

The Cost of Customer Acquisition in Banking: The Role of Due Diligence

Michele Trifiletti

Independent Researcher

ABSTRACT: This study analyzes the costs associated with acquiring new customers in the banking sector, with a focus on the impact of Customer Due Diligence (CDD) on the total acquisition cost (CAC). Through revised modelling with data from industry sources and hypothetical cases, it is highlighted how regulatory requirements related to anti-money laundering and KYC compliance can significantly affect banks' operating costs. Technology solutions and strategies to optimize these costs while preserving compliance and improving the user experience are discussed.

KEYWORDS: Customer Acquisition Cost (CAC), Customer Due Diligence (CDD), Anti-Money Laundering (AML), Know Your Customer (KYC), RegTech, Digital Onboarding, Financial Services

I. INTRODUCTION

Modern banks operate in an increasingly competitive and stringent environment from a regulatory point of view. While acquiring new customers remains a strategic priority for growth and sustainability, the costs associated with complying with anti-money laundering (AML) and "Know Your Customer" (KYC) regulations are steadily increasing. Customer Due Diligence (CDD), an integral and non-negotiable part of the onboarding process, has become one of the main cost items for each new customer (Zetzsche et al., 2020), posing new challenges to the profitability and operational efficiency of the banking sector.

II. DEFINITIONS AND FORMULAS

To fully understand the topic, it is essential to define the key concepts and their metrics.

- **Customer Acquisition Cost (CAC):** Indicates the average cost incurred by a bank to acquire a new customer. It is calculated as:

$$CAC = \frac{\text{Total Marketing and Sales Cost} + \text{Onboarding Costs}}{\text{Number of New Customers Acquired}}$$

- **Customer Due Diligence (CDD):** The set of mandatory activities of identification, verification and continuous monitoring of customers, aimed at preventing money laundering and terrorist financing, pursuant to AML/KYC regulations (European Banking Authority, 2023).

III. BREAKDOWN OF COSTS

Analyzing the composition of costs makes it possible to identify the areas of greatest incidence and potential optimization. At the aggregate level, the costs for KYC compliance can be extremely significant for financial institutions; some estimates indicate an average annual spend of \$60 million on KYC compliance, with some large banks reaching figures as high as \$500 million.

A. COSTS INCLUDED IN THE CAC

CAC is a composite metric that includes all the direct and indirect expenses required to convert a prospect into an actual customer.

- **Marketing and Advertising Campaigns:** Expenses for the promotion of banking products and services through digital channels (social media, SEM, display advertising), traditional channels (TV, radio, print), events and PR.
- **Costs of Digital Channels or Physical Counters:** Costs of management and maintenance of the infrastructures that allow the acquisition (online platforms, mobile app, staff and counter rentals).
- **Provisions on Sales:** Commissions and bonuses paid to sales staff or intermediaries for each new customer acquired.

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- **Onboarding costs (software, personnel):** Expenses for the IT systems dedicated to opening an account and managing the initial paperwork, and for the staff responsible for these operations. CDD accounts for a significant portion of these costs.

B. COSTS INCLUDED IN THE CDD

The CDD is divided into several specific activities, the costs of which for each verification can vary considerably.

- **Digital Identity Verification (eID, OCR, Biometrics):** Costs associated with the implementation and use of remote customer identification technologies, which allow to verify the authenticity of documents and biometric correspondence (e.g. facial recognition).
- **PEP Screening/Sanctions, AML:** Expenses for accessing and querying international databases and checklists related to politically exposed persons (PEPs), economic sanctions, and individuals/entities involved in money laundering activities.
- **Manual Document Verification:** Costs of personnel responsible for the manual review and validation of the documents provided, often necessary in the event of incomplete digital processes or anomalies. Staff time is a key determinant of the total cost per audit.
- **Continuous Monitoring (Periodic CDD):** Expenses for systems and personnel dedicated to the periodic review of the risk profile of the customer and its transactions, in line with regulatory obligations.
- **RegTech Software Licensing:** Investments in technology platforms (RegTech) that automate and support compliance processes, from data collection to screening and monitoring. The integration of RegTech and technologies such as blockchain aims to reduce these costs and improve efficiency.

