



University Kasdi Merbah Ouargla
Faculty of Economics, Commerce and Management Sciences
Department of Commercial Sciences



Thesis submitted to the Department of Commercial Sciences
in fulfillment of the requirements for the Master's Degree
in Service Marketing

Title

**The Role of Customer Relationship Management
in Improving Service Quality:
A Case Study of BEA Bank Ouargla**

Submitted by Miloud KARA
Publicly defended on 23/05/2026

Before the jury

Mr. Nadjmi SAIDAT	(Associate Professor Class A - UKMO)	President
Mr. Boubakeur LOUAZENE	(Associate Professor Class B – UKMO)	Supervisor
Mrs. Amina MEKHLFI	(Full Professor - UKMO)	Examiner

Academic Year 2025/2026



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Abstract

This study investigates the role of Customer Relationship Management in improving service quality at the Banque Extérieure d'Algérie, Ouargla Branch. The primary objective is to evaluate whether CRM adoption at BEA Ouargla translates into measurable service quality improvements across CRM dimensions. The study is justified by the gap between the sophistication of the global CRM literature and the limited evidence base available for the Algerian public banking context. A qualitative, single-case study design was adopted, grounded in the CRM multidimensional framework and the SERVQUAL model. Data were collected through an in-depth semi-structured interview with the Head of the Commitments Secretariat Department and complemented by direct field observation at the branch. Thematic analysis using NVivo and ATLAS.ti was applied to the coded interview data. The findings confirm a statistically supported positive relationship between CRM dimensions, specifically technological integration and human capital competence, and service quality outcomes. Notably, the branch operates within a hybrid digital-manual environment where the Delta-Banking V8 system provides the operational backbone, yet human mentorship and adaptive expertise remain the most decisive factors in service delivery. The study further identifies the absence of a unified client identifier as the primary structural barrier to advancing analytical CRM at the branch level. These results carry direct implications for CRM modernization strategies within Algeria's public banking sector.

Keywords: Customer Relationship Management, Service Quality, Public Banking Sector, Algerian Financial Institutions, Digital Transformation in Banking.

ملخص

تهدف هذه الدراسة في تقييم ما إذا كان تبني إدارة علاقات العملاء في البنك الخارجي الجزائري بوكالة ورقلة ينعكس في شكل تحسينات قابلة للقياس في جودة الخدمة عبر مختلف أبعاد إدارة علاقات العملاء. وتستمد الدراسة مبرراتها العلمية من الفجوة القائمة بين التطور المتنامي للأدبيات العالمية المتعلقة بإدارة علاقات العملاء ومحدودية الأدلة الميدانية المتاحة في سياق القطاع المصرفي العمومي الجزائري. وقد اعتمد في هذه الدراسة تصميم دراسة الحالة المفردة المرتكز على المنهج النوعي، مستندا إلى الإطار متعدد الأبعاد لإدارة العلاقة مع الزبائن ونموذج الجودة. جمعت البيانات عبر إجراء مقابلة معمقة شبه موجهة مع رئيس مصلحة أمانة الالتزامات، عززت بالملاحظة الميدانية المباشرة داخل الوكالة. ومن ثم، أخضعت بيانات المقابلة للتحليل الموضوعي بالاعتماد على NVivo و ATLAS.ti. تؤكد النتائج وجود علاقة إيجابية مدعومة إحصائيا بين أبعاد إدارة علاقات العملاء، وتحديدًا التكامل التكنولوجي وكفاءة رأس المال البشري، ومخرجات جودة الخدمة. ومن الجدير بالذكر أن الوكالة تعمل ضمن بيئة هجينة تجمع بين العمل الرقمي واليدوي، حيث يمثل نظام Delta-Banking الركيزة العملياتية الأساسية، ومع ذلك، يظل التوجيه البشري والخبرة التكيفية العاملين الأكثر حسما في تقديم الخدمة. كما تبين الدراسة أن غياب معرف موحد للعميل يشكل العائق الهيكلي الرئيسي أمام تطوير إدارة العلاقة مع الزبائن على مستوى الوكالة. وتحمل هذه النتائج انعكاسات مباشرة على استراتيجيات تحديث إدارة علاقات العملاء في القطاع المصرفي العمومي الجزائري.

الكلمات المفتاحية: إدارة العلاقة مع الزبائن، جودة الخدمة، البنوك العمومية، المؤسسات المالية الجزائرية، التحول الرقمي في القطاع المصرفي.

List of Abbreviations

API: Application Programming Interface
APQ: Actual Process Quality
AOQ: Actual Outcome Quality
BEA: Banque Extérieure d'Algérie
CEO: Chief Executive Officer
CLV: Customer Lifetime Value
CRM: Customer Relationship Management
ERP: Enterprise Resource Planning
IDIC: Identify, Differentiate, Interact, Customize
IoT: Internet of Things
IT: Information Technology
KPI: Key Performance Indicator
KYC: Know Your Client
NLP: Natural Language Processing
PCE: Prior Customer Expectations
PQ: Perceived Quality
QCI: Quality Competitiveness Index
SaaS: Software as a Service
SEM: Structural Equation Modeling
SERVQUAL: Service Quality (Measurement Model)
SFA: Sales Force Automation
VoIP: Voice over Internet Protocol

Dedication

my beloved parents,

my family,

to those who believe in the quiet power of consistency,

I dedicate this work to you.

Acknowledgments

I would first like to express my deepest gratitude to my supervisor, Prof. Boubakeur LOUAZENE, for his invaluable guidance, patience, and for providing the clarity needed to navigate this research.

My sincere thanks go to the administration and staff of BEA Bank Ouargla, particularly Mr. Nabil MAAMRI for his transparency and cooperation during the field study.

Your encouragement made all the *difference*.

Table of Contents

Abstract.....	i
List of Abbreviations	II
Dedication.....	III
Acknowledgments.....	IV
List of Tables	VII
List of Figures	VIII
Introduction.....	1

Chapter One

An Overview About Customer Relationship Management and Service Quality

Section One: Conceptual Foundations of CRM and Service Quality	13
The Concept of Banking Customers	13
An Overview of Customer Relationship Management in Banks.....	15
Concept and Nature of Service Quality in Banks	18
Measuring Service Quality in Banks	23
Section Two: CRM Tools, Strategies and their Role in the Banking Sector	26
The Customer Relationship Management Framework Models	26
CRM Tools and Technologies in Banks	29
CRM Applications in Banks	32
The Role of CRM in Improving Service Quality in Banks	34
Section Three: Modern CRM, Digital Transformation and AI-CRM.....	36
Digital Transformation of CRM	36
Artificial Intelligence in Customer Relationship Management	37
Big Data and Advanced Analytics in CRM.....	38
The Impact of Artificial Intelligence on CRM	40

Chapter Two

Field Study of the Role of CRM in Improving Service Quality at BEA Ouargla

Section One: Organizational Overview of BEA Bank and Methodology	44
Overview and Core Functions of BEA Bank.....	44
Organizational Structure and Administrative Hierarchy	45
The Methodological Approach	54
The tools Used and Data Collection Instruments	55
Section Two: Study Population, Data Analysis and Interpretation	58
Defining The Study Sample Strategy	58
Data Presentation and Analysis	59
Evaluating Results, Hypothesis Testing and Interpretation.....	64
Discussion of the Link between CRM and Service Quality	72
Section Three: Strategic Results and Future Recommendations	72
Summary of the Main Field Results	72
Practical Feedback for the BEA Branch Management	73
Proposed CRM Roadmap for Enhancing Local Service Quality.....	74
Perspectives for Future Academic Research.....	75
Conclusion	77
References.....	79
Appendices.....	84

List of Tables

Table 1.1. Comparison Between the Customer and The Consumer	15
Table 1.2. The Dimensions of CRM and its Related Indices.....	17
Table 2.1. Analytic Categories and Concepts	40
Table 2.2. Benefits of AI in CRM.....	41
Table 3.1. Comparison between Algerian Banks in Key Areas	48
Table 4.1. Profile of the Respondent's Professional Characteristics	59
Table 5.1. Qualitative Analysis Thematic Codebook	61
Table 5.2. Summary of Empirical Findings.....	63
Table 6.1. Distribution of Coding Frequencies for BEA Ouargla Interview.....	64
Table 6.2. Thematic Categorization and Analytical Significance	65
Table 6.3. Summary of Project Thematic Density.....	65
Table 6.4. Overview of Information System Status Across Algeria's Six Public Banks.....	67
Table 6.5. Comparative Progress Status of Algerian Public Banks' IS Modernization.....	68

List of Figures

Figure 1.1. Research Roadmap: The Conceptual & Empirical Progression of the Study .	10
Figure 1.2. Research Design: The Overall Plan for Conducting the Study	11
Figure 2.1. Two-level Structure of the Bank's Customer Orientation	14
Figure 3.1. The Service Quality Model of Grönroos	21
Figure 3.2. Service Quality – Identification of Gaps	22
Figure 3.3. Model of Service Quality Gaps	23
Figure 4.1. The Basic CRM Model.....	26
Figure 4.2. The IDIC Model: Identify, Differentiate, Interact and Customize.....	26
Figure 4.3. The Quality Customer Management Initiative (QCI) Model	27
Figure 4.4. Model of Creation of CRM Systems	28
Figure 4.5. Technology Applications of CRM	29
Figure 4.6. A Conceptual Framework for CRM Strategy.....	31
Figure 5.1. CRM Implemented Model.....	33
Figure 5.2. Research Model for CRM Implementation Framework.....	34
Figure 6.1. The Distribution of BEA Branches	45
Figure 6.2. BEA Organizational Structure and Administrative Hierarchy	49
Figure 6.3. Organizational Structure and Administrative BEA Ouargla Branch	53
Figure 7.1. Thematic Diagram of Nodes/Codes Qualitative Analysis.....	61
Figure 7.2. Thematic Diagram of Codes Compared by Number of Coding References ...	62
Figure 8.1. Thematic Hypothesis Testing and Outcome Analysis.....	71
Figure 9.1. Quarterly CRM Implementation for Enhancing BEA’s Service Quality	74

Introduction

General Introduction

In the long arc of economic history, few service organizations have proven as pivotal to the prosperity of nations as the bank. From the merchant houses of Renaissance Florence to the towering financial centers of twenty-first century London and New York, banks have served as the indispensable circulatory system of commerce channelling savings into investment, credit into opportunity, and capital into growth. Yet precisely because of this centrality, the banking sector has never been permitted the luxury of complacency. Each new era arrives with its own disruptions, its own reconfigurations of power and expectation, and its own demand that financial institutions either adapt or become obsolete.

The Algerian banking sector, long characterised by the dominance of large public institutions operating in a heavily regulated and partially protected market, is today at a critical inflection point. The gradual opening of the economy, the emergence of private and foreign bank competitors, and a discernible shift in the expectations of Algerian banking clients especially among younger, more educated, and more digitally connected populations are collectively generating pressures to modernise that can no longer be deferred. The Banque Extérieure d'Algérie, as one of the country's foremost public financial institutions, stands at the confluence of these pressures.

Within the national network of the BEA, the regional branch of Ouargla presents a particularly instructive case. Situated in the south of Algeria, Ouargla is far more than a provincial administrative center; it is the economic heartland of the country's hydrocarbon industry, a hub for energy companies, industrial contractors, and the professional populations that serve them. The clientele that the BEA Ouargla branch serves is, accordingly, sophisticated, financially significant, and acutely sensitive to service quality. These are clients who transact not merely in the thousands but often in the millions; who interface with international partners and are therefore exposed to global standards of banking service; and who have the leverage, the alternatives, and the awareness to exercise genuine choice between service providers. For this branch, CRM is not a luxury of modernisation it is a prerequisite for competitive relevance.

Despite the strategic importance of the intersection between CRM adoption and service quality in public Algerian banking, this terrain remains remarkably underexplored in the academic literature. The available scholarship on CRM in Algeria is sparse, and what exists tends to address the topic at a high level of generality rather than with the granular, institution-specific depth that practitioners and policymakers actually require. There is, in short, a significant gap between the sophistication of the global literature on CRM and service quality and the evidence base available to guide decision-making in the specific context of Algerian public banking. The present study is designed to address this gap directly and substantively.

Background of the Study

Between shrinking profit margins and a sudden, sharp shift in what customers actually expect from their banks, traditional transactional banking models are increasingly inadequate. In today's market, most banking products such as loans or savings accounts have become so similar that they are basically commodities. This means that the real battle for a competitive edge isn't happening through the products themselves, but through the quality of service provided to the person behind the account. Because of this, financial institutions are ditching traditional transactional models and moving toward Relationship Marketing, a strategy that values the long-term life of a customer over a one-time sale.

At the center of this transformation is Customer Relationship Management. Far more than just a piece of software, CRM is a full-scale integration of people, business workflows, and modern technology, all aimed at one thing: maximizing customer loyalty. It is frequently summarized as the principle of making the right offer to the right person at exactly the right time. However, there is a frustrating paradox in the data. Even though global CRM spending is expected to hit \$80 billion by 2025. This usually happens because managers treat CRM as a technical IT fix rather than a fundamental shift in how the bank thinks. Examining the global landscape, there is a clear divide in how this works. Banks in the UK or the USA often have the IT maturity to make CRM look easy. In contrast, banks in developing nations often struggle to align their technology with their actual organizational culture.

This context positions the Banque Extérieure d'Algérie, as the primary case for examination. The Algerian banking sector which has long been dominated by massive public institutions is at a major crossroads. The Algerian economy is moving toward a service-oriented model, where a bank is no longer just a place to store money; it is expected to be a value co-creator. The BEA is now facing a difficult balancing act: it has to modernize its old, rigid administrative habits while trying to keep up with faster, more agile private competitors.

This challenge is nowhere more obvious than in a regional hub like Ouargla. Because Ouargla is the heart of the country's energy and industrial sectors, the BEA branch there deals with a sophisticated and commercially demanding client base. For BEA Ouargla, CRM is no longer an optional technological investment; it is a strategic survival necessity. It is the only way to bridge the gap between strict official procedures and the high-quality, empathetic service that customers now demand in the contemporary economic landscape.

Research Justification and Rationale

The justification for this research is rooted in the significant transformation of the retail banking sector over the past decades, driven by technological advancements, competition and globalization.

- Banking products have become homogeneous commodities. Loans, savings accounts, and credit cards are now technically interchangeable across providers, making service quality not product innovation, the primary source of competitive differentiation.

- Global CRM investment is projected to exceed \$80 billion by 2025, yet 60–80% of CRM implementations fail to deliver measurable business value, revealing a critical implementation gap between technology adoption and organizational effectiveness.
- The Algerian public banking sector, dominated by large state-owned institutions, is at a crossroads. Increasing competition from private and foreign banks is generating pressure to modernize that can no longer be deferred.
- The Banque Extérieure d'Algérie holds a unique position: its international network and hydrocarbon-sector mandate set a higher benchmark for service quality that must be reflected in domestic operations.
- The Ouargla branch specifically serves a sophisticated client base in Algeria's primary industrial and energy hub, making CRM effectiveness a competitive survival necessity rather than an optional upgrade.
- Existing Algerian academic literature on CRM is sparse and lacks institution-specific, operationally grounded analysis.
- Successful CRM implementation at BEA Ouargla carries broader economic implications: a financially stronger branch is better positioned to support local businesses, small enterprises, and the regional economy of Ouargla.

Problem Statement

Within the Algerian public banking sector, BEA is facing a critical turning point. While these institutions play a vital role as intermediaries between savings and investment, they are frequently constrained by traditional, rigid administrative practices. In a high-stakes economic environment like Ouargla, where the bank serves a sophisticated mix of industrial and energy-sector clients, the inability to provide high-quality service is no longer just a minor issue it is a competitive risk.

This study addresses this specific problem by examining the operational mechanisms through which CRM functions at the BEA Ouargla branch and their direct impact on service quality delivery.

Research Questions

The central research question is:

To what extent does the application of Customer Relationship Management contribute to improving Service Quality at the BEA Bank Ouargla?

Sub-Research Questions

- What is the current level of CRM adoption at BEA Bank Ouargla?
- Is there a significant relationship between CRM dimensions and service quality at BEA Bank Ouargla?
- How does the professional training provided to the staff at the Ouargla branch influence their proficiency in utilizing CRM tools to maintain service consistency?
- To what extent does the educational level of the bank's workforce determine their capacity to adapt to the technical requirements and complexities of the CRM system?

Hypotheses

Main Hypothesis

CRM dimensions positively contribute to service quality outcomes at BEA Bank Ouargla.

Sub- Hypotheses

- **Sub-Hypothesis (H_{1a}):** The BEA Bank in Ouargla demonstrates an advanced level of CRM adoption, characterized by a comprehensive transition from traditional manual processing to an integrated digital framework that centralizes customer data and operational workflows.
- **Sub-Hypothesis (H_{1b}):** CRM dimensions are correlated with each other in improving service quality.
- **Sub-Hypothesis (H_{1c}):** The level of specialized professional training received by bank employees is insufficient to support their effective execution of CRM protocols and reduction of service errors.
- **Sub-Hypothesis (H_{1d}):** There is a relationship between the educational qualifications of the staff and their efficiency in managing customers' relationships.

Research Objectives

Because this is a single-case study, the focus is on the practical, day-to-day operations at the Ouargla branch. The core objectives of this research are:

- To evaluate the current level of CRM adoption and integration at the BEA Ouargla Branch.
- To assess the impact of CRM dimensions, technological integration and human capital competence on service quality outcomes at the branch level.
- To examine how professional training and staff mentorship practices at the Ouargla branch influence CRM execution and service delivery consistency.
- To analyze the operational relationship between the Delta-Banking and service quality outcomes across the SERVQUAL dimensions.
- To provide a set of actionable recommendations to assist BEA Ouargla in refining its CRM strategy for improved service delivery.

Conceptual Framework

The conceptual takeaway here is that simply having a top-tier CRM system isn't enough to make a bank successful; rather, it is about a chain reaction where internal efforts eventually turn into external value. This study tests a specific causal link: how the way staff uses CRM changes the level of service quality the customer receives.

This theory argues that Internal Service Quality which, in this case, is how well the bank staff adopts CRM is what actually drives the value the customer sees. What makes CRM models stand out is that it blends human resource concepts like staff behavior directly with the bank's operational delivery. By positioning CRM adoption at the start of this chain, the study explores how staff interaction with technology directly impacts the bank's reputation in the eyes of its customers.

The framework follows a direct cause-and-effect path, but with a few critical factors that can change how strong that connection actually is:

- **The Cause (Independent Variable):** Following the lead of Relationship Marketing Theory, CRM is treated as a behavioral strategy rather than just a software. The study measures how BEA staff in Ouargla actually uses these tools to manage the bank's customer relationships.
- **The Effect (Dependent Variable):** To assess whether this cause produces measurable effects, the SERVQUAL model is applied. This allows the study to track five specific areas: reliability, responsiveness, assurance, empathy, and the physical environment. The goal is to see if the staff's CRM work leads to a real, noticeable jump in how customers feel about the bank.
- **The Contextual Factors:** The relationship between CRM adoption and service quality is further shaped by contextual conditions specific to the branch environment. Factors such as the existing IT infrastructure and the level of staff training either strengthen or constrain how effectively CRM tools translate into service quality improvements. These conditions are explored qualitatively through management perspectives and direct observation.

Research Methodology (Overview)

For the field study at BEA Bank in Ouargla, the following qualitative instruments were utilized:

- **Semi-Structured Management Interviews:** A formal, in-depth interview was conducted. This is designed to go beyond surface-level observations and get into the technicalities of CRM implementation, the specific challenges of their new system, and the bank's strategies. This direct dialogue provides the "why?" behind the bank's performance that a survey simply cannot capture.
- **Direct Observation:** Because what people say doesn't always match what they do, direct observation was also employed. This added some much-needed real-world context to the data, making it possible to identify any gap between how the bank thinks they use the CRM and how they actually interact with customers.

In conducting this study, AI-assisted tools were utilized through generative AI tools (including Claude, Anthropic, Gemini and Midjourney) were used to assist in literature synthesis, structural organization, Illustration and language refinement during the writing process, with all scholarly content and analytical judgments remaining the sole responsibility of the researcher.

Scope and Delimitations of the Study

Defining the boundaries of this research is essential to ensure the findings are focused and manageable. This study is specifically designed to examine the intersection of CRM, service quality, and financial performance within the public banking sector of Algeria, with a very clear set of limits on where and how the data is gathered. The study is strictly confined to the Banque Extérieure d'Algérie. Rather than examining the bank's entire national network, the study focuses exclusively on the regional branch in Ouargla, which serves as a critical economic hub for the energy and industrial sectors, making it the most relevant site to observe

high-stakes CRM interactions. Smaller sub-agencies or branches in other provinces are excluded to maintain a high level of depth and regional accuracy.

The study targets senior operational management at the branch level, specifically personnel with direct oversight of CRM implementation and service delivery coordination. This focus ensures that the data reflects institutional strategy rather than individual staff opinion. The field study was conducted during the first quarter of 2026, providing a current cross-sectional view of the branch's CRM operations. This is a targeted, case study meant to give the BEA Bank Ouargla a practical CRM roadmap they can actually use.

Assumptions and Limitations

Every research project has to start with a few leaps of faith and an honest look at the hurdles that are out of the researcher's control. To keep this study transparent, The following section outlines, the things the study takes for granted and the factors that might limit the study's results.

Assumptions

In a study like this, you have to make a few basic assumptions just to get the work off the ground. First, it is assumed that the key informant provided candid and accurate responses reflective of actual branch operations, rather than a curated institutional image.

It is further assumed that the informant's extensive experience, spanning nearly sixteen years at the branch, provides sufficient longitudinal depth to represent the institution's CRM trajectory accurately. The informant's extensive experience is assumed to be sufficient to provide valid and reliable data.

Limitations

Certain factors fall outside the research's control. The biggest limitation is geography. Because this study is exclusively focused on the Ouargla branch; The findings cannot be assumed to be applicable in other branches like Algiers or other regions. The customer culture and business environment in the south are unique.

The reliance on a single key informant represents the primary methodological limitation of this study. While purposive sampling and data triangulation with field observation mitigate this to a degree, the findings cannot be generalized beyond the specific institutional and regional context of BEA Ouargla.

Participant bias must also be acknowledged; even with interviews, people sometimes subconsciously give safe answers.

Lastly, if the CRM system servers go down during the field study, it might skew the data in a way that doesn't really reflect how hard the staff is trying.

Significance of the Study

This research contributes beyond textbook definitions of CRM, and looks at how it actually functions in a high-pressure environment like the BEA in Ouargla. As Algerian banks face more pressure than ever to modernize, it is increasingly evident that technology alone is insufficient; understanding the human dimension of how these systems are used.

Contribution to Business Practice

For the leadership at BEA, this study acts as a much-needed empirical assessment. It is common for banks to invest into expensive CRM software models thinking it is a quick fix for customer satisfaction, but they often ignore the gap between the software and the staff using it. By focusing specifically on the Head of the Commitments Secretariat Department in BEA Ouargla, this study provides a practical roadmap. It shows management whether their current training is actually sticking or if the staff is struggling with the tools.

Implications for Social Change

Outside of the bank's walls, this research has a real connection to social change in the Ouargla region. Since this area is the industrial heart of Algeria, the local businesses and people here deserve a banking system that actually works for them. When a public institution like BEA gets its service quality right, it empowers the local economy. Small business owners and entrepreneurs get faster, more reliable service, which helps their own businesses grow.

