Financial service innovation in the years ahead:

The challenge to businesses, regulators, and the marketplace

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Financial service innovation is proceeding ahead at sizzling speed, enabled by advances in digital technology, the dynamics of globalization, massive aggregations of data, and shifts in consumer buying habits and activities overall. Innovation is changing the mix of products and services related to transactions, investment, and lending, improving the efficiency of financial services, and most importantly, bringing entirely new players into the arena of financial services. For financial service providers, both traditional and new, sources of growth and profitability are in flux, consumer reliance on credit and stored value systems in transition, and the potential to scale innovative products and services to global reach is unprecedented and essentially unlimited.

An overview of the future

There are no sectors of industry and commerce being more strongly impacted by innovation than financial services, especially the range of financial services that traditionally has been the purview of banks. Not only is the impact of innovation on financial services both broad and profound, but the pace of change driven by innovation is accelerating. The key role of financial services in commerce means that financial service transformation will create huge growth opportunities.

Financial service innovation has proven to be a huge creator of value, for entrepreneurs and investors. The cutting edge of digital technologies—hardware and software—is enabling financial activity, even at micro-scale, to be global, always "on" 24/7, instantaneous, inexpensive, secure, and mobile. This list of benefits is driving very rapid change.

At the same time, the pace of change is challenging traditional banking enterprises to remain competitive, and it is challenging regulators to maintain order, stability, and security in the financial service marketplace. This is not a phenomenon limited to one economy or another. It is a global phenomenon changing the service landscape within all major economies and across national borders.

Innovation in financial services is enabled by technology but not motivated by it. At the heart of financial service innovation are business model and product inventions that are motivated by market demand and opportunities, in turn generated by changing consumer and commercial needs. Financial service innovation is integrally linked to major changes in retail, investment, wealth management, lending, and ultimately, by the forces of globalization. Just as B2C eCommerce makes the location of both the seller and the buyer almost irrelevant, innovative financial services make distance vanish, and physical location all but irrelevant. The major new players entering financial services did not do so with the intent of entering financial services, but as consumers of financial services themselves, they saw the needs and the opportunities and stepped into the realm.

Auction houses, on-line gaming companies, and retailers have driven digital infrastructure in the virtual world, logistics infrastructure in the physical world, and financial service innovation linking both worlds.

"Traditional" innovation

At the surface level of financial service innovation are the obvious developments that traditional banks are sponsoring. These include on-line banking to manage traditional accounts, saving customers the need to travel to physical branches and await teller services. They include proliferation of ATM machines, providing 24 hour 7 day service in a large number of locations, many where physical bank branches would be impractical, like airports. For the financial institutions, the savings in reduced bricks and mortar facilities and teller time are obvious and critical. Financial services of this order follow the trend toward self-service we see in everything from airlines check-in to supermarkets check-out.

These innovations provide alternatives to traditional transaction mechanisms, while working within the major traditional banking concepts. They replace paper checks with electronic payment systems, credit and debit cards with mobile communication devices, biometric authentication, and sundry tokens to identify and authenticate the parties to a transaction. On-line mortgage companies have taken significant market share in some economies, not providing a product that is fundamentally new, but adding efficiency to a complex process by using on-line communication, document management, and payment services. Credit and debit card usage, once almost exclusively a physical "swipe" device, has obviously moved massively into virtual, no contact usage, relying on authentication codes and passwords for security.

These important changes have improved the efficiency of service delivery but have not entailed fundamental business model innovation nor have they necessarily reduced the cost of things like transaction settlement services to buyers and sellers.

Deeper levels of innovation and change

The future of financial services is being shaped by the emergence of new technologies, but it is the creation of new business models that is most important. These models include new services and products, new combinations of services and products, and, most importantly, new players. Many of these—technologies, products and services, and players—we are just beginning to see. The ultimate form they will take, the degree of impact they will have, and the regulatory challenges they pose remain to be fully understood. But it is very important for government and business leaders to study innovative change as it occurs, for it will be the key to competitiveness for business and regulatory success for governments.

