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# Empowering Instant Credit Through Open Banking

WHITE PAPER

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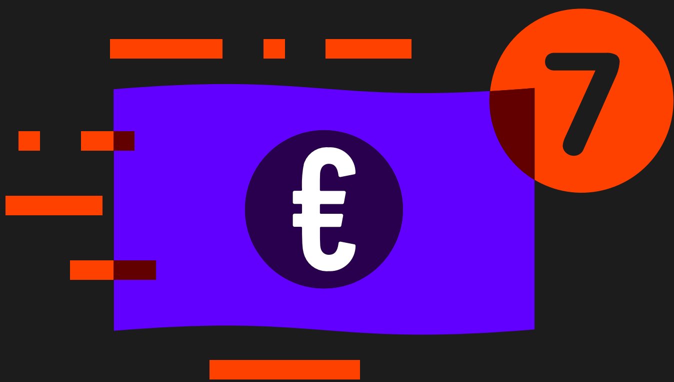


YOUNITED × BCG BOSTON CONSULTING GROUP

# Agenda

# Introduction

The global consumer finance market has rebounded at pace from the turbulence of the pandemic, led by an accelerating shift online and an accompanying wave of investment and innovation. With many people managing financial uncertainty, the segment has seen a step change in its progress, supported by new approaches to credit decisioning and the emergence of buy-now-pay-later (BNPL) as a major force in the payments landscape.

The boom in consumer finance reflects emerging trends in consumer behavior and digital adoption. However, regulation has also played a key role, with the go-live of Europe's Payment Services Directive 2 (PSD2) in 2019 sparking a wave of funding and acquisition activity. Notable initiatives include Square's purchase of Afterpay, the partnership between Amazon and Affirm, and the upcoming launch of BNPL offerings by Apple, Goldman Sachs, and Mastercard. These are helping put consumer financing in the spotlight, and raising expectations in respect of choice and experience.

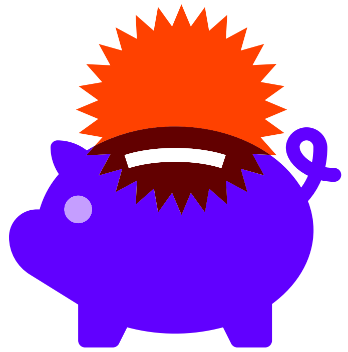
The consumer finance shake up is being led primarily by new entrants, while incumbents are more likely to take a measured approach to investment. This has limited any "tsunami effect" and sparked numerous debates over the quality and homogeneity of bank APIs. Still, through provisions relating to credit decisioning[1], PSD2 provides the basic ingredients for a more profound disruption of mainstream financial services, with banks and others given an opportunity to revamp their credit scoring activities and obtain a much better understanding of the credit risk of individual customers.

While both PSD2-based credit decisioning and BNPL tackle pain points in the consumer financing journey, they do so in different ways. PSD2 focuses on improving the efficiency and effectiveness of credit risk assessment, while maintaining the same level of risk appetite and scrutiny as traditional credit decisioning. Highly-automated BNPL is a different animal, and does not rely on traditional account-based data and traditional credit checks. This has led to a debate over whether stronger regulation is required to avoid abusive practices and ensure fair lending.[2]

Since PSD2 came into force, BCG and its data science arm BCG GAMMA have worked to improve credit scoring algorithms and payment default detection for companies ranging from travel and hospitality players to major banks. Younited, an ECB-licensed credit provider launched in 2012, positioned itself early to address the opportunity to offer an enhanced customer experience and make better credit decisions through direct channels and partners channels. Over the years Younited has become the leading instant credit provider for the e-economy in Europe. The company's technology gives borrowers the ability to connect their bank accounts to its platform in an automated and secure manner. This speeds up and simplifies credit applications for personal loans or split payments. Over the past four years, Younited has leveraged PSD2 data to build a unique proprietary database, which now includes close to half a billion banking transaction. The result is a new generation of credit scoring and affordability assessment tools.