IV. EXAMPLE OF CALCULATION AND INCIDENCE

To illustrate the economic impact of CDD on CAC, consider the following scenario, updated with a representative CDD cost per customer based on industry data:

Data for the Example:

Marketing and Sales Expenses: €300,000

General Onboarding costs (shared software, staff not directly allocated for each CDD, platform costs): €50,000 (hypothetical fixed/semi-variable component to structure the example)

Acquired customers: 5,000

Average cost for a single CDD check per customer: €60. This value is chosen as representative and is within the range indicated by sources such as FStech/Consult Hyperion, which estimate a cost per KYC verification between £10 and £100 (approximately €11.8 - €118, depending on the exchange rate), considering staff time and complexity.

Calculation of CAC and CDD Incidence:

CDD Specific Total Costs: 5,000 customers * €60/customer = €300,000.

Total Onboarding Costs (Including CDD): €50,000 (overhead) + €300,000 (specific CDD) = €350,000.

Total Acquisition Cost: Marketing and Sales Expenses + Total Onboarding Costs = €300,000 + €350,000 = €650,000.

Customer Acquisition Cost (CAC) Total: €650,000 / 5,000 customers = €130 per customer.

Incidence of CDD on Total CAC: (€60 / €130) * 100% ≈ 46.15%.

This example illustrates how CDD, based on industry estimates for verification, constitutes an extremely significant share of acquisition costs, making it crucial to find solutions for its optimization.

V. REGULATORY REFERENCES

The need to perform Customer Due Diligence has its roots in a very stringent international and European regulatory framework, which is then transposed into national legislation.

- **European Union Anti-Money Laundering Directives (AML Directives):** The Directives (currently the VI AML Directive is being transposed) set out the fundamental principles for the prevention of money laundering and terrorist financing. They require financial institutions to take CDD measures, including identifying and verifying the identity of the customer and the beneficial owner, understanding the purpose and nature of the business relationship, and continuously monitoring the relationship. A key reference is the Fourth Directive (EU) 2015/849, which introduced the concept of a risk-based approach, and the Fifth Directive (EU) 2018/843, which extended the obligations to other entities and strengthened transparency measures.
- **European Banking Authority (EBA) Guidelines:** The EBA, the European Banking Authority, issues guidelines that specify how banks must implement CDD obligations. The "Guidelines on customer due diligence and the factors credit and

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financial institutions should consider" (EBA, 2023) provide practical guidance on the management of money laundering and terrorist financing risks, stressing the importance of a proportionate and risk-based approach.

- **Legislative Decree No. 231 of 21 November 2007 (Italy):** This is the main Italian anti-money laundering law. It transposes European directives and defines the obligations for recipients, including banks, in terms of customer due diligence, data retention, suspicious transaction reporting and staff training. Specific articles (e.g. Art. 18 et seq.) detail the due diligence measures. The impact of these regulations on banks' operating costs and performance is being studied, with some research indicating an increase in operating costs or effects on stock valuation and lending.
- **Measures of the Bank of Italy:** The Bank of Italy, as supervisory authority, issues regulations and circulars that supplement and specify the provisions of Legislative Decree 231/2007, providing clarifications and operational indications for Italian banks.

VI. STRATEGIC IMPLICATIONS

The high impact of CDD on the CAC has profound strategic implications for the banking sector, influencing decisions on investments, digitalization and business models.