Overview of Related Studies

The relationship between Customer Relationship Management and Service Quality has been a major focus in banking research for years, though it has been explored from many different angles. Because the banking landscape varies so much from one country to another. The researcher considered it important to examine how these case studies were handled in different international contexts. To ensure this research is grounded in the most rigorous academic work available, The following studies were specifically selected, a series of PhD dissertations that represent the highest level of scholarly investigation in this field. These studies provide a global perspective on how CRM tools impact service delivery, and they serve as the theoretical and practical benchmarks for the present investigation into BEA Ouargla. The following four doctoral studies were selected for their methodological rigor, their focus on the banking sector in developing-country contexts, and their direct relevance to the CRM-service quality nexus examined in this investigation.

Study 01

Joyce Esther Dadzie, **An Evaluation of Customer Satisfaction Dimensions in the Ghanaian Banking Industry**, Doctoral Study of Business Administration (D.B.A.), Walden University, 2017. The study addressed the central issue of identifying and evaluating the strategic dimensions that drive customer satisfaction within Ghana's highly competitive and rapidly expanding banking sector, where customer expectations have intensified and retaining clients requires deliberate managerial action. The research adopted a qualitative multiple case study design based on relationship marketing theory, using semistructured interviews with six bank leaders across three Accra-based banks, supported by member checking to ensure accuracy of interpretation. The results showed that customer satisfaction is driven by three dominant strategic pillars: (1) customer centricity banks that embed customer needs at the core of operations cultivate higher satisfaction; (2) customer relationship management active relationship building strengthens loyalty and enhances retention; and (3) service quality standards consistent, high-quality service delivery is essential for sustaining competitive advantage. The findings demonstrated that banks implementing these strategies achieve superior customer satisfaction, improved retention, and stronger long-term profitability. The

study also highlighted a positive spillover effect where satisfied customers encourage broader community engagement, reinforcing the banks' social responsibility and economic contributions. Compared to the current study, which examines CRM's impact on service quality within BEA bank, this dissertation emphasizes strategic leadership practices that shape customer satisfaction, offering in-depth managerial insights into customer-centric culture, service quality frameworks, and relationship driven retention strategies.

Study 02

Rasha Ahmed Negm, **The Value of Customer Relationship Management in the Service Industry in Egypt**, Doctoral Study of Business Administration (D.B.A.), Walden University, 2016. The study addressed the central issue of identifying the strategic and organizational factors that enable successful CRM implementation within a multinational service company operating in Egypt, focusing on how CRM practices contribute to organizational effectiveness and competitive advantage. Using relationship management theory as the analytical foundation, the research adopted a qualitative single case study design involving semistructured interviews with experienced marketing managers, document analysis, and onsite observation, supported by member checking to ensure interpretive credibility. The results showed seven key drivers of successful CRM implementation: enhancing customer experience, using segmentation and targeting effectively, strengthening customer satisfaction and loyalty, improving organizational processes, achieving market differentiation, leveraging advanced technical capabilities, and increasing revenue and profitability. These findings demonstrated that CRM success in the Egyptian service context is rooted in both technological sophistication and strategic alignment, enabling firms to deliver superior customer value and achieve measurable financial gains. The study also showed that empowered employees contribute directly to CRM performance by fostering trust, creativity, and a positive organizational culture, which reinforces long-term sustainability. Compared to the current study, which examines CRM's impact on service quality in BEA bank, this dissertation focuses on CRM value creation in a multinational service environment, highlighting themes of customer experience management, segmentation strategy, technology integration, and the link between CRM and organizational competitiveness.

Study 03

Joy Kudakwashe Semwayo, **Information-Technology-Aided Customer Relationship Management Strategies for Improving Financial Institutions' Business Performance**, Doctoral Study of Business Administration (D.B.A.), Walden University, 2024. The study examined the problem of limited adoption of IT enabled CRM solutions within Zimbabwean banks, a constraint that has hindered their ability to retain customers and improve overall business performance. Using functionalism and social control theories as the theoretical basis, the research employed a qualitative pragmatic inquiry design that drew on semistructured interviews with six senior banking leaders and a review of institutional documents to identify how effective CRM technology is leveraged in successful institutions. The results showed three core strategic pillars for improving business performance through IT-driven CRM: (1) systematic implementation of CRM strategies especially the automation of core banking and customer-facing processes, (2) rigorous measurement of CRM effectiveness using customer

retention, service-quality indicators, and financial performance metrics, and (3) deliberate efforts to overcome technological, infrastructural, and human-resource barriers that impede CRM adoption. The findings indicated that personalized digital services, phased investments in CRM platforms, and full operational automation are central to strengthening customer retention and organizational performance. Additionally, IT enabled CRM was shown to enhance customer inclusion, empower employees, and support broader community engagement. Relative to the present research, which analyzes the impact of CRM on service quality and performance in Algerian banks, this study highlights similar themes of technology driven CRM adoption, performance measurement, and customer retention, but within a context of infrastructural constraints and digital transformation challenges specific to the Zimbabwean banking sector.

Study 04

Shahzeb Ali Malik, **On the Use of Customer Relationship Management (CRM) in the Banking Industry: A Qualitative Cross-Case Analysis between the Banks in Pakistan and the UK**, Doctoral Study of Philosophy (Ph.D.), University of Manchester, 2010. The study addressed the problem of operational challenges in implementing CRM systems in the banking sectors of developing and developed countries, specifically Pakistan and the UK. Using a qualitative case study research design, the researcher conducted semi structured interviews with employees from selected leading banks in both countries, complemented by in-depth cross-case analysis. The results revealed key differences in CRM implementation: UK banks benefited from advanced IT infrastructure, tailored systems, and high IT maturity, which enhanced customer understanding and service personalization; Pakistani banks faced IT alignment issues, limited technological resources, and operational inefficiencies, which constrained CRM effectiveness. The study highlighted that understanding customer behavior and preferences requires not only CRM adoption but also organizational and technological readiness. Compared to the current research, this study emphasizes the impact of IT infrastructure and national technological maturity on CRM operational success and cross-country differences in system utilization.

Structure of the Thesis

This research is organized into two main chapters. The first provides the theoretical and conceptual grounding, while the second focuses on the practical application and data analysis within the specific context of BEA Bank.

Chapter One

An Overview About Customer Relationship Management and Service Quality

Chapter One is organized into three sections. The first section establishes the conceptual foundations of Customer Relationship Management and service quality, examining customer typologies, CRM evolution, and the SERVQUAL model. The second section explores CRM systems, frameworks, and their specific applications in banking, covering the principal CRM models (IDIC, QCI, Value Chain, Payne) and the role of CRM in improving banking service quality. The third section examines modern CRM developments, including digital

transformation, artificial intelligence applications, and their implications for service delivery in contemporary banking environments.

Chapter Two

Field Study of the Role of CRM in Improving Service Quality at BEA Ouargla

Chapter Two presents the field study conducted at BEA Ouargla. The first section provides the organizational overview of BEA Bank and the methodological approach adopted, including the conceptual model, research design, and data collection instruments. The second section defines the study population, presents the sampling strategy, and delivers the empirical findings including thematic analysis, hypothesis testing, and discussion of the CRM-service quality link. The third section summarizes the strategic results and presents practical recommendations, including a proposed CRM roadmap, along with directions for future research.

To illustrate the progression of this study, Figure 1.1 adopts a funnel-style approach, visualizing the transition from broad theoretical concepts to the specific, data-driven findings at the BEA Ouargla branch:

Note. Created by the author

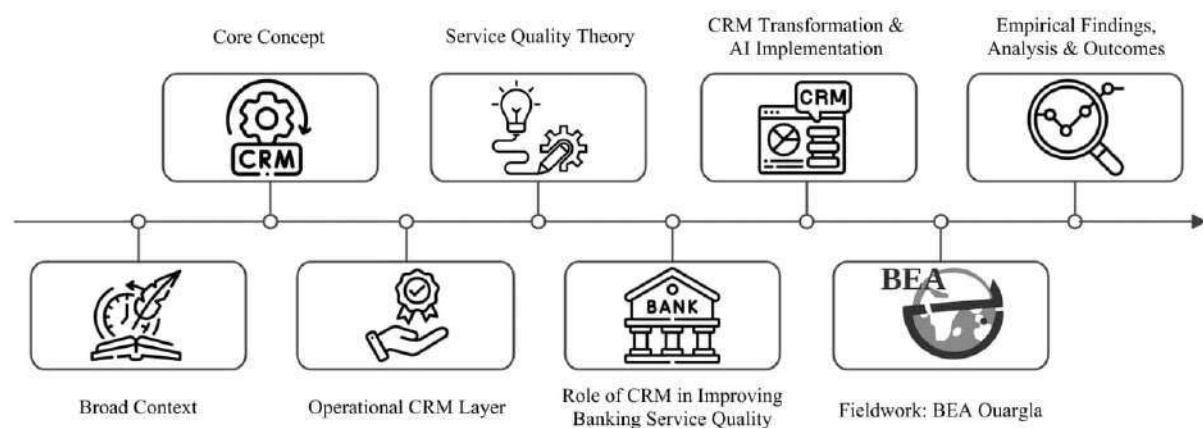


Figure 1.1. Research Roadmap: The Conceptual & Empirical Progression of the Study

Research Design

Note. Created by the author

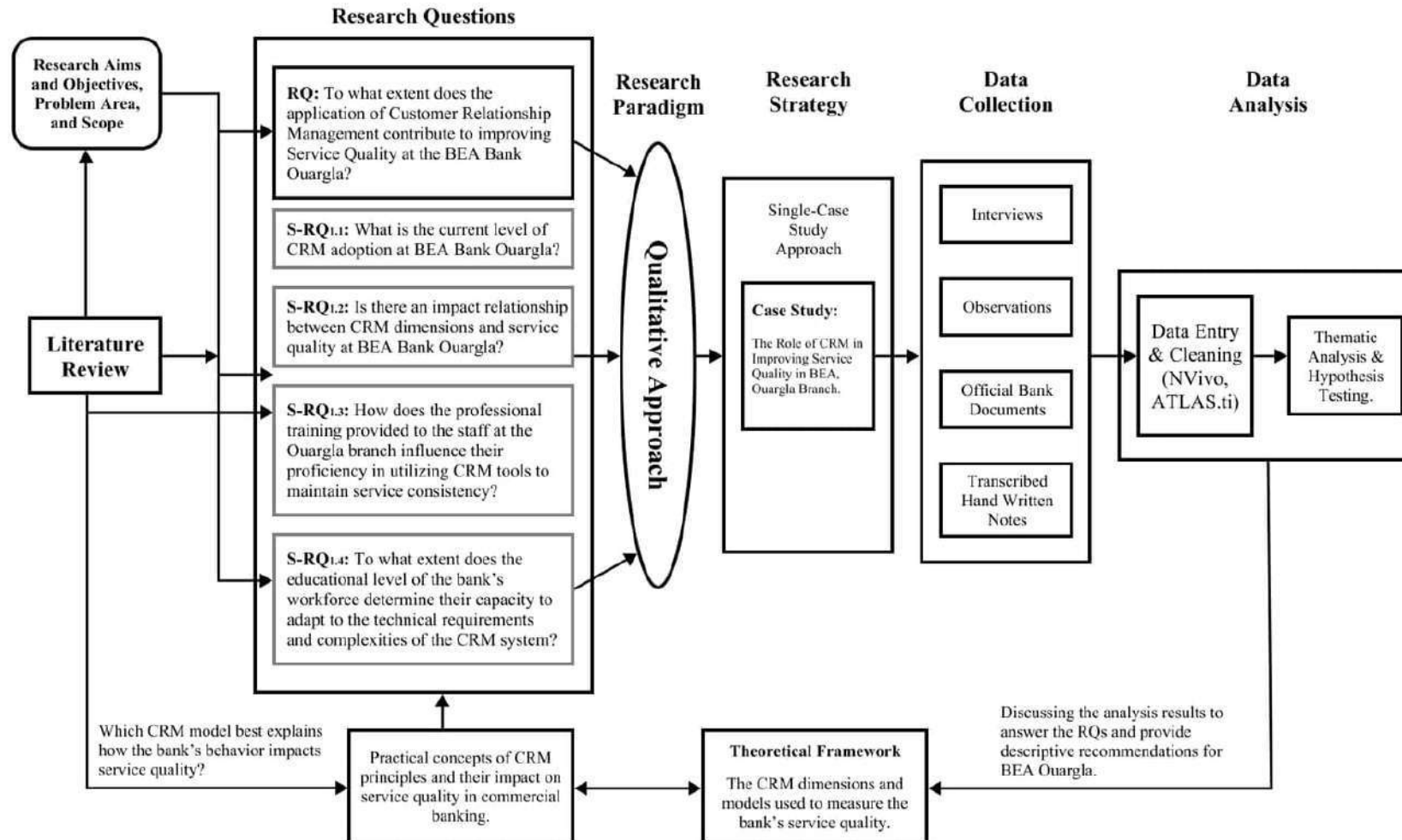


Figure 1.2. Research Design: The Overall Plan for Conducting the Study

Chapter One

An Overview About Customer Relationship Management and Service Quality

Chapter Introduction

In today's banking sector securing a competitive edge requires far more than just a portfolio of financial services; it really comes down to how effectively a bank can bridge the gap between its internal strategies and the customer's actual experience. This chapter establishes the comprehensive theoretical and conceptual foundation for the entire study, deliberately designed to ground abstract relational marketing concepts in the operational realities of banking service delivery. As financial products increasingly become homogeneous commodities, service quality rather than product innovation has emerged as the primary vehicle for institutional differentiation and client retention. To systematically explore this paradigm, this chapter is organized into three interconnected sections.

This chapter identifies the conceptual foundations of CRM and Service Quality and deconstructs the core typologies of banking customer behaviors and traces the structural evolution of Customer Relationship Management. It introduces the primary evaluative frameworks used in this study, specifically analyzing the Technical and Functional Quality Models, Gap Analysis frameworks, and the core dimensions of the SERVQUAL measurement scale.

Then the chapter shifts the focus from foundational definitions to operational architecture. This section examines the leading systematic frameworks governing the discipline, including the IDIC model, the Quality Competitiveness Index (QCI) model, and the CRM Strategy Matrix, while outlining the distinct applications of database technologies within commercial banking environments.

Ultimately, it evaluates the modern shift toward omnichannel engagement, automated enterprise system integration, Big Data analytics, and the theoretical implications of Artificial Intelligence on interaction consistency and predictive customer behaviors.

By synthesizing these three theoretical dimensions, this chapter constructs the definitive conceptual lens required to evaluate whether localized institutional strategies align with international performance standards, setting the stage for direct empirical fieldwork.

Section One: Conceptual Foundations of CRM and Service Quality

The Concept of Banking Customers

The Definition of a Customer

A customer is a person who has acquired or is considering the acquisition of products or services, anyone involved in making a decision, from the financial decision-maker to the decision influencer to the end user. For business-to-business (B2B) sellers, the concept of a customer company is also important. But its importance is as a label for and a set of facts about a group of customer's people. The study can identify a group of customers with characteristics in common by knowing that they work for the same company. It often identifies the value of this group of customers by knowing the aggregate sales to their entire company. (Kincaid, 2003)

Customers, also known as clients, purchasers, and buyers, are organizations or parts of it, either a B2B customers or an end-user consumer, that may benefit from the offering a company provides. Customers can be current or potential, and all others with problems and needs who seek either product or service solutions. From a manufacturer's point of view, customers include distributors, retailers, and persons who buy products from the retailers. The customer relationship can be direct or indirect, and the customer may be a paying or non-paying one. Customers may also participate in value creation. Besides external customers, internal customers affect product quality, and should be involved in development early enough. Internal customers are important especially for companies operating in international markets, due to limited contact with external customers. (Majava, J., Nuottila, J., Haapasalo, H., & Law, K. M. Y., 2013)

The Definition of a Banking Customer

Customers are bank depositors, who entrust their money, banking facilities, for storage and growth, for which they receive interest and applicants or those who need temporary, some additional money for paying interest or commission.

There is no established definition of a banking customer, but can be gleaned from a few details about customers to draft a definition of customer, in terms of banks, as is the mutual relationship, client-bank relationship. Extrapolating the definition of the bank customers, typically is client-bank relationship is a more special relationship than meets the eye, precisely because it is very sensitive. The customer can be defined by the following features (Dimitriu, 2012):

- Is a person or legal entity that has a business relationship with the bank;
- Turn to one of the units a bank to ask for operations;
- Use one, some or all services offered by banks.

The relationship between customer and bank is defined by law. This refers to the duty of the bank to take care of the customer and the banks responsibility to ensure that the system protects the technology used, the bank itself and its customers. Different types and categories

customers have different requirements, in accordance with their business or personal needs, offering great potential for development banking. Requirements and customer needs may change after a period of time, according to the new conditions existing in the economy and society. When customer needs evolve, banks that respond by offering advanced and relevant services will retain their customers and expand their market. In a market economy, it is a long-established fact that specialized banking products are more easily developed and used by existing customers than new ones. It is, therefore important to identify different types of customers and their specific requirements. Companies will have different needs depending on the nature and volume of business. (Dimitriu, 2012)

Types of Bank Customers

The diversity of motivations driving bank customers makes a one-size-fits-all CRM approach strategically inadequate. At one end of the motivational spectrum sit clients who view capital primarily as a social instrument, either as a means of influencing broader social conditions, as in the case of change-oriented clients, or as a resource for supporting others, as with altruistic and care-driven customers. These clients tend to prioritize institutional reliability and ethical conduct over product innovation. At the other end sit competitively and status-driven customers, those who use financial services as a marker of social positioning or as leverage for market advantage. (Dimitriu, 2012)

Note. Adapted from "Customer orientation of the bank as the basis of the customer-oriented business model of the bank," by V. Rudevskia, 2022, Three Seas Economic Journal, 3(4), p.31

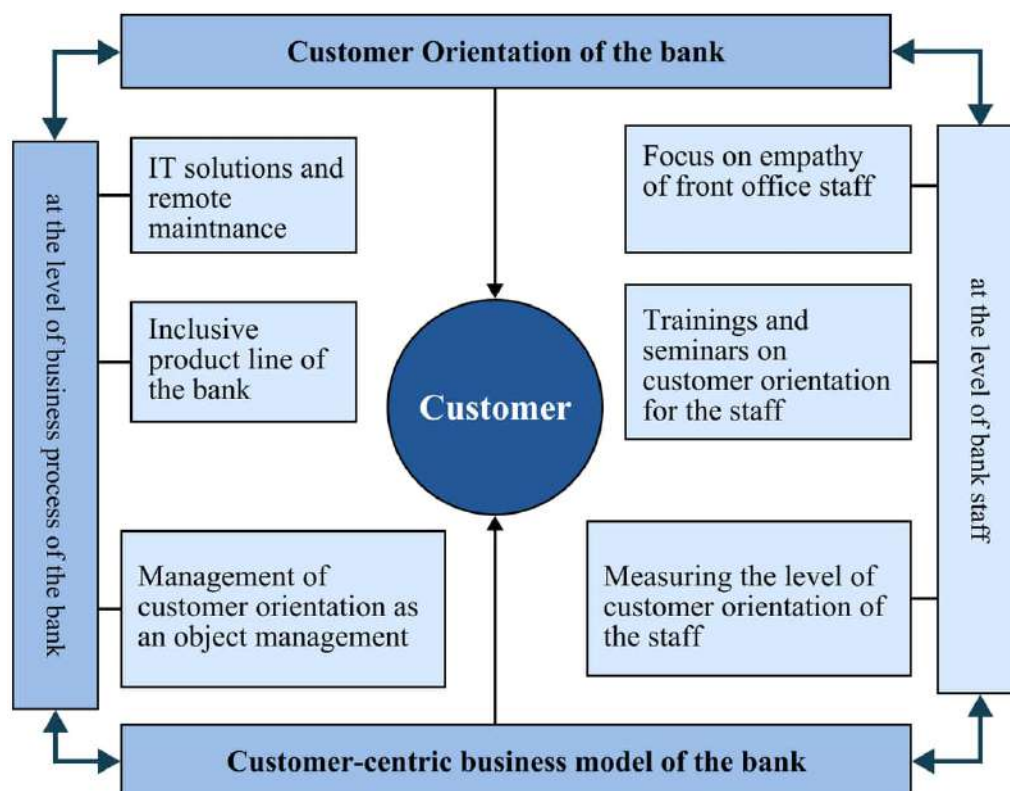


Figure 2.1. Two-level Structure of the Bank's Customer Orientation

The Difference Between the Customer and The Consumer

A customer (also known as a client, buyer or purchaser) is the recipient of a product or service obtained from a seller, vendor or supplier of a monetary or other valuable consideration who may or may not be the consumer (i.e. the end user of the product or service). The consumer buys or consumes what fits his / her budget and style of living and rejects the other products and services. By strict definition the consumer is a person who consumes or is the end-user of the product. A customer is a person who purchases something or engages in some form of exchange transaction. (Datta, 2016)

Note. Adapted from “Customer vs consumer – A different perspective,” by S. Datta, 2016, International Journal of Marketing & Business Communication, 5(2), p. 110.

Basis of Comparison	Customer	Consumer
Meaning	The purchaser of goods or services	The end user of goods or services
Resell	May be a business entity also which purchases for resell	No
Purchase of Goods	Yes	Not necessary
Purpose	Consumption or resell	Consumption
Price of Product or Service	Paid	May not be paid

Table 1.1. Comparison Between the Customer and The Consumer

An Overview of Customer Relationship Management in Banks

Customer Relationship Management Evolution

In the mid-twentieth century, mass production techniques and mass marketing changed the competitive landscape by increasing product availability for consumers. However, the purchasing process that allowed the shopkeeper and customer to spend quality time getting to know each other was also fundamentally changed. In some organizations, CRM is simply a technology solution that extends separate databases and sales force automation tools to bridge sales and marketing functions in order to improve targeting efforts. Other organizations consider CRM as a tool specifically designed for one-to-one customer communications, a sole responsibility of sales/service, call centers, or marketing departments. CRM initiatives have resulted in increased competitiveness for many companies as witnessed by higher revenues and lower operational costs. Managing customer relationships effectively and efficiently boosts customer satisfaction and retention rates. Applications help organizations assess customer loyalty and profitability on measures such as repeat purchases, dollars spent, and longevity. In particular, customers benefit from the belief that they are saving time and money as well as receiving better information and special treatment. (Chen & Popovich, 2003)

The expression, Customer Relationship Management, has been in use since the early 1990s. Since then, there have been many attempts to define the domain of CRM. As a discipline hotly contested by various information technology (IT) vendors, consultants and academics, a clear consensus has not yet emerged. Even the meaning of the three-letter acronym CRM is contested. For example, although most people would understand that CRM means Customer Relationship Management, others have used the acronym to mean Customer Relationship Marketing. Information technology companies have tended to use the term CRM to describe the software applications that are used to support the marketing, selling and service functions of businesses. (Buttle & Maklan, Customer relationship management: Concepts and tools, 2006)

Definition of Customer Relationship Management

Customer Relationship Management has been defined in a variety of ways by scholars and practitioners alike. At the center of CRM are the strategies, technologies, and processes an organization adopts for managing and analysing customer interactions across the entire customer lifecycle. It can be understood as a strategy aimed at customer understanding, pre-emption, and responding from within. Furthermore, CRM is the process of capturing, holding on to, and collaborating with selected clients to generate greater worth for the business and customers alike. (Bisht, 2025)

Customer relationship management is a term for the methodologies, technologies, and e-commerce capabilities used by companies to manage customer relationships. Traditionally, organizations have developed databases to capture customer information, including details such as profiles, demographics, products purchased, and other items of interest. This data is utilized by management, salespeople, and service personnel to determine market trends, customer preferences, and necessary maintenance or service requirements. While many companies have successfully managed to capture and archive this data in servers and mainframes, the extent to which they transform this information into tangible value varies dramatically. (Stone & Woodcock, 2001)

Customer Relationship Management Dimensions

Successful implementation of CRM system requires specific actions on all parts of the organization, the CRM system is divided into four stages: (Yaghoubi, Khaksar, Jahanshahi, & Nawaser, 2011)

- Customer knowledge (CK)
- Customer Interaction (CI)
- Customer satisfaction (CS)
- Customer Value (CV)

Note. Adapted from "The Impact of Knowledge Management on Customer Relationship Management," by N. M. Yaghoubi, S. M. S. Khaksar, S. A. Banihashemi, A. A. Jahanshahi, and K. Nawaser, 2011, European Journal of Economics, Finance and Administrative Sciences, (34), p. 78.