« The boom in consumer finance reflects emerging trends in consumer behavior and digital adoption. »

Based on three case studies, this white paper provides data-driven insights into the effectiveness of these approaches to consumer credit decisioning, and new evidence of the benefits they offer.



1. By *credit decisioning*, we mean the underwriting process aiming to decide whether to grant a loan or not and at which price.

2. Several regulatory initiatives are ongoing in the US and in Europe. For example, in the UK the FCA is preparing a regulatory framework to ensure that BNPL players conduct sufficient affordability analysis on their customers and in France a report on the prevention of over-indebtedness was submitted by the deputy Philippe Chassaing on October 19, 2021.

# PSD2, the Consumer Credit Market, and Credit Scoring Best Practices

Before PSD2, financial institutions typically relied on declarative data and large numbers of documents when performing credit assessments. The approach was cumbersome, time-consuming, and restricted the addressable market to segments able to provide the required documentation (for example, pay stubs to obtain a credit card).

By contrast, PSD2 allows institutions to retrieve data directly and safely from customers' bank accounts, making for an optimized and more robust decision-making[3] process. Meanwhile, customers enjoy a fully-digital credit application, limiting manual data provision and expediting information gathering. With a new universe of available data, artificial intelligence models can be applied to longer time periods (on average around nine months instead of the traditional one month in paper-based models). They also better capture behavioral characteristics. (See Exhibit 1).



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Exhibit 1

**PSD2 KEY BENEFITS FOR CREDIT DECISIONING**

| FOR CONSUMERS | FOR PROVIDERS |
|---|---|
| 100% digital seamless customer journey | Richer and more reliable data |
| Faster process with instant decision | Sharper credit scoring discrimination |
| Better credit access for the underbanked | Higher credit approvals with better coverage of underserved segments |
| Better pricing for prime customers | Reduced fraud due to unfalsifiable data |

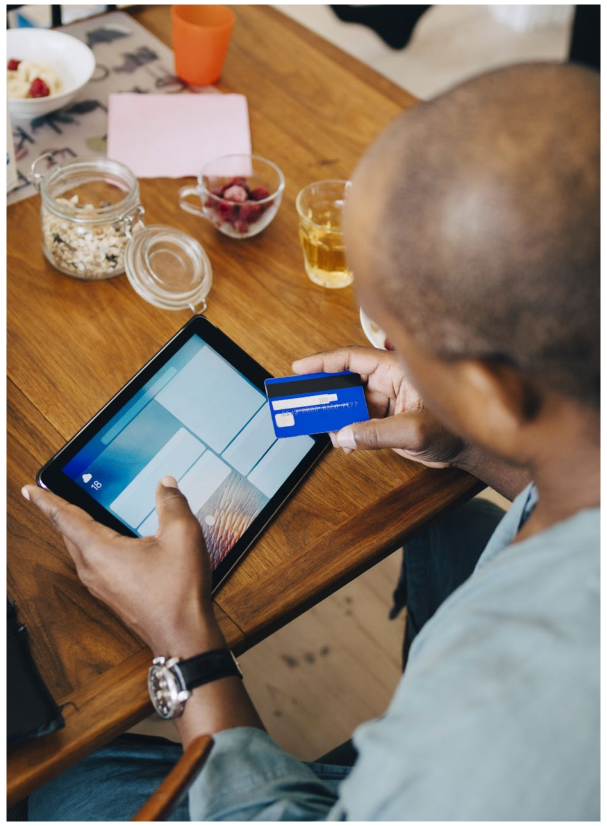


The new generation of credit scoring models, which are based on machine-learning algorithms, are becoming increasingly agile. Because the models are fed with new data points, they enable more accurate risk evaluations. Even underbanked (and hence underserved) customer segments, such as younger workers or freelancers, can benefit if they display good financial behavior. A key learning from the deployment of open banking at Younited is that customers who are willing to provide access to their personal banking data are more enthusiastic adopters. These customers understand that granting access enhances their journeys and helps them get a more competitive offer.