- **Operational Efficiency:** The high impact of CDD on CAC makes investing in RegTech technologies strategic. These solutions, powered by automation and artificial intelligence, can reduce verification time and operational costs while ensuring greater accuracy and regulatory compliance (PwC, 2022).
- **Digitalization and User Experience (UX):** Fully digital onboarding, with automated identity verification, can significantly reduce the cost of CDD (with estimates of less than €20 per customer for highly automated processes). This not only optimizes costs, but dramatically improves the user experience, which is critical to attracting and retaining customers in the digital age.
- **Customer Segmentation:** CDD costs are strongly influenced by the customer's risk profile. Enhanced Due Diligence (EDD), which is required for segments such as corporate clients, High Net Worth Individuals (HNWIs) or those operating in high-risk sectors, is inherently more expensive than Simplified Due Diligence (SDD) applied to low-risk retail clients.
- **Compliance and Trust:** A robust and effective CDD process is not just a cost, but an investment in market trust and the bank's reputation. Proper management of CDD reduces the risk of sanctions by supervisors and strengthens the perception of trustworthiness by clients and investors (BCBS, 2020).
- **CAC/CLV (Customer Lifetime Value) Balance:** Measuring the ratio of CAC to CLV is critical. Banks must ensure that the value generated by a customer over the course of their relationship with the bank far exceeds the cost incurred to acquire them. An LTV/CAC ratio between one and three can indicate healthy profitability for virtual banks. A high CAC, especially due to CDD, can erode profitability if not offset by adequate CLV¹.
- **Impact on Operating Results and Break-Even Point:** Customer acquisition costs (CAC), including CDD costs, directly impact the operating cost item in the bank's income statement. A high CAC reduces margins per individual customer and, at an aggregate level, compresses net profit. As a result, the break-even point for each new customer – the moment when the revenue generated by the customer equals the costs incurred to acquire and serve the customer – moves forward in time. If the CLV is not high enough or if the time to break-even is excessively long, the acquisition strategy can become unsustainable. Optimizing the CAC, in particular through efficient CDD management, is therefore crucial to improve operating results and lower the break-even point, making the return on investment faster for each new customer acquired.

¹ A CLV/CAC ratio between 1 and 3 is indicated as an indicator of healthy profitability. If the CAC is high, especially due to CDD-related expenses, this can dramatically reduce profitability if the customer does not generate sufficient value over time (CLV). In practice, if it costs too much to acquire a customer and manage the regulatory aspects, the bank must ensure that that customer brings a good economic return over the course of the relationship.

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Explanatory Table: Impact of CAC on the Customer's Break-Even Point (BEP)

(Based on sector data and representative values in the text)

BANK/CLIENT PROFILE	CAC (€) (INCL. CDD)	ESTIMATED ANNUAL MARGIN PER CUSTOMER (€)	YEARS TO REACH THE BEP (CAC / ANNUAL MARGIN)	NOTES
Scenario Base	130	65 (assuming a margin to recover in 2 years)	2.0 years	Example based on the calculations of Sec. 4.
Traditional banking (complex profile, high CDD/EDD)	200 (e.g. €180 CAC Italy [Improve, 2024] + additional EDD costs)	120 (assuming high-value customer)	~1.67 years	High costs offset by higher value, but CLV risk is crucial.
Neobank (Standard profile, optimized CDD)	40 (average from €30-€50 range CAC Neobank)	40	1 year	Rapid break-even, focus on volume.
Extreme Optimization (e.g. SDD for basic products, CDD <€20)	20 (Very low overall CAC)	30 (assuming basic products)	~0.67 years (about 8 months)	Almost immediate profitability on low-margin products.

SOURCE AUTHOR: Analysis of sector data and representative values present in the text

VII. FUTURE PERSPECTIVES

The CDD and CAC landscape is constantly evolving, driven by technological innovations and new regulatory approaches.

- **Automation and Artificial Intelligence (AI):** The increasing adoption of AI and machine learning will enable greater automation of CDD processes, from data collection and verification to anomaly detection and risk assessment. This will result in structural cost reductions and increased efficiency.
- **National Digital Identities and Interoperability (e.g. SPID, eIDAS):** Integration with national digital identity systems (such as SPID in Italy) and interoperability at European level (eIDAS) will greatly simplify the customer identification process, reducing the complexity and costs of verification.
- **Collaboration and Information Sharing (while respecting privacy):** The ability to share, in a secure and privacy-compliant manner, certain CDD information between financial institutions (subject to the client's permission) could lead to further cost reductions and greater overall effectiveness of the fight against money laundering.