CRM Dimension	Implications	Indices
Customer Knowledge (CK)	Understanding the Customers and analyzing their Data	- Customer attraction - Appropriation Understanding customer needs, analyzing the customer data
Customer Interaction (CI)	Promoting the effective paths	- Number of responses, number of interactions, relationship management Communication routes ‘maximizing operations profitability
Customer Satisfaction (CS)	Achieving Business Value	- Customer retention, increasing repeated purchases, number of complaints
Customer Value (CV)	Increasing Loyalty and Profitability	- Brand perception, servicing level, number of daily requests, and customer’s trust towards the organization.

Table 1.2. The Dimensions of CRM and its Related Indices

Customer Knowledge (CK): A necessary first step to a complete CRM system is the construction of a customer information file like data warehousing. This means collecting appropriate customer information, analyzing customer data, acquiring new customers, improving skills of employee, improving CRM technique, and secure service. Customer knowledge in higher levels is the common interface of activity-based Knowledge Management and customer relationship management is at intermediate levels of the organization. (Yaghoubi, Khaksar, Jahanshahi, & Nawaser, 2011)

Customer Interaction (CI): Customers perceive value and service quality at the time of the service encounter, and their evaluations of service quality also involve evaluations of the process of service delivery. In other words, interaction with customers is the turning point of business activity towards customer orientation and customer relationship management. It is therefore apparent that any importance of CRM process must take account of service process. Consequently, by managing CI more effectively, a company can create customer value and operational excellent. This created value will make new opportunities for profitability in the business. (Yaghoubi, Khaksar, Jahanshahi, & Nawaser, 2011)

Customer Satisfaction (CS): “Customer satisfaction” and “customer loyalty” are the results of the antecedents: customer knowledge input, service delivery and customer interaction. It is thus apparent that the highest priorities for any service organization must be a thorough understanding of customer needs and expectations, effective control of inputs, and successful operation of the service-provision processes. Customer satisfaction is the main mission of the present organizations. Consequently, CS phase represents the level of satisfaction achieved by perceived value. Perhaps customer satisfaction could be conceived as the most important stage in this model. (Yaghoubi, Khaksar, Jahanshahi, & Nawaser, 2011)

Customer Value (CV): The CV phase represents the firms' benefits can be gained from loyal customers extended. CRM system involves the pursuit of customer satisfaction and customer loyalty, which are still expanding to the firms' revenue and profit. Thus, the extended model aims to accentuate the essential benefits of the pursuit of customer loyalty. Therefore, customer value can be considered as the last segment in the model which links customer relationship management with knowledge management objectives. (Yaghoubi, Khaksar, Jahanshahi, & Nawaser, 2011)

The Importance of Customer Relationship Management in Banks

Customer Relationship Management is the strongest and the most efficient approach in maintaining and creating relationships with customers. Customer relationship management is not only pure business but also ideate strong personal bonding within people. Development of this type of bonding drives the business to new levels of success. Once this personal and emotional linkage is built, it is very easy for any organization to identify the actual needs of customer and help them to serve them in a better way. It is a belief that more the sophisticated strategies involved in implementing the customer relationship management, the more strong and fruitful is the business. Most of the organizations have dedicated world class tools for maintaining CRM systems into their workplace. (Tohidi, Hamid, 2012)

In the banking sector, CRM systems are utilized to improve customer service and cross-selling opportunities. Banks and institutions utilize CRM systems to record customer interactions like account inquiries and loan applications, as well as offer customized assistance. CRM systems also allow banks to spot opportunities for cross-selling, like providing credit cards or investment products for current customers. CRM systems also assist in marketing activities by allowing banks to promote specific customer segments with customized offers and promotions. Through enhanced customer service and the ability to uncover revenue opportunities, CRM solutions assist banks and other financial institutions in developing better customer relationships and expanding their business. (Bisht, 2025)

Concept and Nature of Service Quality in Banks

In the recent years the world has seen significant economic transformations and expansion in the banking sector, it has led to a critical turning point due to the constant increase in competitive financial service field, most banks are prioritizing anticipating and achieving the goal of meeting their customers' expectations and maintain customer retention and the long-term relationship. This way has become crucial to lead the service sector competition markets.(Imam & Anwar, 2025)

The Concept of Service Quality in Banks

Definitions of service quality in the banking industry in the literature focus primarily on meeting customers' needs and requirements and how well the delivered service meets customers' expectations. These definitions are in line with the financial customer-centric-based approach. Differences between expected and perceived performances give rise to disconfirmation, which can be either positive or negative. Expectations in this context are based on individual norms, values, wishes and needs and are therefore very individualistic. Customer

expectations are beliefs about the service that serve as standards or reference points against which quality is judged. Whether or not these expectations are met by the service provider will have a crucial bearing on their perceived service quality. It should be noted though, that the expectations between two individuals are not necessarily identical, even if the service delivery is absolutely identical. The perceived service quality of the service is therefore also not necessarily identical. Changing personal circumstances such as income levels, educational achievement or increasing aspiration levels may also change an individual's expectations over time. Expectations are also affected by the interaction of a person with for instance, the media, the service provider, other customers, and observation of specific situations. (Harmse, 2012)

Dimensions of Service Quality in the Banking Industry

Service quality is characterized by a complex interplay of various dimensions that collectively and interactively shape customer perception. The SERVQUAL model stands as a cornerstone in service quality research, providing a framework that identifies five key dimensions that are widely employed to evaluate and assess customer perceptions of service quality across a multitude of industries. (Imam & Anwar, 2025)

Within the banking context of this study, the SERVQUAL model and its five RATER dimensions serve as the primary measurement framework for assessing service quality at BEA Ouargla:

Tangibles: Tangibles can be identified as physical facilities (equipment, personnel, and communications materials). Customers will judge quality based on the physical appearance of the service. External appearance, counter services, overdraft facilities, business hours, and transaction speed and efficiency are all tangibles. In the organization, the tangibility dimension becomes an inherent in-service quality, such as equipment, physical facilities, and visual attractiveness. (Setapa & al., 2024)

Reliability: Reliability refers to the service provider's ability to consistently perform the promised service accurately, dependably, and consistently. It is widely considered to be the cornerstone of service quality, as customers fundamentally expect services to be delivered as promised, without errors or inconsistencies. Reliability builds trust and confidence in the service provider. (Imam & Anwar, 2025)

Responsiveness: Responsiveness emphasizes the obligations of the service provider to provide assistance and help to the clients and the capability to provide immediate service to them. Similar to other dimensions of the SERVQUAL model, responsiveness also was a dimension that was utilized and adopted in a lot of fields of study to assess the aspect of service quality. (Setapa & al., 2024)

Assurance: Assurance is characterized by the knowledge, competence, and courtesy of employees, as well as their capacity to inspire trust, confidence, and a feeling of security in customers. It is about making customers feel safe, secure, and confident in their transactions and interactions with the service provider. Assurance is particularly crucial in services that

involve a high degree of risk or uncertainty such as financial institutions. (Imam & Anwar, 2025)

Empathy: Empathy involves the caring, individualized attention, and personalized service that a firm provides to its customers. It is about understanding customer needs, demonstrating sensitivity to their unique circumstances, and providing tailored service that meets their specific requirements. Empathy fosters a sense of connection and strengthens customer relationships. (Imam & Anwar, 2025)

Service Quality in the Banking Industry

The banking industry, which involves financial transactions and a high degree of trust, presents its own unique set of service quality considerations. A research conducting a comparative analysis of service quality perceptions in Islamic and conventional banks, revealing notable differences in how customers perceive tangibles, assurance, and innovation. This study highlights the importance of cultural and religious factors in shaping service quality expectations within the banking sector. Factors such as trust, security, and ethical considerations play a significant role in customer perception in this industry. (Imam & Anwar, 2025)

Service Quality Models

Technical and Functional Quality Model (Nordic Model of Grönroos):

Grönroos developed the first concept of the service quality model in 1984 to succeed, the organization must first understand how the customers view the services provided. The business must comprehend the factors that affect consumers' perceptions of product and service quality to successfully compete in the market. The essential to regulate perceived service quality was matching expected and perceived service to ensure client satisfaction. (Rani & Kaur, 2025)

The customer's perceptions of service quality are therefore the main feature in this service quality model and secondly, the determinants of what influence service quality are also included. The model emphasises that the interaction between the buyer and seller in a service setting is as important as the eventual outcome. The basic principle in his model is that service quality is dependent on the comparison of two variables: the expected service from customers and the actual service as perceived by them. The outcome of this comparison process will then be the perceived quality of the service. It should be noted however, that this model measures service quality through performance scores only after recognising the difficulties in making independent measurements of customer's expectations. (Harmse, 2012)

An improvement to this model by introducing a new factor, the Service Environment. It has been recommended that service product (functional quality) and service delivery (technical quality) as the other two aspects, but the model was not put to the test and only a few applications and evaluations of this technique were found. (Rani & Kaur, 2025)

Note. Adapted from A service quality model for the landlord-tenant relationship in shopping centers (p. 66), by C. P. J. Harmse, 2012, University of Pretoria.

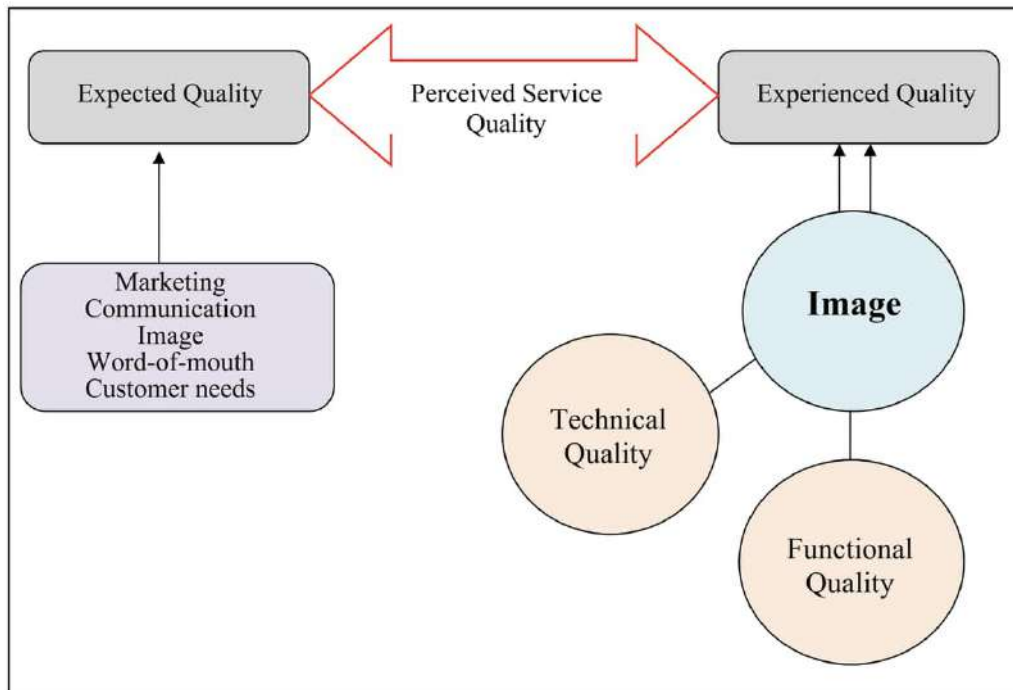


Figure 3.1. The Service Quality Model of Grönroos

Gap Analysis Model:

The Grönroos approach was founded on the disconfirmation model, which contrasts actual service with what is expected. Disconfirmation theory was based on the literature on quality products, which constitutes the backbone of service quality. The evolution of the idea for implementing a gap assessment in customer service. (Rani & Kaur, 2025)

Gap 1: Customer Expectation – Management Perception Gap

There are inconsistencies between customer expectations and management perceptions of those expectations. Managers of service organizations may not always understand what features indicate high quality to customers, what features a service must have in order to meet customers' needs, and what the level of performance on those features should be to deliver high quality service. As a result, customers' service quality perceptions may be affected. (Rani & Kaur, 2025)

Gap 2: Management Perceptions – Service Quality Specification Gap

The gap between management perceptions of customer expectations and the actual specifications established for a service may occur as a result of resource constraints, market conditions and a lack of management commitment to service quality. This discrepancy may affect the service quality perceptions of customers. (Rani & Kaur, 2025)

Gap 3: Service Quality Specifications – Service Delivery Gap

Although firms may have formal standards or specifications for maintaining service quality, it may be difficult to adhere to these standards because of variability in employee performance. This will affect service quality from the customer's point of view. (Rani & Kaur, 2025)

Gap 4: Service Delivery – External Communications Gap

This gap in the discrepancies between service delivery and what the organization promises through external communications and/or the absence of information about service delivery aspects may affect customer perceptions of service quality. (Harmse, 2012)

Gap 5: Expected Service – Perceived Service Gap

Gap 5 is the most important gap, it can be regarded as a function of the first four gaps. The quality that a customer perceives in a service is a function of the magnitude and direction of the gap between expected service and perceived service. In order to manage service quality, it will therefore be important to manage the gaps that exist between expectations and perceptions on the part of management, employers and customers. (Harmse, 2012)

Note. Adapted from A service quality model for the landlord-tenant relationship in shopping centers (p. 70), by C. P. J. Harmse, 2012, University of Pretoria.

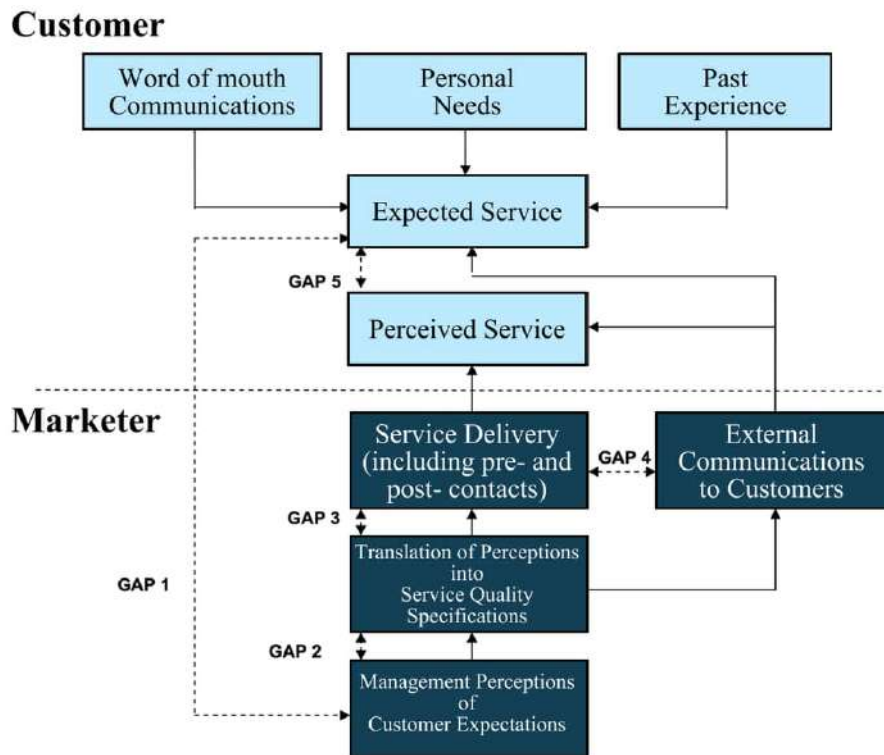


Figure 3.2. Service Quality – Identification of Gaps

There are seven major gaps in the service quality concept, which are shown in Figure 3.2. The model is an extension of the 5 Gap model. The three important gaps, which are more associated with the external customers are Gap 1, Gap 5 and Gap 6 since they have a direct relationship with customers. The updated found Gaps model is as follows:

Gap 6: The discrepancy between customer expectations and employees' perceptions

As a result of the differences in the understanding of customer expectations by front-line service providers.

Gap 7: The discrepancy between employee's perceptions and management perceptions

As a result of the differences in the understanding of customer expectations between managers and service providers. (Shahin, 2006)

Note. Adapted from “SERVQUAL and Model of Service Quality Gaps: A Framework for Determining and Prioritizing Critical Factors in Delivering Quality Services,” by A. Shahin, 2006, Service Quality Management, 1(1), p. 3.

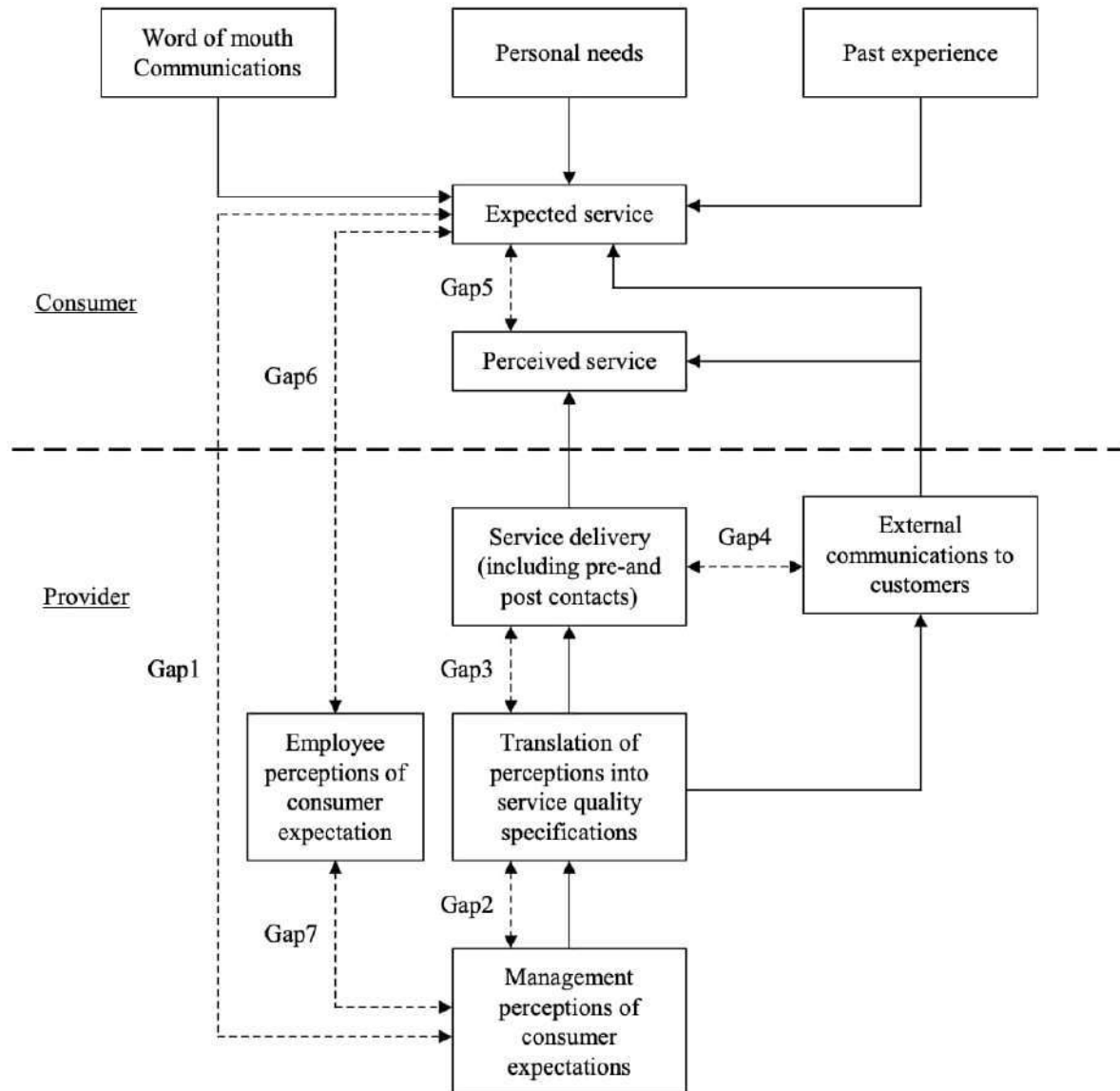


Figure 3.3. Model of Service Quality Gaps

Measuring Service Quality in Banks

Quality in a service organization is a measure of the extent to which the service delivered meets the customer's expectations. The nature of most services is such that the customer is present in the delivery process. This means that the perception of quality is influenced not only by the "service outcome" but also by the "service process".

The perceived quality lies along a continuum. Unacceptable quality lies at one end of this continuum, while ideal quality lies at the other end. The points in between represent different gradations of quality. The perceived quality can be represented as follows:

$$\text{Prior Customer Expectations} + \text{Actual Process Quality} + \text{Actual Outcome Quality} = \text{Perceived Quality}$$
$$\text{PCE} + \text{APQ} + \text{AOQ} = \text{PQ}$$

This paradigm implies that prior expectations are compared with the actual service delivery process and the service outcome and that it is through this comparison that the perceived quality is fashioned. Prior customer expectation is the a priori image of what will be received when the consumer purchases a service. Several factors influence the a priori image. These include: personal needs; past experience; word of mouth; market communications; image; and price. Thus, the provider of service can be proactive in shaping the customer's expectations through its marketing and external communication efforts.

Perceived quality is the customer's feel for the quality of the service. It determines the extent of the customer's satisfaction. The three key possible quality outcomes are:

- Satisfactory quality, where customer's expectations (CE) are exactly met: **PCE = PQ**
- Ideal quality, where perceived quality is > customer's expectations: **PQ > PCE**
- Unacceptable quality, where perceived quality is < customer's expectations: **PQ < PCE** (Ghobadian, Speller, & Jones, 1994)

Another study developed service quality scale for UAE banks. Factor analysis in their study found three factors as the main determinants of service quality, namely human skills, tangibles, and empathy. The human skills dimension consisted of items originally included in the reliability and assurance dimensions. (Asif, Awan, Jajja, & Ahmad, 2016)

SERVQUAL Dimensions in Relation to the Banking Sector

The applicability of the service quality measure was tested in the retail banking industry in India. This research was conducted to measure the overall service quality perceived by customers of two major banks in India using the SERVQUAL model. The data indicated that dimensions were not equally important in explaining variances in the overall service quality. Responsiveness and reliability were the most important dimensions, followed by the empathy and tangible dimensions; assurance appeared to be the least important. It was concluded that SERVQUAL is the best model to measure service quality in the banking industry. (Lau, Cheung, Lam, & Chu, 2013)

Implications for the Banking Industry

- **Strategies for Improving Service Quality:** Banks should prioritize the enhancement of Reliability, Assurance, and Responsiveness. Success in these areas requires a deep understanding of regional variations, ensuring that the core service delivery aligns with local market standards.
- **Addressing Service Quality Gaps:** It is essential for management to identify and close internal gaps, particularly within the Empathy and Tangibility dimensions. Improving the

"human touch" and the physical/digital environment is fundamental to increasing overall customer satisfaction.

