

CELENT



KASIKORN LINE: EMBEDDING BANKING INTO A MESSAGING PLATFORM

**WINNER OF CELENT MODEL BANK 2022 AWARD FOR
EMBEDDED FINANCE**

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CASE STUDY AT A GLANCE

The notion of embedded finance is relatively new to the banking industry but has already begun to drive significant changes. The most fundamental of those changes is a broad new understanding that having full ownership of the manufacture and distribution of products is no longer the most effective way for a retail bank to play in today's open ecosystem. Partnerships across the value chain are becoming more common, and the notion of embedded finance is now recognized as an important strategic option. KASIKORNBANK and LINE, the largest social messaging app in Thailand, provide a great example of what can be achieved in such relationships. Through a joint venture, KASIKORN LINE, they have launched a range of banking services that are consumed through the messaging app under the LINE BK brand. This partnership, and its success to date, make LINE BK a clear example for other banks to follow.

FINANCIAL INSTITUTION	KASIKORNBANK (KBank)
INITIATIVE	LINE BK and the launch of Thailand's first social bank
SYNOPSIS	KASIKORNBANK and LINE have combined to form a joint venture: KASIKORN LINE. The partnership has enabled the launch of the first "social banking" platform in the market, with banking products and services fully embedded in the LINE messaging app.
TIMELINES	<ul style="list-style-type: none">• Project start date: December 2018• Soft launch: September 2020• Full commercial launch: October 2020
KEY BENEFITS	<ul style="list-style-type: none">• New customer acquisition for KBank• Enhanced credit scoring through the use of behavioural data from the LINE platform• Growth of new lending volumes driven by LINE's greater reach and data assets
KEY VENDORS	Infosys Finacle

CELENT PERSPECTIVE

- Embedded finance is a topic that is growing in importance across the industry. However, best practice is about more than distribution. The real opportunities in embedded finance come from leveraging the assets of the respective partners to create wholly new products and experiences.
- The KASIKORN LINE joint venture, a partnership between KASIKORN BANK and LINE (the largest social messaging app in Thailand), achieves this in two important ways.
- The first is that banking products are fully integrated into the LINE platform. Customers manage their products entirely within the LINE app, and onboarding can also be fully digital.
- The second is the innovative approach to credit risk. Data on customer behaviour in the LINE app is used to inform the credit scoring process. As a result, LINE BK has been able to successfully advance loans to the underbanked customer segment. While it is still early to judge the success of this approach, this has proven so far to be a highly effective way of assessing risk.
- The KASIKORN LINE joint venture is a strong example for other banks to follow when it comes to partnerships of this nature and is a worthy winner of the Model Bank 2022 Award for Embedded Finance.

DETAILED DESCRIPTION

Introduction

KASIKORN BANK (KBank) was founded in June 1945 and has been listed on the Stock Exchange of Thailand since 1976. Today KBank is one of the largest financial institutions in Thailand by assets, loans, and deposits and provides a range of services to retail, SME, and corporate clients.

LINE Corporation is dedicated to the mission of “Closing the Distance,” bringing together information, services, and people. The LINE messaging app launched in June 2011 and is the number one messaging platform in Thailand, with 50 million users. LINE platform offers a wide range of services including messaging, e-commerce, food delivery, news, and digital content.

In December 2018, KBank and LINE announced the creation of a joint venture: LINE BK. This brought KBank together with one of the largest messaging platforms in Thailand, aiming to offer accessible financial services and to tap underbanked and unbanked users as the first social banking service in Thailand.

Table 1: KASIKORN BANK Snapshot

KASIKORN BANK (KBank)	
YEAR FOUNDED	1945
ASSETS	THB4,103 billion (US\$126.9 billion) at December 2021
GEOGRAPHICAL PRESENCE	HQ in Bangkok, Thailand
EMPLOYEES	19,153 (as at December 2021)
OTHER KEY METRICS	Branches: 839 ATMs: 10,911 Digital banking customers (K PLUS): 17.1 million
RELEVANT TECHNOLOGIES AND VENDORS	Embedded finance, machine learning Vendor partner: Infosys Finacle

Source: KASIKORN BANK

KASIKORN LINE is a joint venture between KBank and LINE Corporation, the provider of the largest social messaging platform in Thailand. The partnership has enabled the launch of the first “social banking” platform in Thailand, with banking products and services are fully embedded in the LINE messaging app. The products available include deposit accounts, money transfers, and unsecured loans. One of the unique aspects of this partnership is that alternative data from LINE’s messaging and other services is used to inform the credit risk decisioning process for loans to consumers and micro-enterprises.