VIII. SWOT ANALYSIS OF CDD COST MANAGEMENT IN BANKS

To better understand the challenges and opportunities, it is helpful to conduct a specific SWOT analysis on CDD cost management in the banking industry.

STRENGTHS	WEAKNESSES
REGULATORY COMPLIANCE: Established CDD processes ensure compliance with laws and reduce the risk of fines. REPUTATION AND TRUST: An effective CDD strengthens the bank's image as a reliable operator. OPERATIONAL RISK REDUCTION: Early identification of fraud and money laundering risks. INTERNAL EXPERTISE: Personnel specialized in compliance and AML regulations.	HIGH COSTS: Manual and complex CDD significantly impacts CAC. PROCESS COMPLEXITY: Multiple steps and document requirements slow down onboarding. POOR CUSTOMER EXPERIENCE: Long wait times and cumbersome processes can frustrate new customers. LEGACY TECHNOLOGIES: Outdated computer systems that do not allow for efficient automation. LACK OF INTEROPERABILITY: Difficulties in integrating with external digital identities.

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OPPORTUNITIES	THREATS
ADOPTION OF REGTECH: Technology solutions can automate and reduce CDD costs.	REGULATORY PENALTIES: Failure to comply with AML/KYC regulations will result in severe fines.
DIGITAL ONBOARDING: Deliver a smooth and fast customer experience through digital channels.	INCREASING REGULATORY COMPLEXITY: Increasingly stringent and evolving AML/KYC regulations.
NATIONAL DIGITAL IDENTITIES: Integration with SPID and eIDAS simplifies identity verification.	FINTECH COMPETITION: Neobanks and Fintechs with optimized onboarding are eroding market share.
STRATEGIC PARTNERSHIPS: Collaboration with external verification service providers.	REPUTATIONAL RISK: Money laundering scandals can seriously damage the bank's image.
DATA ANALYTICS/AI: Using artificial intelligence for more accurate and predictive risk assessment.	GROWTH OF FINANCIAL CRIME: Increase in the sophistication of money laundering techniques.

SOURCE AUTHOR: Analysis of sector data and representative values present in the text

IX. REAL EXAMPLES IN THE ITALIAN CONTEXT AND PROPOSALS

The Italian context offers a magnifying glass on the dynamics of the CAC and CDD, with specific challenges and opportunities.

A. CUSTOMER ACQUISITION COST (CAC)

According to Improve (2024), the average cost of acquiring a retail banking customer in Italy is around \$200 (about €180). This value is influenced by the operating model:

- **Traditional Banks:** They often face higher costs due to longer onboarding processes, increased reliance on physical branches, and still partial digitization.
 - *Example:* A large Italian bank might spend more on traditional marketing and have verification processes that still require physical presence for document signing or identity verification, increasing staffing and branch management costs for each new customer.
- **Neobanks and Fintechs:** Operators such as N26 or Revolut have optimized digital onboarding, significantly reducing CAC thanks to automated and user-friendly processes.
 - *Example:* A neobank could acquire a customer through an online marketing campaign, and the entire account opening process, including identity verification through video identification or scanning documents with artificial intelligence, takes place completely remotely in a few minutes, reducing fixed and variable costs.

B. COST OF CUSTOMER DUE DILIGENCE (CDD)

According to ComplyCube (2023), the costs associated with CDD can vary depending on the level of depth required by risk-based regulation:

- **Simplified Due Diligence (SDD):** Applied to low-risk clients (e.g. a basic account with spending and withdrawal limits).
 - *Example:* For the opening of a rechargeable prepaid card with a low limit, the verification could be limited to identification by document and a brief personal verification, with a cost per CDD of less than €10-€20.
- **Basic Due Diligence (BDD):** Includes identity verification, financial profile analysis, and understanding the purpose of the relationship (for most retail clients).
 - *Example:* For a standard full-service checking account, the CDD requires verification of the document, tax ID, residence, profession, and sometimes a brief income analysis. This could bring the cost to €30-€50 per customer, especially if it requires manual intervention.
- **Enhanced Due Diligence (EDD):** Requires thorough checks for high-risk clients (PEPs, complex transactions).
 - *Example:* For a corporate client with a complex corporate structure, or a client operating in high-risk sectors (e.g. cryptocurrencies, currency exchange), the EDD includes identification of the beneficial owner, analysis of the origin of funds, extensive screening of sanctions lists and intensive monitoring, with costs that can exceed €100-€200 per client.

