

## NEW DIGITAL FINANCIAL SERVICES OFFER THE PROSPECT OF HIGH CUSTOMER RETENTION

### – EXPECTATIONS FOR THE GROWING TREND OF “EMBEDDED FINANCE” –

Masaru Ohnishi

Industrial Studies Div. Industrial Research Dept. I  
Mitsui & Co. Global Strategic Studies Institute

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#### SUMMARY

- “Embedded finance”, in which ecommerce companies and other non-financial service companies add the financial service functions of external companies to the service flow of their core business for provision to their customers, has been made possible by the “unbundling” of financial service functions brought about by technological progress and deregulation, and it is an irreversible trend.
- While companies can expect to earn revenue from financial business by introducing embedded finance, it has even bigger advantages for them, in that they can secure and retain customers by offering convenience, and can strengthen their core business.
- With the unbundling of functions and the emergence of XaaS, the provision of financial services, which had hitherto presented high hurdles to overcome, will be possible not only for major IT companies, but also for small and medium-sized enterprises, and the market is expected to expand.

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#### INTRODUCTION

A pronounced movement is underway in which general non-financial service companies are adding financial functions to the service flow of their core business and acquiring revenue from financial business. This trend, which is referred to as “embedded finance”, is a branch of fintech that is currently attracting worldwide attention. For example, the Ant Group, a financial arm of the Chinese EC giant Alibaba and a provider of services including the Alipay payment service, provides small and medium-sized enterprises operating online storefronts in the Alibaba marketplace with insurance to reimburse the full cost of shipping if goods need to be returned. The insurance premium is approximately 50 yen (approx. US\$0.46) per transaction. Although the insurance is provided by an external insurance company, Alibaba benefits from enhanced credibility in the eyes of its customers and the strengthening and expansion of its customer base, while the Ant Group earns a 20% commission for the insurance premium. The insurance company also benefits from access to a massive customer base that it would be unable to reach on its own.

Because of technological progress and deregulation, initiatives such as this have become possible not only for Alibaba, Apple, Amazon, and other IT giants with enormous financial power and customer bases, but also for SMEs and startups. The idea that “every company will be a fintech company”, as predicted by a partner of the US venture capital firm Andreessen Horowitz in a lecture delivered in 2019, is already becoming a reality, and the scramble to secure a slice of the huge financial market pie that has until now been protected behind a regulatory wall is likely to intensify even further.

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## WHAT IS “EMBEDDED FINANCE”?

### The background and true significance of the emergence of embedded finance

The backdrop to this trend for non-financial service companies to embrace embedded finance is the separation of functions (unbundling). Many goods and services that have thus far been provided together as a “bundle” due to physical and technical constraints and economic rationality have been separated as a result of technological progress. This process has led to the emergence of XaaS (X as a Service), whereby all subdivided services are provided mainly via the cloud. Of these, financial services have traditionally been provided by financial institutions as an inseparable unit due to strict regulation, and there has been limited development towards unbundling in this sector. However, as a result of deregulation, such as the mandatory opening of application programming interfaces (APIs) that requires banks to disclose their APIs for the purpose of secure data linkage with external providers, unbundling of functions is now starting to occur in the financial sector as well. Accompanying this process, so-called Banking as a Service (BaaS) providers have emerged. These companies provide specific functions of banks as a service, a trend that is particularly prominent in the payment sector, as represented by the birth of giant companies like PayPal and Square in the US. Moreover, the range of services being provided is expanding, not only in the banking world, but also to other financial sectors such as insurance.

This tide of unbundling of financial functions is irreversible, and embedded finance represents the utilization of such functions by non-financial service companies. While companies that have introduced embedded finance are able to earn revenue from financial business, more importantly, they can meet the needs of their customers for seamless, simple, one-stop services, secure customers by offering convenience, and strengthen their core business. Until now, major IT and retail companies had longed to participate in the highly profitable financial services market, but were hampered by barriers to entry such as the requirements for huge investment in infrastructure and banking licenses. However, with the emergence of fintech companies that utilize unbundled functions, the situation has changed, and it has become easier, not only for major IT companies, but also for small business operators, to embed financial services in their core business .