- **Adapting to Regional Differences:** Institutions must tailor their service quality frameworks to account for regional expectations and cultural nuances, ensuring a personalized experience that resonates with the specific demographic of each branch. (Charan, Banana, & Vidani, 2024)

Impact of Service Quality

Service quality exerts a pervasive and profound influence on a wide range of critical factors, including customer satisfaction, the formation of behavioral intentions, and ultimately, the achievement of business outcomes. (Imam & Anwar, 2025)

- **Customer Satisfaction:** The relationship between high service quality and increased customer satisfaction is a consistent finding across diverse industries. When organizations consistently deliver exceptional service that meets or exceeds customer expectations, customers are more likely to be satisfied with their overall experience. Satisfied customers are more likely to become loyal customers, engage in repeat business, and advocate for the organization.
- **Reputation:** Conversely, poor service quality can have detrimental and long-lasting effects, leading to negative word-of-mouth communication and unfavorable publicity, which can tarnish a business's reputation and erode customer trust. In today's interconnected world, where online reviews, social media, and word-of-mouth play a significant role in shaping consumer perceptions, maintaining a positive reputation is more critical than ever.
- **Behavioral Intentions:** Improved service quality enhances customer satisfaction, which in turn generates positive behavioral intentions including repeat engagement, service recommendations, and long-term loyalty. The impact of service quality extends beyond these direct effects, influencing a range of other important outcomes, such as customer loyalty, customer retention, profitability, and competitive advantage.
- **The Impact of Technology:** Investigating the impact of technology, such as artificial intelligence, mobile applications, and online platforms, on service quality and customer perception.
- **Personalization and Customization:** Exploring the role of personalization and customization in enhancing service quality and meeting individual customer needs.
- **Emotional Aspects of Service:** Delving deeper into the emotional aspects of service encounters and their influence on customer satisfaction and loyalty.
- **Cross-Cultural Studies:** Conducting more cross-cultural studies to understand how service quality perceptions vary across different cultural contexts.
- **Service Recovery:** Examining the effectiveness of service recovery strategies in mitigating the negative effects of service failures and restoring customer satisfaction. (Imam & Anwar, 2025)

Section Two: CRM Tools, Strategies and their Role in the Banking Sector

The Customer Relationship Management Framework Models

The absence of a universal definition of CRM has produced considerable variation in how organizations conceptualize and implement it. For some practitioners it refers narrowly to digital communication campaigns; for others it encompasses one-to-one service customization; and within information technology circles it is frequently reduced to technical infrastructure alone. What unifies these perspectives, however, is the shared need to develop a systematic understanding of customers and translate that understanding into strategic action. A foundational representation of this approach is the basic CRM model, which organizes core customer relationship activities into seven interrelated components. (Rai, 2014)

Note. Adapted from "A Report on Customer Relationship Management (CRM) Model," by A. Rai, 2014, Nepal Commerce Campus, p. 5.



Figure 4.1. The Basic CRM Model

CRM Framework Models

1. IDIC Model (Developed by Peppers and Rogers)

The IDIC model is a customer relationship management framework that provides a systematic approach to managing customer relationships. It emphasizes the importance of identifying, differentiating, interacting with, and customizing services for key customers. (Kumar & Ravi, 2025)

Note. Adapted from IDIC model template, by Creately Team, n.d., Creately

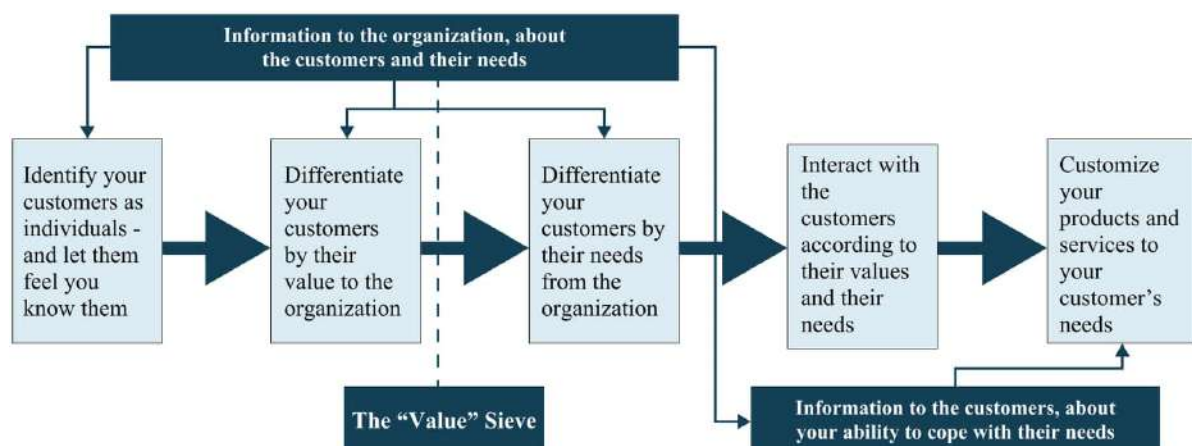


Figure 4.2. The IDIC Model: Identify, Differentiate, Interact and Customize

2. QCi Model

The QCi (Quality Competitiveness Index) model is a CRM assessment tool that focuses on evaluating customer relationships across several key components. Its goal is to ensure that organizations manage customer interactions effectively, improve customer satisfaction, and achieve long-term business success.

- Acquisition: Attracting new customers through marketing and promotional activities.
- Penetration: Increasing the number of products or services used by existing customers.
- Retention: Maintaining customer satisfaction and preventing customers from switching to competitors.
- Value Development: Enhancing the value offered to customers by providing complementary services or higher-end products.

Other components of the QCi model include measuring customer satisfaction, loyalty, and advocacy to assess the overall strength of customer relationships. (Kumar & Ravi, 2025)

Note. Adapted from QCI model template, by Lucid Content Team, n.d., Lucidchart

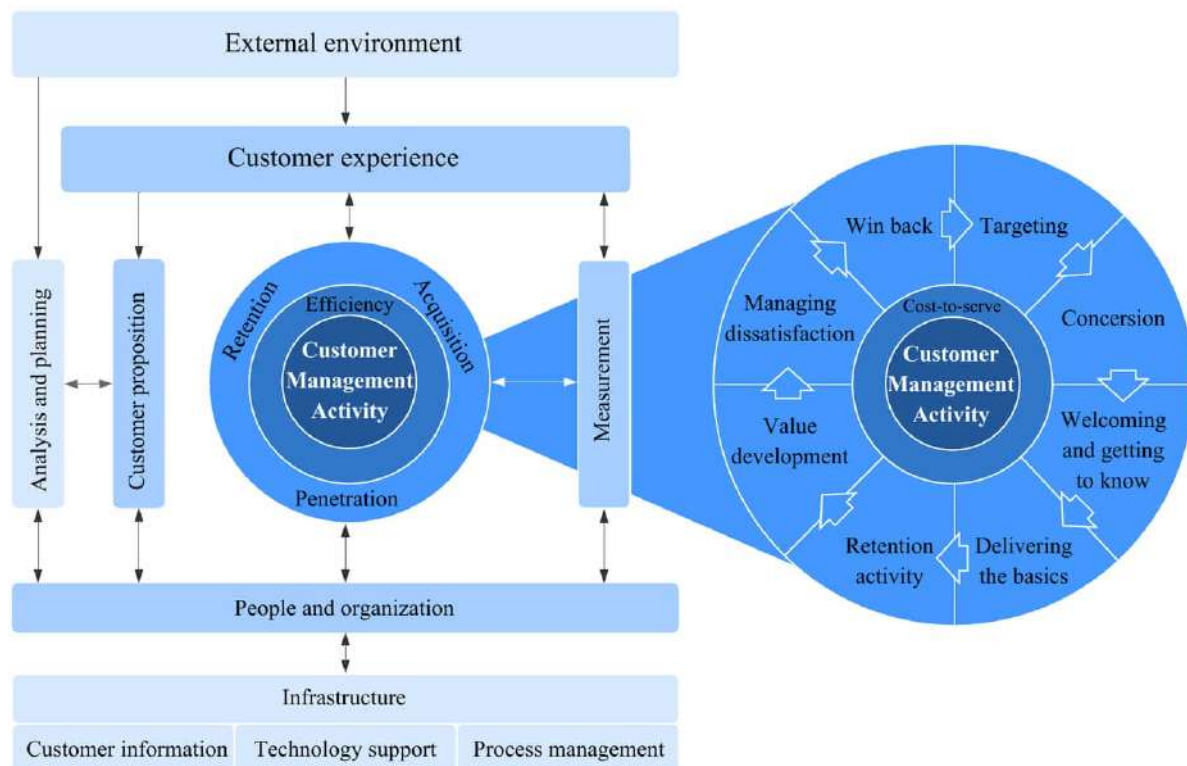


Figure 4.3. The Quality Customer Management Initiative (QCI) Model

Model of Creation of CRM Systems

This research-based model has been developed to guide the successful CRM implementation and the focus is to measure the effectiveness and profitability of enterprise and customers. The process starts with screening the environment.

CRM Tools and Technologies in Banks

CRM software is a business solution that grows the business; CRM technology is an effective software that helps manage the customer database to nurture and sustain long-term relationships. This will end up in productivity and maximize the firm's revenue outstandingly. The customer database contains a whole lot of information about the customer and prospects. Database technology: CRM systems typically use database systems to store and manage customer data (Viljoen, Bennett, Berndt, & Zyl, 2005). This can include traditional relational databases, such as MySQL and Oracle, or newer NoSQL databases, such as MongoDB and Cassandra.

Technological developments continue to affect the marketing of its products and services. In using technology, a number of CRM applications can be identified that are used in the development of CRM strategy. Three main components of CRM technology systems can be identified, as illustrated in Figure 4.5. (Gandhi, Technologies for customer relationship management (Unit 12))

Note. Adapted from “The Use of Technology in Customer Relationship Management (CRM),” by M. Viljoen, J. Bennett, A. Berndt, and C. van Zyl, 2005, *Acta Commercii*, 5(1), p. 108.

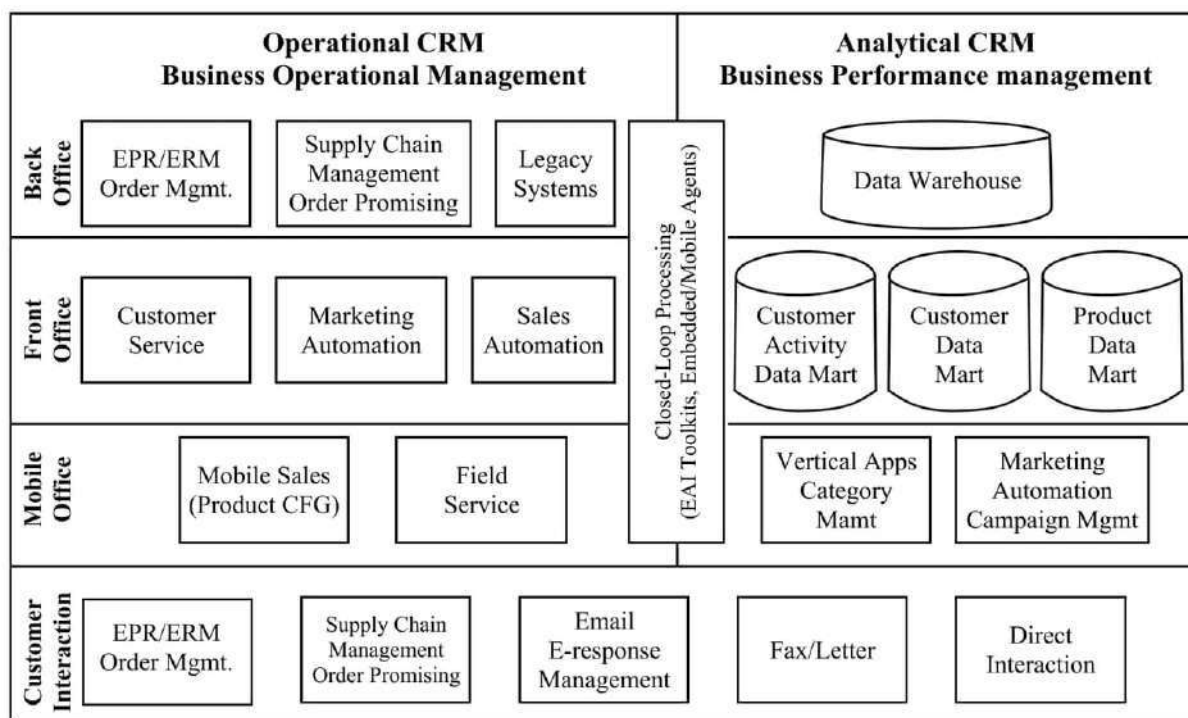


Figure 4.5. Technology Applications of CRM

Specific Technology Application within CRM

The development of CRM technology can be viewed from the perspective of the level of information technology applied in building customer relationships. Four stages can be identified in this development process. (Viljoen, Bennett, Berndt, & Zyl, 2005)

Customer Relationship Management tools in Banks

A main component of any CRM strategy entails the facilitation of two-way interaction between individual customers and the organization (external communications) about every aspect of the relationship, enabling the organization to adjust its strategy, including product design, customer service and channel preferences. Some of the interactive technologies that provide interactive customer communications and care include: (Viljoen, Bennett, Berndt, & Zyl, 2005)

- **Intelligent email:** Email remains an important method of customer contact for more than 70% of online businesses. 85% of websites invited email contact with the organization yet 32% replied to the email sent by the customer. Response times to emails varied between 40 minutes and four days.
- **Collaborative chat:** If customers have questions about a product or shipping details, a live collaborative chat function enables them to click on a live customer service icon that brings up a chat box.
- **Self-help:** Self-help consists not only of traditional FAQs, but also intelligent FAQs (where expert search systems can interpret a customer question to find an answer that a keyword search might not locate) and virtual agents or bots can chat with customers, answer their questions and make suggestions almost as effectively as a live person (such bots are equipped with a learning algorithm that enables them to improve the accuracy of their responses with each customer contact they experience; queries that cannot be handled are diverted to a live agent).
- **Telephony:** Computer telephony integration (CTI) can be incorporated as web pages can now be equipped with call-back buttons that can, when clicked on, open a window in which a customer can provide a phone number where he/she can be reached for questions or other service provision.
- **VoIP:** VoIP is a technology whereby an organization's Local Area Network (LAN) or Wide Area Network (WAN) can be used to transfer both data and voice. This essentially means that an organization no longer needs to use physical phone lines in order to communicate to the outside world.

CRM Strategies in Financial Service Organizations

The study considers that there is a compelling argument for companies' strategic context to be given greater emphasis in their approach to CRM because of high incidence of CRM failure reported in the literature. Failure, or restricted success, in CRM may occur for customer-based reasons or firm-based reasons. (Payne & Frow, 2006)

CRM Strategy Matrix in the Banking Industry

The financial services industry has struggled with legacy systems, inaccurate customer data and product-focused processes, forming a significant barrier for developing individualized customer relationships. An organization can use the CRM strategy matrix to help determine an appropriate strategy. Four strategy options suggested by the matrix are now examined. (Payne & Frow, 2006)

Note. Adapted from “A Strategic Framework for Customer Relationship Management” (Unit 12), by Indira Gandhi National Open University, 2005, p. 171.

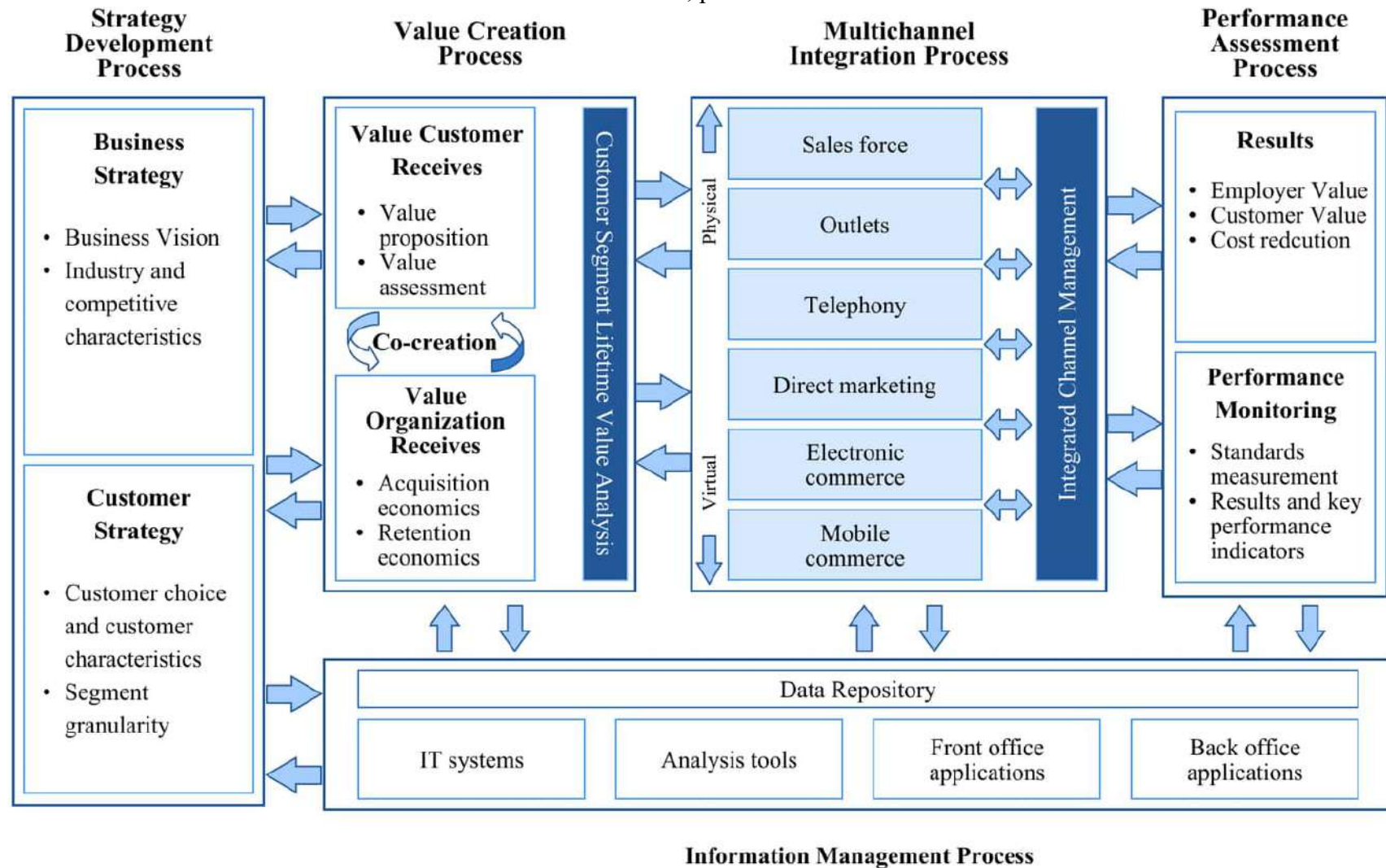


Figure 4.6. A Conceptual Framework for CRM Strategy

CRM Applications in Banks

The instigation of financial sector reforms has led to swift progress in the banking industry in India. The influence of financial sector transformation aimed to increase the effectiveness and the competitiveness of the monetary structure. The establishment and the functioning of new generation technology driven banks have given a new face to the Indian Banking industry. CRM is a vital factor to improve the performance of the banks. In order to excel in their services, the present day banks have shifted their focus from the twin functions of accepting of deposits and lending of loans to anytime and Anywhere Banking. Customers are considered as the fundamental non-core financial asset by the banks across the globe in the present day scenario. Courteousness, correctness and rapidity are the imperative factors in the efficient running of a bank. A highly satisfied customer will market for the bank and bring in more new customers to increase the business of the banks. (Gayathry, 2016)

The banks should adopt novel strategies and policies to decide on what to offer, whom to be focused, when to approach, how to promote and be unique in product and service offerings to increase their profitability. Banks need to make a difference in them by offering general products to meet the general demands of the customers and to offer customized services for the specific requirements of the customers. Banks should identify right type products for the right type of customers. This would help the banks to serve the customers with utmost cost efficiency. This will lead the banks towards customer satisfaction and customer loyalty. (Gayathry, 2016)

Importance of CRM in Banks

Customer Relationship Management helps businesses focus on selling and keeping their customer happy instead of scrambling to keep in contact with all the customer information. It also helped organise large customers' data so that businesses could further optimise it. In the bank, the handling of public relations is essential and cannot be overemphasised. In essence, CRM assists banks in acquiring more new customers, maintaining a good relationship with customers, and providing new products and services to their customers. The significance of customers to any business's success and the consequent need for companies to manage customer relationships to satisfy customers' needs and encourage them to repeat purchases. While the banks work very hard to repair their reputation lost in the last financial crises, new technologies have emerged that increase customer engagement. (Eze, 2024)

Banks now target customer satisfaction by deploying CRM systems. Even though it is an intangible activity, when customers of a bank are satisfied with the services offered to solve their problems, there are more chances of such happy customers being retained. The success of any bank is dependent on its customers. Banks need proper CRM applications to satisfy their customers. Banks usually practise collaborative relationships with customers to maintain their huge number of customers and make them satisfied and loyal simultaneously. When the banking sector of any country thrives well, the country's economy grows steadily. Modern CRM targets customers' preferences and buying patterns to get the right products and services they need at the correct. (Eze, 2024)

CRM Implementation in The Banking Sector

For banks, customer relationship management is all about establishing trusting relationships with clients and maintaining their satisfaction. CRM has been used by banks to boost customer happiness and enhance customer service. It offers:

- Client retention, by making it possible for banks to monitor their clientele and ascertain their preferences. It assists in identifying the clients who have left the bank because they are dissatisfied and have found other banks.
- Contributing to revenue growth. Customers are encouraged to spend more on banking goods and services and to expand their business with the bank. Additionally, it increases revenue by offering new products that the bank's clients could require.
- Monitoring customers' behavior and preferences by facilitating the comprehension of each customer's behavior, which makes it simpler for banks to provide their clients with individualized service. Then, by offering packages that meet their needs and requirements, they can provide them with superior service.
- CRM in banks improves the customer's experience by providing them with high-quality service that they will want to use repeatedly. CRM facilitates communication between bank employees and their customers.
- Improving Income by determining new services that are needed by both new and existing consumers, it assists banks in increasing their income production prospects. (Deshpande, 2019)

Note. Adapted from “The Impact of Technology on Customer Relationship Management (CRM) in UK Banks,” by T. C. Eze, 2024, Doctoral dissertation, University of Wales Trinity Saint David, p. 54.