Opportunity

The notion of embedded finance is relatively new to the banking industry but has already begun to drive significant changes. The most fundamental of those changes is a broad new understanding that having full ownership of the manufacture and distribution of products is no longer the most effective way for a retail bank to play in today’s open ecosystem. Partnerships across the value chain are becoming more common, and the notion of embedded finance is now recognized as an important strategic option.

Defining Embedded Finance

Celent defines this as: “the discovery and acquisition of tailored financial services products at the point of need within the digital experience curated by a non-bank third party.”

Underpinning this is the reality that no single organisation can keep pace with the changing needs of its customers. This spirit supports the development of propositions enabled by embedded finance, and there are many examples of banks today that benefit from being able to surface their products in a third party’s customer journey. But there can be much more to embedded finance for a bank than just distribution; the combination of assets between a bank and a third party can also create new sources of value.

Thailand has a well-established banking infrastructure, but a high proportion of consumers are underbanked. The World Bank estimated that there were 12.1 million individuals unbanked (those effectively excluded by their circumstances from the formal banking system) in 2014,¹ while others have estimated that as much as half of the total population is underbanked (and so cannot access all the financial services they need).

At the same time, the use of digital consumer platforms is widespread. LINE (<https://line.me/en/>) is the most used platform of this type in the market and offers customers a wide range of services, including messaging and chat services, healthcare, newsfeeds, and a digital wallet. This breadth in the service offering has

¹ <https://ufa.worldbank.org/en/country-progress/thailand#1>

helped to make it ubiquitous; LINE reports that it has around 50 million customers, which equates to over 70% of the country's 70.1 million² citizens.

The overlap between LINE's userbase and the underbanked population in Thailand represented a significant opportunity. In 2018, KBank and LINE formed a joint venture—KASIKORN LINE—to deliver banking services to customers via LINE's messaging and lifestyle platform. This is an equal partnership between the two companies, which sees KBank's investment vehicle—Kasikorn Vision—holding the bank's stake in the joint entity. For LINE, this is part of its strategy to expand the range of financial products it offers beyond a digital wallet and payment services. The relationship with KBank mirrors similar partnerships the company has in place in Japan, Indonesia, and Taiwan.

LINE BK brings together the products and infrastructure of KBank along with the customer data, digital experience, and reach of LINE's platform. The idea is to move beyond simply distributing existing banking products and towards fully integrating these into the LINE digital ecosystem. Most importantly, the combination enables LINE to deliver products and services to customers currently beyond the reach of incumbent financial institutions.

Solution

The LINE BK joint venture offers the following banking products through the LINE platform:

- **LINE BK Savings Account**—Customers can monitor their account balance and recent transaction history for this account within the LINE platform. These accounts are the funding source that supports real-time money transfers to other LINE users from within the platform's messaging service. A debit card is available on this account, but customers can also withdraw cash from the account without using a card at KBank ATMs. This functionality is delivered by KBank.
- **LINE BK Special Rate Account**—A fixed-term deposit product offering 1% interest on balances after six months and 1.5% on those held for 12 months. This service, like the LINE BK Savings Account, is delivered by KBank.
- **Unsecured personal loans**—Customers can apply to borrow up to THB800,000 (\$24,200) and have the option to either take this as a revolving loan with a flexible payment plan (with a minimum monthly payment of 2% of the principal) or as an installment loan over a fixed term up to 60 months. The process is fully digital, and LINE offers an instant decision 24/7.
- **Nano credit line**—Nano loan products are aimed at providing working capital for micro-enterprises. Many small businesses fall outside the reach of traditional bank lending, and LINE BK views them as a particularly important part of its

