in this direction. It is debatable to what extent mobile phone providers, internet companies, smartphone manufacturers or retail firms are interested in using their banking licenses in order to provide account management services and thereby close the old circle once again. It could be more lucrative for them to leave these activities to banks. However, for banks this would mean operating as mere network providers or special services providers on the periphery of the value-added chain.

3.2 Asset Management



Source: COREinstitute 2012. The logos depicted are the property of the respective companies.

Fig. 10: Players in the asset management segment

The web 2.0 is replacing investment advising

In the asset management segment, the spectrum of innovative services ranges from trading and brokerage to investment options and investment advising to the development of capital markets. “StockTwits” was founded in 2008 and is a kind of Twitter service for stocks. In messages of up to 140 characters, users can send out news and announcements as well as tips and ideas for investors, businesses and users. This stream of news on values and markets can influence investment decisions. More than 150,000 users write “Twits” that are distributed across the network and read by over 40 million users.

Companies in the field that straddles trading and investment counseling include “InvestorBee”, “nutmeg” and “yavalu”. With these services, users can create their own investor profile and obtain information about the situation and the options of their own investment portfolio. They subsequently receive an investment offer from sellers, and can compare their portfolio with those of other successful traders, then change their own investments according to their goals and risk level. The services collect some money from investors to invest in products that none of the users could have invested in alone.

The customer gains access to alternative investment options

Name	SecondMarket
Founded	2004
Key People	Barry Silbert, Adam Oliveri
Location	New York, USA
Website	www.secondmarket.com
Sector	Asset Management

Facts
Gray market trading platform for non-publicly traded stocks and receivables

Products	Alternative trading platform, information portal, database
Market participants	> 75,000
Transaction volume	> US$ 550 million per year
Registered with regulatory authorities	SEC, FINRA, MSRB and SIPC

Fig. 11: “Secondmarket” Profile

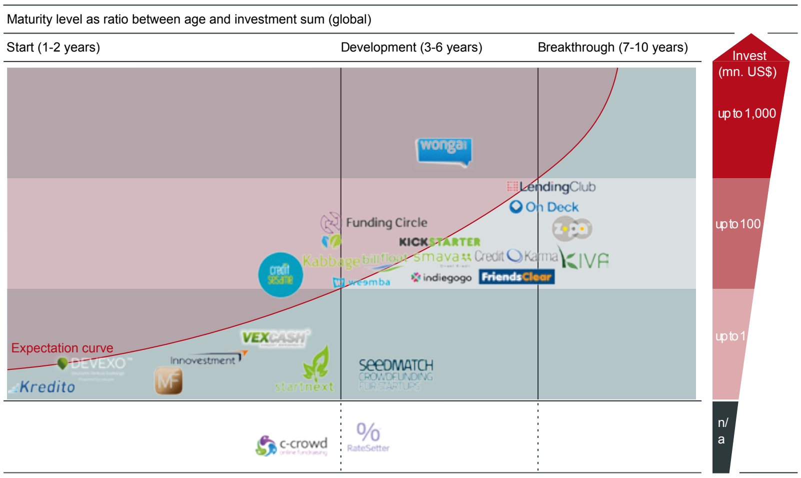
Other services are tapping new capital markets. Social and crowd funding services primarily address borrowers, but are also offering investors new channels. “Seedmatch”, for example, brings together investors and projects. Investors thereby gain the opportunity to find out about the projects and those behind them, to obtain more information about the people and contact them. The company “Bergfürst” also offers a trade platform for such corporate investors. “Secondmarket”, launched in 2004, allows investors to buy and sell non-publicly traded stocks in different markets, such as, until recently, Facebook stock. More than 75,000 investors are active in this gray market, which had a turnover of US$ 55 million in 2011 (Profile, Fig. 11).

Social networks allow users to invest funds without bank participation

The services in the field of asset management build on the changed networking and communication habits of users and aim to increase user participation. In order to achieve this, new channels for interconnection and exchange are integrated with one another, such as through community portals. These services decrease the complexity of previous products by offering simple and flexible handling as well as transparent and quickly comprehensible information.

The innovative aspect of these services lies in the fact that they enable investors to access new channels for investments. They reduce the obstacles to market access and provide savers with the opportunity to turn into investors. The services refrain from commission-based products and shape market access to be direct and to have as low a threshold as possible in order to provide customers with transparent and understandable information with which to make investment decisions.