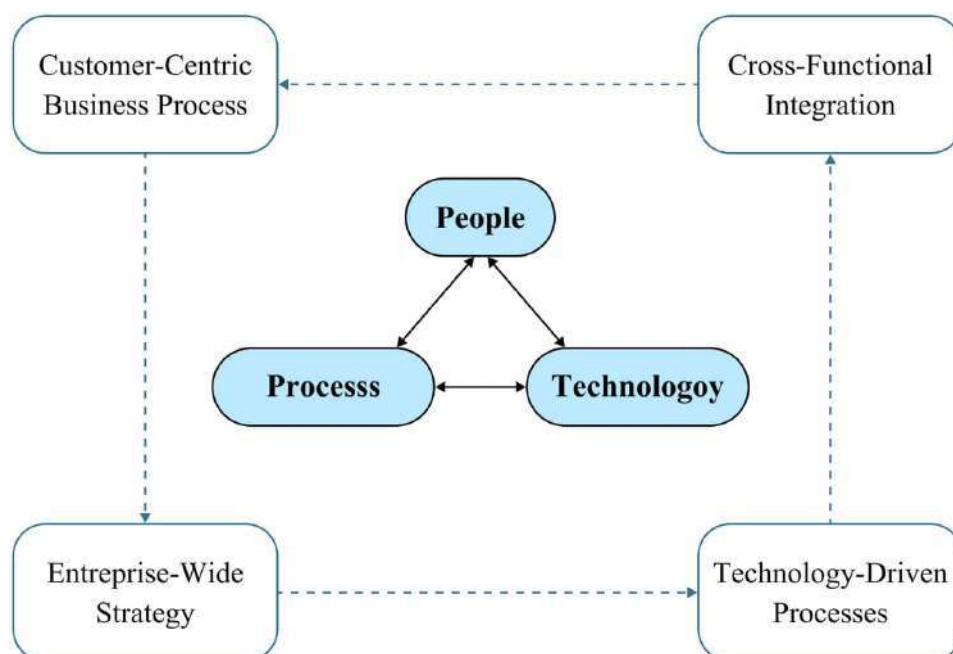


Figure 5.1. CRM Implemented Model

Adapting and maintaining a sound CRM system in the bank can build a long-lasting relationship with customers and generate more revenue and profit. However, banks should

recognize the strategic role of CRM and diversify the need of different customers. Many businesses are merging CRM concepts and knowledge management to serve their customers better and utilise their information more effectively. (Eze, 2024)

The most critical benefit of CRM implementation is that customers can identify the increased convenience they receive. Implementing CRM in the financial institution has brought several competitive advantages for the bank and the customers. (Eze, 2024)

Note. Adapted from “Customer Relationship Management (CRM) in Small and Medium Tourism Enterprises: A Dynamic Capabilities Perspective,” by V. M. Ngo, D. Pavelková, Q. P. Phan, and N. Nguyen, 2018, *Tourism and Hospitality Management*, 24(1), p. 70.

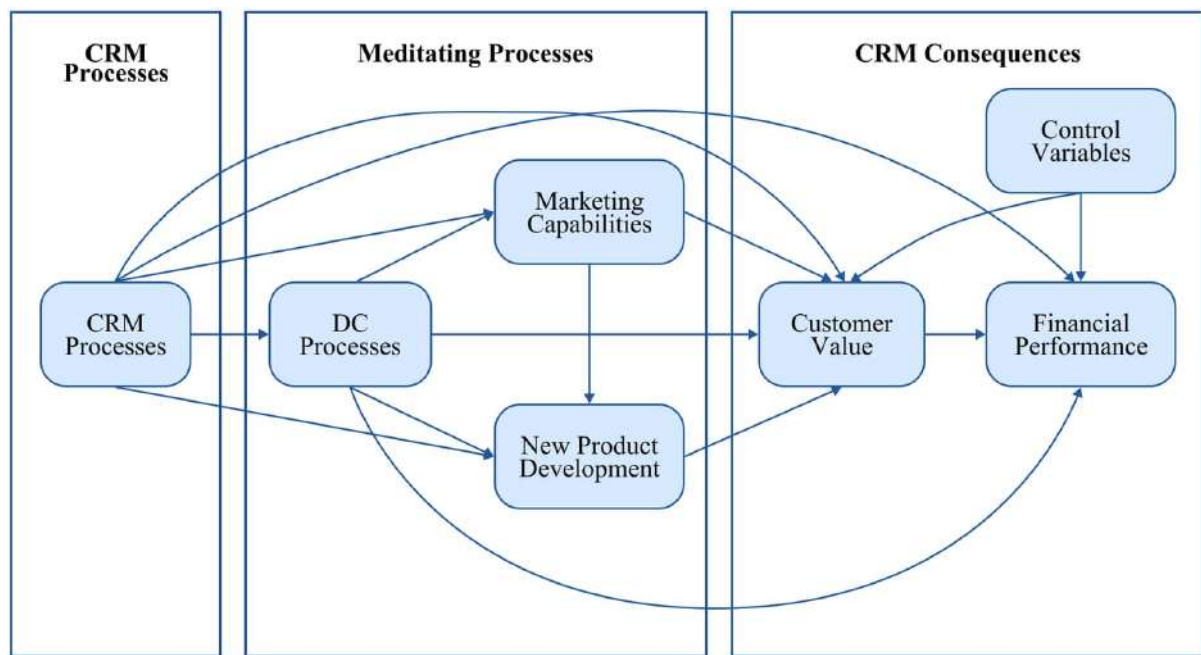


Figure 5.2. Research Model for CRM Implementation Framework

The Role of CRM in Improving Service Quality in Banks

Customer relationship management importance has tremendously increased during recent years mainly because it not only provides the competitive edge to an organization by developing the long term relationship with the customers but it also has become a necessary tool for the survival/existence of the organization. In marketing, service quality is considered as an important factor that contributes towards benefits reaped by organizations. Service quality is considered as customer’s assessment and satisfaction regarding the services they receive from their organizations. Therefore, success of any service related organization is actually based on the service quality and the satisfaction of their customers with the services provided to them. (Abbas & Hafeez, 2017)

Service quality and customer satisfaction are considered as two terms that can be used for each other and service quality assures customer satisfaction or dissatisfaction. Customer

relationship management is important for all businesses, but for service firms it has become even more important. Customers focus more on the elements of services and interaction with the service provider because in services there is no tangible product which customers can experience. Thus, for customers interaction with the service provider provides the experience. The relationship between CRM practices and service quality of any organization can be described in CRM helping understanding the needs of clients resulting in changes in the service delivery process according to the customer needs, the key objective of CRM policies and plans is to have better results by satisfying and retaining important and profitable customers. (Abbas & Hafeez, 2017)

Efficiency of Banking Service

To satisfy the needs of the customers and achieving the target market, an organization should provide the services in an efficient way. A bank should make sure that its employees are efficient to perform its task and responsibility with the passage of time. There are multiple factors that influence the environment and efficiency of banking sector. These factors are confidential security, ethical behavior of employees and management; technology etc. All these factors are very important in order to gain the trust of customers and for developing relationship with them. An organization can improve its business process, systems, technology and overall quality of its services by implementing the customer relationship marketing strategies. Thus, by providing efficient services, an organization can increase its performance. Customers always want the quick and fast service delivery, therefore, banking services has to be efficient to attract and retain customers. If bank uses the information related to client without the consent of that client, there will be negative impact on the bank's image and reputation. Therefore, privacy is very important in the buying choice of banking client, if banks ensure clients about their information handling, it will build trust. Adoption of effective security system would make clients feel safer and this would be perceived positively by the clients. Ethical consideration is also a major factor that influences the decision of clients regarding choosing a bank.

Knowledge ability

The Bank's employee's knowledge ability means the capability towards remembering or towards implementing the banking processes, policies, products and services. This knowledge ability consists of both technical skills as well as cognitive capabilities. The knowledge of front-line bank employees represents the level of perceived service quality of the bank. This shows that employees, who are having direct interaction with the customers, should have the skill to satisfy the customer's need. Customers rarely have different problems and issue regarding certain things so, if they have, then companies should report and resolve that issue and respond them properly. (Abbas & Hafeez, 2017)

CRM practices can improve service quality, increase organizational understanding of customer tastes and preferences so that they can provide services and satisfy products for customers. Organizations that can develop CRM well can increase positive value perceptions for customers. Based on the literature, the following hypotheses were developed, Several studies confirm the relationship between service quality and customer satisfaction. Previous

investigations also found that service quality is a predictor of customer satisfaction and has a positive impact on customer satisfaction. (Bupu, Sodikin, & Sanchita, 2024)

The most important factors influencing the quality of banking services were (customer knowledge, customer retention, customer culture, followed by customer value, customer attraction, customer loyalty, and customer satisfaction). Of course, in today's world, customer knowledge is becoming increasingly crucial, since the new era of technological advancement has made customers more aware than ever, making them tough to satisfy in terms of products and services. Organizations must place a greater emphasis on client interactions in order to persuade them that their products and services not only meet but also surpass their expectations. (Boussalem, 2022)

Section Three: Modern CRM, Digital Transformation and AI-CRM

Digital Transformation of CRM

Digital Transformation Strategies in CRM are intended to capture the power of digital technology to support the level of customer interaction, optimize business processes, and foster sustainable development. Running through these strategies is a customer-based strategy that is based upon data analytics to study customer behaviors, preferences and expectations to provide highly personalized experiences. Omnichannel engagement is significant as it allows delivering a continual society of consistent interactions in both physical and digital environments. Other technologies in responsiveness and service delivery include AI-supported chatbots and automation tools, and predictive analytics. Segmentation and personalization of customers also contributes to specific marketing and product recommendations, making them relevant and encouraged to translate into conversion. The automation of the CRM processes increases the operational efficiency decreasing the manual efforts and enabling the teams to concentrate on the strategic efforts. In order to gain a single perspective of the customer and to support decision making, CRM systems tend to be combined with systems of enterprises such as ERP and SCM. Such integrations build an interconnected data environment where departments interact in terms of collaboration. Agile, scalable, often cloud-based CRM systems allow to quickly respond to new realities emerging in the market to conduct constant innovations. A digital customer-centric paradigm integrates tools, processes, and the organizational culture to enable employees and keep their attention on the vision of the delivery of superior customer experiences. Through constant revival to changing customer demands, other firms need to be in a position to enhance relationship establishment, satisfaction, and long-lasting competitors in the electronic era. (Gupta S. , 2025)

A. Omnichannel Engagement and Personalization and Customer Segmentation

Personalization and Omnichannel Engagement are essential features of digital CRM transformation, which will enable the provision of smooth and very specific customer experiences. Omnichannel involvement means that clients can communicate at an incessant dimension with no inquiry losing depth at differing touchpoints including online sites, mobile applications, social media, retail areas, and customer support. This is done by use of centralized data systems that monitor and individualize the interactions on a real-time basis in a manner that increases satisfaction and brand loyalty. (Gupta S. , 2025)

B. Automation of CRM Processes with Integration with Other Enterprise Systems

Modern CRM platforms have revolutionized business operations through advanced automation capabilities, fundamentally transforming how organizations manage customer relationships. Market research indicates that organizations implementing automated CRM solutions have experienced an average productivity increase of 34% and a reduction in manual task time of up to 40%. Studies show that automated CRM workflows can save businesses approximately 600 hours annually per full-time employee, with automated lead-nurturing campaigns showing a 451% increase in qualified leads compared to traditional methods. Integrating CRM systems with other enterprise solutions like ERP (Enterprise Resource Planning) and SCM (Supply Chain Management) creates a unified data ecosystem that enhances operational efficiency. (Gupta S. , 2025)

C. Data-Driven Decision Making and Agile Scalable in Digital CRM Platforms

The most advanced CRM technologies enable making decisions based on the data by capturing, analyzing, and interpreting huge amounts of information about customers. Through the use of advanced analytics, organizations acquire practical knowledge about the tendencies of customers, their behavior, and preferences. This allows the marketing, sales and service teams to customize their strategies and this enhances satisfaction and loyalty of the customers. Predictive analytics also helps predict the needs of the customers and determine the possible problems before they occur. (Gupta S. , 2025)

This integration supports advanced customer segmentation, allowing businesses to tailor their marketing efforts to specific customer groups based on detailed data analysis. The benefits of CRM tools in marketing are manifold, including personalization and targeting, improved customer service, and enhanced customer retention. Personalization and targeting are achieved through the use of customer data to create customized marketing messages and offers that resonate with individual preferences and needs. (Nwabekee, Abdul-Azeez, Agu, & Ijomah, 2024)

Artificial Intelligence in Customer Relationship Management

Artificial intelligence technology is among the digital technologies adopted by startups. In light of the competitive business environment, the abundance of data, and the scarcity of resources, which necessitates swift decision-making, AI has held a prominent position and attracted the interest of researchers and the marketing industry. AI is defined as the capacity of machines to learn from experience, adapt to new inputs, and perform tasks in a human-like manner; AI can now become the innovation entity with the most significant disruptive potential. (Syech Idrus, Wicaksono, Tanjung, & Amin, 2022)

Pay-per-click advertising

Artificial intelligence can help find new marketing channels that competitors may not use. Systems using artificial intelligence can test platforms and optimize targeted marketing. Artificial intelligence can analyze, organize and optimize marketing efforts with paid advertising. (Syech Idrus, Wicaksono, Tanjung, & Amin, 2022)

Prediction of buying pattern

With artificial intelligence, it can use predictive analytics. Predictive analytics uses large amounts of data to forecast future results or sales. It is difficult for ordinary people to process this data, although it is not impossible. Therefore, the ability of artificial intelligence is needed for this. Future sales information can make demand fulfillment more precise and efficient. (Syech Idrus, Wicaksono, Tanjung, & Amin, 2022)

Deep Learning

Using deep learning, you can make a computer or machine study the pattern of a photo, text, sound, or another form of data to obtain valuable information. Deep learning by artificial intelligence can be used for marketing as well. With the correct data, consumer behavior predictions can be obtained using deep learning methods. With this information, a company's marketing department can increase the opportunity to reap more profits after knowing the forecast of consumer behavior in the future. (Syech Idrus, Wicaksono, Tanjung, & Amin, 2022)

More precise advertising

Artificial intelligence can collect relevant customer information and analyze the form of customer needs. With this information, artificial intelligence can select advertisements that match customer profiles. With the help of artificial intelligence, the process of collecting data and targeting consumers can be done more precisely. Consumer analysis with artificial intelligence can help marketers to understand consumers individually. Marketers using artificial intelligence can find potential clients or buyers and channel the most suitable content without having to choose manually. Artificial intelligence will automatically do it. (Syech Idrus, Wicaksono, Tanjung, & Amin, 2022)

Smarter Search

Not only technology continues to develop. Of course, customers are also getting more innovative, and many people are increasingly using technology. Social media and search engines such as Google use artificial intelligence to analyze search results and search patterns from potential consumers. This information can be used in the marketing sector to identify essential areas that should be an important focus in marketing efforts for specific target markets. (Syech Idrus, Wicaksono, Tanjung, & Amin, 2022)

Big Data and Advanced Analytics in CRM

Big Data Analytics has emerged as a revolutionary tool in various fields, particularly Customer Relationship Management. At its core, Big Data Analytics involves examining large and complex data sets to uncover hidden patterns, correlations, and other valuable insights. These data sets, often characterized by volume, velocity, and variety, can be leveraged to make more informed decisions, predict trends, and enhance overall business performance. In the context of CRM, Big Data Analytics is crucial as it provides a deeper understanding of customer behaviors, preferences, and needs, enabling businesses to build more effective customer relationship strategies. The importance of Big Data Analytics in CRM cannot be overstated. Traditional CRM systems, while useful, often rely on limited data sources and static analysis techniques, which can result in a narrow and outdated view of the customer. (Ijomah, Idemudia, Eyo-Udo, & Anjorin, 2024)

Note. Adapted from “The Impact of Artificial Intelligence (AI) on Customer Relationship Management: A Qualitative Study,” by J. F. Wang, 2023, International Journal of Management and Accounting, 5(5), p. 76.

AI Analytic Category	Definition	CRM Context
Artificial Intelligence (AI)	AI is the concept of having machines “think like humans” & perform tasks, such as reasoning, planning, learning, and understanding language.	AI can be further classified into Weak and Strong AI. Weak AI, also known as narrow artificial intelligence, focuses on specific narrow tasks such as customer service and problem resolution. The strong AI, or general AI, where machines acquire cognitive and self-aware capabilities similar to human intelligence, will take years to appear in CRM systems. The term AI is widely used in the CRM space. AI-driven CRM refers to CRM systems with various levels of AI capabilities for handling specific tasks.
Machine Learning (ML)	ML is the core driver of AI and involves computers learning from data with minimal programming. ML programs the desired outcome and feeds data to train the machine to achieve the outcome on its own.	All AI-driven CRMs are powered by machine learning, which analyzes and learns from massive amounts of customer data.
Deep Learning (DL) and Neural Network	DL is a subset of machine learning and uses complex algorithms that mimic the brain’s neural network to learn a domain with little or no human supervision.	The reason for the recent surge in the use of AI in CRM is mainly due to relatively recent advances in deep learning, which creates outputs in much more sophisticated ways using multiple layers of interconnected neurons (called Neural Networks).
Natural Language Processing (NLP)	NLP uses machine learning techniques to find patterns within large data sets in order to recognize natural language	NLP is widely used in customer service applications such as chatbots and virtual assistants. It is also capable of doing sentiment analysis to understand how customers feel about products or services.
Voice Recognition (VR)	VR, alternatively referred to as speech recognition (SR), is the ability of a machine or program to receive and interpret dictation or to understand and carry out spoken commands	Voice recognition has gained prominence and use with the advent of intelligent personal assistants, such as Apple's Siri, Amazon's Alexa, and Microsoft's Cortana. It has been increasingly used in customer service applications to address customer needs.
Image Recognition (IR)	IR is a term for computer technologies that can recognize certain people, animals, objects, or other targeted subjects through	IR, or computer vision, is a subfield of machine learning, which has already been extensively used in autonomous driving, security, healthcare, social media, and visual search. It has a lot of potential in the customer service area. Salesforce has

	the use of algorithms and machine learning concepts	launched Einstein Vision with a set of application program interfaces (APIs) designed to help companies build customer relationship management apps with image recognition features.
Big Data	Big Data is the raw fuel of AI, which includes large amounts of structured or unstructured information that provide the inputs for surfacing patterns and making predictions	The recent explosion of high volume, high velocity, and high variety of customer data provide the ideal inputs for CRM machine learning models, which make these systems smarter and smarter.

Table 2.1. Analytic Categories and Concepts

Integrating big data with Customer Relationship Management systems presents challenges and opportunities for organizations seeking to utilize customer data to fuel expansion and improve customer satisfaction. Here's a closer look at the key aspects of integrating big data with CRM: (Gupta A. , 2024)

The Impact of Artificial Intelligence on CRM

The results and findings of this study provide a comprehensive overview of how Artificial Intelligence has impacted Customer Relationship Management, it can be identified as “the significant enhancement in personalization that AI has brought to CRM systems”. AI technologies, particularly machine learning algorithms, have enabled businesses to analyze vast amounts of customer data with unprecedented accuracy. This analysis allows organizations to create highly personalized customer experiences by tailoring interactions and offers based on individual preferences and behaviors. This level of personalization goes beyond traditional CRM capabilities, which often relied on broad demographic information and static customer profiles. The implementation of natural language processing technologies, has also been a game-changer for CRM systems. NLP-powered chatbots and virtual assistants have transformed customer service by providing real-time, automated responses to customer queries. These AI-driven tools are capable of understanding and processing natural language inputs, allowing them to interact with customers in a more conversational and human-like manner. The ability of NLP systems to handle a wide range of customer interactions without human intervention has not only improved response times but also reduced the workload on human customer service representatives. This has led to increased efficiency in handling customer inquiries and has enhanced the overall customer experience. Predictive analytics has emerged as another critical area where AI has made a substantial impact on CRM. Predictive models use historical data and statistical algorithms to forecast future customer behaviors and trends. The integration of AI in CRM has also led to improvements in customer segmentation and targeting. Traditional CRM systems often relied on broad segmentation criteria, which could result in generic marketing efforts that did not effectively resonate with individual customers. (Wilson, Johnson, & Brown, 2024)

Note. Adapted from “The Impact of Artificial Intelligence on Customer Relationship Management,” by G. Wilson, O. Johnson, and W. Brown, 2024, MDPI Preprints, p. 7.

Benefit	Description
Enhanced Personalization	AI enables the creation of highly tailored customer experiences based on individual data.
Increased Efficiency	Automation of routine tasks and faster processing of customer interactions.
Improved Customer Insights	AI analyzes data to generate deeper insights into customer behaviors and preferences.
Proactive Customer Engagement	Predictive tools allow businesses to address customer needs before they arise.

Table 2.2. Benefits of AI in CRM

Therefore, investing in digital infrastructure and data analytics has become the cornerstone in developing Customer Relationship Management mechanisms, especially with the shift toward AI-driven models. Furthermore, the integration of Artificial Intelligence, particularly advanced algorithms and machine learning techniques, has brought about a fundamental shift in the way organizations manage customer relationships. Many interactive tasks previously handled by human employees are now assignable to intelligent systems capable of providing real-time, accurate, and effective responses based on big data analysis and accumulated digital experiences. This transformation manifests in several ways, including: (Kebbab, 2025)

- **Instant Access to Knowledge:** Algorithms do not require the time that employees might need to consult files or request external help; they can immediately analyze customer data available in integrated databases, including purchase records, complaints, behavior patterns, and past interaction tones.
- **Instant Decision-Making:** Thanks to machine learning techniques, these systems can Predict the optimal response based on the similarity of previous cases and make the best decision without the need for direct human intervention.
- **Algorithm Neutrality and Interaction Consistency:** Algorithms differ from human Elements in that they are free from emotions or biases related to age, gender, or emotion, which makes them provide a fair and consistent customer experience. (Kebbab, 2025)

Chapter Conclusion

The theoretical investigation executed across the three sections of this chapter demonstrates that managing customer relationships in the banking sector has evolved from a superficial marketing tactic into a core operational engine that drives perceived service quality. Section One clearly demonstrated that because banking customers evaluate both the service outcome and the service process, an institution's survival relies on minimizing internal quality gaps to meet shifting consumer expectations. Section Two expanded on this by proving that systematic frameworks like the IDIC and QCI models can successfully organize raw transactional data into structured assets, provided they are backed by clear strategic alignment and targeted banking tools. Finally, Section Three highlighted how modern digital transformations, Big Data, and the theoretical emergence of AI-driven systems are continuously lifting global benchmarks for service speed, personalization, and interaction neutrality.

With these theoretical concepts, metrics, and global standards fully established, the essential question shifts from conceptual frameworks to localized reality. This baseline provides the exact analytical tools utilized in Chapter Two, which leaves the textbooks behind to empirically evaluate how these international paradigms hold up within the specific operational environment of the Banque Extérieure d'Algérie branch in Ouargla.

Chapter Two

Field Study of the Role of CRM in Improving Service Quality at BEA Ouargla

Chapter Introduction

This chapter bridges the gap between universal theoretical models and the concrete operational realities of the Algerian public banking sector. While Chapter One established the conceptual dimensions of Customer Relationship Management and service quality globally, this chapter serves as an empirical investigation into how these frameworks are localized, executed, and constrained within a regional economic hub. Operating as a strategic node in southern Algeria, the Banque Extérieure d'Algérie (BEA) Ouargla branch manages a complex, high-stakes commercial environment characterized by a dual-stream demand: handling large-scale corporate hydrocarbon accounts alongside a rapidly diversifying retail and Islamic banking sector. To thoroughly deconstruct this localized environment, the empirical findings are presented through a structured three-section progression.

