



MOBILE BANKING

How to automate invoice payments in mobile banking?

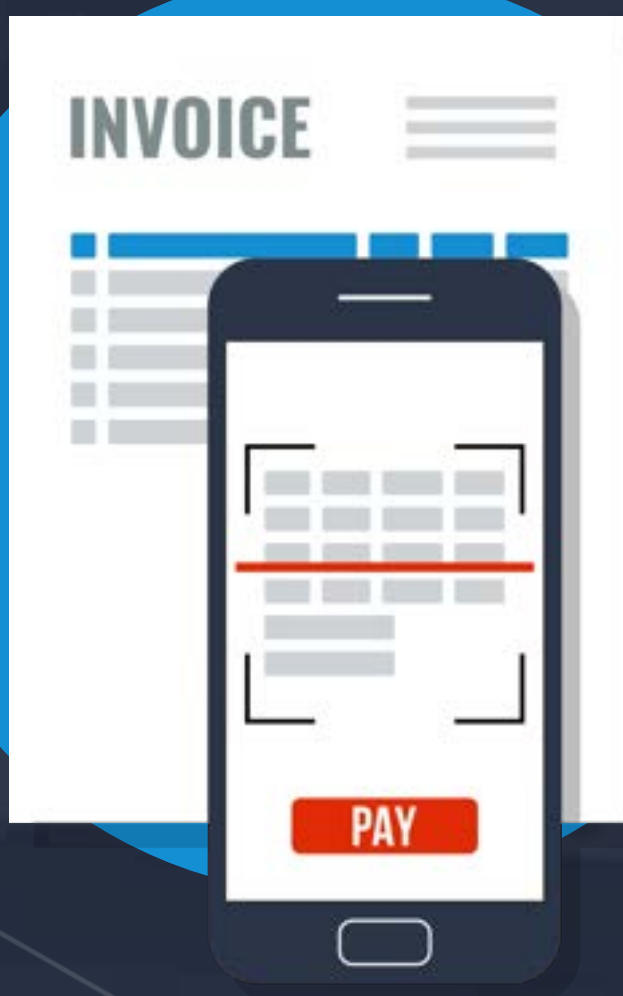


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1

Why are customers not willing to use mobile applications to pay invoices?

„The majority of mobile banking users switch to their computer when it is time to pay the bills...”

Why are customers not willing to use mobile applications to pay invoices?

Mobile banking is phasing out online banking. And it is happening at a staggering pace. Even now, in many European and Asian countries, the number of people interacting with their bank via mobile is comparable, or even higher, than those doing so via a desktop PC or laptop. According to CACI¹, the number of banking transactions carried out on desktop will decrease by 63% in the period between 2017 and 2022.

But there's just one thing...

If mobile applications are so convenient, why do so many customers still prefer to pay their invoices using the desktop version of a transaction service, rather than going mobile? For example – the majority of mobile banking users switch to their computer when it is time to pay the bills.



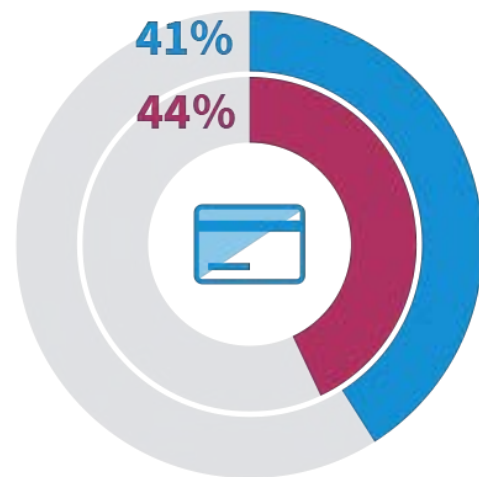
¹ <https://thefinancialbrand.com/66228/bank-credit-union-branch-traffic/>

Use of online and mobile apps for bill payments by mobile banking users

■ Online banking

■ Mobile banking app

Source: Deloitte - The value of online banking channels in a mobile-centric world



Pay bills

Why do they do that? Let us imagine the following scenario: Somebody receives an email with an invoice attached as a PDF file. They want to pay the invoice using the mobile application on their smartphone. What do they do?

1. They **open the attachment** with the electronic invoice.
2. They jump around between applications in order to **manually rewrite or copy-paste** all the data from the invoice into their mobile app's transfer form.
3. They **double check** everything several times, just to make sure that everything was typed in correctly.
4. Finally, they **confirm the transfer**.