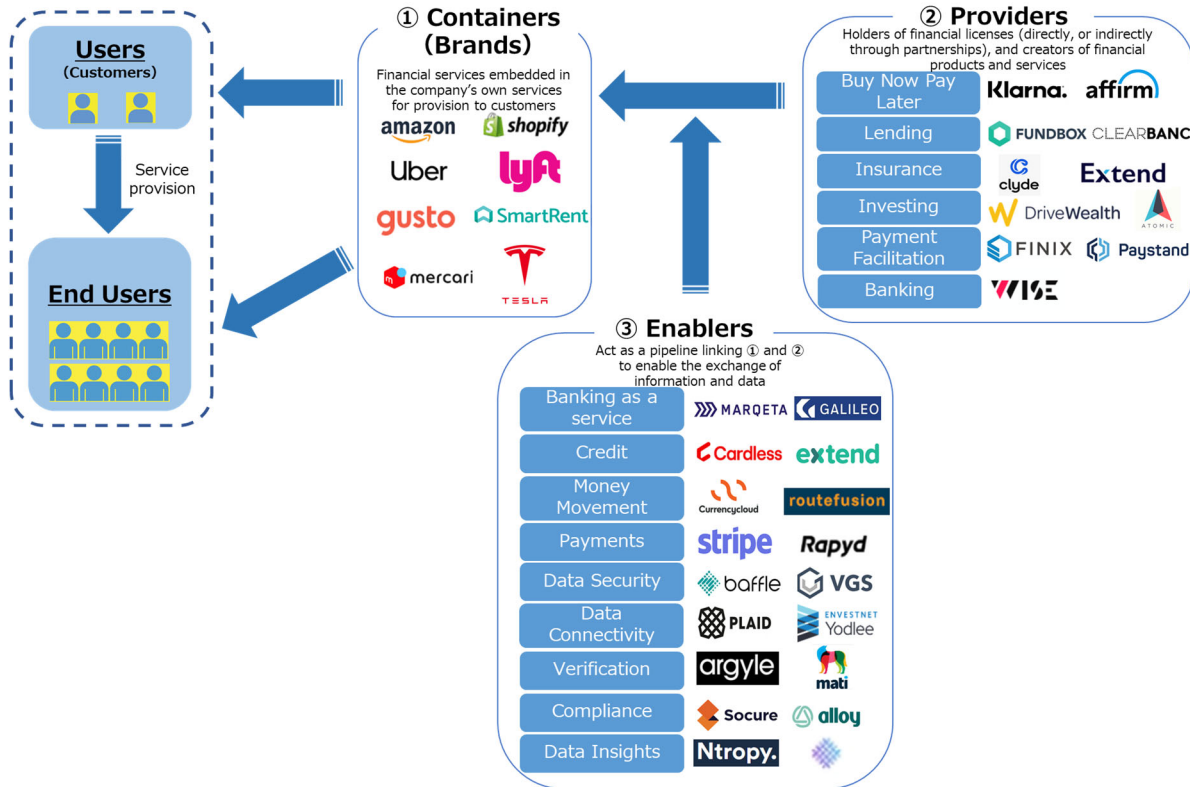
### The embedded finance ecosystem

The players involved in embedded finance can be broadly divided into three groups: (1) Containers (brands): brands and service providers who have contact points with customers (in the case of 2B business, retailers and other companies possessing contact points with consumers can also be considered as “containers”); (2) Providers: providers of financial functions (financial institutions and other companies with financial business licenses), and (3) Enablers: fintech firms acting as enablers connecting groups (1) and (2). By embedding the financial functions of (2) into the service flow of (1) through the intervention of (3), convenience is improved for the customers of (1), and a portion of the resulting increase in the revenue of (1) is returned to (2) and (3), thereby establishing an embedded finance ecosystem (Figure 1).