« The new generation of credit scoring models, which are based on machine-learning algorithms, are becoming increasingly agile. »

3. A decision system includes (i) the set of underwriting rules (ii) the scores and (iii) the risk-based pricing framework used to grant a loan.

# PSD2 has Revolutionized the Experience for Younited Customers



Younited has built a unique proprietary database in Europe, covering multiple countries and credit types:

- For credit decisioning in France, the company has collected more than around 300,000 bank accounts, representing more than 100 million banking transactions. As of October 2021, French PSD2-based loan origination reached €387 million.
- In Spain, Younited has collected more than 1 million bank accounts, accounting for 500 million banking transactions. As of October 2021, Spanish PSD2-based loan origination reached €132 million.

With the increasing number of online merchants displaying Younited split payment solutions, and the massive expansion of fully automated PDS2 instant credit on its direct-to-consumers channel, the database is expected to continue to grow significantly. (See Exhibit 2). The chart and case studies below are based on Younited's data.

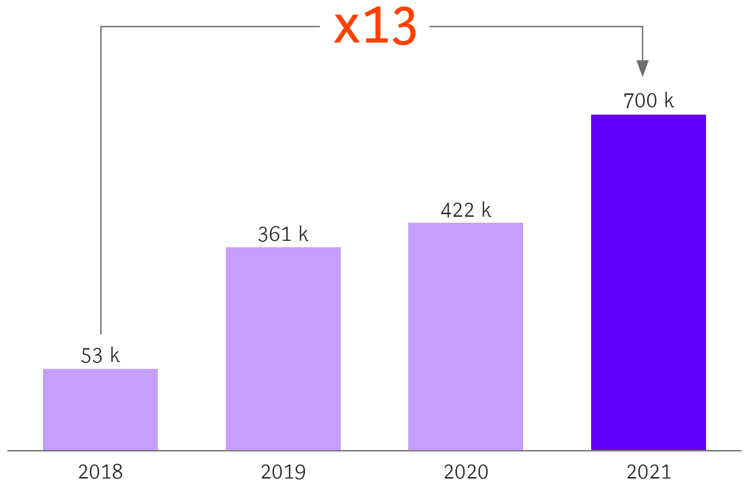




Exhibit 2

**YOUNITED'S RAPIDLY GROWING CONNECTIONS IN FRANCE, PORTUGAL, AND SPAIN**

Number of Younited connections based on bank aggregation by year




Source : Younited's internal data

With so many advantages over traditional processes, it's no wonder that the new PSD2-based customer experience is quickly gaining in popularity from over 50 000 in 2018 to 700 000 in 2021 (See Exhibit 2) – a more than tenfold increase. This has provided more than enough information to form an initial view of the efficiency of the new process.