3.3 Lending Operations



Source: COREinstitute 2012. The logos depicted are the property of the respective companies.

Fig. 12: Players in the lending operations segment

Crowd funding and micro credits

are replacing loan offers from banks

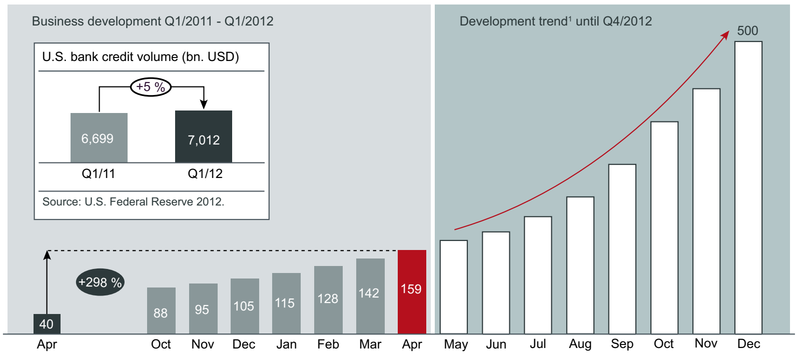
Crowd funding and micro credits in particular are enabling innovative financing and credit concepts. “Kickstarter”, started in 2008, provides a crowd funding service in the US for creative projects. The creators present their project on the website and turn to the public for funding. More than 17,000 projects have been financed through “Kickstarter” so far; at the moment, investors are contributing more than US$ 2 million per week to projects. “Kickstarter” takes a fee of 5% of the collected funds, and Amazon as the payment processor takes another 3 to 5%. If a project does not achieve its funding goal, no fees are charged (Profile, Fig. 13).

KICKSTARTER	**Name** Kickstarter **Founded** 2009 **Key People** Charles Adler, Perry Chen **Location** New York, USA **Website** www.kickstarter.com **Sector** Lending Operations
Facts Crowd funding platform for creative projects and companies	
Project selection	Projects that correspond to Kickstarter's guidelines
Restriction	If a project does not achieve the minimum sum within the donation period, the project does not receive funding
Payment processing	Amazon Payments
Fees	5% of financing sum for Kickstarter, 3-5% for Amazon
Projects financed	> 17,000
Volume of projects financed until now	US$ 159 million

Fig. 13: “Kickstarter“ Profile

Similar platforms in Germany include the aforementioned “Seedmatch”; “Innovestment”; “Startnext”, which has a decidedly democratic nature; and “smava”, which works together with the “Fidor Bank”. In Great Britain, “Funding Circle” and “Crowdcube” are particularly active. Business loans are becoming ever more popular in these services. The growth rate of businesses in the field of crowd funding is impressive (Fig. 14).

Kickstarter: Successfully financed project volume (cumulated, million USD)



[1] Extrapolation of the actual development; based on assumption of average of 20% growth of project volume per month.
Sources: The Next Web 2012; COREinstitute 2012.

Fig. 14: The growth of "Kickstarter"

Online micro credits are replacing consumer loans

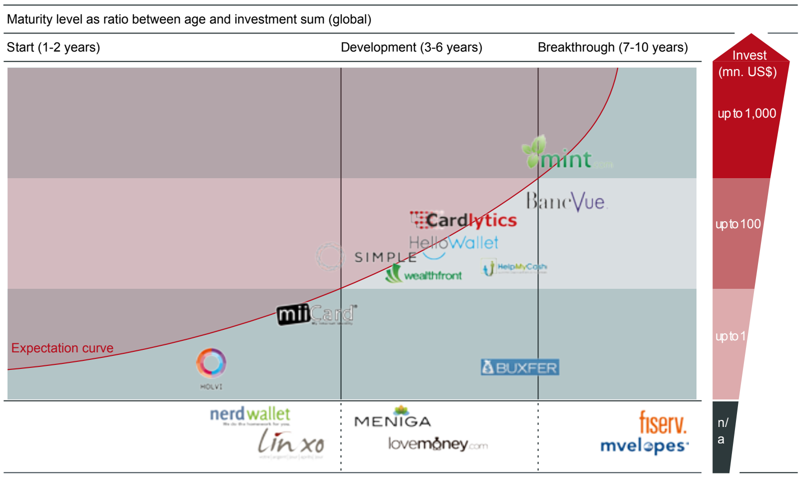
By contrast, a range of further services is active in the field of micro credits. "Wonga" in Great Britain and "Vexcash" in Germany provide loans with a duration of up to 30 days. The credit amount is dependent on the user's history and can be up to € 1,000. The services are simple and fast, and the loan is usually available within a few hours. These providers concentrate on transparency so that customers can see how much they must pay back when, and which interest rate applies to their loan. Peer-to-peer services that enable the provision of micro credits from one private individual to another include "Lenddo", "smava" and "Kredito". The criteria for the loans vary. In part, the services carry out classic checks, such as regarding the borrower's credit worthiness, and also checks based on new criteria, such as the user's profile and history in the community. The loan amount and repayment options are based on the results of these checks.

