

# A Study on Exploring the Intersection of Fintech and Embedded Finance

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## **Abstract**

*The concept of optimal synergy can be illustrated by the expression "1 plus 1 equals eleven." Similarly, the collaboration between fintech and embedded finance, the integration of financial services—such as saving, lending, payment, and insurance—into non-financial services including e-commerce, automotive, healthcare, and tourism is embedded finance. This article aims to investigate the realm of embedded finance and its significant impact on fintech services, particularly in areas like saving, lending, payment, and insurance. The article is based on secondary data from an extensive literature review of articles and journals. The major findings from this collaboration open up enhanced opportunities for businesses and consumers, while simultaneously energising the economy.*

**Keywords:** *FinTech, embedded finance, financial technology, financial innovation*

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## **I. Introduction**

Technological innovation has the potential to make financial services more inclusive, competitive and robust. Technological advancements in the world of financial services must evolve responsibly and are truly beneficial to the people at large. Fintech is the technology, that allows integration technology within the offerings of the financial product and service, this integration enhances the use and performance of the financial service. Financial services are essential for the development of the economy of any country. The inception of any technology has some intentions like bringing innovation, making ease of use, and reducing the cost, fintech has all of these. The financial services industry has experienced a remarkable evolution, driven by the advent of financial technology. FinTech, the fusion of finance and technology, has transformed the way individuals and businesses access and utilize financial products and services. (Visconti et al., 2020) Technological transformation can address the challenges in financial inclusion in the areas of unbaking and underserve communities. Fintech can reach and serve populations that have traditionally been excluded from the formal financial system.

Fintech is an evolving domine because of the rapid development of the internet, information technology, mobile phones, and other digital technologies has led to a dramatic expansion of fintech in the financial sector. As growing technology leads to the further extension of financial services like lending, insurance, credit cards, savings, and many more core financial services are merging with the non-financial services and creating the new fintech era as emerging with embedded finance.

This emerging trend is where non-financial companies integrate financial services into their core offerings, enhancing customer retention and generating additional revenue (Ohnishi, 2021). In simple Embedded finance, a strategic integration of financial services within non-financial platforms has emerged as a significant catalyst in the FinTech revolution. By seamlessly incorporating financial functionalities, such as payment processing, lending, and investment management, into everyday digital experiences across various industries, embedded finance enables individuals and businesses, even those previously excluded from the formal financial system, to access and leverage financial services within the context of their daily lives. This approach increases financial inclusion by providing greater access to financial services for underserved populations and businesses (Ozili, 2023). Interest in embedded finance has grown significantly, particularly during the COVID-19 pandemic, with the United States, United Kingdom, and India showing the highest interest (Ozili, 2022). The concept is built on open banking principles, allowing third parties to access banking data through APIs (Hensen & Kötting, 2022). Embedded finance presents benefits for both users and providers, offering seamless processes and increased convenience for consumers while enabling companies to address customers at their point of need (Hensen & Kötting, 2022; Ozili, 2023). However, challenges exist in implementing embedded finance solutions, necessitating internal transformation for financial institutions to successfully adapt to this new paradigm (Hensen & Kötting, 2022).

## **II. Literature Review**

The existing literature provides valuable insights into the dynamic interplay between FinTech and embedded finance. Traditional brick-and-mortar system of financial systems was disrupted by emerging trends such as fintech and embedded finance. The literature has also extensively explored the integration of financial services into non-financial services

Hensen & Kötting, (2022). Customer expectations from financial services are drastically changing. As per the need of customers, the financial sector is also adapting new technology like open banking facilitating from API (application programming interface) API provides third-party applications to access banking customer's data to provide them with financial services in their platform and this technology gives work to the embedded finance which allows to integrate the financial services with non-financial services. Embedded finance solutions, necessitate internal transformation for financial institutions to successfully adapt to this new paradigm. offering seamless processes and increased convenience for consumers while enabling companies to address customers at their point of need. However, challenges exist in implementing

Ozili, (2022) The new era of the financial sector is evidenced by the many innovations. Among those decentralised finance, open finance and followed by embedded finance are prominently gaining the interest in India.

Lagna & Ravishankar, (2021) fintech has a prominent role in upholding financial inclusion by facilitating broad-based economic growth. The main objective of the study is to get insight into the research in the field of fintech and financial inclusion. It is observed that there is a lack of research in the field of fintech through financial inclusion.