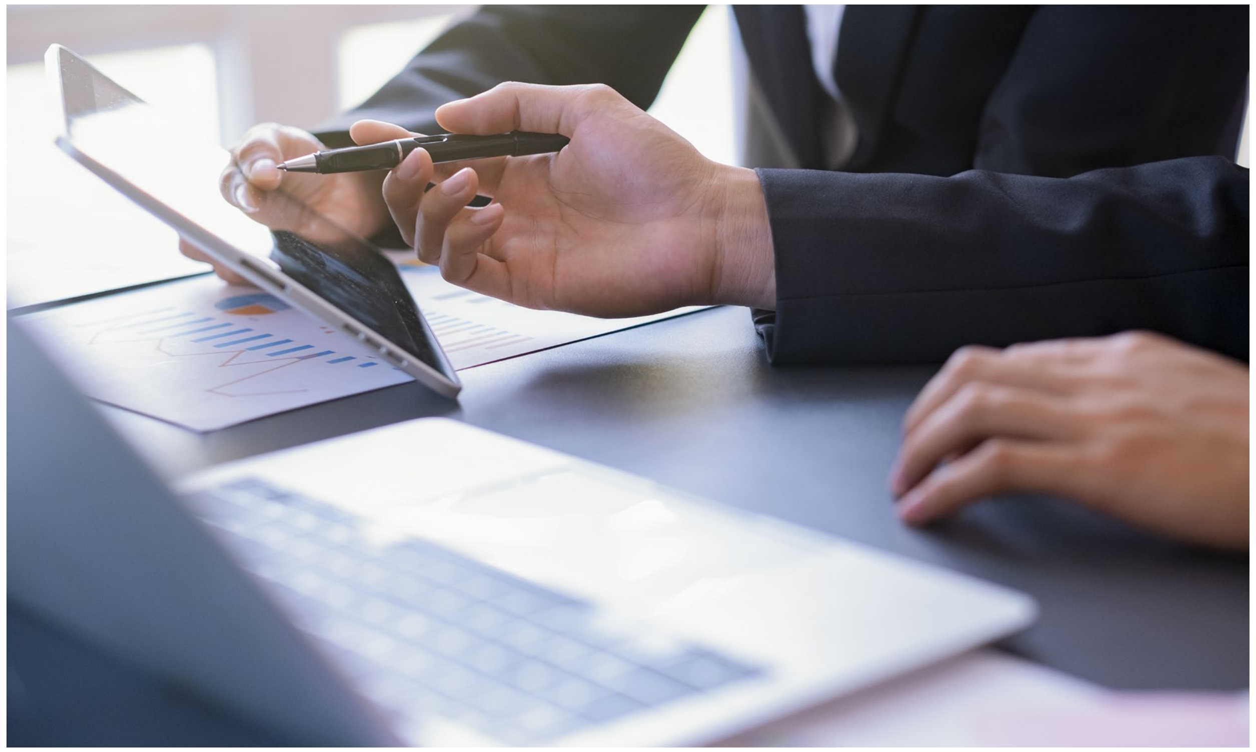
The boom in bank aggregations processed by Younited can also be explained by the company's recent partnerships, which have significatively expanded its customer base. Since 2019, Younited has offered instant credit through different channels. The first is «Younited credit for partners» for banks, insurance companies, mutual insurance companies, and other financial institutions wishing to offer their customers a next-generation consumer credit solution. The second is «Point-of-Sale (POS) Financing», allowing merchants to accept payments in several installments. Younited's connections growth has been fueled by strong end-customer adoption. In the Spanish B2C segment, 70% of applicants for online credit who are offered bank aggregation chose this solution, without any special incentives or marketing.

« With so many advantages over traditional processes, it's no wonder that the new PSD2-based customer experience is quickly gaining in popularity. »

# The new world of credit



# Three Case Studies



Based on three years of PSD2 data collection and usage, BCG and Younited have analyzed three case studies that provide data-driven insights into the benefits of PSD2-powered credit decisioning:

- **Case study 1:** How PSD2 supports a seamless journey and faster credit decisions for consumers. The study compares the traditional French B2C credit application process for a consumer loan with a fully PSD2-based process developed for a global tech company selling video game consoles.
- **Case study 2:** How PSD2 supports higher credit acceptance rates, while minimizing defaults thanks to richer data. The study compares the performance of traditional scoring techniques with PSD2 credit-scoring for B2C consumers in Spain.

- **Case study 3:** How PSD2 improves coverage of underserved consumers at better prices. The final case study compares approval rates of a traditional consumer credit process with those of a PSD2 consumer credit process used at a French electronic goods retailer.

The case studies demonstrate that a PSD2-powered decisioning system delivers a unique value proposition for financing products. It creates a virtuous circle, starting with faster decisions and better pricing, and leading to higher conversion rates, more data collection, and reduced risk-taking. The process also helps simplify the customer journey and enables us to continue to improve our credit risk models.