In this ecosystem, the role of (2) is mainly played by financial institutions and fintech companies with financial licenses, but for these companies, non-financial service companies to whom they provide financial services can also be competitors. However, to satisfy the growing customer preference for seamless, one-stop services, it is necessary to provide financial functions directly within the service flow of business operators with customer contact points. For many financial institutions, providing financial functions to service providers is better for meeting customer needs than prioritizing the provision of their own financial functions that have been separated from the service flow. It is also clear from the example of the insurance service provided by the Ant Group that this, in the end, increases the possibility of boosting their own profits.

Further, for embedded finance to succeed, the existence of (3) is also extremely important, as it is the enablers that play the roles of connecting the financial systems, including information such as bank accounts and credit card details, and the systems of the service providers, as well as linking data. An API, which is a mechanism for sharing functions between different systems, enables companies to expand their service functions without

Figure 1 The embedded finance ecosystem

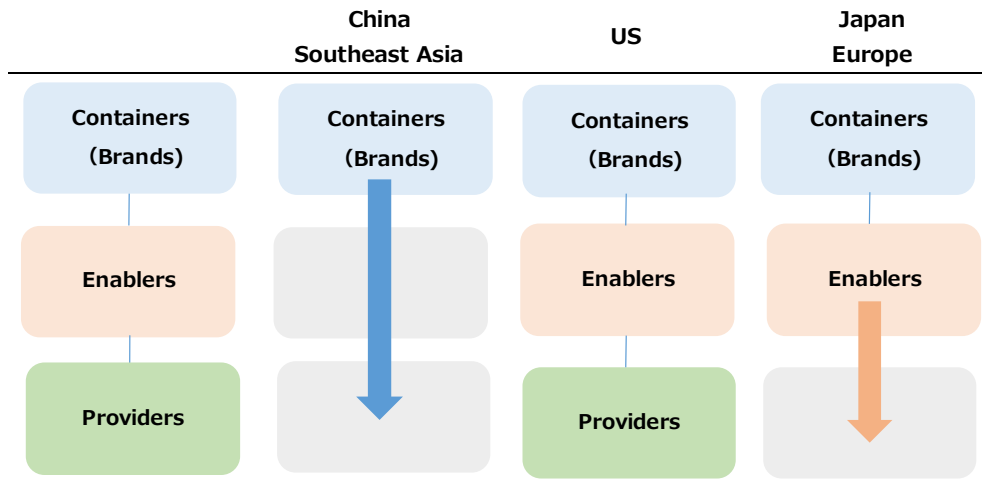


Source: Created by MGSSI based on data from Lightyear Capital, Crunchbase, Forbes, Business Intelligence. Company logos were obtained from each company's website.

developing everything in-house, and it is therefore indispensable for realizing embedded finance. It is not simply a case of connecting systems; a high level of operability and a considerable degree of robustness and security are also required. There are high expectations for growth in fintech companies that can provide these functions, and startups in this field are attracting sizable investment from VCs as well as interest from major financial institutions looking to acquire them.

It should be noted that these categories are not universal, and their roles are not necessarily clearly delineated. Depending on factors such as the origins and the positioning of the players, as well as differences in the relevant legal systems, the degree of the compartmentalization of groups (1) to (3) demonstrate regional characteristics. According to the Japanese fintech major Finatext, in China, which is the pioneer of embedded finance, and in Southeast Asia, which is following on China's heels, super apps with an overwhelming share of the market, such as those owned by the Alibaba/Ant Group, Tencent, and Grab, are more or less self-contained, encompassing all groups (1) to (3) in-house, including their development through acquisitions and joint ventures. Meanwhile, containers/brands in the US are not self-contained like the super apps in China and Southeast Asia. Given the fierce competition between these companies, early entry into the market is important for securing predominance, and there is great value in having enablers that make this possible. Furthermore, since there are a large number of providers and their technological level is relatively high, the players who were quick to change course to adopt a strategy of alliance with containers/brands are working hand in hand with enablers to gain market share. As a result, in the US, the roles are divided so that there is a clear separation between the three groups. Japan and Europe are similar to the US in that no super apps exist, and the presence of enablers is extremely important. However, compared to the US, financial licenses are easier to obtain, and the technological level of providers is not high. As such, collaboration between two parties takes time and money, and for this reason, enablers often take on the role of providers (Figure 2). Furthermore, because in many cases the technological level of containers/brands is not high, and comprehensive support is required from the development of front services through to the embedding of financial functions, Finatext sees an ecosystem in which technology companies play the roles of both enablers and providers as becoming the mainstream in Japan and Europe.

