

Banking Transactions in Switzerland and China

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Traditional banking service providers in Switzerland are facing competition. Smartphone applications open up new possibilities. Will we pay our bills, open an account, or take out a loan directly with a smartphone app in future? Does this make postal services, traditional banks, and credit card companies redundant for banking services? This question cannot be answered with a clear yes or no. However, it can be assumed that the banking business will change and that the competitive pressure on traditional providers will increase.

Banking Transactions in Transition

Applications already exist today enabling users to handle payments via smartphone - and more and more of these products are launched. Examples of Swiss apps are the smartphone app Twint or the smart watch software Swatch Bellamy. There are a large number of similar apps in other countries, some of which can also be used in Switzerland. These include offerings from smartphone manufacturers, such as Apple Pay, Samsung Pay or Android Pay. Digitization is particularly advanced in the payments sector. However, banks are also being challenged by new providers in other traditional business areas, for example in the credit sector through crowdlending platforms.

Asia is one of the pioneers in mobile payment. In China, around 800 million people already use apps for payment transactions. The payment function WeChat Pay associated with the popular messaging app WeChat plays an important role there. Alipay, the payment function of the online group Alibaba, is also widely used. Today, China is leading the world in online payments.

China's pioneering role is based on three important factors: Firstly, large sums are being invested in new technologies in China, particularly in the Fintech area. Secondly, the Chinese public is relatively relaxed about the provision and use of personal data. And thirdly, Chinese Fintech providers operate in a domestic market that continues to be inadequately supplied in terms of retail banking.

Challenges for the Financial Industry in Switzerland

In view of the current developments, the scientific community is also convinced that customer needs in the financial services sector - including electronic payment functions - will increasingly be handled by so-called Fintech platforms in future. The term "Fintech" is composed of the words "fin" for financial services and "tech" for technology. In other words, Fintech is a generic term that refers to the convergence of the financial industry and technology, as well as new ways of satisfying customer needs in the financial sector.

However, new offerings, primarily app or web solutions, can be developed not only by banks but also by external technology providers. Recent studies show that out of 150 platforms, around three-quarters were created outside the financial industry itself. Accordingly, only a small number of solutions have emerged from the financial industry directly. In some cases, banks acquire companies or the solutions they develop and thus integrate external innovations into the traditional banking industry.

Nevertheless, it can be assumed that Fintech applications are increasingly being developed and offered by companies from the technology sector, that is, outside the traditional banking sector. One such example is Apple Pay: Although Apple is a company outside the financial industry, the company has the financial and technological capabilities to build new markets on its own and to set and

establish standards worldwide. For example, the user only needs a credit card for Apple Pay, no bank account is required. The extent to which the card will become superfluous in the future remains to be seen.

In Switzerland, the five major players PostFinance, UBS, Credit Suisse, Zürcher Kantonalbank, and Swisscom have agreed to use the national application, Twint. In the meantime, a large number of Swiss banks have joined the system. Nevertheless, the app does not have a monopoly position; it is competing with eight other mobile payment solutions. These include the aforementioned payment services of smartphone providers. Further solutions for the Swiss market have already been announced, such as Alibaba's Alipay, for example.

Payment Transactions in China

A glance in the direction of China might reveal where developments could lead in Switzerland. The Fintech market has grown in China in recent years, and with around 800 million active users, China is the country with the world's largest group of application-based payment transaction users. A popular, well-established solution is the mobile payment system Wallet created by WeChat/Tencent, a platform that can be described as a mixture of Facebook and WhatsApp. Unlike Facebook, however, WeChat can be extended by independent developers with various additional functions, such as the ability to handle mobile payment transactions. Accordingly, a large part of payment transactions in China is already being processed outside the banking system.

Why is the development in China advancing faster than in Switzerland? One key reason is certainly the size of the market. The Chinese payments market is huge, while the Swiss market is extremely small by comparison. Investment in applications is therefore also paying off much more quickly in China than in Switzerland. Furthermore, smartphones are extremely widespread in China, while PCs are less common. Many Chinese users of financial apps have therefore switched directly from analogue cash payment transactions to digital payment via smartphone. In Switzerland, on the other hand, many payments are still made via computer-assisted banking platforms. Moreover, credit cards are relatively uncommon in China compared to Switzerland, and unlike electronic payment systems used by local banks, payment apps in China are very user-friendly and easy to handle. This means that older users are also making the switch. The use of the system is also made more attractive with additional offers and features. Even in street markets, shoppers in China can use their smartphones to pay for their vegetables.

Another important difference is the trust people place in their financial service providers. In Switzerland, consumers generally have confidence in the banking system. In addition, data security is usually rated more highly for payments via the PC than for payments via the smartphone. In China, on the other hand, confidence in the banking system is lower. A machine, or even a smartphone, tends to be trusted more readily than a bank and its employees.