The origin of many important recent changes lies in eCommerce, all forms including transactions in goods and services, C2C, B2C, and B2B, including on-line activities and entertainment, such as gaming, media, and social activity, and capital activities such as wealth management, fund raising, and financial reporting,

But it is useful to remember that among all financial services, brokerage services were among the first to be deeply transformed. Almost as soon as the Internet was becoming widely accessible to the public, on-line trading services appeared. Consumer accessible electronic trading was introduced in the early 1980s, and by 1985 the first retail trading sites were opened. But the market did not take shape until the early 1990s. One of the most important pioneering companies, E*Trade, was opened in 1991. In 1992 its revenues were $850,000 and only two years later $11 million. What was the key to success of the new on-line channels? They offered huge reductions in trading costs to consumers and easily accessible, content-rich guidance. In spite of the dramatically lower transaction process, the businesses were hugely profitable, because volume increases were staggering. By the mid-1990s, more than 20 percent of the US population was investing in stock, up from less than 5 percent the decade before. In terms of business growth potential, the profitable trajectory of on-line brokerage services is an enduring inspiration to the even more profound transformations taking place now.

The first phases of Innovation driven by eCommerce cluster around ways of transferring funds, primarily for transaction settlement, but in several of the popular payment channels, functions soon expanded. In the early stages of development, such transfers tended to travel along channels that were essentially extensions or updates of traditional channels, primarily credit cards and debit cards. But increasingly transfer mechanisms were being integrated seamlessly into the main eCommerce interface itself. Dedicated on-line payment systems might intermediate between the eCommerce activity and traditional credit or debit cards, but they increasingly became systems unto themselves, that either deployed funds that are already internal within their systems or tapped directly into bank accounts that are electronically linked to the eCommerce site.

The innovations evolving in this subsector are most simply described as the primary product and service provider disintermediating settlement networks by reaching directly into banks or even disintermediating banks by substituting their own bank-like settlement and transaction services.

The motivations and technologies to reduce costs drive innovation toward various means of disintermediation. The ultimate form of disintermediation occurs when the on-line transfer channel has funds stored within its own system for immediate completion of the transaction event without recourse to any external agent or account. Overall, this is a strong emergent trend, driven by two forces. First, there is no need to share transaction fees with either a primary account holder, such as a bank, or an intermediary settlement network, such as a credit card company. But secondly, and perhaps more importantly, it moves customers from a credit-based system to a debit based system, because it encourages the use of stored value services to replace credit services. The economics of this change are compelling. Rather than have a bank or credit card collect a fee, which partially supports a month-long float the bank must fund for the transaction, the settlement agent rather than the customer gains the benefit of the float, enabling much lower fees and providing operating or investment capital to the settlement agent. Of course, this does not eliminate the high interest credit option, but it will significantly relieve the burden of the credit float for card users who settle their accounts and do not carry a balance. For credit-based buyers, all on-line settlement systems now offer "pay later" options based on credit card economics.

The growth of debit based services as opposed to credit based services is especially appropriate for emerging economies, where both credit information and debt collection processes are certain to be less developed than in mature economies. Debit systems with stored values can grow fast in emerging economies because they offer consumers convenience of non-cash transactions while avoiding outsize credit risk for financial institutions.

In China, for example, stored value systems are ubiquitous, everything from transport cards, telecom and data services, on-line gaming, media, and entertainment, boutique retail and hypermarkets, drycleaners, nail salons, restaurants, electricity meters, and gas meters, to give a few examples. In exchange for the customer's loss of interest by prepaying for the card, device, or service, most stored value products offer some form of discount, rebate, or other calculable incentive. The product and service originator derives additional benefits from the loyalty impact of the stored value, which can fund additional customer benefits beyond what the investment stored cash would provide.