Figure 2 Differences in the roles of embedded finance players by region



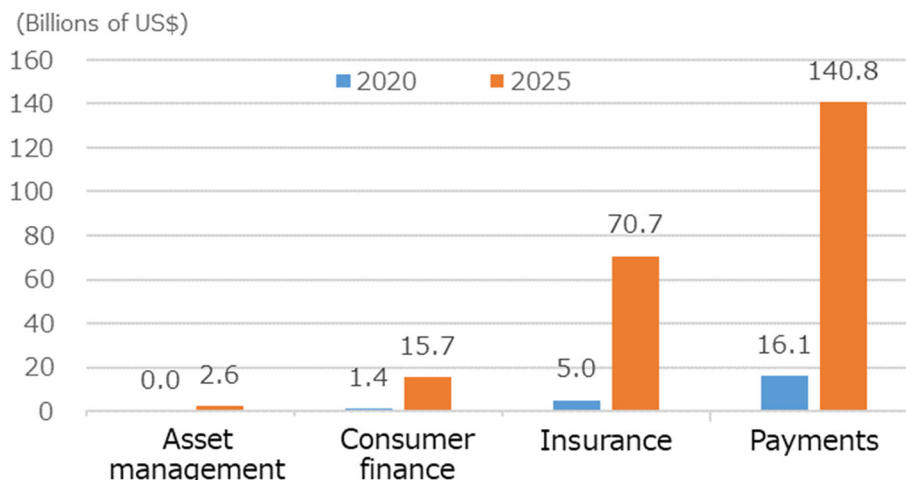
Source: Created by MGSSI based on data from Finatext

### Market scale and target financial service functions

While embedded finance will be utilized predominantly in payment services, it is also expected that, leveraging a frequent point of contact with customers, payment services will act as an entry point leading to the provision of other embedded financial functions. In particular, there will be high potential demand for insurance as an ancillary service when selling goods and services. As in the example of the Ant Group mentioned above, insurance covering small-lot, short-term transactions was not practical to date in terms of cost, but technological progress has enabled the business viability of such a service, which has had a significant effect in terms of reducing missed opportunities. Consumer finance providing short-term loans to customers faced with a shortage of funds at the time of payment also contributes to capturing demand. Buy Now, Pay Later schemes and similar solutions, which are currently popular, particularly among young people, also possess the considerable merit of being easy to use. Other examples include keeping a customer's funds for payment in a digital wallet, as well as asset management services such as highly liquid MMFs. This is another effective means of locking in customers, and is one of the factors behind the Ant Group's success.

The US private equity firm Lightyear Capital predicts that the global market for embedded finance such as payments and insurance will grow more than tenfold from US\$22.5 billion in 2020 to US\$229.8 billion in 2025. While the payments sector is naturally expected to account for the bulk of this figure at US\$140 billion, significant increases are forecast in other areas, with insurance expected to rise to US\$70 billion, consumer finance (loans) to US\$16 billion, and asset management to US\$3 billion (Figure 3). While services such as payments and insurance are likely to be at the heart of embedded finance for the time being, this trend may be applied to various other financial service sectors in the future, including international money transfers, escrow, securitization, credit scores, and digital wallets.