Chemmanur et al., (2020) suggest that embedded finance holds the promise of expanding access to financial services and facilitating inclusive economic growth. Future financial services and the traditional financial system hinge on the development of fintech. One of the fintech industry's next major breakthroughs may be the infiltration of digital talent from other industries.

Arner et al., (2015) Fintech 1.0, Fintech 2.0, and Fintech 3 are the three separate sections that make up this article's explanation of the evolution of fintech. Fintech's development is examined from the beginning of ATMs until the first fintech era, then came internet banking, e-banking, and so forth, demonstrating that it is not limited to either developed or underdeveloped countries.. These changes impacted not just the banking industry but the financial services industry as a whole. These innovations are examined from the perspective of the innovation's regulatory requirements.

## **III. Objectives of the study**

The financial service sector has evidenced many innovations that contribute to the growth of it. The main objective of the study is to gain insight into the areas of embedded finance in the field of fintech and its effect on the fintech sector.

## **IV. Research Methodology**

secondary data sources (academic journals, industry reports, and news articles) were reviewed to gain a comprehensive understanding of the intersection of FinTech and embedded finance.

## **V. Scope of the study**

This study focuses on the major areas of the service sector that offer non-financial services as their core offering and also provide financial services into their core offerings. The major financial services limited for the study are lending, insurance and payment.

## **VI. Areas of Embedded Finance**

This part of the article explores the major areas where fintech services are intersecting Embedded finance. Embedded finance allows businesses to offer financial services, like embedded payments, embedded lending, and embedded insurance, directly to their customers without redirecting them to a third-party financial institution. This seamless integration creates a more user-friendly experience and opens up new revenue streams for businesses.

## Fintech Services in Non-Financial Sectors

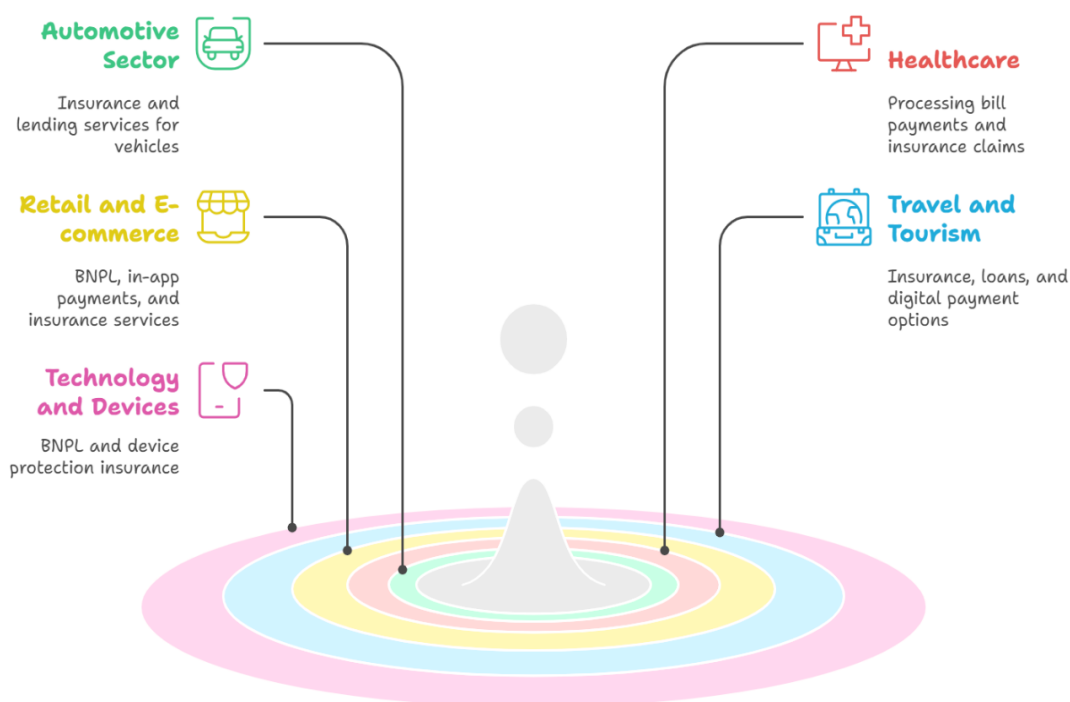


Image generated: napkin.AI

Here are some key areas intersection of embedded finance into fintech:

**6.1 E-commerce and Retail:** a majority of e-commerce and online retail applications Streamlined checkout processes, buy now pay later options, personalized loyalty programs, and in-app payments. Many e-commerce Platforms like Amazon Connect enable multi-party integrations for marketplaces and platforms to manage money movement. such as Integrating billing, invoicing, and payment processing directly within the software. This simplifies financial operations for both the software provider and the end-user. (Overview of Stripe Treasury, 2023). This enhances the customer experience and can lead to increased sales. (Embedded Finance Solutions to Accelerate Growth, 2024) Retail and e-commerce channels account for **20%** of embedded insurance policies, with returns protection and device warranties being key offerings. The segment is expected to expand with a **CAGR of 28%** from 2024 to 2029.

**6.2 Automotive Sector:** automobile manufacturers provide embedded insurance services for their vehicles, offering customers a seamless way to insure their vehicles directly through their market interface. automotive-embedded insurance is set to grow by 12% annually And also provide seamless payment, and lending options to their Customer. embedded finance is transforming the automotive sector by integrating financial services directly into vehicle purchase, leasing, and maintenance processes. include instant auto loans and EMI options through manufacturers like Maruti Suzuki, insurance bundled with vehicle sales, and subscription services from brands like Tata Motors. Platforms like Car Dekho and Spinny provide financing and insurance during vehicle purchase. EV charging payments, micro-loans for repairs, and peer-to-peer car rentals also integrate finance seamlessly. This model enhances convenience, financial inclusion, and digital payment adoption, making car ownership and services more accessible to Indian consumers.

**6.3 Healthcare:** Customers of the healthcare sector can use embedded finance services such as bill payment, insurance claim processing, and in-app appointment scheduling. This lessens the administrative strain on healthcare professionals while also improving the patient experience: Including wearable technology and telemedicine, embedded insurance in healthcare accounted for 15% of the market in 2023. The industry is expected to grow at a CAGR of 30.4%, reaching \$21.1 billion by 2029 (ivitafinancial.com)

**6.4 Travel and Tourism:** In the travel industry, embedded finance provides a smooth way to include financial services into their services. Such as packaged travel insurance, payment plans with installments for hotels, airlines, and vacation packages on platforms, Travelers can postpone payments with services like BNPL (buy now pay later) and while booking a flight, an airline may provide clients with the opportunity to purchase travel insurance. Credit options and embedded lending services, such as travel loans and credit cards, are getting more common in the travel industry. With the help of these services, businesses can offer their customers a range of financing options, making it easier for them to cover their travel costs. Digital wallets and contactless payment methods are two integrated payment systems that are becoming more widespread in the travel industry.

**6.5 Technology and Devices:** embedded finance enables consumers to easily purchase, finance, and insure device. Retailers such as Amazon and Flipkart integrate buy now, pay later (BNPL) services for tech products. Additionally, device insurance and extended warranties are bundled at checkout process, while some platforms and applications offer leasing options for devices. Consumers can also access micro loans for device purchases. This integration makes tech products more accessible, affordable, and convenient, providing flexible payment options and enhanced protection plans. With the growing demand for protection by insurance for devices, 12% of embedded insurance policies relate to electronics and smart devices, a number expected to double by 2026.

**6.6 Ride-sharing and Delivery Apps:** embedded finance simplifies payments, financing, and earnings management. By offering integrated payment systems, allowing seamless payments for rides. Drivers can access instant payouts via platforms like Instant Pay. Delivery services like Zomato and Swiggy provide buy now, pay later (BNPL) options for customers. Additionally, drivers can access micro loans for vehicle purchases, and platforms embed insurance for safety. In-app wallets and subscription models, like Uber Pass, offer convenience and rewards. And also In-app payments, driver/courier payouts, and insurance options. This creates a more efficient and convenient experience for both the users and the service providers. Additionally, these apps also simplifies car rentals and ride-sharing payments. Flexible financing, dynamic pricing, loyalty rewards, and personalized travel loans enhance convenience and accessibility, making travel more affordable and accessible, this also promoting the financial inclusion and seamless transactions

Non-financial service sectors	Type of fintech service	Applications
Automotive Sector	Insurance, lending	CarDekho, Spinny, and CARS24
Healthcare:	Processing bill payments and insurance claims.	Fittr, HealthifyMe, Jifiti, iVitaFi
Retail and E-commerce	Buy Now, Pay Later (BNPL), in-app payment options, and insurance services.	Amazon, flipkart,
Travel and Tourism Ride-sharing and Delivery Apps	Travel insurance, cancellation protection, travel loans, credit cards, digital wallets, and contactless payment options.	Uber, Ola , Booking.com, Grab, Expedia, Goibibo, MakeMyTrip, Yatra, and Cleartrip
Technology and Devices	Buy Now, Pay Later (BNPL), and device protection insurance services.	SwatchPay, Tesla Insurance, Google Maps Payment, Coverfox.