Other sources, such as FStech (based on data from Consult Hyperion and Mitek Systems), indicate that the total cost per single KYC check can range from £10 to £100 (approximately €11.8 - €118), once the staff time and complexity of the case are considered. Mobile technology and automation are seen as levers to reduce those costs.

C. PROPOSALS FOR ITALIAN BANKS

Italian banks are called upon to strike a delicate balance between operational efficiency and regulatory compliance. Adopting RegTech solutions is key to reducing the costs associated with CDD while improving the customer experience.

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- **Targeted Investment in RegTech for Digital Onboarding:**
 - *Proposal:* Implement end-to-end platforms integrating video-identification, OCR document scanning, biometric verification, and automated PEP/sanctions screening.
 - *Benefits:* Dramatically reduce the cost per CDD (potentially under €20 per customer for low-risk cases), improve onboarding speed and customer experience.
- **Exploiting the National Digital Identity (SPID):**
 - *Proposal:* Integrate the SPID (Public Digital Identity System) system into the onboarding and CDD processes. The SPID guarantees robust and reliable identification, recognized nationally.
 - *Benefits:* Maximum reliability in identity verification, reduction of costs for the bank thanks to the reliability of a public system, and simplification for the customer.
- **Dynamic Risk Approach:**
 - *Proposal:* Adopt continuous monitoring systems that use AI to dynamically assess the client's risk profile. This allows a "reinforced" CDD to be applied only when and if the risk increases, optimizing resources.
 - *Benefits:* Optimize CDD resources, increase the effectiveness of detecting suspicious activity, and maintain a seamless customer experience for low-risk profiles.
- **Training and Interdisciplinary Skills:**
 - *Proposal:* Invest in the training of compliance, IT and marketing staff to create interdisciplinary teams capable of understanding both regulatory needs and the opportunities offered by new technologies.
 - *Benefits:* Greater synergy between functions, more informed decisions, and more effective implementation of optimization strategies.

X. EUROPEAN EXAMPLES OF CAC AND CDD MANAGEMENT

- **DE Germany – N26 (Neobank)**
 - *Background:* N26 is one of Europe's most successful neobanks. Founded in Germany, it operates in several European countries offering a totally digital experience.
 - *Strategy:* Uses video-identification and AI technologies; paperless approach; integrated RegTech solutions.
 - *Impact:* CAC ~€30-€50; CDD <€20 per low-risk retail client.
- **ES Spain – BBVA**
 - *Context:* Traditional bank with strong investments in digital banking and RegTech.
 - *Strategy:* Digital onboarding, biometrics, collaboration with RegTech startups.
 - *Impact:* Reduction of onboarding time, decrease of CDD costs.
- **EE Estonia – LHV Bank and the e-Residency system**
 - *Context:* Advanced digital identity system; LHV Bank pioneer with e-Residency.
 - *Strategy:* Use of national eID, real-time access to state databases, integrated CDD.
 - *Impact:* Extremely low CDD cost, efficient remote account opening.
- **FR France – Société Générale**
 - *Context:* Digital transition focused on compliance.
 - *Strategy:* Machine learning for risk analysis, modular CDD, interdisciplinary teams.
 - *Impact:* Increased anomaly detection, man-hour savings for corporate EDDs (20-30%).
- **SE Sweden – Klarna**
 - *Background:* Fintech with strong onboarding automation.
 - *Strategy:* Identification via BankID, zero-friction approach, behavioral analysis, and real-time credit scoring.
 - *Impact:* Low CAC, simplified CDD at low cost (<€10 per user)