Finding interest becomes more transparent

The products and services within the field of lending operations are also characterized by new communication and interconnection opportunities for customers and users. The process for micro credits is very fast. A person's creditworthiness is calculated based on changed criteria, such as a user's number of connections with other users. With crowd funding platforms, the responsibility for deciding about a borrower's creditworthiness is handed to the community of users by giving them the power to decide which projects to finance. This creates more access to financing and gives projects the chance to realize the added value they seek to create.

The deciding factor when it comes to the business models behind these platforms is the interest rate, understood as the balance between the interests of the borrower and the lender. The unique aspect of these innovations lies in providing new mechanisms to find interest rates. The competition occurs through the price, the efficiency of the credit process, and the process economy.

3.4 Personal Finance Management



Source: COREinstitute 2012. The logos depicted are the property of the respective companies.

Fig. 15: Players in the personal finance management segment

Financial advice platforms are replacing individual advisors

Many services within the field of personal finance management are creating added value through new ways of providing information and are thereby reshaping customer interaction and customer retention without the use of financial advisors at banks. The aforementioned “Square” enables merchants to maintain detailed and comprehensive data warehousing on their own by using “Square Register”. The app is free of charge and presents information about many business areas, provides graphic visualizations of data, and enables merchants to make decisions based on comprehensible information. “NCR Silver” is also planning a similar service for merchants.

mint.com	**Name** Mint **Founded** 2005 **Key People** Aaron Patzer, David Michaels **Location** Mountain View, USA **Website** www.mint.com **Sector** Personal Finance Management
Facts Online and mobile service for personal finance management	
Basic functions	Information about accounts and transactions, categorization of earnings and expenses, graphic visualization
Users	> 7 million
Fees	None in basic version
Services	Alarm and messaging functions, creation of savings plans, tips for saving

Fig. 16: “Mint” Profile

“Mint” aggregates a user’s account and transaction data from different financial institutes and breaks them down based on criteria chosen by the individual user. Furthermore, users can define goals for saving or conducting transactions in specific areas. With over 7 million users, “Mint” has firmly established itself on the US market (Profile, Fig. 16).

The US bank “Simple” and the German “Fidor Bank” implement personal finance management in the form of a bank. In contrast to direct banks, they align their services with the user behavior of the digital natives. “Simple” provides a comprehensive mobile app that processes detailed information about all transactions. The “Fidor Bank” places more emphasis on the idea of social banking, in which users obtain information primarily from other bank users. That applies to all banking relevant products and services that are no longer carried out by a bank employee, but are presented and discussed by the customers themselves in community portals.

Providers combine advising services with social banking and account management

The products and services in the personal finance management segment are focused on providing customers with increased transparency and subsequently an improved decision-making foundation through new ways of processing information. They build on the growing use of mobile banking and cater to the emancipated self-understanding of customers, who seek to gain information from a variety of channels and to simultaneously involve their personal networks. These services and products reflect the fact that customers' involvement in social banking is less driven by social and more by technical and pragmatic interests (Fig. 17).