Changes Are Affecting Payment Transactions as well as the Lending Business

In Switzerland, digital payment transaction solutions operated by shadow banks are relatively uncommon compared to China. However, both apps and their users are likely to grow steadily in number in Switzerland, as well. Finally, as a relatively prosperous country, Switzerland is also an attractive market for foreign providers.

Nevertheless, the Swiss economy remains relatively small and its currency is not widespread. Developing an application for payments in US dollars or yuan remains more attractive for tech companies for financial reasons. Accordingly, scientists assume that in the near future, in small, developed countries such as Sweden, Denmark or Switzerland, online payment systems run by banks

will be more likely to prevail than smartphone applications. In larger countries such as China or the US, on the other hand, the tech giants outside the banking system seem to be taking the lead.

Although developments in Switzerland are progressing more slowly than in China, for example, this does not mean that no changes are to be expected. This fact is also reflected in the change in payment transactions in Switzerland over the past 150 years: The postal check system replaced cash payments more than a hundred years ago and has long shaped payment transactions in Switzerland. It was later challenged by the digital payment transaction system of the financial industry, i.e., the internet platforms of banks.

It can therefore be assumed that even in Switzerland, today's payment systems do not represent the end of a development. It seems likely that several mobile payment systems will be available to Swiss consumers in the near future. It remains to be seen whether the smartphone will actually become the only device used to make payments in the future. Finally, it can be assumed that the development of technical equipment will continue. Just as laptops and tablets have largely replaced desktop computers, another new, technologically superior and/or more user-friendly device could replace the smartphone in the future.

Traditional banks are not only challenged by new market participants in the payment transactions sector, but also in areas such as the lending business. Lending is essentially about bringing together people with more ideas than money (borrowers) and people with more money than ideas (savers). Banks have traditionally covered this business area by collecting money (savings) and granting loans. Digitization is also affecting the financing business, however. The keywords here are crowdfunding and crowdlending. This is a business that is growing worldwide. Not surprisingly, China is also the world leader in this field. The apps used for payment transactions (WeChat and Alipay) also have credit functions. Moreover, Qudian, one of China's largest peer-to-peer online lending companies, was recently ranked third in the KPMG List of Global Fintech Innovators, after Alibaba and ZhongAn. The company went public on the New York Stock Exchange in 2017. Currently, the Swiss payment app Twint does not have a credit function. However, this does not mean that the lending business in Switzerland is not becoming more digital. One example is Swisspeers, a platform for SME loan financing outside the banking system.

The Future: Will Face Recognition Replace the Smartphone?

A new technological opportunity is already announcing itself in China: In the future, the Fintech industry is likely to take advantage of research results from the field of artificial intelligence and the possibilities of machine learning. Our faces could become the new end-user device. In concrete terms, face recognition is ready to be exploited. An individual face is so unmistakable and unique that attempts are being made in China to use face recognition as the sole means to assigning cash withdrawals at ATMs, for example, to a customer or account. If this system proves to be feasible, not only plastic cards but also smartphones could become obsolete as a means of payment. The technological possibilities, however, need not stop at banking transactions. In the future, it should also be possible to use a facial recognition system to control access to buildings, check in and out of work, or book and pay for travel on public transport.

Yet it is not only the technological possibilities of such innovations that should be decisive in adopting them as part of everyday life. The uses of artificial intelligence or machine learning do not only have benefits. One drawback is obvious: The use of face recognition makes the individual become completely transparent because a great deal of data is collected in the process. Whenever a train or a bus ride is booked using a face recognition system, the data related to this transaction are recorded. Exactly the same applies to the data (including the time and place) in a financial transaction. In Switzerland, data protection is an important issue, and the collection of data is a

sensitive matter of great interest to the public. This has been less of an issue in China, where citizens are more open to technological progress and the topic of data use, for example, is much less an issue for debate than it is in Europe. Accordingly, not only the greater technological possibilities, but also the greater willingness of the Chinese to provide personal data will influence the future development of their digital financial services sector.

A critical attitude similar to that towards data protection is also developing towards machine learning. In the European Union, for example, the question is being debated whether the statistical procedures of machine learning are subject to bias and whether, therefore, some individuals might be at risk of being discriminated against on the basis of their ethnicity, gender, age, or other attributes. In the EU, the General Data Protection Regulation (GDPR) addresses the issue of discrimination through profiling. Switzerland's position on this issue is likely to be as critical as that of the EU. In the Middle Kingdom, on the other hand, such issues are generally seen as less of a problem than in Europe, and people's confidence in machines is far greater. The digital gap between Switzerland and China with regard to their financial services should therefore continue to increase rather than decrease - not only because of higher investments in new technologies, but also because Chinese society is less critical of "machines" in general and technological solutions in particular.

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