Stored value systems in turn lead to another important evolutionary step that is underway. Once an on-line merchant deploys technology capable of storing funds and debiting funds for settlement, it is a small step to provide expanded services related to stored funds, including essentially all deposit services provided by traditional banks. These include deposits for interest, wealth management products, investment products like mutual funds and other securitized assets, and the like. These products conceived and developed in a digital environment will be highly competitive, through efficiencies available in all aspects of management and distribution.

Finally, in the case of stored value systems that use dedicated physical devices, such as RFID cards or tokens, there is a tendency for such devices to become tradable in and of themselves, essentially serving as surrogates for actual sovereign currencies. These constitute a realm of shadow currencies that can circulate in substantial volumes. If regulations permit anonymous transfer of things like gift cards (they are coing under scrutiny in China), then sizeable amounts of money can be moved from one hand to another without cash and without any trail in the banking system. Because such devices are typically subject to discounts, rebates, and are generally not convertible directly to cash at the issuer, they give rise to factoring intermediaries, who make margins by cashing them at various discounts to the bearers.

And of course we have recently seen the emergence of pure digital or virtual currencies, not attached to the legal tender of any country and not regulated by any monetary authority. Typically, they are available in limited quantity, and they have a transaction value that is related to two things, the cost of "mining" them, essentially the cost of investment in computing highly complex digital solutions, and a trading price defined in an open marketplace of buyers and sellers of the currency. They are effectively market priced, and can settle transactions at a small but growing number of businesses. At least as they are conceived and promoted, transactions in such virtual currencies are completely invisible to any regulator.

The neighborhood bank

Traditional banks, whether local, regional, national, or international, and whether focused on retail or merchant services, know that their emerging competitors are not from the banking sector at all. They recognize them as fast growing and well-capitalized companies in digital businesses who are edging into their marketplace in the way we have described above. The challenge they face, in the simplest terms, is whether the technology tools available to them can restore competitiveness to their traditional operations in the face of competitors who are selling substitute services coming from a totally different provenance.

This question is not easy to answer, but there are some interesting perspectives. For example, going back not many years, international banks profited from a revenue stream derived by investing a couple of weeks of "float" during which an instrument submitted in one part of the world in one currency was cleared in another part of the world in another currency. That clearance process might have taken 45 days if based on paper. Today, the clearance process has been reduced to one or at the most two days, eliminating the float for merchant banks and along with it their profits from the float.

On-line merchants who provide settlement services with in-house or dedicated outside providers have used essentially the same technology to create a float, which is a source of new profit for them. When a transaction is confirmed and "settled" by the buyer, their payment system can take possession of the funds from wherever they are stored instantaneously, and then their payment system will hold them in escrow until the delivery of the goods or services is confirmed. The elegance of the innovation here is using technology that in one case has eliminated a source of profit in a new way that creates a source of profit. This innovation is partially made feasible by the evolution of settlement processes that are enabled by credit systems to ones that are enabled by stored value systems, and that evolution seems to be a significant one in the emergence of innovative financial services.

On the international front, traditional banks are facing an increasingly restrictive regulatory environment at home that is constraining, among other things, their potential to grow through acquisition and to grow through product line expansion. They are facing pressure to convert braches in many countries to locally owned subsidiaries. That enhances local regulator control, but it will raise the bank's costs, impair economies of scale, and curtail their range of products and services. And just as traditional banks face these challenges to their international growth plans, new financial service providers are making borders disappear, as we will see below.

Regulating the marketplace

We can identify two aspects to innovative financial services that not only challenge traditional regulations but also challenge traditional approaches to regulation. First is the non-congruence of the landscapes. For digital services, not only are borders virtually transparent, but there is virtually no cost associated with distance. An individual in Australia can bank in New York as cheaply as at home. National borders are not factors in most digital financial services. The non-congruence lies in the fact that almost all financial regulations are national in nature, even though well-established international economic organizations work to harmonize regulations and establish standards for things like financial reporting and banking practices. Ultimately monetary policy, fiscal policy, currency issuance, banking regulation, and overall financial service regulation reside in a treasured reserve within the sovereignty of individual nations. The non-congruence of the landscapes is glaringly apparent in simple things like the practical impossibility of enforcing laws that might require citizens of a country only to hold and transact in the currency of that country.