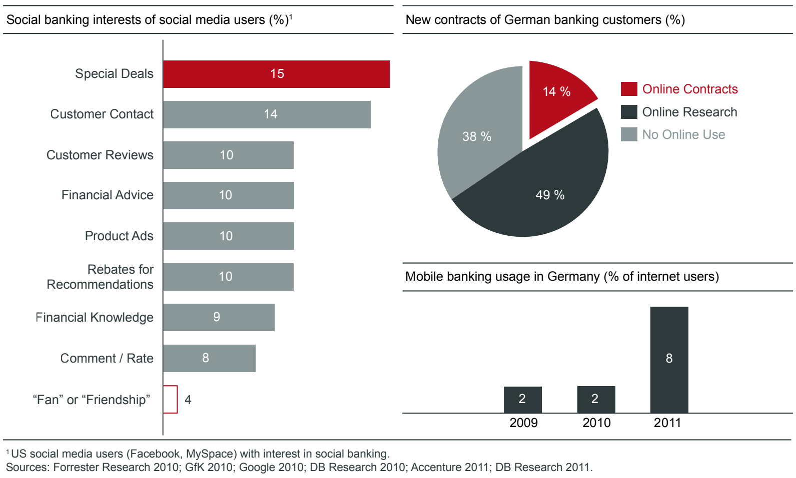


Fig. 17: Interests of social banking users

The innovative aspect of these services and products derives from the disconnection of account management from the information and data about account movements. Until now, information about transactions was mainly integrated into account management services or available only from account advisors. The new services conceive of the collection and processing of information as a separate service that they provide to customers independently of personalized advice or account management services; they thereby constitute a market for personal finance management.

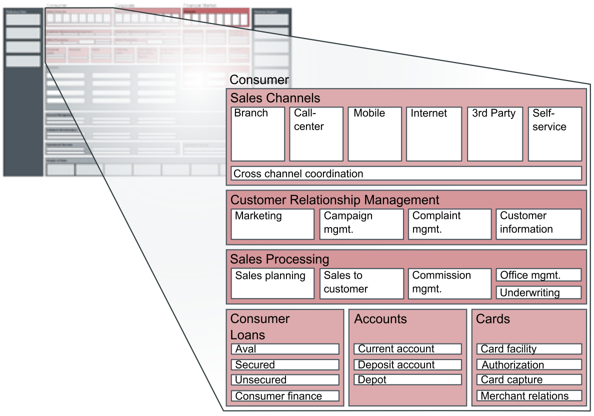
4 The Current Position of Banks

Established banks have a real opportunity

Experiences from other industries show that survival is not necessarily endangered when established players refuse to participate in new developments. However, passivity leads to decidedly less growth. That is why it is even more important to follow up insight into market developments with a complementary analysis of the finance institutes' own conditions, abilities and advantages, to allow banks to use the potential identified in the market's development and the analysis of business fields to their own advantage.

Taking into account the technological transformations carried out over the last few years and the competitive advantages in comparison with innovative concepts, it becomes clear that banks are currently in a positive position to tackle the next challenges. They have increased their flexibility to a great extent within the framework of comprehensive transformations, structured bank functions according to domains (Fig. 18 provides a sample domain model), introduced standard software, and concentrated on specific competences.

CORE Bank On a Page: Section of consumer area



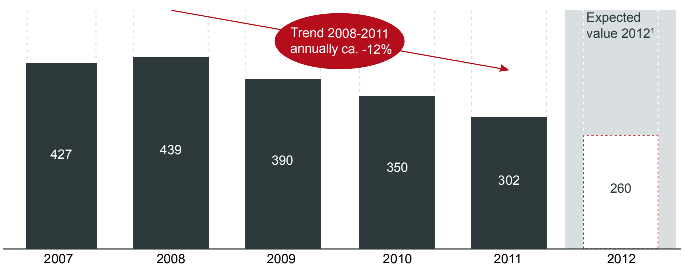
Source: COREinstitute 2010-12.

Fig. 18: Domain model according to CORE

The transformations over the last few years have made banks agile

Furthermore, banks have reorganized products, processes and applications so as to allow loose connections between processes. Last but not least, core banking systems have been modernized, although not all financial institutes have achieved the same level. The decreasing number of core banking transformations, however, points to the fact that this development has passed its zenith (Fig. 19).

Number of new contracts for core banking transformations (global)



[1] Trend-Extrapolation.
Sources: IBS 2012; COREinstitute 2012.

Fig. 19: The decreasing number of core banking transformations

The established financial institutes have taken on the challenge of industrialization. They now have the freedom to deal with issues that were lower on the list of priorities until recently. In particular, they can use multi-channel approaches more consequently and can tap new channels. The financial institutes can use these to operate more efficiently without needing to invest in branches or sales representatives.