.Source: <https://www.mordorintelligence.com/industry-reports>

## VII. Impact of Embedded Finance on Fintech

Embedded finance is a key driver of growth and innovation within the broader FinTech ecosystem. It represents a significant shift from traditional financial services delivery, blurring the lines between financial and non-financial industries. Here's how embedded finance shapes the FinTech landscape:

**7.1 widening the Reach of Financial Services:** Fintech may expand its reach by incorporating its services into platforms and applications that are already utilized by a lot of people thanks to embedded finance. This makes it easy for consumers to actively look into financial items, which facilitates easier and more accessible access. As the next phase of FinTech development, embedded finance is becoming more and more popular, according to (Is Embedded Finance the Next Evolution in FinTech?, 2024)

**7.2 Promoting Competition and Innovation:** By enabling non-financial companies to offer financial services, embedded finance promoting competition and innovation within the financial services sector. Traditional financial institutions are challenged to adapt and evolve to meet the changing customer expectations driven by embedded finance solutions. (Vives, 2019) discusses the digital disruption in banking caused by FinTech companies, including their focus on high-ROE activities like payments and distribution of financial products. (Byrne, 2023) emphasizes the choice traditional banks face: embrace embedded finance, enable others, or do nothing.

**7.3 Creating New Revenue Streams:** Embedded finance opens up new revenue opportunities for both Fintech and non-financial businesses. Fintech can generate revenue by providing the underlying financial infrastructure

and services, while businesses can earn fees or commissions on financial transactions processed through their platforms. (Yang, 2021) discusses how non-Fintech companies can prioritize embedded finance products for retention, monetization, or data capture.

**7.4 Enhancing Customer Experience:** Embedded finance enhances the customer experience by providing seamless, integrated financial services within the context of their existing services. This reduces friction and simplifies processes, leading to greater customer satisfaction and loyalty. (Zhang, Prybutok, & Huang, 2006) Financial firms should transform their personalization practices to focus on cost-benefit dimensions that raise service sophistication and empower customers.

**7.5 Facilitating Financial Inclusion:** Embedded finance can play a significant role in promoting financial inclusion by reaching underserved and unserved populations who may not have access to traditional banking services. By integrating financial services into everyday services, embedded finance can bring financial tools and resources to those who need them most. (Lagna & Ravishankar, 2021) discusses how fintech innovations promise to provide access to financial services for the poor.

In essence, embedded finance is reshaping the FinTech landscape by democratizing access to financial services, fostering innovation, and creating new business models. It's a key component of the ongoing evolution of finance, pushing the boundaries of what's possible and transforming the way we interact with money.

## VIII. Conclusion

This can be concluded that embedded finance is the key to unlocking the transformative potential of FinTech, enabling the delivery of accessible, personalized, and inclusive financial services to a broader range of consumers and businesses, and thus driving greater financial inclusion and empowering underserved populations. The convergence of FinTech and embedded finance holds immense promise in reshaping the financial services industry, fostering innovation, and ultimately contributing to more equitable and sustainable economic growth. (Alexander & Karametaxas, 2021). the future of fintech is intimately tied to the strategic integration of financial functionalities into everyday digital experiences through embedded finance. but it also needs to be carefully regulated to ensure a balanced approach that promotes innovation, consumer protection, and financial stability. it can be suggested that embedded finance is the bridge between the disruptive potential of fintech and the goal of financial inclusion.

## IX. Limitations

Embedded finance is a vast area of study, but this article focuses on specific aspects of embedded finance. Additionally, there are several other sectors that future studies can explore. like subscription-based services, hotels, accommodation and education-related services. Embedded finance is evolving domine since it can be studied in different dimensions like consumer aspect, financial inclusion, effect on business and future growth so on.

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