² <https://www.worldometers.info/world-population/thailand-population/>

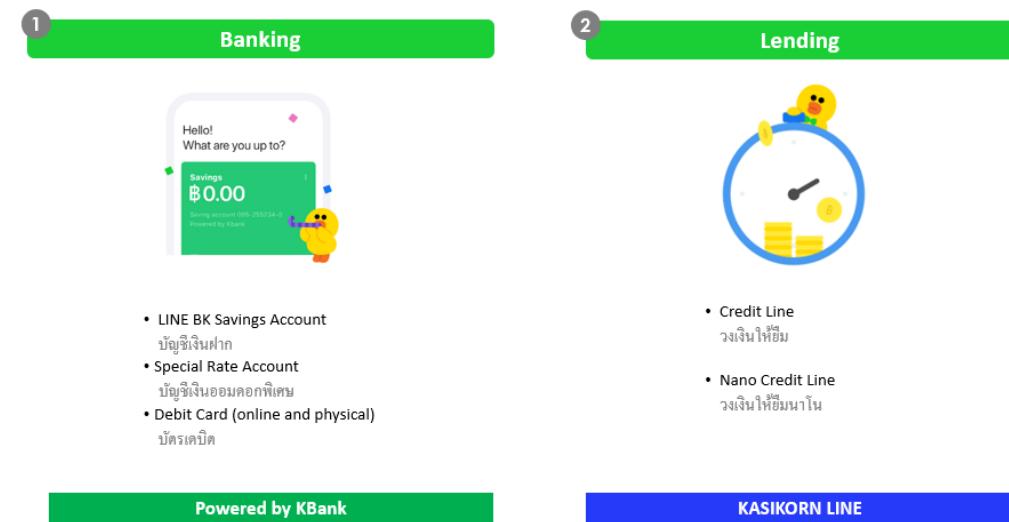
market opportunity. The minimum monthly income requirement for the Nano Credit Line is THB5,000 (around \$150).

In each case, the digital interface is embedded into the LINE app, with the products themselves supported by either KASIKORN LINE or Kbank. Customers can also access payment services through the messaging app by making transfers from their LINE BK deposit account to those of other platform users.

Onboarding for these products is done within the LINE app. For customers who not already have a relationship with KBank and need to go through KYC, this can be done by presenting their citizen ID cards at either a KBank ATM or at a participating convenience store. Customers applying for a loan through the LINE platform are required to also have a LINE BK deposit account. As a result, this partnership has supported new customer acquisition for the bank and generated a direct income stream for the bank. This is in addition to the potential gains that come from the bank's 50% stake in the shared entity.

This initiative is a strong example of how an embedded finance model can bring new value to both parties in these relationships. One noteworthy element of this partnership is that not all the products offered by LINE BK are directly provided by KBank. As shown in Figure 1, the deposit account and debit card products are fully provided by the bank and leverage its infrastructure (including for the onboarding process). The loan products are provided by the joint venture entity and run on its own technology stack.

Figure 1: Banking Products Offered by LINE BK



Sources: Celent, LINE BK

At first glance, this model may seem to be at odds with the concept of embedded finance. KBank has an existing portfolio of lending products and the technology infrastructure to support them, and it would seem logical for LINE BK to source these products from the bank partner directly. However, this approach would be limiting.

Reaching the underbanked population in Thailand is a sizeable opportunity for LINE BK, and many of those consumers (including a proportion of LINE users) fall outside the traditional credit scoring infrastructure.

Lending to the underbanked

One of the most interesting aspects of this partnership is that it takes the notion of embedded finance back to its first principles. Rather than thinking in narrow terms around product distribution, LINE BK leverages the respective assets of both parties to create a new value proposition. While KBank's infrastructure is essential to perform KYC checks and onboard a new customer, a new approach to credit underwriting is needed to reach underbanked customers.

In addition to running standard credit checks (where possible), data on the customer's behaviour in the LINE platform is used to provide a deeper view of their creditworthiness. Datapoints used include interactions within the messaging service as well as the broad range of digital services available on the platform. It's important to note that LINE doesn't use any messaging content for credit scoring.

The use of data from the LINE platform has enabled the joint venture to extend credit to a broader market group than financial institutions can reach. This is particularly important when serving the micro-enterprise segment, as traders are frequently sole enterprises and do not have formal business banking accounts.