Figure 3 Forecast of embedded finance market size



Source: Lightyear Capital

## THE BENEFITS TO COMPANIES OF ADOPTING EMBEDDED FINANCE

### Securing of customers (improving the customer retention rate)

Many service providers will seek business that increases the profit that the customer brings to the company from the start of the business relationship to its end (Customer Lifetime Value: LTV), and that results in exceeding the customer acquisition cost (CAC). In this respect, embedded finance is highly useful, in that it enables companies to secure customers and increase their customer retention rate by providing highly convenient payment methods and other financial services.

### Accumulation and utilization of valuable data

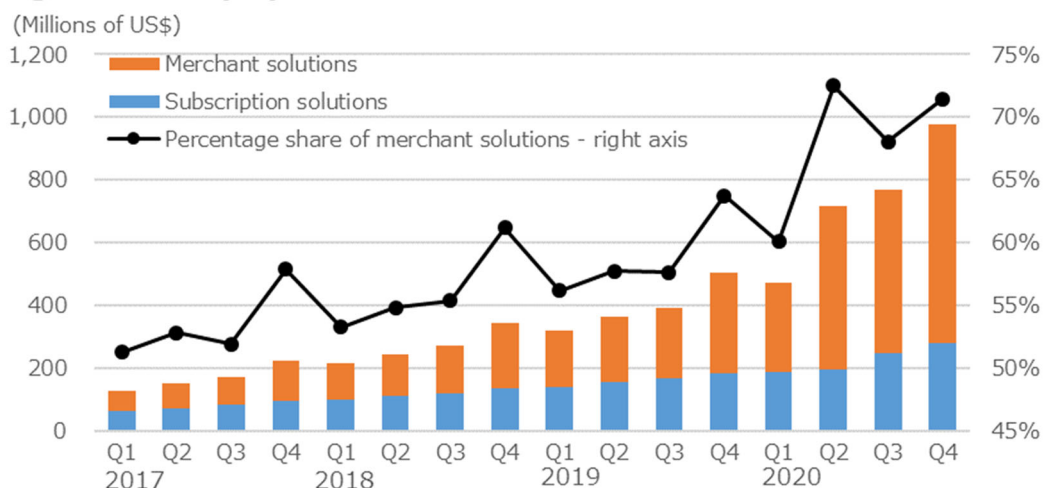
Through the provision of financial services, it is possible for companies to gather a wide variety of data. For example, in addition to payment services, provision of asset management services will allow a company to understand a customer's employment status and asset status, while a customer's medical history can be obtained through the provision of insurance services. Utilization of data accumulated in-house has the potential to lead to the provision of financial services that are more finely tuned to each individual, such as through highly accurate credit decisions, and the improved accuracy of recommendations of goods and service related to the company's core business. This is expected to create a virtuous circle leading to further improvement in the customer retention rate.

### Increased revenue

Of course, in addition to strengthening a company's core business, the introduction of embedded finance also has the important benefit of earning revenue from financial business. Canadian company Shopify, which provides a platform service supporting the development and operation of EC sites by companies on a subscription basis, has the functions of external online payment system companies embedded in its own platform. In this way, when consumers purchase products on the site of a Shopify client company, they do not have the bother of having to move to an external payment site and entering their account information. Because consumers can complete the payment on the site of the client company, it has led to a reduction in "dropped baskets", in which consumers place products in their baskets but drop out of the buying or checkout process before completing their purchase, which is said to be a major issue with EC. Shopify also provides loans and other financial services to its client companies.

These schemes have benefited Shopify not only by strengthening its customer base, but also by earning finance-related income. While the company's business performance received a substantial boost from the expansion in demand for EC engendered by the COVID-19 pandemic, the sales from its "merchant solutions" business, the bulk of which is said to be accounted for by commissions on payments, has outstripped that of the "subscription solutions" business of the platform service that is the company's core business (Figure 4). This

**Figure 4 Shopify sales over time**



Note: "Subscription solutions" means subscription-related business on Shopify's core EC site business. "Merchant solutions" means peripheral business such as payments, business loans, logistics management.