European CDD Comparison Table: Cost and Automation

COUNTRY	INSTITUTION	TYPE	CDD COST (€)	AUTOMATION (%)	SOURCE
Germany	N26	Neobank	20	90%	N26 Blog / Finextra (2023)
Spain	BBVA	Traditional	30	80%	BBVA Annual Report 2023

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Estonia	LHV Bank	Traditional	10	95%	e-Estonia / LHV Tech Reports
France	Société Générale	Traditional	50	60%	Société Générale Compliance Report (2023)
Sweden	Klarna	Fintech	10	95%	Klarna Docs / Swedish BankID System

SOURCE: Author Source

CAC and CDD estimates by Bank Type in Italy

TYPE OF BANK	EXAMPLE	ESTIMATED CAC	ESTIMATED CDD	TECHNOLOGIES USED	SOURCE
Traditional	UniCredit / Intesa (hypothetical)	€180–€250	€45–€100	Semi-manual processes, partial SPID	Improve (2024); Legislative Decree 231/2007; ComplyCube (2023)
Neobank	N26, Revolut	€30–€50	€10–€20	Video verification, AI, OCR	Zetzsche et al. (2020); ComplyCube (2023); EBA (2023); PwC (2022)
Italian fintech (hypothetical)	Nexi, Hype	€50–€80	€15–€30	Digital Onboarding, RegTech API	Improve (2024); PwC (2022); ComplyCube (2023)

SOURCE: Author Source

XI. CONCLUSION

Customer Due Diligence (CDD) represents a significant component of the Customer Acquisition Cost (CAC) for banks. It is crucial to understand that optimizing these costs is not just an option, but a strategic imperative for the modern banking industry. This can be achieved through the targeted adoption of digital and RegTech solutions, however, this requires a holistic view and integrated expertise across compliance, IT and marketing departments.

Careful management of the balance between acquisition costs and customer lifetime value (CLV) is a key factor in the sustainability and competitiveness of the banking business in the medium to long term. This approach allows banks to effectively protect themselves from financial and regulatory risks, while simultaneously delivering a state-of-the-art customer experience.

For effective optimization, a strategic investment in RegTech for digital onboarding is crucial, implementing end-to-end platforms that integrate video identification, OCR scanning of documents, biometric verification and automatic PEP/sanctions screening. This can lead to a drastic reduction in the cost per CDD, potentially below €20 per customer in low-risk cases, significantly improving onboarding speed and the overall customer experience. It is also essential to take advantage of the national digital identity, such as the SPID system in Italy, integrating it into the onboarding and CDD processes. The SPID guarantees robust and reliable identification at national level, allowing maximum reliability in identity verification and a reduction in costs for the bank, as well as simplifying the process for the customer.

A dynamic risk-based approach is essential, adopting continuous monitoring systems that use artificial intelligence (AI) to dynamically assess the customer's risk profile. This allows you to apply Enhanced Due Diligence (EDD) only when and if the risk increases, thus optimizing resources. At the same time, investing in training and the development of interdisciplinary skills is vital, training compliance, IT and marketing personnel to create teams capable of understanding both regulatory needs and the opportunities offered by new technologies. This promotes greater synergy between functions, more informed decisions, and more effective implementation of optimization strategies.

Finally, it is imperative to maintain a healthy CAC/CLV ratio, ensuring that the value generated by a customer during their relationship with the bank far exceeds the cost incurred to acquire them. A high CAC, especially due to CDD, can erode profitability if it is not offset by adequate CLV. An LTV/CAC ratio between one and three can indicate healthy profitability for virtual banks. Customer acquisition costs (CAC), including CDD costs, have a direct impact on the operating cost item in the bank's income statement. A high CAC reduces margins per individual customer and, at an aggregate level, compresses net profit. As a result, the break-even point for each new client moves forward in time. Optimizing the CAC, in particular through efficient CDD management, is therefore crucial to improve operating results and lower the break-even point, making the return on investment faster for each new customer acquired.

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