Technology and timeline

While the customer-facing LINE BK proposition is designed to be straightforward, the project underpinning this was complex. Dealing with the impact of the COVID-19 pandemic only added to the challenges that the team faced.

Firstly, the team needed to manage the integration between the core deposit systems at KBank and that of a social messaging platform. This was a complicated process that needed to both deliver a high degree of reliability and support the strong digital customer experience that LINE customers had come to expect in their other dealings with the platform.

In addition to this, LINE BK decided to implement its own instance of a product core and loan origination solution to support its credit offerings. Following a competitive selection process, the decision was made to implement the Finacle Origination Suite and the Finacle Core Banking Solution to drive the lending products.

The software's configuration and parameterization were necessary to support the flexible lending products, unique approach to underwriting, and fully digital customer experience that LINE BK wanted to offer. Close to 36 business functions have been developed and interfaced with LINE directly. The solution's componentized design meant that LINE BK could independently deploy the modules of the solution and integrate them with LINE Native App for customers to seamlessly request a loan within the Chat App.

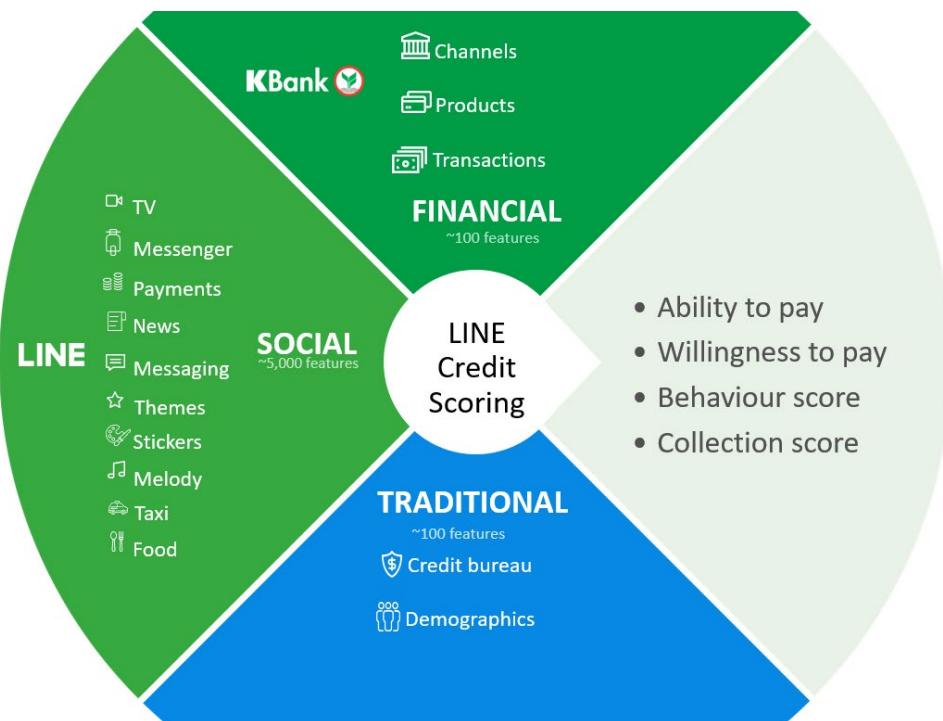
Customers are given a loan limit which can be treated as a line of credit. Each debit is converted to an overdraft account or installment loan account, depending on the preference of the customer. This required some software customization but was necessary to ensure a smooth experience and eliminate manual intervention. The full loan life cycle can be managed digitally through the LINE app.

In addition, customers have the flexibility to tailor these loan products to meet their specific requirements. Everything ranging from the loan amount, tenure, and whether the credit is a term loan or overdraft can be tailored by customers using the online interface.

Building a credit model capable of handling social messaging data

The third pillar of the initiative is the credit underwriting model, which is run by LINE BK. One element of this can be described as the “conventional” credit score information that KBank provides. This is based on a customer’s past account behaviour and data from credit bureaus. Analysis of real-time data from LINE’s platform, which incorporates up to 5,000 individual data components, is also included. As such, this information allows a level of refinement not available to other lenders in the market. Examples of this are shown in Figure 2 below.