Banks possess competitive advantages compared to new players

Aside from these preparations undertaken by financial institutes within the framework of their industrialization, banks possess considerable competitive advantages compared to new concepts, companies and business models. The market entry threshold for new players is high, while established financial institutes boast high levels of market penetration and broad expertise. They possess a critical mass of customers and, despite all the criticism in recent times, still enjoy institutional trust, and possess knowledge and experience in dealing with and adapting regulations. The new market players, however, are working hard to overcome or bypass the obstacles to market entry. Small providers look for large partners in order to achieve a critical mass and gain trust. On the other hand, large players are searching for promising models in order to tap into concepts and access.

Banks would do well to use their competitive advantages as long as they still possess them and as long as the effort to position themselves in the new fields remains low. There is also the danger that once these new fields are occupied by other players, there will be less room for growth, as the focus will be on the innovators.

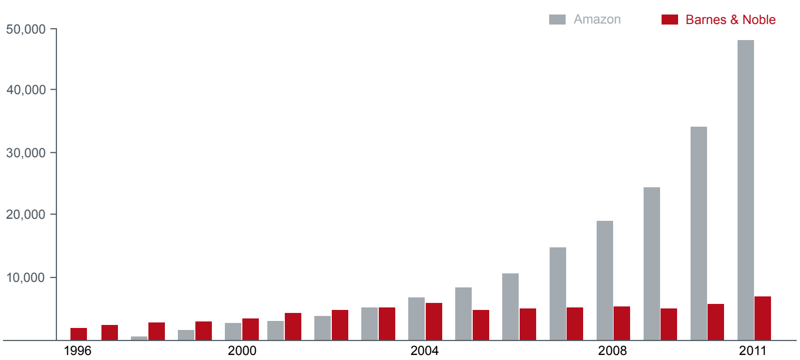
5 Options for Banks

The banks that use their agility will shape the future

Banks must develop strategies in order to participate in the continuing development of the financial services market. Possible reactions range from aggressive prevention of developments to passive waiting and opportunistic behavior to active engagement and even visionary action on the part of the bank.

Preventing change is doomed to fail in the short or long-term because the developments are irreversible. Passive behavior will also not be successful, as shown by the decline in growth of companies who are not reacting to the new developments (Fig. 20). Far more promising is a strategy of acting consistently and quickly and of establishing business models to expand attractive concepts in whichever fields these are currently successful. This also applies even when such an expansion threatens to cannibalize established business concepts, because this is inevitable in the end. Those institutes with enough power can even actively shape the market and set standards. Due to their ability to adapt quickly to market developments, these players possess a strategic competitive advantage when it comes to a more differentiated approach to customers' needs.

Comparison of revenue development (million USD)



Source: www.wikinvest.com 2012.

Fig. 20: Growth of Barnes & Noble vs Amazon

These strategic options contain massive organizational and cultural challenges for established institutes. Large parts of the German banking market are organized in cooperatives or associations, meaning they are subject to special conditions regarding voting and decision-making processes. The different experiences of decision-makers can also possibly lead to tensions in this process. However, these challenges should not lead institutes to miss out on using their opportunities.

In order to find the factors and criteria for a strategic decision, one must take into account the analysis of market developments and the current position of the financial institutes. When it comes to the market, it may be confusing due to the sheer number of players and the hidden aspects of the business models. The analysis of market developments has led to three results that call for calm rather than alarm:

- The business models of the new concepts and companies are not radically innovative, but are usually a variation on already established models. The innovative aspects primarily lie in the functionality provided by these products and in how the products address their customers and users. In terms of their functionality, these concepts emphasize different areas within the existing ecosystems and infrastructures, but remain within the existing fields. They are not reinventing banking by starting with a payment method, by tapping into new investment channels, providing new interest rate finding mechanisms, or independently processing information.

- The current attack is being carried out less via the price than via the transparency of the price. The price is a component of the competition, but most of the products and services demand fees that are standard for the market, and sometimes even lead to additional costs. In many cases, the pricing system is more transparent for the users. This transparency is used in external promotion to showcase the price component as a critical advantage of the new products.

- Convenience and usability are central elements of the products and services. Processes are simplified, product handling is based on intuition, information is presented so as to be immediately comprehensible as well as transparent and personalized, and multiple channels are integrated in a synchronized manner. On the surface, many of these services seem to emphasize colorful, graphic design; however, the reason for this is the convenience and usability this creates for users.

Customer access and infrastructure remain central assets of established banks

For their part, the established financial institutes are in a positive position from which to use this market situation to their advantage. The loss of trust in banks has not been as strong as an individual perception may suggest. The main results of the banking analysis include:

- Banks possess established business models that they can expand with regard to innovative products, services, and concepts.