(A person who pays a paper invoice will most likely go through similar steps).

How long does it take to complete the transaction? Unfortunately, quite a long time. Mobile forms have small fields, which makes the copy-paste process troublesome, and typing in data manually carries the risk of mistakes. It is small wonder then that many people prefer to pay invoices using their laptop or desktop. Although we still have to copy data from the invoice to the transfer form, it is so much easier and faster on a big screen.



And that is the core of the issue.

While the mobile applications offered by most financial institutions are quite advanced, filling out transfer forms on a smartphone screen is just as inconvenient as ever.



And now imagine a banking app with a component enabling the customer to automatically extract all the relevant data from the invoice, whether electronic or paper, and enter everything into the transfer form with no more than a single tap. No copying.

No rewriting. No mistakes. The customer needs to confirm the transfer via a push notification and it is done.

Sounds good, right?

A bank that wants to ensure the best possible customer experience should implement this sort of functionality as soon as possible. Customers will more likely choose your bank over the competition, based on the convenience and functionality of your mobile app.

How can you make paying invoices on mobile easier for customers? You need OCR technology in your mobile banking app.



2

How does OCR for paying paper and electronic invoices work?

„All we need to do is scan an image containing sentences in a foreign language, and OCR will retrieve text from the image and then translate it...”

How does OCR for paying paper and electronic invoices work?

OCR (Optical Character Recognition) is a technology able to recognize and verify the text information displayed on PDF, scan or photo. It can also automatically convert the text into machine-readable data - no matter if it's typed, printed or handwritten.



OCR technology is nothing new. It has been in development since the 1990s. However, the current digitalisation boom is creating entirely new fields for OCR to thrive in. One example of this trend is the famous **Google Translate**. All we need to do is scan an image containing sentences in a foreign language, and OCR will retrieve text from the image and then translate it.

We love solutions like this because they do things for us and let us save time. They just make our lives easier.

OCR technology can improve mobile banking services in a similar fashion, speeding up invoice payments. Below we go over three potential use cases of the technology for paper and electronic invoices:

Paper invoices

- A bank customer photographs an invoice with their smartphone and their bank's mobile app retrieves the relevant data from the photo and uses it to prepare a transfer form.

E-invoices

- The customer opens an attachment with an invoice using their bank's mobile application, which then automatically copies the data from the file into the transfer form.
- The customer sends an invoice to a special email inbox set up by their bank, the bank then identifies the data from the invoice and sends a push notification about a pending transfer to the customer.



Combining OCR technology with the functionality of a mobile app removes the hustle of bank's customers having to copy-paste data into the transfer form whenever they want to pay an electronic or paper invoice using their mobile device. The requisite data is collected and sent to the transfer form automatically. The bank's customer scans the data from the document and the mobile application prepares the transfer for confirmation.

However, in order for OCR technology to run smoothly in a mobile banking app, it has to meet several requirements.



3

6 requirements that OCR needs to meet in order to be effective in mobile banking

„OCR not only retrieves data and sends it to the transfer form.
It also verifies its correctness...”

6 requirements that OCR needs to meet in order to be effective in mobile banking

Customers want their mobile banking solutions to be convenient and secure. On the other hand, banks expect the implementation of new components into their application to be straightforward and cost-effective. Is OCR technology capable of meeting all these requirements? Yes, but it needs to have a few necessary functionalities. Here they are:

1. The ability to process paper and electronic invoices

OCR technology should ensure an easy and intuitive way of reading data from both: an electronic invoice attached as a PDF, as well as a scan of a paper invoice. The process of retrieving data should require the least effort possible from the customer.



2. Scanning in off-line mode

The customer should be able to use OCR functionality while off-line. Retrieving the data. does not require internet connection or access to the bank's cloud resources, as the entire process relies on the computing power of the customer's smartphone. Scanning off-line allows the bank to save on investing in its own infrastructure, while harnessing the power of the customer's device makes the entire operation faster.



3. Data verification

OCR not only retrieves data and sends it to the transfer form. It also verifies its correctness. The customer does not have to worry whether they typed in the correct bank account or tax number (verification is made based on a



control amount). Data verification within the form allows the bank to ensure a high quality User Experience – the customer is certain that the transfer sent via mobile app will reach its intended recipient.