Figure 2: Data Inputs to the LINE BK Underwriting Model



Sources: Celent, LINE BK

To build this model, LINE BK used a variety of machine learning techniques and predictive analytics across the considerable array of data points captured across the messaging, commerce, and wider service offerings in its platform. This enabled LINE

BK to identify the behaviours with the best predictive power related to creditworthiness. This element of the credit scoring is performed in real time. The two credit scores are combined in the Finacle Loan Origination Solution to deliver a single outcome that drives the lending decision.

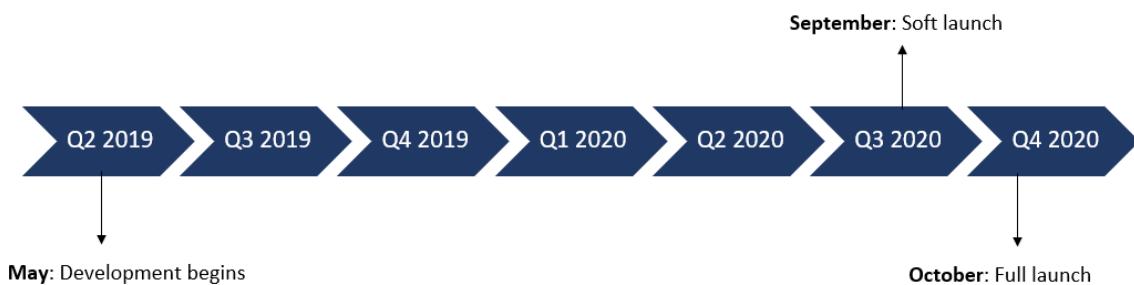
Project team and timeline

This was a considerable undertaking that required a large project team. Across the whole of LINE BK, the staffing grew quickly from a small team to a total workforce of over 250. On the technology side, LINE BK's technology team coordinated closely with Finacle, the development team from LINE Corporation, and the legacy system team from KBank.

Communication was key, and virtual daily stand-up meetings were important in maintaining visibility into shared activities. Active communication via Slack, Jira, and other mediums played a vital role in ensuring effective cooperation.

The project began in May 2019, with a soft launch in September 2020. The full commercial launch came in October 2020.

Figure 3: Project timeline



Sources: Celent, LINE BK

Results, Lessons Learned, and Future Plans

This initiative has delivered strong results. It took just under two months for LINE BK to acquire one million customers. By the end of 2021, the LINE BK user base reached 3.9 million. In addition, over two million debit cards have been issued to these customers. This represents a considerable boost to customer acquisition for KBank.

The lending products have also been successful. LINE BK has to date granted loans to over 500,000 customers, with the total value of loans outstanding more than THB15 billion (\$450 million). This is a sizeable proportion of new lending across the market. It is also worth noting that around 30% of the applicants for LINE BK lending products

would be excluded by other lenders. This demonstrates the product's impact of reaching the underserved segment.

Arguably even more importantly, LINE BK reports that its NPL ratio is in line with the level experienced across the market. Given that this model was only launched in late 2020 and has had to contend with the impacts of COVID-19, this should be viewed as a very positive outcome.

Lessons learned

One lesson that LINE BK learned through this process is the importance of making collaboration models such as this drive efficiency and create new value without creating new complexity. Communication is highly important, but it goes deeper than this in practice. When problems arise, a highly collaborative process needs to be in place so that resolutions can be reached most efficiently. Getting this wrong can result in delays and imperfect solutions.

Perhaps the most important takeaway is around organizational culture. The joint venture is the result of two very different businesses in the form of a long-established retail bank and a digital consumer platform coming together. The collaboration between the groups was highly effective in practice, but it was clear that there was no single culture and way of working for LINE BK. This extended towards the approach to problem-solving, for example, as each group could bring entirely different ideas to the table. Creating a single identity and culture for LINE BK has been identified as a necessary next step in developing the business.

Future plans

LINE BK is a relatively new initiative but has clear plans to continue developing its offering in 2022 and beyond. Its first priority is to continue to refine its decisioning engine, particularly around creditworthiness.

Alongside this, the intention is to add further products to its portfolio to realize the ambition of becoming a true social banking platform.

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