> « It creates a virtuous circle, starting with faster decisions and better pricing, and leading to higher conversion rates, more data collection, and reduced risk-taking. »

### CASE STUDY 1

**How PSD2 supports a seamless journey and faster credit decisions for consumers**

This case study compares average step durations for two Younited credit application journeys in retail (both in the €500-€1500 range):

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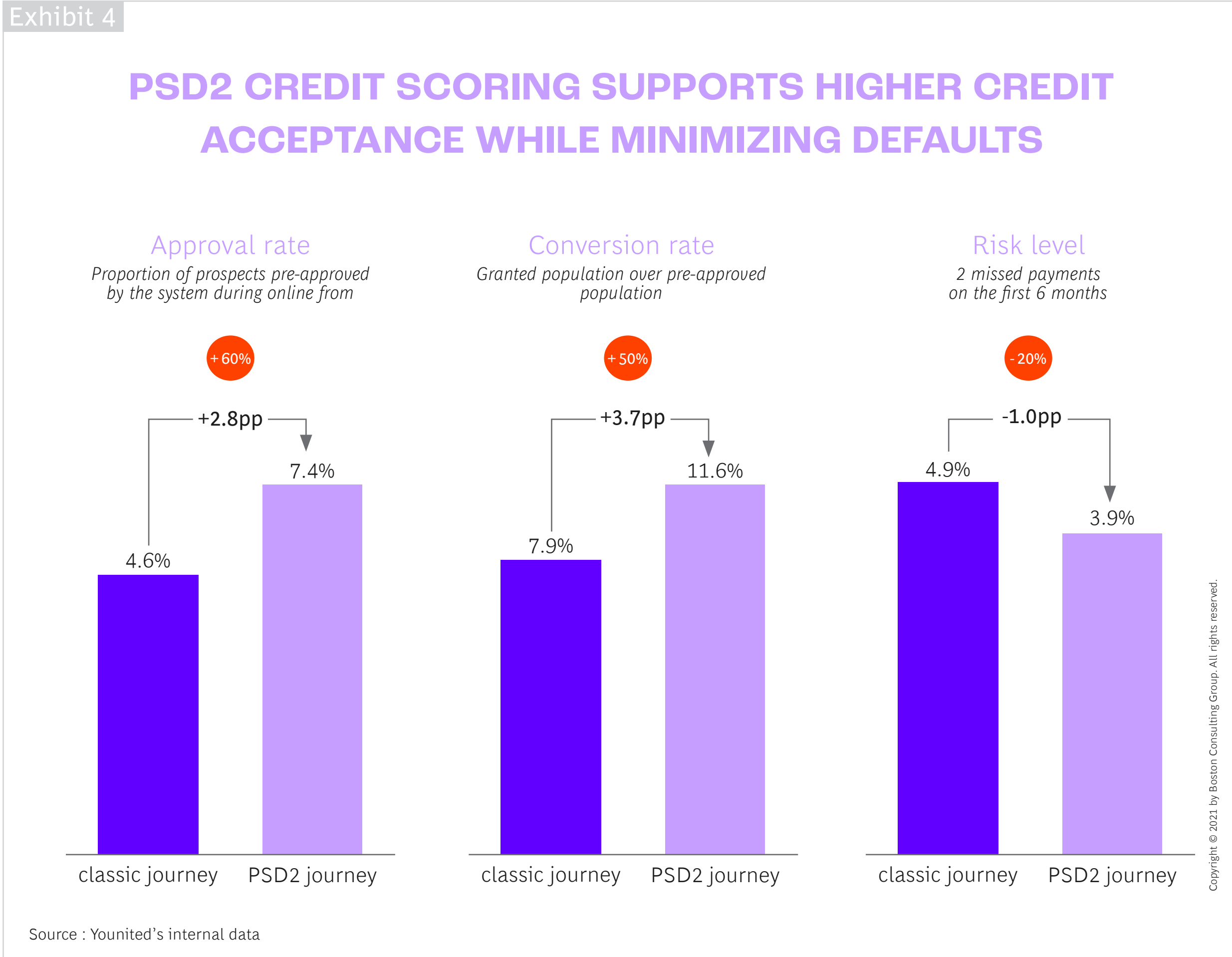