4. Reviewing data in real time

The customer does not have to scan a paper invoice multiple times to make sure that the data was correctly sent to the form. OCR takes care of that, retrieving data sequentially, cell after cell. The customer can track what invoice data is being retrieved, and can make necessary corrections at any stage of the process.



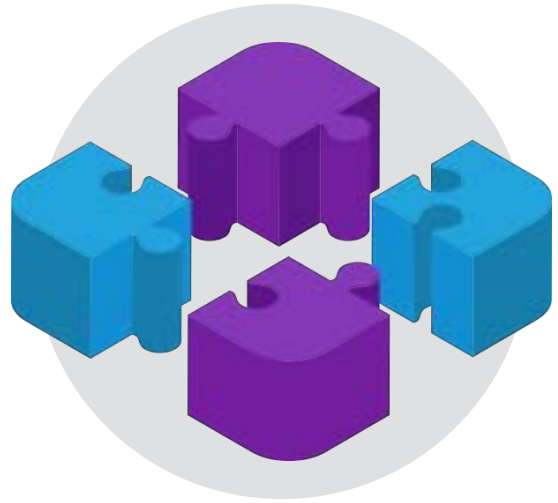
5. Optimisation on multiple devices

OCR should work seamlessly with many device types and various scanning parameters. The customer will have easy access to the functionality across different smartphones and tablets.



6. Easy implementation

Bank should be able to easily integrate OCR technology into its existing mobile application. The implementation cannot interfere with the app's other functionalities, nor its appearance. A good solution in that case will be a **Software Development Kit (SDK)**.



Would you like to read more about component solutions for mobile banking?

Download our
Component Overview

DOWNLOAD



4

OCR for invoice payments – see the use cases

„No need to manually transcribe data from a paper invoice...”

OCR for invoice payments

– see the use cases

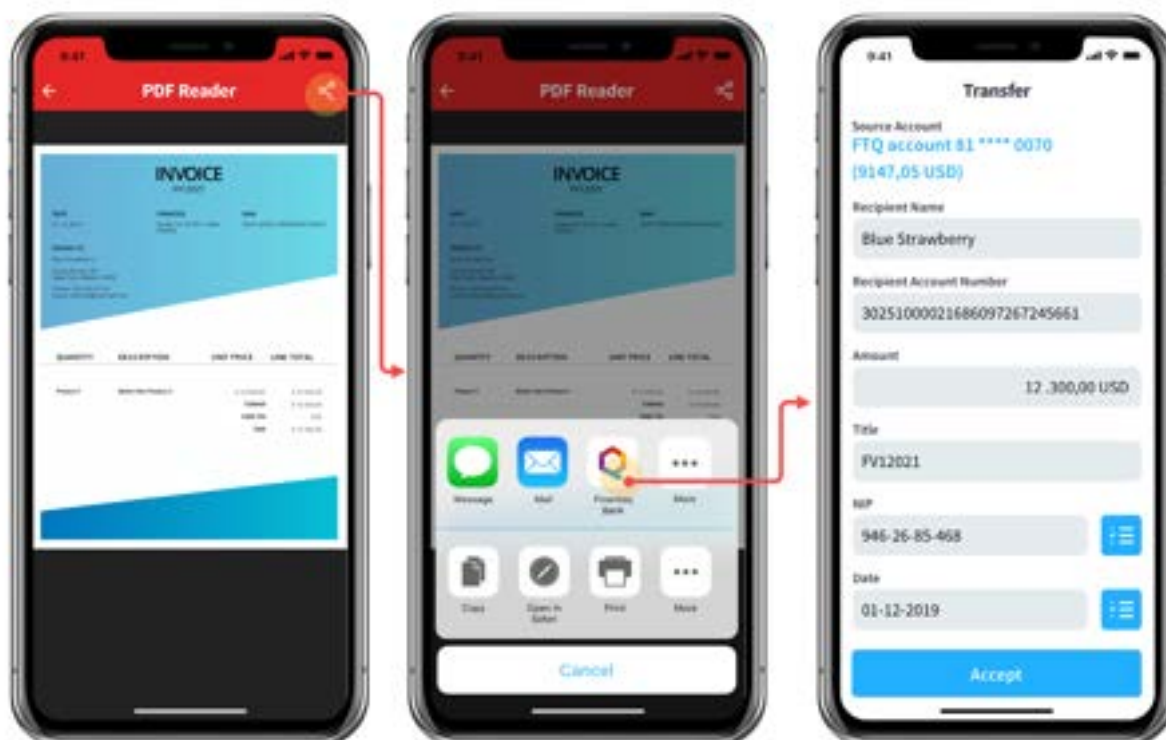
When it comes to invoice payments, OCR technology is a solution to many problems faced by customers who use online banking every day. Below you will find four stories of how OCR helps to address specific issues with paying invoices on mobile.