The second challenge is in the platform on which innovative services are provided. They may be banking services but the providers are not really banks. Obviously when viewed from their origins to current and emerging stages, on-line product and service providers who have evolved along this path are providing banking services that would normally be regulated by bank regulators, not their "native" regulators of on-line converse. But the gradual and arguably essential expansion of their customer relationship has moved them into what are clearly banking services.

As time goes by, they are continuing to move toward investment services and non-online services. On the investment side, we are watching the emergence of brokerage services and investment fund services, all marketable and deliverable with settlement platforms and enabled along highly efficient digital pathways to fast-growing populations of users who originally came for other digital services. Because in populations like China, the use of digital services is highly mobile, the same settlement and transfer channels are readily expandable, at any scale, micro to massive, for non-online use as well, such as payment for bricks and mortar retail goods and services.

Who should regulate them, and how should they be regulated? The step by step expansion of their business scope provides interesting challenges to regulators, in terms of parsing the spectrum of services, determining what regulatory turf a service is in, and determining what intensity of regulation is appropriate. And because of the populist nature of many fast-growing digital platforms, the politics of regulations are shaped by rapidly growing and well-connected advocacy communities that will generally press for some measure of consumer protection but a laissez faire approach should regulations impinge on either the conveniences or costs to which they have grown accustomed. Nonetheless, if we look at the full range of services emerging, we see potential interests for bank regulators, monetary authorities, securities regulators, tax authorities, customs authorities, and others all converging in this digital service space.

A perfect example of both the issue of regulatory authority, consumer political pressures, and cost-benefit aspects of on-line retail is the current issues in the US around sales tax. Sales tax is a state government function and state government revenue stream. The changes in the marketplace make sales tax an obsolete concept. The high level of transaction and logistic enablement in the US e-Commerce marketplace makes state boundaries meaningless, the discussion of where a transaction takes place an "angels on the head of a pin" argument, and recourse to whether an on-line retailer has a physical presence in a state is a matter of brute enforceability rather than legal logic. Some states have expanded the concept of sales tax to include use tax but their ability to enforce the tax is far from adequate. A similar discussion could be had about on-line retailing across national borders, where postal union customs exemptions allow tax free retail trade to substitute for taxable wholesale imports.

The discussion of regulating innovative financial services is one that will gain prominence in the years ahead. What is already obvious is that regulators themselves will have to be innovative for several reasons. They will be addressing services for which there is no clear precedent and whose ramifications will be difficult to predict in advance. They will need to consider their borders and to what extent their borders are relevant or even manageable in relations to the global nature of new services. And they will want to maintain a careful balance that provides the stability and security that they are mandated to provide but does not disable their own companies on the highly competitive international playing field.

Conclusion

Innovation that is truly transformational cannot be seen over the horizon, but some of the technology enablers are already in sight. Certainly more bandwidth and lower costs are inevitable. Better location technology, like near field communications, will connect physical location and activities to the virtual on-line world, enable secure transactions and data exchange. Other forms of communication, like QR code scanning, will direct users around the web, facilitate communication setup, and latch into software downloads automatically. Stronger authentication will expand the range and convenience of financial activities, and big data management will provide more efficiently customized interactions.

The pace at which new businesses scale to global size is already jaw dropping, but that too will accelerate as more infrastructure is developed and users become more mobile- engaged. These are some features of innovation in financial services that lead us to rank them among the most important developments in our times. And for those enterprises working from traditional financial service platforms, it is important to remember that this is by no means a fixed pie. Their challenge will be to use their existing scale to its advantage rather than let it be an impediment to the profound business model transformation that innovation in the digital sphere can bring about.

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