- The first is a standard journey for an unsecured consumer loan based on declarative data.[4]
- The second is an automated decision journey using PSD2 data for the online purchase of consumer electronics.
- The classic journey takes on average slightly less than four days from the beginning of the credit application process to the final decision.[5] The document completion step is the longest. By contrast, customers in a PSD2 process fill in a simple form and provide less documentation when they agree to connect their bank account. The process is 100% digital, secured and the final decision is automated, enabling instant decisioning (within a few seconds). (See Exhibit 3).

### CASE STUDY 2

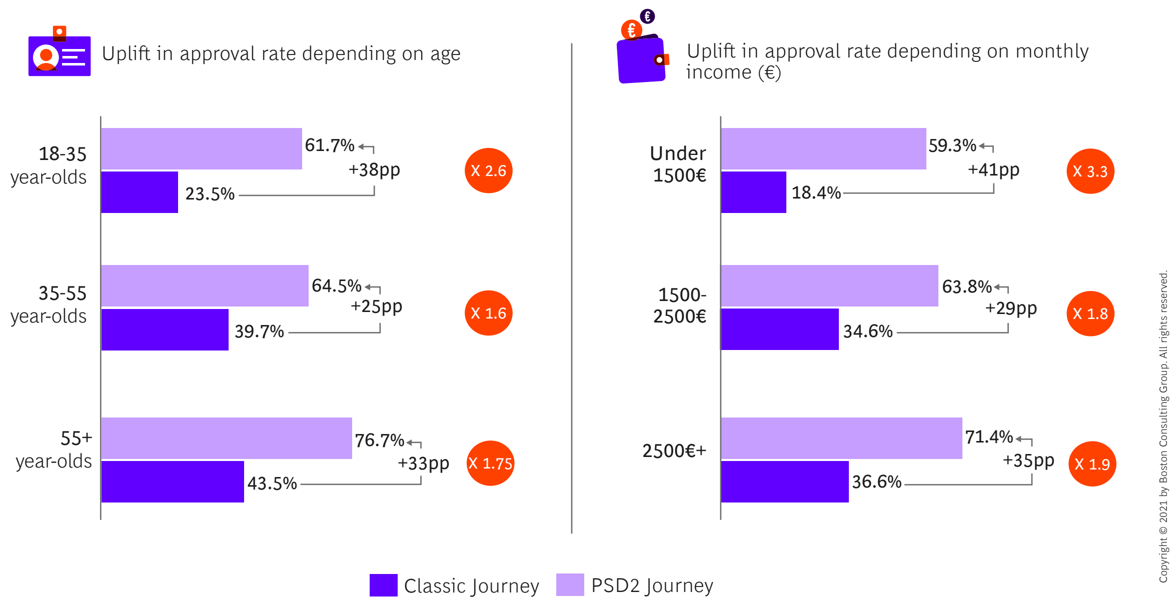
**How PSD2 supports higher credit acceptance rates while minimizing defaults, thanks to richer data**

This case study compares the performance of classic and PSD2-based credit-scoring techniques for unsecured consumer loans, based on an AB testing of 70,000 Spanish prospects between January and April 2021. Younited's tech platform, on which the decision system is implemented, enables true AB testing of scores, which are randomly assigned to loan applications. (See Exhibit 4). This ensures the score performance benchmark is robust. We do not capture seasonality or acquisition strategy effects that could create bias in the score performance comparison.

Exhibit 5

## PSD2-BASED DECISIONS BALANCE SERVICE TO UNDERBANKED POPULATIONS AGAINST CREDIT RISK

*Difference in approval rates for PSD2-based credit applications vs traditional credit applications for a global consumer electronics company shopping cart from 500€ to 800€*




Source : Younited's internal data

The case study illustrates that PSD2-based scoring helps institutions select clients with a lower probability of default and maximizes acceptance rates. The result of the AB test is particularly impressive, since there are significant uplifts at various stages of the loan lifecycle, from approval rates to risk levels.