Source: Created by MGSSI based on company information

is a good example of the creation of a virtuous circle in which the core business is strengthened by embedded finance, and the increase in revenue from financial business generates the capacity to strengthen it even further.

### **Low entry cost and rapid launch of services**

Because it is not necessary for the infrastructure, licenses, and other elements required to provide financial services to be handled and prepared in-house, and fintech companies (enablers) take care of the connection to the required data, the initial investment costs can be kept down, and management resources can be spent in areas such as the development and marketing of products and services. Moreover, because of the time saved as a result of this, the business can be launched rapidly.

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## **CHALLENGES AND THREATS FOR COMPANIES INTRODUCING EMBEDDED FINANCE**

### **The response of major financial institutions**

Following the emergence of new fintech companies in the financial sector, major financial institutions are also pursuing initiatives related to embedded finance. In January 2020, the US credit card giant Visa announced the acquisition of Plaid, a US fintech firm that provides API banking services, for US\$5.3 billion. Plaid is a leading enabler in embedded finance, and to date, one in four US bank accounts are connected to over 2,600 fintech services and over 11,000 financial institutions through its API. Although Visa's plan to acquire Plaid did not proceed as it was blocked in January 2021 in its final stage under the antitrust law, it is one example of a financial institution recognizing the importance of APIs and taking action to that end.

Similarly, Spanish banking group BBVA has announced the introduction in the US of its BBVA Open Platform, which provides a suite of APIs for credit cards, payments, deposits, and other functions, to third parties through a development portal. US financial giant Goldman Sachs also announced its intention to establish a Banking as a Service function on its Investor Day in January 2020. These are also examples of major financial institutions taking on board fintech relating to embedded finance. For containers/brands, the increase in the number of providers, and the greater choice of partners are also advantages. However, if the major financial institutions, with their enormous capital power and infrastructure resources, come to occupy a predominant position in these sectors, it is likely to affect the share of revenue from financial business within the embedded finance ecosystem.

### **Regulatory barriers**

Although it is true that deregulation is proceeding, because financial regulations are significant and have a substantial direct effect on the economy, it remains unclear to what extent non-financial companies can be involved in financial business. In China, with the aim of prioritizing innovation, the Ant Group and similar companies have not been subject to the same regulations as financial institutions. However, the Chinese government and the relevant authorities have become increasingly wary of the rise of these emerging powerhouses, and there is a growing movement towards tightening of regulations on these companies in order to reduce potential risk to the financial system. Measures by Chinese authorities include requiring these companies to place 100% of customer deposit assets in the People's Bank of China or other financial institutions as reserve funds, while a draft of measures to regulate the oligopolistic structure of non-bank settlement has been announced.

It is noteworthy that, in the US, Jamie Dimon, CEO of JPMorgan Chase, the world's largest bank by market capitalization, referred to the threat posed by emerging fintech companies at a financial results briefing in January 2021. He said that they "will do something about" the unfair situation in which, when consumers use a debit card for purchases, the fees charged to the stores by financial institutions are kept low by the regulations on major financial institutions, yet when small-scale financial institutions, which are not subject to the regulations, partner with fintech companies, they charge high fees. He also named Plaid as one of the fintech companies guilty of the inappropriate use of personal data acquired from external sources through an open API. As evidenced by these calls, for example, there is growing dissatisfaction with the emerging fintech companies among major financial institutions. It is also possible that there will be tighter restraints placed on the rise of

fintech companies in the US. As an example, Gary Gensler, who has been nominated by President Biden to lead the US Securities and Exchange Commission, is known for the firm stance he has taken on fraud prevention and tightening of regulations since his tenure as Chairman of the Commodity Futures Trading Commission.