Case 1: Paying an electronic invoice (PDF) received by email („mobile-only” customers)

Catherine does most of her work on a smartphone. She lives ecologically, so she uses e-invoices not paper ones. However, she was not aware that paying electronic invoices would be so annoying. She is tired of selecting and copying invoice data to the transfer form on the small screen of her mobile device.

Fortunately, her bank has added the OCR component for Invoice Payments to its mobile application, Catherine can now receive an invoice by e-mail and, with just one operation, transfer the invoice to her mobile banking app.

The application automatically scans the data from the submitted file and Catherine receives a filled in transfer form ready for authorisation – quickly and conveniently.



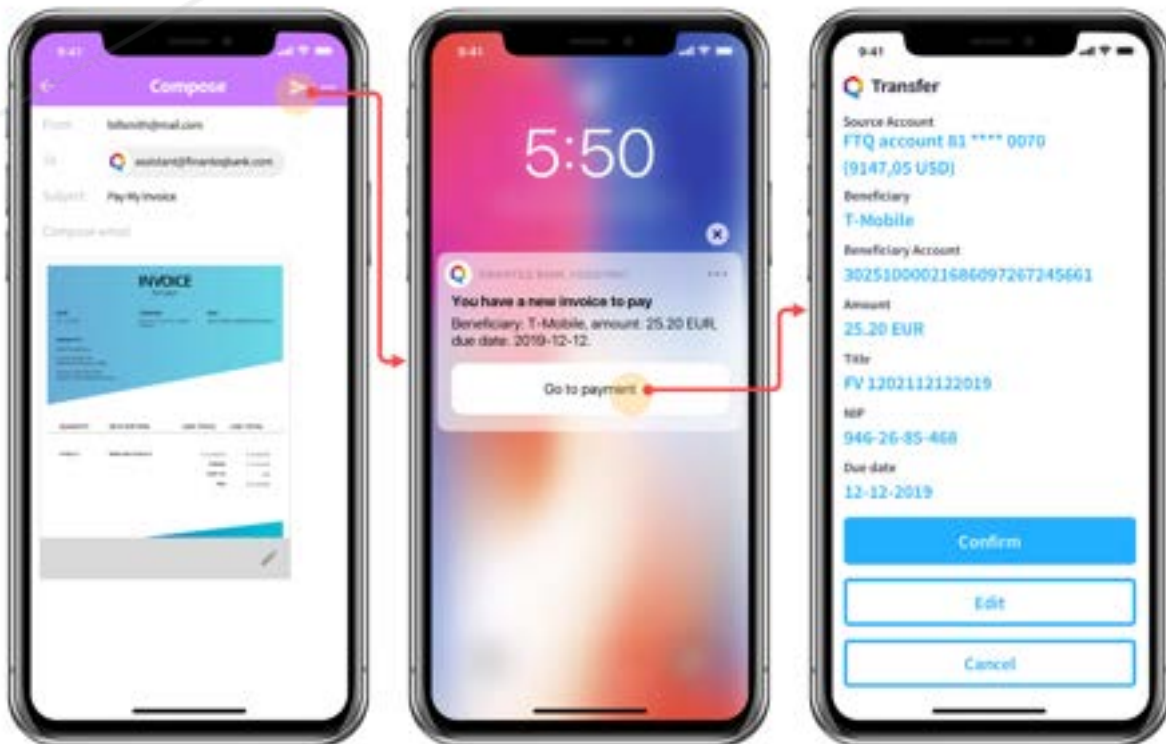
Case 2: Paying an e-invoice by a dedicated email address or by sharing a Gmail account

Andrew is either constantly on the phone or replying to emails on his company laptop. He values comfort, so he prefers e-invoices delivered to him via email. However, process of paying e-invoices is not very efficient, even with a laptop.

You still have to log in, copy the data field by field, use mobile two-step authorisation. Does it have to be so complicated?