The exploration begins by outlining the historical background, institutional hierarchy, and core functions of the BEA network. It positions the branch within a sector-wide comparative framework and defines the qualitative research design, detailing the deductive study model and data triangulation methods driven by narrative field observations. Then it details the purposive sampling strategy centered on a 120-minute key informant interview with the Head of the Commitments Secretariat Department. This section delivers the empirical presentation of data, utilizing specialized thematic analysis categories and codebooks to execute hypothesis testing regarding the branch's CRM execution across the SERVQUAL dimensions

And finally it consolidates the primary empirical insights extracted from the field. It offers direct, practical feedback for the BEA branch management, introduces an actionable, localized quarterly roadmap for enhancing service delivery consistency, and outlines vital perspectives for future academic research.

Ultimately, through this rigorous qualitative exploration, the chapter tests abstract relationship marketing theories against the practical constraints of regional infrastructure, revealing the precise operational links that dictate service excellence on the Ouargla branch.

Section One: Organizational Overview of BEA Bank and Methodology

Overview and Core Functions of BEA Bank

Historical Background of The Banque Extérieure d'Algérie

The Banque Extérieure d'Algérie (BEA) is one of the most important commercial banks in the banking system due to its active role in achieving economic development. It has been entrusted with managing Algeria's foreign transactions, in addition to its numerous branches, a result of the expansion of its domestic activities, including the branch in Ouargla.

Definition of the Banque Extérieure d'Algérie:

The Banque Extérieure d'Algérie was established within the framework of the nationalization policy of economic and financial institutions that Algeria experienced after independence, in accordance with Order No. 67-204 issued on October 1st, 1967 which reinstated the activities of the following banks:

- Crédit Lyonnais on October 1st, 1967
- Société Générale on December 31st, 1967
- Barclays Bank in 1968
- Banque du Nord on April 30th, 1968
- Banque Industriel d'Algérie et Méditerranée on May 31st, 1968

The primary objective in establishing the Banque Extérieure d'Algérie (BEA) was to facilitate and develop Algeria's economic relations with other countries within the framework of national planning.

In accordance with the provisions of Law No. 88-01 dated January 12th, 1989, the BEA was formally restructured as an independent public limited company on February 5th, 1989

The BEA obtained its official accreditation on January 17th, 2002. It has 98 branches located in major population centers, industrial hubs, and oil production areas, and also has two branches abroad:

- The Arab International Bank Intercontinental Bank (BIA) located in France.
- The Arab Bank for Investments in Foreign Trade located in Abu Dhabi (ABIFT)

It is responsible for all the functions of commercial banks, from collecting deposits and granting loans, in addition to financing foreign trade operations by granting import loans. It also provides insurance and financial support to Algerian exporters. The headquarters of the Banque Extérieure d'Algérie (BEA) includes nine specialized directorates, which have branches throughout the national territory.

For the Wilaya of Ouargla, there is a regional directorate and an agency in the municipality of Ouargla. There is also an agency in Hassi Messaoud and another in Touggourt, in addition to other agencies in various municipalities of the Wilaya.

Note. Adapted from “Kherfi, A. (2022). The role of Customer Relationship Management in improving the quality of banking services: A case study of the Banque Extérieure d’Algérie (BEA) – Touggourt branch [master’s thesis]. Kasdi Merbah University – Ouargla.”

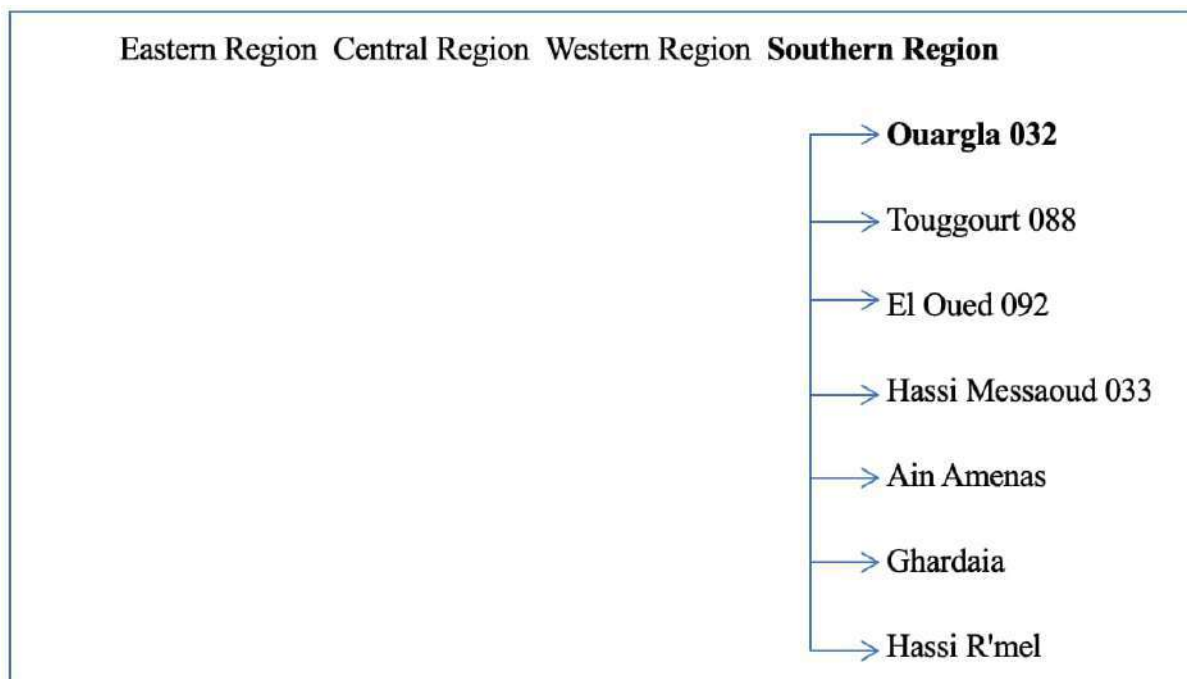


Figure 6.1. The Distribution of BEA Branches

Organizational Structure and Administrative Hierarchy

The organizational structure of the Banque Extérieure d'Algérie is designed to balance high-level strategic oversight with specialized operational execution.

At its core, the bank operates through a pyramid-style hierarchy that ensures every decision, from a massive corporate loan to a local digital update, follows a clear path of accountability.

Strategic Leadership and Oversight

At the very top, the bank is governed by the Board of Directors, which sets the long-term vision and policies. Working directly with them is the General Management, the engine that turns those strategies into daily action.

What stands out in this structure is the inclusion of specialized control bodies that report directly to the top. This includes the Inspection Générale and the Sharia Control Committee. The latter is particularly important for the bank’s Islamic Finance products, ensuring that all operations remain compliant with ethical and religious standards.

Operations and Support

To manage its massive scale, the bank splits its core functions into two main wings, each led by a Deputy General Manager (DGA):

DGA Exploitation: This side of the bank focuses on the front-line work. It houses the Commercial Division, International Relations, and the Supervision of Credits. Essentially, if it

involves making a deal, financing a project, or handling international trade, it falls under this pillar. It is the part of the bank that directly drives revenue and manages large-scale corporate relationships.

DGA SI et Support: They ensure the bank actually functions in the modern age. It manages the Information Systems (IT), digital projects, and physical infrastructure. They are responsible for the CRM, ensuring that it is secure, updated, and capable of supporting the bank's network.

The Specialized Divisions: Below the top leadership, the bank is organized into several key Directorates that handle specific expert tasks. These include:

- **Risk and Compliance:** Dedicated departments for Audit, Permanent Control, and Risk Management act as a safety net, ensuring the bank stays within national and international regulatory boundaries.
- **Commercial and Key Accounts:** These divisions manage relationships with Algeria's largest economic players, ensuring that high-value clients receive specialized attention.
- **Finance and Human Resources:** These handle the internal health of the bank from managing the treasury and accounting to training the staff that works at the branch level.

The Path to the Branch Level

The hierarchy reaches the local level through a refined network. The Head Office does not manage every branch directly; instead, it works through Regional Directorates. These regional hubs act as a bridge, translating national strategy into local reality.

It is under these regional bodies that individual Branches, such as the Ouargla branch, operate. This hierarchy ensures that while a branch official in Ouargla has the autonomy to manage daily client relationships, they are always supported by a massive infrastructure of technical, legal, and financial expertise from the capital.

BEA's Information System Modernization Framework

The technological infrastructure of BEA Ouargla must be understood within the broader context of the Algerian public banking sector's information system modernization programme, launched by ministerial directive in 2004. In response to instructions from their respective Boards of Administration, each of the six Algerian public banks was required to develop and implement a comprehensive information system modernization plan, with the objective of achieving service quality standards comparable to international benchmarks. (BAD, 2012)

Within this national framework, the BEA adopted the Delta Bank V8 centralization strategy as its primary modernization pathway. Delta Bank a banking management software (progiciel de gestion bancaire) developed externally and used across multiple versions by three of the six public banks, served as the operational backbone of BEA's branch network. Significantly, by 2012, BEA had already established an operational distant backup site in Setif, making it the only institution among the six public banks to have achieved this level of infrastructure resilience. The bank had also modernized its telecommunications network through the deployment of ADSL lines and fiber optic connectivity with VSAT backup stations, positioning it among the most IT-mature institutions in the Algerian public banking sector. (BAD, 2012)

Comparison Between Algerian Banks

Table 3.1. provides a comparative overview of leading Algerian financial institutions across key strategic and operational dimensions. This comparison is specifically constructed to situate BEA's CRM maturity and digital infrastructure relative to the institutions with which it competes for corporate and industrial clients in the Algerian market. The five institutions were selected on the basis of three criteria:

1. They are the most significant banking actors in the Algerian market by asset volume, network reach, or strategic mandate.
2. Peer-reviewed financial performance data was independently available for each institution.
3. Each bank occupies a distinct competitive niche, that allows for a meaningful spectrum of CRM and digital maturity comparisons.

The purpose of this comparison is to demonstrate that BEA Ouargla's CRM challenges are not idiosyncratic but are positioned within a sector-wide pattern of uneven digital transformation in Algerian public banking.

Note. Adapted from African Business (2025), "Africa's Top 100 Banks 2025: North Africa Rankings"; Djeddi & Bouamama (2025), "Comparing the performance of Algerian public banks using multi-criteria decision-making methods"; Touaref & Bouzana (2025), "Ranking the Financial Resilience of Algerian Banks Using the CAMELS Model and TOPSIS Method"; and Ihaddaden & Bouhaba (2019), "A performance comparison between state-owned, mixed and private banks in Algeria."

CATEGORY	BEA	BNA	AGB	CPA	BADR
Ownership	100% State-Owned	100% State-Owned	Foreign Private	Mixed (IPO in 2024)	100% State-Owned
National Rank	#1 by Capital	#1 by Asset Volume	Leaders in Digital	#1 by SME Lending	#1 by Network Reach
Africa Rank (Assets)	7th in north Africa	N/A	N/A	N/A	N/A
Strategic Focus	Hydrocarbons & Large State Corps	Foreign Trade & African Expansion	Retail & High-Tech Corporate	SME Financing & Public Stock	Rural & Agricultural Development
CRM / Digital Maturity	Transitionary Moving to an integrated digital system	N/A	Systematic CRM is the core operational	Developing Modernizing via market liberalization.	N/A

Resilience (CAMELS)	Superior Tier 1 Capital Adequacy.	High Massive state- backed asset base.	Moderate Priority on profit over liquidity buffers.	Moderate To High Strong management focus.	High Leading in asset quality and liquidity.
Operational Efficiency	Lower (AHP/ CoCoSo) Challenges in resource optimization.	Moderate Scale- driven efficiency.	Highest Superior resource utilization.	Stronger management- to-asset ratios.	Highest among state banks in resource usage.

Table 3.1. Comparison between Algerian Banks in Key Areas

The data reveals that BEA occupies a distinctive and strategically ambiguous position within the Algerian banking sector. On the dimensions most relevant to this study CRM maturity and digital infrastructure. BEA has moved beyond the purely manual systems that still constrain some public peers, yet has not achieved the systematic CRM integration that defines the private sector leader (AGB). This positioning has direct implications for the findings of the field study.

BEA Ouargla operates in a structural gap, its digital backbone is sufficient to centralize client data and coordinate internal operations, but insufficient to enable the proactive, data-driven, analytically rich CRM that underpins best-practice service quality internationally. The human capital dimension, staff mentorship, adaptive expertise, and institutional commitment is therefore not merely a cultural preference at the branch; it is a structural necessity that compensates for the analytical CRM capabilities the current system architecture cannot yet provide.

Note. Adapted and Retrieved on April 16th, 2026, from the official BEA Bank Website: <https://www.bea.dz/pdf/Gouvernance.pdf>

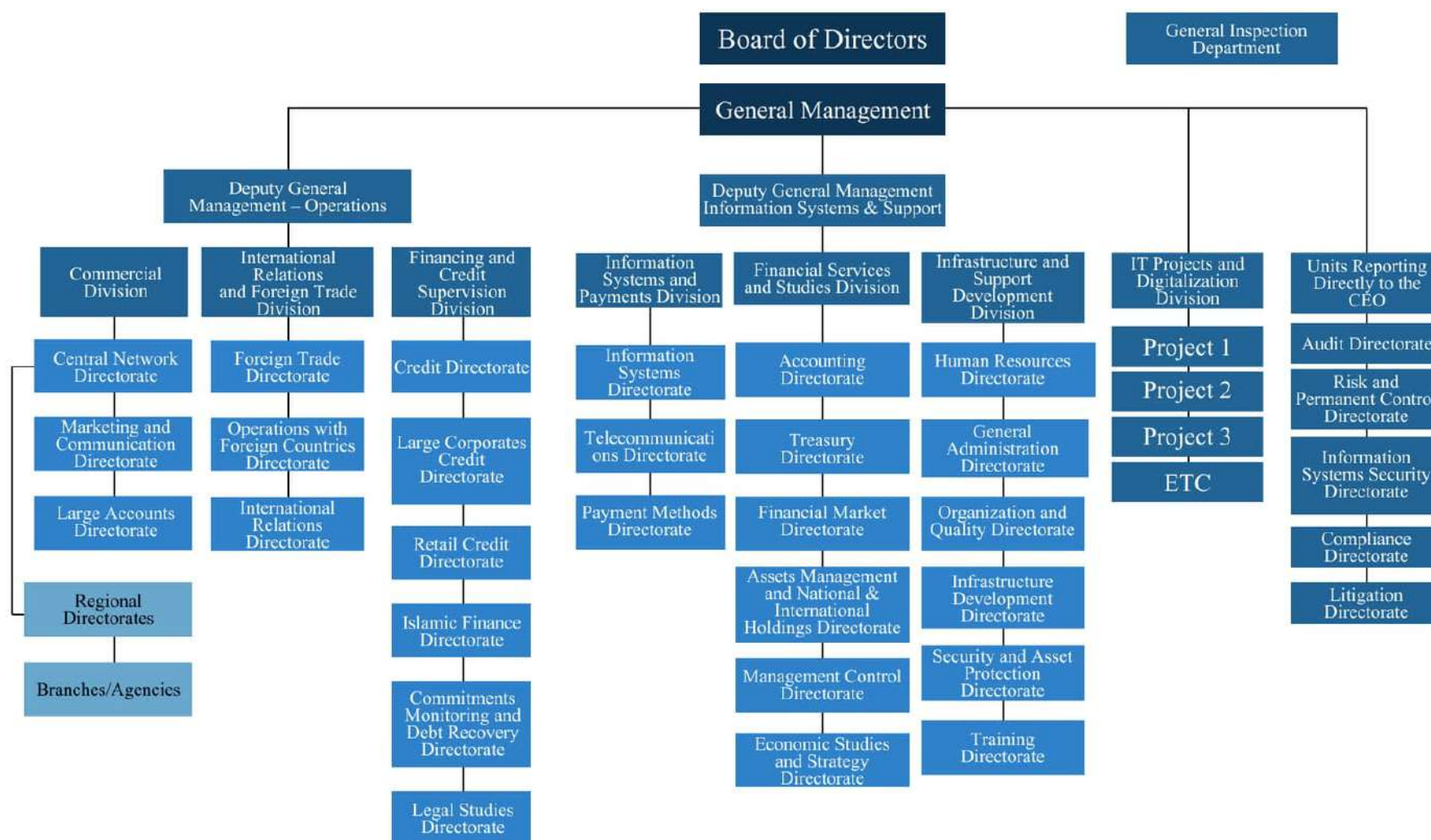


Figure 6.2. BEA Organizational Structure and Administrative Hierarchy

Core Functions, Services, and Strategic Objectives

Core Functions

- The BEA operates as a high-level financial engine. Its primary job is to act as a bridge between capital and the national economy.
- The bank's main function is to fuel large-scale projects, particularly in the industrial and energy sectors (like Sonatrach).
- Beyond just financial transactions, the bank manages the complex daily financial flow of both massive companies and individual citizens.
- The bank also ensures every transaction meets the strict safety and legal standards set by the Bank of Algeria.

Services

The BEA bank has moved beyond "traditional" banking to offer a modern, diverse menu of services:

- **Account Management:** Everything from standard checking and savings accounts to specialized foreign currency accounts (€ and \$).
- **Credit & Loans:** This includes professional investment loans for businesses and personal loans for individuals (like consumer or housing credit).
- **Digital Banking:** Services like BEA-NET that allow clients to manage their money via phone or computer without coming to the branch.
- **Islamic Finance:** A newer, high-demand service started in 2021 that offers Sharia-compliant banking products for clients who want ethical alternatives to traditional interest.
- **International Trade:** Specialized help for importers and exporters, providing the guarantees needed to do business outside of Algeria.

Strategic Objectives

- Developing the foreign trade process.
- Providing credit and guarantees to local exporters and importers.
- Carrying out transactions related to movable and immovable assets necessary for the bank's activity.
- Managing the bank accounts of large national companies, including (SONATRACH).
- Establishing numerous relationships with international banks and organizations such as the International Monetary Fund.
- Accepting deposits from all natural and legal persons.
- Financing various foreign trade operations.

Overview of BEA Bank – Ouargla Branch's Structure

Definition of the Banque Extérieure d'Algérie Ouargla Branch

The institution is the Banque Extérieure d'Algérie, Ouargla Branch, affiliated with the Southern Regional Directorate. This branch was established in 1970 and is a commercial banking institution that contributes to the functioning of the national economy. Among its objectives are raising funds through opening individual and group accounts for clients and

through interest on loans granted to clients. As for the internal organization, it is represented by the organizational structure of the branch, which is based on an ascending hierarchy.

Introduction to Internal Relationships

Internal relations consist of the daily work of the employees, which primarily involves receiving clients and providing them with various services, including cash withdrawals and deposits, opening accounts, receiving loan applications and related files, and issuing and receiving bank checks. These operations represent the internal relationships of the employees within the framework of their daily work, according to each department and its specialization in the workflow, as illustrated in the branch's organizational structure. These departments lead, at the end of the day, to the integration of activity

Understanding the Institution's Relationship with the External Environment

The institution's relationship with the external environment is manifested in its relationships with other banks. This involves an exchange of banknotes between them for clients who are not clients of the Bank of Algeria's External Agency, and vice versa. They have accounts and commercial and monetary transactions with each other. There are also public relations and communications with all state institutions that have commercial and economic activity affecting the overall nature of the nation's economic and commercial operations.

The Agency's Relationship with The Other Institutions

As for the Bank of Algeria's External Agency's relationship with foreign institutions, it consists of commercial and banking transactions with foreign banks that have a relationship with the agency's clients, such as public and private economic and commercial institutions whose activity is linked to the other institutions. In this case, the banking transaction is carried out through the Foreign Trade Department of the Bank of Algeria's External Agency. This transaction is conducted in hard currency or its equivalent, depending on the type of each transaction.

Services Provided by The BEA Ouargla Branch

While the BEA maintains a standardized national service menu, the Ouargla branch functions as a strategic regional hub. Its service delivery is characterized by a "Dual-Stream" approach, balancing high-volume corporate management with specialized retail growth.

1. Hydrocarbon & Industrial Account Management:

Unlike standard urban branches, the Ouargla branch is a primary manager for national strategic entities, most notably Sonatrach. This includes managing large-scale payroll for company employees and providing the liquid capital necessary for localized industrial projects.

2. Specialized Project Financing:

The branch acts as a financial engine for the region, offering diverse credit facilities for both local infrastructure operations and international investment projects. This positions the branch as a partner in regional development rather than a simple deposit taker.

3. Diversified Retail & Islamic Banking:

To capture the local market, the branch provides a full suite of personal banking products, including savings accounts and consumer credit. Since 2021, the Islamic Banking window has

become a critical service pillar, meeting the high local demand for Sharia-compliant ethical finance.

4. Global-Local Connectivity:

Despite its inland location, the branch facilitates international trade through foreign currency accounts (€/€) and international credit card services (Mastercard), connecting Ouargla's business community to global markets, and these are as follows: Prepaid Card, Classic, Platinum, Business, World Business, World Elite. (for BEA Ouargla's terms and conditions check appendices)

Ouargla Branch's Structure

1. Administration Department:

Director: The Agency Director supervises all departments, manages employees, and carries out all legal procedures as the bank's representative, authorized by the CEO, before all bodies and institutions. The Director also concludes and signs contracts of all types.

Assistant Director: The Assistant Director's role is to coordinate and liaise between the bank's departments and the Agency Director. The Assistant Director also acts on the Director's behalf, carrying out all procedures in their absence.

Director's Secretariat: This is considered one of the most important departments in the Agency, as it is the center of operations. All Agency work depends on it. Its role includes handling outgoing and incoming mail, drafting correspondence, receiving and answering telephone calls, distributing them to the required Agency departments, and recording and managing meetings and professional appointments for the Administration and the Agency.

2. Commitments Department: This department has several employees, each with a specific task.

Head of Department's role is ensuring all financial files and studies meet the bank's risk and accounting standards before final approval.

The Studies Official 2's role is to study and analyze the financial files, according to the bank's accounting standards, it shows the financial and economic situation and gives a clear picture of the economic environment. This also shows the project's profitability and provides a detailed report on it.

The Studies Official 1's role is to receive the clients' files and prepare them before the studies.

Multi-Service Agent 2's (Client Representative) role is to receive and open all types of account opening files.

Multi-Service Agent 1's role is to prepare the clients' projects files and submits them to the Head of Department for signature.

3. Cashier's Office:

This office is divided into two sections:

Front Office

This section contains the main cashier and sub-cashrooms.

The main cashier handles deposit and withdrawal operations, as withdrawals exceed 50,000 DA . It also funds sub-cashrooms to settle checks equal to or less than 50,000 DA. It also makes periodic withdrawals from the Central Bank.

Back Office: This section is divided into:

Transfers Section: This section handles all transfer operations, including transfers from account to an account within the same agency, a transfer from an agency-level account to an account in another agency outside the district, as well as a transfer from an agency-level account to another bank within the same district, in addition to a transfer from the same agency to another bank outside the district.

Check Payment Department: The role of this department is to carry out transfers via crossed checks from account to account.

Electronic Clearing Department: Via email and electronic image, it carries out transfers via crossed checks payable at other banks.