Scoring techniques are typically compared using a Gini coefficient, which is a statistical measure of the dispersion of individuals within a group. A better Gini performance implies that values associated with individuals within a group are less dispersed. Beyond the case study, analysis conducted by Younited on its own data shows that PSD2 credit scoring models have a 50% higher Gini performance than classic scoring. This is a critical result, because the key success factor for these financing solutions is for Younited partners to reach the best tradeoff between commercial strategy (approval rate target) and risk. Based on nine months of data, the virtuous circle catalyzed by better approval rates and pricing has led to a three-fold increase in loan origination, with positive selection effects. The business impacts are even stronger than initially measured during the AB testing period.

### CASE STUDY 3

### How PSD2 improves coverage of underserved consumers at better prices

The study consisted of a comparison between approval rates for PSD2 and non-PSD2 credit processes for customers of an electronic devices retailer. Exhibit 5 compares the approval rates of those who aggregate their bank accounts and those of the rest of the population, across comparable income and/or age groups. The credit approval rate is systematically higher using the PSD2-based credit decisioning process, and particularly so for young and low-income individuals at equal target default rates (+40% instead of +21% percentage point approval rates on populations aged 18 to 35 and for lower income groups). This can mostly be explained by two factors: more accurate profiling through more advanced credit scoring techniques, and the ability to detect income and budget management, including for population groups with no regular income.

The improvement in profiling is explainable by the breadth and depth of the PSD2 data, which enable a more sophisticated analysis of behavioral pattens. Instead of focusing only on the theoretical capacity of customers to pay, assessed by two datapoints (income and charge), we take into account factors such as willingness to pay and other key metrics (such as outstanding amount or type of purchase). This provides much more information on which to base the underwriting decision. In other words, prospects with lower incomes but good budget management skills are more likely to get a loan at a lower rate. The effect of the approach is to broaden the addressable market to customers who do not meet traditional criteria but manage their spending well.

Increasing the approval rate of credit applications is critical for many retailers, as some customers will only buy a product if they have access to credit. Higher approval rates can therefore be transformed into higher sales for retailers adopting PSD2-powered credit decisioning.

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« Increasing the approval rate of credit applications is critical for many retailers, as some customers will only buy a product if they have access to credit. »

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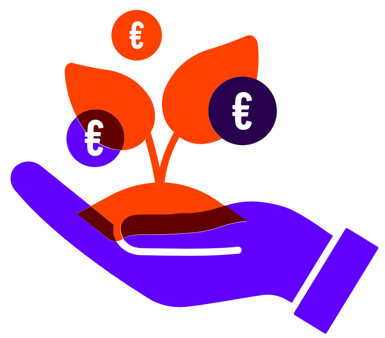
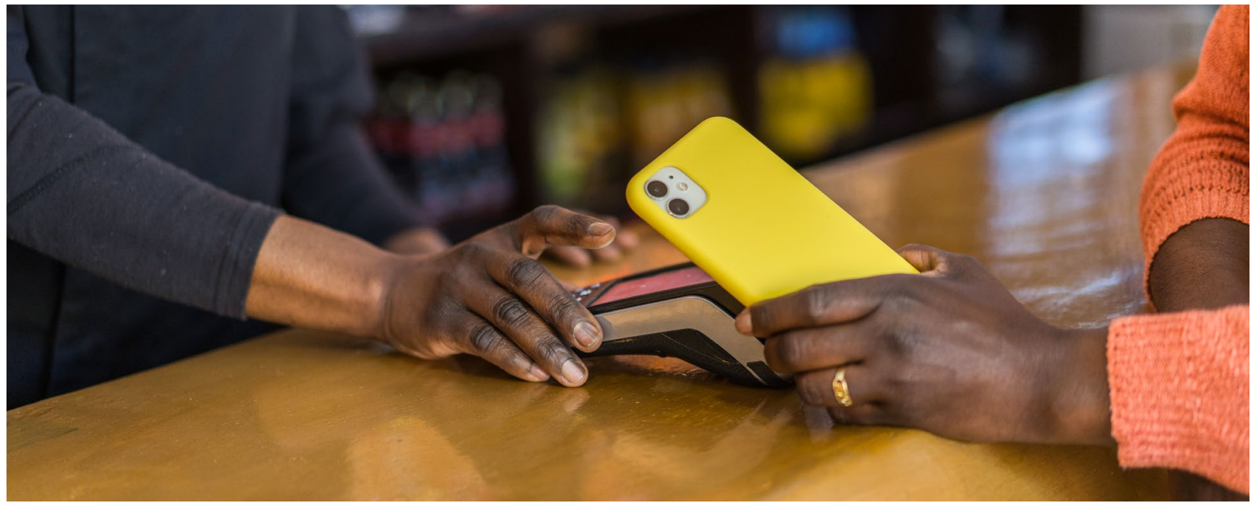