Not any longer, because Andrew's bank uses OCR for invoice Payments. Andrew can now send his e-invoice to a dedicated email address, and his virtual assistant will reply with a notification from the bank's application that the new payment is waiting for confirmation. With one click on the notification, the transfer order, with data automatically scanned from the submitted invoice, is authorised and that is it!

Andrew is so proficient in using email that he can set a rules automatically forwarding selected messages to his assistant at the bank, so he no longer has to send emails with invoices manually. He is even considering having a Gmail account just to receive invoices from suppliers, which he can then share safely with the bank.



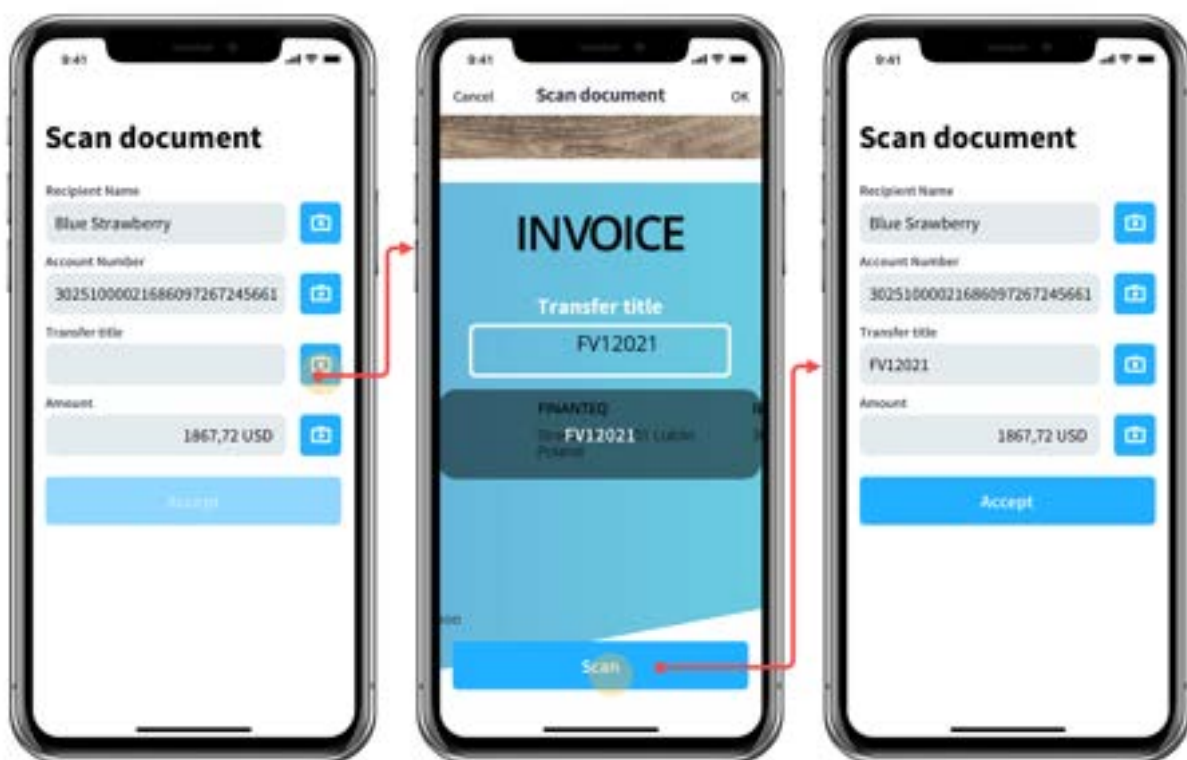
Case 3: Paying a paper invoice

Chris pays a paper invoice for his phone plan every month. Only the amount, number and payment date on the invoice change, everything else stays the same. Chris has added this service provider to his list of trusted recipients, so now paying is even simpler. It could not be any easier, could it?

Of course, it can. Chris's bank's mobile app offers OCR for Invoice Payments, which can scan the missing title, amount and date using a smartphone camera. There's no need to manually copy any data from the paper

invoice. Chris can also easily save another recipient by scanning their account number and the issuer's data from the invoice.