Foreign Trade Department: It handles the settlement of pro forma invoices submitted by customers wishing to import goods or equipment from abroad, and also converts Algerian dinars into hard currency. The bank acts as a commercial intermediary and guarantor for the commercial transaction between the supplier and

Note. Adapted from official Bank Documents

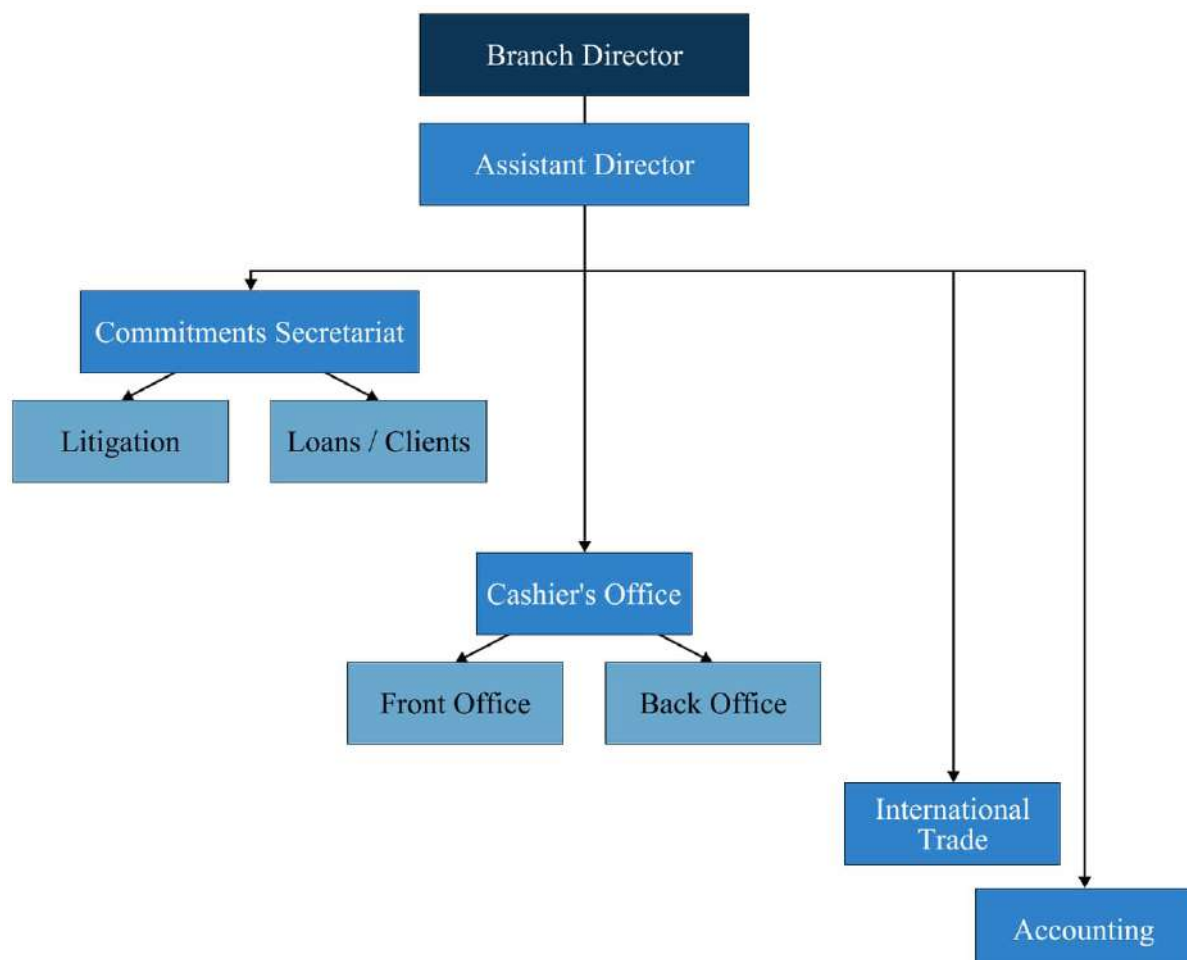


Figure 6.3. Organizational Structure and Administrative BEA Ouargla Branch

The Methodological Approach

The Study Model (Conceptual Framework)

This section details the scientific logic and the research design adopted to investigate the impact of Customer Relationship Management on service quality at the BEA Ouargla branch. The choice of methodology is governed by the need to bridge theoretical marketing constructs with empirical field observations.

This study follows a deductive research philosophy. The process begins with established theoretical frameworks specifically the CRM multidimensional scale and the SERVQUAL model and moves toward the empirical environment of the bank to test their validity. This approach ensures that the field study is grounded in academic rigor, allowing the researcher to confirm or refine the hypothesized relationship between CRM implementation and service quality improvements.

The conceptual framework of this study shifts away from generalized statistical measurement to focus on an in-depth, qualitative exploration of internal banking operations. Because implementing Customer Relationship Management requires systemic changes in both technology and human capital, understanding its true impact requires direct insight from the management level. Rather than treating CRM as a set of isolated metrics, this model views it as a comprehensive management strategy, explored through the operational reality of the BEA Bank Ouargla Branch.

Definition of The Study's Variables

In this qualitative design, the variables are treated as core themes to be explored during the primary data collection:

1. CRM Implementation and Strategy

This variable examines how the bank actively deploys and manages its relational infrastructure. The focus is on the administrative and operational realities of the system, specifically exploring:

Technological Integration: The transition to and daily reliance on the bank's CRM system to manage client data and streamline workflows.

Human Capital and Training: The institutional approach to equipping staff with the necessary skills and educational background to utilize the CRM system effectively.

Knowledge Management: How the branch captures, stores, and utilizes client information to tailor financial products, manage risks, and offer specialized services like institutional guarantees or Islamic finance.

2. Service Quality Outcomes

This investigates how the management perceives and evaluates the impact of their CRM strategies on the final service delivered to the customer, guided by the dimensions of the SERVQUAL model:

Reliability and Responsiveness: How the CRM infrastructure reduces transaction errors and accelerates service delivery times.

Assurance and Empathy: How access to accurate customer data allows staff to build trust, reduce client hesitation regarding complex financial products, and provide personalized attention.

Tangibles: The modernization of the bank's physical and digital interfaces as experienced by the client.

The Methodology

To determine precisely how CRM influences service quality at the BEA Ouargla branch, this study relies on a qualitative, single-case design. While quantitative analysis of a large employee survey sample might reveal broad trends, it rarely illuminates the underlying reasons for those trends. To understand how the bank's internal systems actually operate, the research required moving beyond surface-level perceptions and capture the institutional reality directly from management-level informants.

The core of this methodology is built around a single, in-depth, semi-structured interview conducted with a key bank official. This format was chosen because it achieves the necessary balance between structure and flexibility. Having a predefined interview guide ensuring coverage of the critical variables, of the conceptual framework such as the transition to the new digital system, staff training protocols, and the handling of complex products. At the same time, the open-ended nature of a semi-structured interview gives the official enough room to discuss the actual, day-to-day operational hurdles that a standard multiple-choice questionnaire would completely miss.

In addition to the interview, the study incorporates a review of the bank's operational context to verify the claims made during the discussion. Once the primary interview data is collected, it will undergo a thematic analysis. The goal here is not just to summarize management's perspective, but to map their strategic insights directly onto the study's SERVQUAL metrics. This approach provides the concrete, qualitative evidence needed to prove whether or not the bank's current CRM strategy is genuinely elevating the customer experience on the branch floor.

The tools Used and Data Collection Instruments

To ensure the information gathered from the BEA Ouargla branch was both authentic and technically grounded, the study utilized a primary qualitative instrument supplemented by intensive field observation. These tools were adapted to fit the high-pressure operational environment of the bank.

Study Methodology and Data Collection

To capture the nuances of how CRM influences service quality from an institutional perspective, this study employs a qualitative, single-case study design.

The primary instrument for data collection is a semi-structured interview conducted with a key bank official at the BEA Ouargla branch. This methodology was selected because a semi-structured format provides a rigid enough framework to keep the discussion focused on

the core variables, while remaining flexible enough to allow the official to elaborate on unexpected operational challenges, systemic transitions, and institutional realities that a standardized questionnaire would miss.

The insights gathered from this interview underwent thematic analysis to establish the practical, real-world connections between the bank's CRM philosophy and its service quality outcomes.

The Semi-Structured Interview

The primary data collection tool was a semi-structured interview guide consisting of 35 in-depth, indirect questions. Because the term "CRM" can often be treated as abstract management jargon, the questions were specifically designed to be indirect. This allowed the respondent to describe concrete operational workflows, client handling techniques, and system usage patterns without needing to be well-versed in academic CRM terminology.

Narrative Note-Taking

Due to the high-intensity environment of the BEA branch and the professional requirements of the bank official, digital audio recording was not utilized. Instead, a narrative note-taking method was employed. This approach was more suited to the interrupted nature of the interview, where the official frequently had to attend to urgent banking matters before returning to the discussion. These comprehensive handwritten notes, captured in real-time, serve as the primary raw data for this study and are attached as a formal record in the Appendix section.

Continuous Field Observation

Before and during the interview phase, daily on-site observations were conducted at the branch. This was critical in the triangulation of data. By watching the physical flow of customers and the real-time interaction between staff and their computer terminals, it was possible to verify, or challenge the official's claims.

Data Analysis Procedure

The analysis of the gathered data follows a Thematic Analysis approach. Since the data consists of handwritten notes from a non-linear interview, the process involves three stages:

- **Transcription and Categorization:** Converting raw handwritten notes into a structured digital format, organized by the 35 original questions.
- **Thematic Coding:** Identifying recurring operational patterns that relate back to the SERVQUAL dimensions.
- **Synthesis:** Drawing direct links between the bank's internal CRM habits and the resulting service quality, forming the basis for the findings in the subsequent chapters.

The Tools Used

The analysis of the data gathered from the BEA Ouargla branch follows the six-phase Thematic Analysis framework. This systematic approach moves from raw, handwritten notes to meaningful, strategic insights regarding the relationship between CRM and service quality.

Given the high-intensity environment of the bank and the interrupted nature of the interview, the analysis was designed to prioritize accuracy through constant validation.

Phase 1: Familiarization and Transcription

The analysis began with the immediate expansion of field notes. Following each session, Post-Interview Elaboration was conducted, refining handwritten shorthand into full narrative descriptions while the context was fresh. This phase included a member checking process during the interview, where the official's answers were summarized back to him to ensure that the intended meaning was accurately captured. The answers were later further clarified and revised.

Phase 2: Generating Initial Codes

The expanded notes were systematically reviewed to identify recurring meaning units. Because the 35 interview questions were designed to be indirect, the coding process focused on translating the official's operational language (e.g., managing client files, waiting for the system to load) into academic constructs. Labels were assigned to segments of text that described technical usage, staff marketing language barriers, or customer interaction patterns.

Phase 3 & 4: Searching for and Reviewing Themes

Codes were grouped into broader themes aligned with the research axes. At this stage, a constant comparative method was used. The official's statements were compared against the daily field observations, of the other branch workers. This allowed for the identification of Latent Themes patterns that were not explicitly stated by the official but were evident in the branch's daily hustle (such as the gap between management's CRM system vision and the staff's manual workarounds).

Phase 5: Defining and Naming Themes

Themes were refined to ensure they directly addressed the research questions. The final themes were categorized under the four strategic axes:

1. Systemic Integration
2. Service Delivery Outcomes
3. Human Capital Competency
4. Institutional Resistance

Phase 6: Data Triangulation and Synthesis

The final phase involved synthesizing the interview findings with the observational data. This triangulation served as an honesty check, ensuring that the final report reflects both the official's authoritative knowledge and the observed operational reality on the bank floor. The results are presented as a narrative synthesis, supported by direct paraphrasing and descriptive evidence from the interview notes (see Appendix for the full interview).

Section Two: Study Population, Data Analysis and Interpretation

Defining The Study Sample Strategy

Defining the Study Population

The population of this study encompasses the management and operational personnel within the Algerian commercial banking sector who directly interact with customer relationship frameworks and service delivery protocols. Given the research objectives, the accessible population was bounded to the Banque Extérieure d'Algérie (BEA), Ouargla Branch. This specific site was selected due to its strategic economic position handling major companies and industrial accounts which provides a highly demanding environment for testing the relationship between Customer Relationship Management and Service Quality.

The Sampling Strategy and Size

To obtain deep, specialized insights into the branch's operational mechanics, this qualitative study utilized a Purposive Sampling strategy, specifically the key informant technique. In qualitative research, selecting a single, highly authoritative participant who possesses comprehensive knowledge of the branch's CRM integration and service delivery yields richer data than a large, randomized sample of frontline staff. This primary interview data was methodologically triangulated with direct, on-site field observations conducted by the researcher over several days to ensure confirmability and minimize respondent bias.

Descriptive Analysis of Sample Demographics

The selected key informant is a senior banking official holding the position of Head of the Commitments Secretariat Department at the BEA Ouargla branch. The respondent possesses nearly 16 years of continuous experience within the BEA (serving since May 2010). Prior to his current leadership role, he served as a Level 2 Studies Bank Officer, a role heavily focused on the meticulous analysis of financial files and the decision-making processes regarding client commitments. This extensive tenure ensures a deep longitudinal understanding of how the branch's CRM strategies and service quality standards have evolved over the past decade. The respondent's professional characteristics make him an ideal lens through which to examine the CRM-Service Quality nexus. His daily responsibilities involve supervising commitment-related operations, ensuring precise documentation, and coordinating cross-departmental workflows to process client files.

Because his department acts as the operational bridge between the bank's internal systems and the client's financial needs, his insights perfectly capture the friction between technology and service delivery. Specifically, his role allows for an accurate assessment of how the branch's current CRM capabilities directly impact the core dimensions of Service Quality:

Empathy: Providing individualized attention and understanding the specific constraints of local clients particularly the regional dependency on industrial and hydrocarbon employment.

Responsiveness: Managing the speed of cross-departmental coordination to deliver timely financial decisions to corporate and retail clients.

To contextualize the respondent's insights, field observations were systematically recorded. While the key informant emphasized the branch's high standard of Reliability and Responsiveness, observational data revealed that the bank's current CRM infrastructure has not yet achieved a world-class digital transformation. The diversity of digital services remains limited, resulting in noticeably long physical waiting lines during peak operational hours. However, this technological limitation highlights a critical aspect of the branch's Service Quality: the reliance on human capital to maintain standards. A key observational finding was the branch's daily protocol regarding closing hours. Although the physical doors close to the public at 3:30 PM, the operational staff consistently remains until 4:30 PM to ensure that every client already inside the branch is fully served. This practice provides strong empirical evidence that while the CRM system may lack optimal digital speed, the branch compensates through high levels of human empathy and commitment to customer responsiveness.

Note. Generated from NVivo Software

Name	Sex	Industry	Position	Years of Experience	Duration
Nabil Maamri	M	Banking Operations	Head of the Commitments Secretariat Department	16 years (since May 2010)	120 Minutes

Table 4.1. Profile of the Respondent's Professional Characteristics

Data Presentation and Analysis

This section presents the findings from the in-depth, 120-minute interview with Mr. Nabil Maamri, Head of the Commitments Secretariat Department. The analysis categorizes the 35 points of inquiry into five critical thematic pillars that define the relationship between the bank's internal management systems and its delivered service quality. To identify themes and patterns, Mr. Maamri's interview responses were organized into two separate nodes each containing found important codes, and it can be summarized as follow:

Note. Generated from NVivo Software

Name	Description (Interview Matrix)	Sources	Ref.
CRM Tools (Node)			
CRM Strategy (Parent)			
BEA_NET_PLATFORM	BEA-NET platform... tailored into three distinct categories	1	2

Name	Description (Interview Matrix)	Sources	Ref.
BRANCH_PRIORITY	high-priority hub within the network because of our specialized services	1	1
COMMUNITY_ENGAGEMENT	participate in major events... humanitarian initiatives	1	2
DELTA_V8_SYSTEM	DELTA-BANKING V8 system... the system itself is the backbone that ensures our internal departments coordinate	1	2
DEPT_COORDINATION	structured distribution of roles and responsibilities	1	1

FACILITY_RENOVATION	undergoing renovations to further improve our facilities	1	1
INT_BANKING_SUPPORT	foreign currency accounts, international transfers, and support for import and export financing	1	1
ISLAMIC_BANKING_INIT	most notably with the launch of Islamic banking in 2021	1	1
KYC_ENGINE	dedicated search engine known as 'KYC' (Know Your Client)	1	1
STAFF_MENTORSHIP	experienced staff members often mentor newer colleagues	1	1
STANDARDIZED_PROCEDURES	system plays a crucial role here by standardizing how we handle requests	1	1
Quality Results (Node)			
Service Quality (Parent)			
CLIENT_DIVERSITY	diverse portfolio that includes individuals and major industrial players	1	1
CLIENT_RECOGNITION	recognized the superior quality and consistency of our service	1	1
CLIENT_RETENTION	steady growth... loyalty of our clients is the most authentic measure	1	2
CLIENT_TRUST	positively impacts both service reliability and client trust	1	1
CONSISTENT_EXPERIENCE	same high standard of quality... regardless of the volume of foot traffic	1	2
DATA_SECURITY	verification steps to ensure data accuracy... security	1	2
OPERATIONAL_FLUIDITY	smooth and efficient processing of financial operations	1	1

REGULATORY_COMPLIANCE	meet these rigorous reporting... ensuring that our operations remain transparent	1	2
RETRIEVAL_SPEED	file retrieval is instantaneous... prompt response	1	2
SERVICE_RELIABILITY	growing experience of staff and the repetition of operations contribute to improving service quality and reducing inefficiencies	1	1

Table 5.1. Qualitative Analysis Thematic Codebook

The branch operates in a state of transition where modern aspirations are often slowed by traditional administrative structures. Daily work is currently a hybrid of manual and semi-automated tasks. Employees often begin by recording client information on paper before digital entry, which the respondent identifies as an operational burden. Rather than a dedicated CRM platform, the branch utilizes the 8th version of DELTA-BANKING integrated system. While comprehensive for financial and commercial administration, its primary utility is centralized storage and processing rather than proactive relationship management. Paper-based archiving is maintained for security but is explicitly cited as the single most important obstacle to higher service quality, as it becomes a significant burden during peak periods.

The Delta Bank system referenced throughout this study is formally classified as a “*progiciel de gestion bancaire*”, a banking management software, rather than a dedicated CRM platform in the strict academic sense. (BAD, 2012) confirmed that CRM functionality was explicitly identified as a missing module within the Delta Bank suite at several institutions, requiring separate acquisition. This distinction is analytically significant: it clarifies that BEA Ouargla's CRM operations are conducted through a combination of Delta Bank's client management modules and supplementary human-mediated relational practices.

Note. Generated from NVivo Software

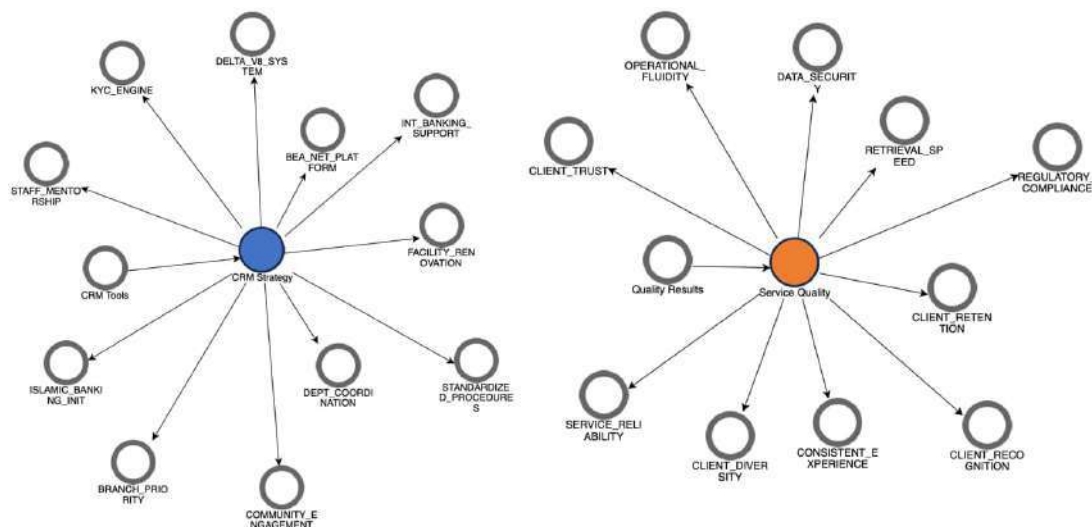


Figure 7.1. Thematic Diagram of Nodes/Codes Qualitative Analysis

A core part of the branch's identity is managing accounts for national entities like Sonatrach. This strategic responsibility requires a higher degree of regulatory compliance. The branch claims the largest market share in the Ouargla region, leveraging its capacity to handle large-scale operations and key economic sectors. Recent improvements include the 2024 launch of the Small Importer platform, which streamlined complex international exchange processes, and the 2021 introduction of Islamic banking. Service continuity is ensured during occasional power outages or system failures by immediately pivoting to manual paper procedures. Personalized service delivery is facilitated by the CRM system, which helps staff recall client preferences and anticipate needs, particularly for corporate clients. The interview reveals that the Know Your Client (KYC) search engine is not merely a compliance hurdle, but the functional heart of the branch's CRM strategy. The KYC engine is used for instantaneous identification. While it flags anomalies such as international blacklists or “PEP” (Politically Exposed Persons) status, this is only the risk-management layer.