### **Hesitancy in releasing APIs by financial institutions**

While open APIs are a great advantage for fintech companies, the benefits for major financial institutions are extremely limited, as providing APIs only facilitates the extraction of their data by others. Moreover, because of concerns over security, major financial institutions tend to hesitate to release APIs. For example, in the UK, where it became obligatory in January 2018 for the nine leading banks to release their APIs, in 2019, the Competition and Markets Authority, the UK equivalent of the Japan Fair Trade Commission, issued directions to five of the nine banks obliged to release APIs, including HSBC, which were deemed not to have responded to the requirement sufficiently. Because of insufficient access to APIs provided by financial institutions, API connection to external companies is not necessarily proceeding smoothly.

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## **SECTORS IN WHICH EMBEDDED FINANCE IS EXPECTED TO DEVELOP**

2C business, which can be easily expanded in scale and has contact points with consumers, is a typical example of an area suited to the introduction of embedded finance. While its application is most easily imagined in the EC sector, it can also take root in other service sectors, including healthcare and wellness, as well as retail. For example, the US company Mindbody provides business operators such as fitness clubs and yoga studios with a comprehensive suite of management support services, including class booking, staff management, customer management, and payment solutions, on a subscription basis, like Shopify. Its revenue from commissions on payments is said to account for almost 60% of its total earnings. By embedding a payment function in its own services, a company will increase the share of payment commission it receives, thereby contributing to increasing its revenue. For example, the US company Lightspeed, which provides a POS platform to small and medium-sized retailers and restaurants, increased the share it receives per transaction from 25 basis points (bps) to 65bps by embedding a payment function in its own services.

The US car maker Tesla offers buyers of its vehicles an insurance program specifically tailored to each driver, instantly, at the time of purchase. The insurance tends to be cheaper than it would be when contracting with a third-party insurance company. The US rideshare company Lyft provides a debit card service to its drivers. Because drivers can receive their salary immediately on their debit cards, cash shortage problems until they receive their salary are eliminated. At the same time, the drivers can set up another deposit account through the program. While the company has been faced with fierce competition with its US rival Uber in terms of securing drivers, the provision of financial services was strategically used to retain drivers rather than users.

Like 2C business, 2B business also has the potential to expand embedded finance. Saison Capital, a corporate venture capital firm based in Singapore, sees that embedded finance can be deployed in many 2B business fields, including B2B marketplaces, logistics, real estate, construction, and energy (Fig. 5). While embedded finance is used in 2B business for functions such as payments, insurance, and financing as it is in 2C business, a particular characteristic of 2B business is its use for securitization. It is possible that marketplace platforms could come to provide a service for securitization of accounts receivable.

Although embedded finance is already being pursued by leading IT companies, SMEs have only just started making inroads in this area. While the market is expected to expand in the future as many more companies enter the arena, looking forward, all eyes will be on what role this new trend of embedded finance will play for these companies, as they seek to differentiate themselves from the competition.

**Figure 5 Financial functions and Industrial categories in which embedded finance is expected to be deployed**

	Payment	Insurance	Loans	Personal finance	Int'l payment/remittance	E-wallets	Escrow	Credit scores	Securitization
<b>B2C Marketplace</b>	○	○	○	○	○	○	○	○	
<b>B2B Marketplace</b>	○	○	○		○	○	○	○	○
<b>Real estate (Prop-tech)</b>	○	○	○		○		○	○	○
<b>Logistics</b>	○	○	○		○		○	○	
<b>Construction</b>	○	○	○		○		○	○	○
<b>Agriculture (Agri-tech)</b>	○	○	○		○		○	○	○
<b>Advertising (Ad-tech)</b>	○		○		○			○	
<b>Healthcare (Healthtech)</b>	○	○	○	○				○	
<b>E-sports</b>	○				○	○			
<b>Energy</b>	○	○	○				○	○	○
<b>Recruitment (HR-tech)</b>	○		○					○	
<b>Management/administration (HR-tecl</b>	○	○	○	○	○			○	
<b>Retail</b>	○	○	○	○		○		○	

Source: Saison Capital

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