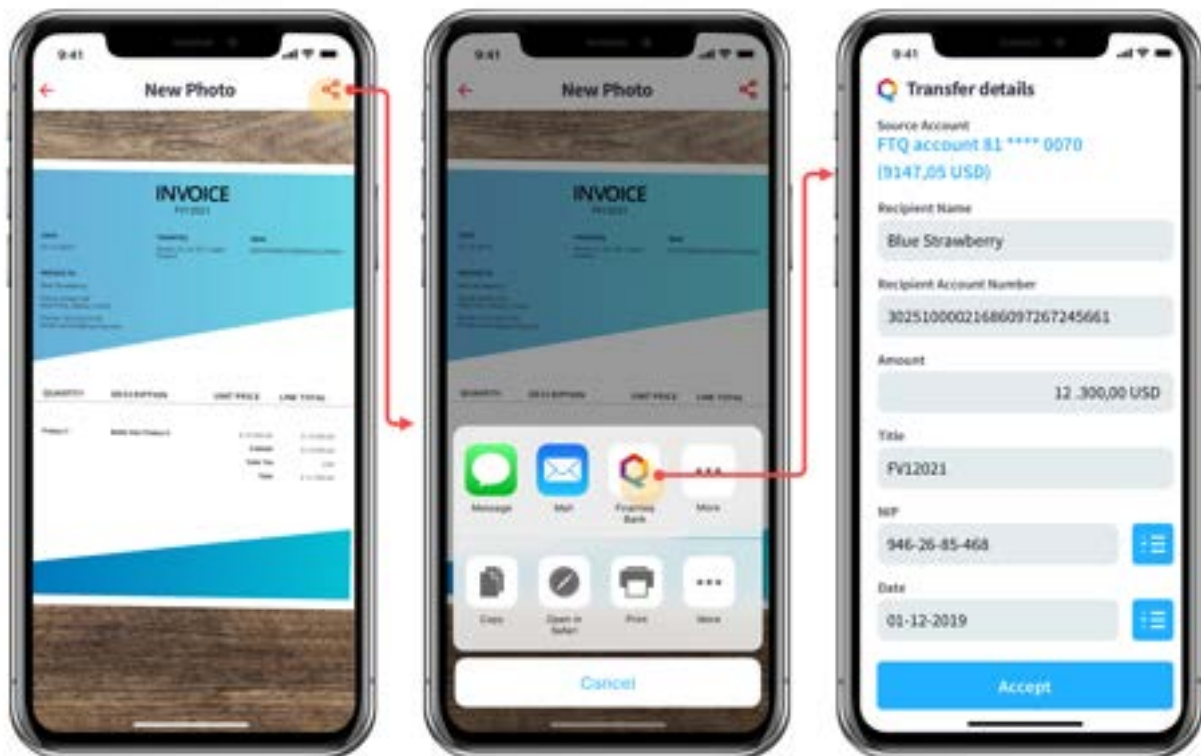
It is even simpler if the invoice has a QR code with payment details. Then just point the camera of your smartphone at it and all the data of the new transfer or recipient is automatically completed.



Case 4: Paying an invoice from a photo

Anna had just remembered that she was supposed to pay her electricity bill yesterday. She has no time now, but takes a quick photo of the invoice with her smartphone and plans to pay for it on the bus. But the bus is so shaky it is easy to make a mistake while copying a long invoice number from the photo. Well, she'll probably find time later.

She does not have to, because her bank's mobile application uses OCR for Invoice Payments. Anna opens the photo of the invoice and, using the „Share” option, transfers it to her banking app. The app automatically scans the data from the invoice image and presents a filled in transfer form ready for authorisation — quickly and conveniently, whatever the conditions :-)



5

OCR for Invoice Payments – discover the FINANTEQ solution

OCR for Invoice Payments – discover the **FINANTEQ** **solution**

OCR technology for invoice payments gives bank customers a very convenient functionality and can potentially help banks attract new customers, thereby ensuring a competitive advantage.

However, the implementation of each new technology is inevitably costly and time-consuming. In addition, many banks already offer mobile apps. **What is a fast way to expand a bank's existing mobile app with OCR technology?**

Well, there is FINANTEQ, representing a component-oriented approach, which provides a **Software Development Kit (SDK)** comprising a set of tested tools that can be seamlessly integrated within any mobile banking application in order to add a certain functionality with a minimal risk of failure.

FINANTEQ offers banks:

- libraries ready to be integrated with the bank's existing mobile application.
- twenty years of know-how in mobile solutions.
- high security standards.

Would you like to learn more about OCR solutions?

Feel free to contact us for a free consultation to **find out more** about available solutions and possibilities of introducing OCR into your mobile banking.

Contact us!

Contact us and find out how our products and components can enhance your mobile banking.

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