- Banks possess the technological infrastructure and the necessary flexibility to successfully take on customers' new demands in terms of mobility, interconnection, communication, and information.

- In regard to the customer dimension, they possess means of contact on the ground, can provide security, and can build on the increased trust of customers.

Established institutes can use this position for further development. The challenge lies in not distancing themselves from current business models and turning exclusively to new concepts, but to combine classic models with new concepts. This requires reflecting on latent tensions between the old and new approaches, such as the one between security and data protection, on the one hand, and convenience/usability on the other, or between the concept of branches on the ground and electronic multichannel approaches.

In order to shape the future, established banks must develop new approaches

Banks can use their competitive advantages and their technological flexibility to tap new business fields and establish new means of customer interaction. They possess a great number of options in terms of the measures they could take and the aspects they could concentrate on. They could expand their value-added chain, for example, by developing a white label program for large retail and mobile phone companies. They could more closely integrate distribution channels that have been relatively isolated until now, such as by creating or expanding multi-channel architecture and thereby realizing cross-selling potential and providing a form of one-stop shopping. Another possibility lies in integrating existing product formats or creating new ones. This could consist of new investment opportunities or deferred payment options, or of taking into account changed creditworthiness criteria for lending purposes. In order to establish a new quality of customer interaction, banks could create portals for communication and linkage between customers and users. It is important that banks employ accessibility, simplification, and transparency to reflect the decision-making competence and the emancipated self-perception of the customer. Finally, financial institutes have the option of investing in startups and new concepts and to simultaneously build up partnerships and alliances with large companies in other sectors.

Banks that refuse to participate in these developments will increasingly lose customers. Banks that now open themselves to these new developments have a great chance to reorient their processes and products according to the new needs and expectations of customers, to thereby establish new forms of customer interaction, and to generate new business opportunities. A world of banking with banks is still possible in the future.

Annex

Players analyzed, according to region

North America West		
Access Development	Finsphere	Personal Capital
Actiance	FutureAdvisor	Ping Identity
Bill.com	Google Wallet	SigFig
BillFloat	Indiegogo	Silver Tail Systems
BOKU	Inspire Pay	Simple
Buxfer	Jumio	Square
card.io	Kiva	StockTwits
CardSpring	Lending Club	Strands Finance
Concur	Mint	Taulia
Clover Network	Mitek Systems	Transparency Lab
Credit Karma	MoneyDesktop	WattzOn
Credit Sesame	Mootwin	Wealthfront
Expensify	Mvelopes	
Experian	PayPal	

North America East		
BancVue	HelloWallet	SecondMarket
BankersLab	Kabbage	SecureKey
BillGuard	Kickstarter	Social Money
Cardlytics	Linkable Networks	SoMoLend
Dwolla	Lodo Software	Striata
Dynamics	MPOWER Mobile	Venmo
edō Interactive	NCR Silver	Weemba
Fiserv	NerdWallet	ZashPay
Geezeo	On Deck Capital	

Europe		
AcceptEmail	FriendsClear	payleven
Assetinum	HelpMyCash.	paymorrow
Backbase	Holvi	Seedmatch
BarPay	Hopee	Service2Media
Bar zahlen	IND Group	smava
Bergfürst	Innovestment	sofortüberweisung
Brokertainment	iZettle	Startnext
c-crowd	Klarna	SumUp
Devexo	Kredito	Vexcash
eToro	Linxo	Yapital
ETRONIKA	LiqPAY	yavalu
Fidor Bank	Mashup Finance	
Figlo	Payango	

U.K. & Ireland		
BCSG	Ixaris Systems	Tradeshift
CrowdCube	lovemoney.com	TransferWise
CurrencyFair	Luup	ValidSoft
Fenergo	miiCard	Voice Commerce
Funding Circle	nutmeg	Wonga
Handpoint	RateSetter	Zopa
Investorbee	Skrill	

Australia & New Zealand	Africa	Iceland
Serverside Group	M-PESA	Meniga
Sandstone Technology		
Xero		

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About the COREinstitute

The COREinstitute conducts research on the dynamics and systematics of complex transformations in various industries and sectors in order to develop new solutions in transformation management for industry experts, scholars, and engineers. The institute presents the results of its interdisciplinary research to the public in lectures and publications.

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