4. Comparison of a secured and unsecured credit processes, but this is not what drives the customer journey difference in this case.

5. The final decision takes in average one day since, since teams may have to decide based on loans that were already in stock. The underwriting analysis itself takes a few minutes.

# Challenges to Performance



While PSD2-based decision engines offer many promising features and a good performance outlook, their development and use raise new challenges:

**Data standardization.** Data quality and standardization significantly impact engine efficiency. As of October 2021, multiple banks still did not comply with PSD2 standards on data quality and sharing. Some key criteria, such as the historical depth of data provided by banks, are not yet set, and represent challenges to calibrating and running models across datasets.

**Complexity.** PSD2-based decision engines embed a PSD2 categorization algorithm to pre-process open banking data before their use in scoring models. Such models demand a high level of performance (especially of data processing) through the process, and increase the complexity of the models.

**Auditability and interpretability.** While the new models, which often rely on machine learning, usually perform better, they have not been in use for as long as traditional logistic regression models and require more sophisticated monitoring. There are many tools to facilitate auditability and interpretability, but the models remain inherently less intuitive than traditional models. In addition, due to their shorter track record, their sensitivity to economic cycles needs to be further tested.





# Conclusion

PSD2 has unlocked a new set of possibilities in credit decisioning, with clear benefits for both consumers and financial institutions in terms of user experience, speed, and efficiency. This new world of credit is now available to any bank or corporate willing to offer its end consumers modern, low-touch, fully-digital credit experiences. We encourage companies and financial institutions that have not yet actively engaged in next-generation credit decisioning to seriously consider it. As embedded finance is becoming the new normal in seamlessly combining financial services with customer experiences, PSD2 offers a unique combination of benefits for credit decisioning. It is therefore a tool that will likely shape the consumer finance landscape for years to come.

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# About

## ABOUT YOUNITED

Younited is the leading instant credit provider for the e-economy in Europe. Constant innovation, cutting-edge technology and exceptional user experience have allowed nearly a million customers to have access to instant, simple and transparent credit to refurbish their home, go on holiday, or buy a new smartphone. Younited provides instant credit throughout the customer journey, shopping or banking, online or in store, with a single Younited customer experience. Up to €50,000. Up to 84 months. Instantly.

Younited is the leader in 5 European countries and generates more than 2 billion euros in yearly GMV, with nearly 50% of its business outside France. As the pioneer in personalized budget coaching, Younited deploys a credit strategy at the service of all to promote more transparency and more inclusiveness. Younited has launched the process to become a certified B-Corp.

For more info, visit www.younited-group.com

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To succeed, organizations must blend digital and human capabilities. Our diverse, global teams bring deep industry and functional expertise and a range of perspectives to spark change. BCG delivers solutions through leading-edge management consulting along with technology and design, corporate and digital ventures—and business purpose. We work in a uniquely collaborative model across the firm and throughout all levels of the client organization, generating results that allow our clients to thrive.