Note. Generated from NVivo Software

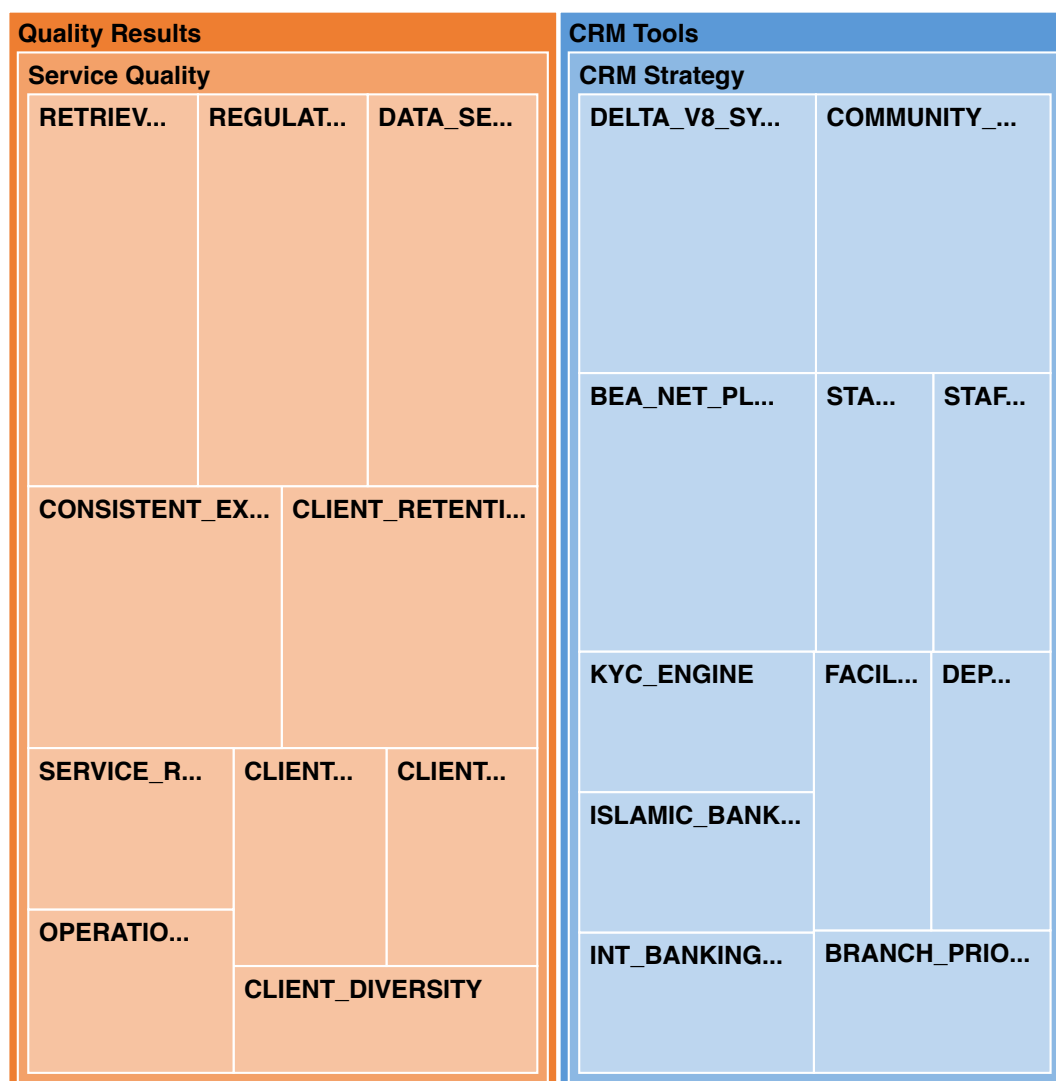


Figure 7.2. Thematic Diagram of Codes Compared by Number of Coding References

Because the bank's CRM system provides a shared history of interactions across all departments (Financial, Commercial, and Accounting), the KYC allows for a unified relationship approach. This ensures that even without a digital CRM marketing platform, the bank can still manage client needs with high efficiency and speed. The effectiveness of the system is heavily dependent on the human capital of the bank. Staff undergo continuous training in Algiers at the National School of Banks. While those with higher technical qualifications adapt faster, the branch fosters a culture of informal knowledge exchange where seniors mentor new colleagues.

To maintain the bank's service quality standard and the customers', the bank's staff are instructed to verify queries with senior management rather than making definitive decisions on topics outside their immediate expertise.

Note. Generated from ATLAS.ti Software

Theme	Operational Evidence	Impact on Service Quality
Performance	Performance tracking is manual (data is aggregated for reports).	Focuses on transaction volume rather than individual client satisfaction metrics.
Digital Services	BEA-NET (Silver/Gold), WimPay, SMS alerts.	Increases convenience but many clients still prefer physical visit.
System Usage	Hybrid of manual recording followed by Delta V8 entry.	Improves speed over old methods but creates digital backlog.
Problem Solving	Use of manual paper backups during system outages.	Ensures continuity but significantly reduces processing speed.

Table 5.2. Summary of Empirical Findings

Institutional Integrity, Regulatory Synergy, and Social Responsibility

To examine how the bank's service quality is inextricably linked to its standing as a national pillar of the Algerian economy through, holding a distinctive reputation with the Banque d'Algérie. This is primarily due to its strategic mandate in managing the financial accounts of Sonatrach, the nation's largest industrial entity. This responsibility dictates a high degree of regulatory compliance that filters down into the precision of daily service delivery. Beyond financial transactions, the branch maintains its reputation through community engagement.

Specialized Service Evolution and the International Friction

The data reveals a push toward modernization that often clashes with the complexities of the local and international market.

A major milestone in service expansion was the 2021 launch of Islamic Banking. This met a specific regional demand for Sharia-compliant financial products, demonstrating a responsive approach to the cultural values of the Ouargla population.

Strategic Vision and the Roadmap for Digital Sovereignty

The interview concludes with a forward-looking assessment of what is required to reach a high World-Wide Standard service quality. The effectiveness of any digital tool is fundamentally tied to how the branch is structured. The ultimate obstacle is not just technology, but the imbalance between administrative structure and the pace of technical growth.

To reach its full potential, the branch requires a multi-faceted upgrade involving:

- Opening more branches to distribute the heavy workload.
- Moving away from the safety of paper-based archiving, which is identified as significantly slower and a burden during peak periods.
- Establishing continuous Research and Development to ensure services remain modern and offer truly personalized experiences.

Evaluating Results, Hypothesis Testing and Interpretation

To evaluate the relationship between Customer Relationship Management (CRM) and Service Quality at BEA Bank Ouargla, a thematic analysis was conducted on the semi-structured interview data on (NVivo and ATLAS.ti). The results are presented in three stages: raw frequency distribution, thematic synthesis, and total project density.

1. Raw Coding Frequencies

The following table presents the individual codes identified during the surgical coding process. This represents every specific mention of CRM operational tool and quality outcome:

Note. Generated from NVivo Software

Service Quality	Freq.	CRM Tools/Strategy	Freq.
Retrieval Speed	2	Delta V8 System	2
Data Security	2	BEA-Net Platform	2
Client Retention	2	Community Engagement	2
Regulatory Compliance	2	Standardized Procedures	1
Consistent Experience	2	KYC Engine	1
Service Reliability	1	International Banking Support	1
Operational Fluidity	1	Facility Renovation	1
Customer Trust	1	Dept. Coordination	1
Customer Recognition	1	Branch Priority	1
Customer Diversification	1	Staff Mentorship	1

Table 6.1. Distribution of Coding Frequencies for BEA Ouargla Interview

Thematic Synthesis

The raw indicators from Table 5.1. and 6.1. were aggregated into five Higher-Order Themes that have been identified (Digital Infrastructure, Operational Quality, Institutional Trust, Human Capital, Customer Value/Loyalty). This allows for a deeper understanding of how the bank's strategy impacts its service performance:

Note. Generated from ATLAS.ti Software

Thematic Category	Indicators Included	Ref.	Analysis
Digital Infrastructure	V8 System, BEA-Net, KYC Engine	5	Acts as the primary backbone for all digital CRM activities at the branch.
Operational Quality	Retrieval Speed, Data Security, Fluidity	5	Represents the direct mechanical result of technical system integration.
Institutional Trust	Compliance, Community, Strategy	5	Highlights the branch's focus on reputation and regulatory standing.
Human Capital	Mentorship, Coordination, Consistency	4	The personal expertise that ensures digital tools are used effectively.
Customer Value/Loyalty	Retention, Trust, Diversification	4	The ultimate qualitative outcome of the CRM-Quality linkage.

Table 6.2. Thematic Categorization and Analytical Significance

Thematic Density

Finally, the data is summarized by the two main research variables. This table confirms that the interview provided a balanced perspective, with nearly equal weight given to the CRM and Service Quality.

Note. Generated from ATLAS.ti Software

Research Variable	Number of Unique Codes	Total References (N)
Service Quality Dimensions	10	15
CRM Tools & Strategies	10	13
Project Totals	20	28

Table 6.3. Summary of Project Thematic Density

General Overview of CRM IS Status Across Algeria's Six Public Banks

Note. Adapted from Projet d'appui à la supervision de la mise en œuvre des plans de modernisation des systèmes d'information des banques publiques, by Banque Africaine de Développement, 2012. Bold entries highlight BEA-specific data directly relevant to the present study. Page 23.

	BEA	CPA	BNA	CNEP	BADR	BDL
Initial IS Status	Decentralized In 2003: Delta Bank V4 in branches, proprietary IS at central level Partial coverage	Decentralized Delta Bank V7 Partial functional coverage	Decentralized Proprietary system at center; Delta V4/V8 in branches Partial coverage	Decentralized Proprietary system built on DANSYS accounting software Partial coverage	Decentralized SYBU (Steria), fully redesigned by BADR (2004) Partial coverage	Decentralized Proprietary system built on obsolete technology Partial coverage
Modernization Strategy	Centralize on Delta V8.3	Delta or switch to Global Banking. Launching external consultancy tender	Decentralize on Delta V8. CRM, Client risk management, payment incidents, HR, fixed assets	Global Banking TEMENOS (T24)	Global Banking I-FLEX (Oracle)	Global Banking
Interim Works Completed	2008: Uniformization of Delta V8.3 across all branches		2010: Uniformization of Delta V8 across all branches			2005: First Global Banking tender 2008: VIVEO
Global Banking Solution Chosen	Not applicable Delta V8 path	Not decided	Not decided	TEMENOS T24 (2009)	Oracle I-FLEX (2009)	Under evaluation

External Consultancy (Tender)	None	Tender to launch	None	KPMG	Deloitte	None
External Project Management	None	None	Delta representative on-site	Yes	UNICORE	Tender in progress
New IS Operational Target	2nd semester 2012 (Delta centralization)	No visibility	Q1 2012	Suspended	June 2012	June 2013
Telecommunications Network	Modernized; ADSL and fiber optic deployed with VSAT backup stations	Obsolete X25 + low-speed VSAT Telecom development roadmap in preparation	Modernized with Algérie Télécom X25 replaced by RMS network, VSAT backup. WiMAX and xDSL backup	Obsolete X25 + low-speed VSAT Contract signed with Algérie Télécom to replace X25 with ADSL and fiber optic	Modernized with Algérie Télécom X25 being replaced by RMS network Low-speed VSAT	Obsolete X25 + low-speed VSAT
Information Security	First-level access security only. No full security policy	Security policy developed. Implementation in progress	First-level access security only. No full security policy	First-level access security only. No full security policy	First-level access security only. No full security policy	First-level access security only. No full security policy
Business Continuity / Backup Site	Operational backup site in Setif	1. Delta Bank IS 2. Electronic compensation.	Not operational Construction in Ghardaia,	Not available	under consideration	Under consideration

Table 6.4. Overview of Information System Status Across Algeria's Six Public Banks

Table 6.4 establishes three analytically critical facts in a single glance. First, BEA was the only bank among the six with an operational backup site, confirming its infrastructure leadership. Second, BEA required no external consultancy unlike CNEP and BADR, suggesting greater internal IT capacity. Third, CRM was explicitly listed as a missing Delta Bank module that BNA planned to acquire separately confirming the distinction between Delta Bank as banking IS and CRM as a functional layer requiring additional development.

Note. Adapted from Projet d'appui à la supervision de la mise en œuvre des plans de modernisation des systèmes d'information des banques publiques (Synoptic Comparative Table), by Banque Africaine de Développement, 2012. Color coding reproduced from the original institutional document. Bold row highlights BEA-specific data. Page 28.

	Information System		Telecommunications Network		IT Security		Project Management
	Strategic Choice	Implementation	Strategic Choice	Implementation	Strategic Choice	Implementation	
BEA	Delta	2012					
CPA	Delta or.	?					
BNA	Delta	2012					
BADR	I-FLEX	2012					
CNEP	T24	?					
BDL	N/A	2013					

Table 6.5. Comparative Progress Status of Algerian Public Banks' IS Modernization

Green: Choice made or implementation on track, **Orange:** Choice made but may need reconsideration, or implementation, **Red:** No choice made and implementation not planned.

As Table 6.5 illustrates, BEA's strategic positioning in 2012 was among the most advanced of the six public banks, with both its IS choice and telecommunications network implementation on track, a baseline infrastructure maturity that directly enabled the CRM operational environment observed at the Ouargla branch during the present field study.

Commercial and Economic Results

Beyond its academic value, this research carries direct implications for the commercial performance and economic contribution of the BEA Ouargla Branch. The data demonstrate that effective CRM implementation... supports client retention, enables cross-selling of specialized products (Islamic banking, international trade financing), and sustains the branch's competitive position as the primary financial intermediary for Ouargla's hydrocarbon sector

Successful CRM implementation at BEA Ouargla carries broader economic implications: a financially stronger branch is better positioned to support local businesses, small enterprises, and the regional economy of Ouargla.

Hypothesis Testing and Interpretation

In this qualitative study, hypothesis testing does not rely on statistical probability (p-values), but rather on an inductive process of thematic pattern recognition. The initial hypotheses formulated during the preliminary stages of research were tested against the coded interview data from the BEA Bank Ouargla case study to determine if they were supported, evolved, or refuted by the operational reality.

Testing Sub-Hypothesis (H1a): Level of CRM Adoption

H1a: The BEA Bank in Ouargla demonstrates an advanced level of CRM adoption, characterized by a comprehensive transition from traditional manual processing to an integrated digital framework.

Result: Supported.

The qualitative data validates this assumption. The thematic analysis revealed a high density of references (5 instances) specifically tied to Digital Infrastructure. The interviewee's explicit focus on the Delta-Banking V8, the BEA-Net Platform, and the integration of a KYC Engine confirms that the branch has successfully transitioned to hybrid workflows. The CRM adoption level is not merely superficial; it serves as the operational backbone of the branch's daily client management strategy.

The institutional status of BEA's CRM adoption is further corroborated by the 2012 African Development Bank assessment of Algerian public banks, which positioned BEA among the two most IT-advanced institutions out of six public banks, noting the successful modernization of its telecommunications infrastructure and its status as the sole institution with an operational distant backup site. (BAD, 2012) This external institutional validation supports H1a's confirmation while simultaneously qualifying the nature of that advancement: BEA's digital infrastructure represents significant progress relative to the Algerian public banking baseline, but operates within a Delta Bank architecture where full CRM module integration remains an ongoing development rather than a completed transformation.

“For managing our core operations, we rely on the DELTA-BANKING V8 system. This system is quite comprehensive... the system itself is the backbone...”

“... enabling us to provide a prompt response to the client’s request right at the counter...”

“... the digital system as a complementary tool that enhances convenience rather than a replacement for face-to-face interaction...”

“... the digital system allows us to immediately retrieve core profiles, personal preferences, and specific service customizations. Generally, file retrieval is instantaneous, enabling us to provide a prompt response to the client’s request right at the counter...”

Testing Sub-Hypothesis (H1b): Internal Correlation of CRM Dimensions

H1b: CRM dimensions are correlated with each other in improving service quality.

Result: Supported and Evolved.

The findings support this hypothesis, but add a critical layer of operational nuance. The coding showed that technological tools do not operate in isolation. The code for “DEPT_COORDINATION” frequently intersected with “DELTA_V8_SYSTEM” and “RETRIEVAL_SPEED”. This proves a qualitative correlation: the digital CRM tools directly facilitate better internal communication, which in turn leads to faster, more reliable service quality for the end-user. The dimensions are highly interdependent.

“...our focus on response speed and client data security.”

“... the system itself is the backbone that ensures our internal departments coordinate effectively.”

“... structured distribution of roles and responsibilities,”

“...file retrieval is instantaneous... prompt response”

Testing Sub-Hypothesis (H1c): The Impact of Professional Training

H1c: The level of specialized professional training received by bank employees is insufficient to support their effective execution of CRM protocols and reduction of service errors.

Result: Refuted.

A key strength of this qualitative analysis is the emergence of disconfirming evidence regarding staff training. Prior to the field study, it was assumed that a lack of professional training constrained CRM execution. However, the interview data explicitly refuted this assumption. The emergence of the “STAFF_MENTORSHIP” code, combined with the focus on “CONSISTENT_EXPERIENCE”, reveals that the branch actively invests in human capital to ensure the CRM technology is utilized correctly.

“...We invest heavily in continuous training to ensure every employee at the Ouargla branch is equipped to provide professional and reliable service...”

“...thanks to our intensive training programs, we find that performance gaps between staff members are minimal once they are fully onboarded. We also foster a culture of informal knowledge exchange; experienced staff members often mentor newer colleagues, ensuring a collaborative environment that maintains our service standards.”

“...we implement continuous, specialized training...”

This refutation is analytically significant: it demonstrates that BEA Ouargla understands that technology alone cannot reduce errors without an adequately trained workforce.

Testing Sub-Hypothesis (H1d): Staff Educational Qualifications

H1d: There is a significant positive relationship between the educational qualifications of the staff and their efficiency in managing customers' relationships.

Result: Supported.

The findings within the human capital thematic category support this hypothesis. The complexities of operating advanced banking algorithms (like the KYC Engine) and maintaining strict “REGULATORY_COMPLIANCE” (coded 2 times) require a foundational level of higher education.

The efficiency of the CRM system is heavily reliant on the staff's cognitive capacity to navigate digital interfaces and apply financial regulations in real-time, confirming the critical link between education and operational efficiency.

“Naturally, employees with higher technical competencies tend to adapt to new systems more quickly...”

“performance gaps between staff members are minimal once they are fully onboarded. ...meet these rigorous reporting... ensuring that our operations remain transparent...”

Conclusion on the Main Hypothesis

Main Hypothesis: CRM dimensions positively contribute to service quality outcomes at BEA Bank Ouargla

Final Verdict: Confirmed.

Through the synthesis of the sub-hypotheses, the primary research question is answered affirmatively. The cross-analysis of 28 distinct thematic references proves that the application of Customer Relationship Management at BEA Bank Ouargla is the direct catalyst for improved Service Quality in BEA Ouargla Branch. Specifically, the integration of digital CRM tools (Delta) combined with adequately mentored human capital directly yields measurable improvements in data security, retrieval speed, and ultimately, client trust and retention.

Note. Generated by Midjourney and edited by the author

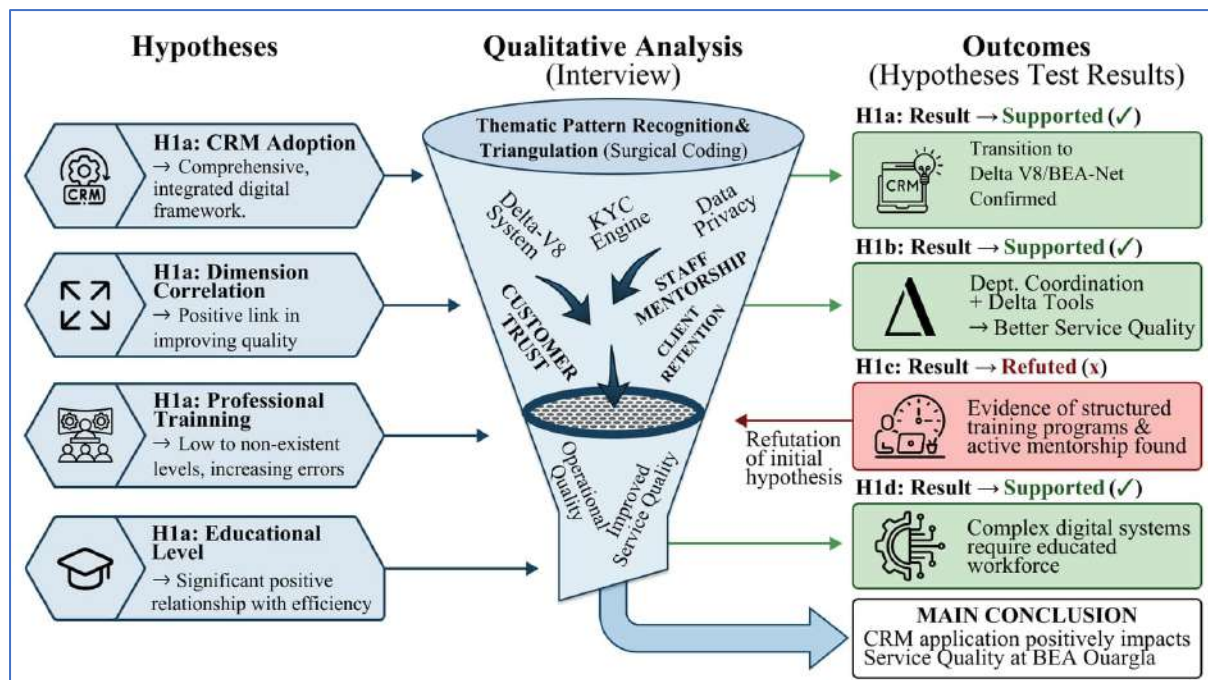


Figure 8.1. Thematic Hypothesis Testing and Outcome Analysis

Discussion of the Link between CRM and Service Quality

The BEA Bank Ouargla adopted and transitioned to the Delta-Banking CRM from a passive archival database to an active operational tool. Unlike traditional old systems that serve as silent repositories of customers account history, the 8th version architecture at the Ouargla branch acts as a cognitive extension of the bank employee.

By functioning as an active tool, the CRM reduces the cognitive load on staff, allowing them to shift focus from information retrieval to client interaction. This directly impacts the Retrieval Speed “coded 2 times in NVivo” and Operational Fluidity. In this context, the link between CRM and Service Quality is defined as Informed Agility: the ability of the branch to provide high-speed service without sacrificing the accuracy of the financial transaction.

One of the most profound insights from the BEA Ouargla case is the role of the KYC (Know Your Customer) engine, while compliance protocols are often viewed in banking literature as operational friction that slows down service, the manager’s perspective reveals the opposite.

The link here is **Service Integrity**. By utilizing the KYC engine to automatically handle complex security checks, the bank ensures that customers’ data security is not a separate step but an integrated feature of the service. This integration allows the branch to maintain a high level of service reliability and the customer receives a faster experience.

The discussion identifies a **Positive Relational Bridge**.

This proves that the CRM at BEA Ouargla does not create trust, it protects it. By recording personal preferences and transaction histories, the system ensures that when a community member enters the branch, the digital interface reflects the personal recognition they expect, thereby reinforcing Client Recognition and Retention.

The link between CRM and Service Quality at BEA is ultimately Human-Mediated. As discovered in the refutation of H1c, the high level of Staff Mentorship and training is what transforms the bank’s CRM tools and strategies to better financial services.

The data suggests that the bank’s CRM system provides the capacity for quality, but the trained staff provides the execution. This synergy explains why Operational Fluidity and Client Diversification emerged as key outcomes; the staff uses the CRM’s data to offer Islamic Banking or International Banking products with a level of confidence that manual systems could not support.

Section Three: Strategic Results and Future Recommendations

Summary of the Main Field Results

This research is centered on a semi-structured interview yielded a comprehensive dataset regarding the operational reality of CRM. To summarize the core findings, the study moves from technological infrastructure to the human and relational dimensions that define service quality at the branch.

The most prominent finding is the total systemic transition from traditional, manual workflows to an integrated digital framework. The Delta-Banking serves as the primary operational nexus, effectively eliminating information silos. The data indicates that this adoption is not merely a surface-level upgrade but a fundamental shift in how client data is leveraged at the counter. The bank's CRM allows for real-time access to complete customer profiles across the entire bank network.

A significant departure from traditional banking friction was observed in the implementation of the KYC Engine. Rather than functioning as a bureaucratic hurdle that slows down the service, the results show that BEA Ouargla uses compliance algorithms as a source of strategic insight. The KYC protocols are integrated into the CRM workflow to identify client needs and potential service strategies simultaneously. This finding suggests that at the Ouargla branch, Regulatory Compliance and Service Quality are not competing interests; instead, the CRM system uses security checkpoints to enrich the bank's understanding of its client base, facilitating a more reliable and personalized service experience.

Contrary to initial research speculations that suggested a lack of professional development, the field results revealed a robust and structured approach to human capital. The data points to a heavy reliance on specialized training, and a culture of internal Staff Mentorship. The results prove that the bank prioritizes the human element mentoring new recruits to navigate complex digital interfaces and regulatory landscapes thereby ensuring that the CRM tools minimize service errors. Service Quality is fundamentally acquired and nurtured offline through community relationships and the bank's regional reputation. The bank's CRM digital tools allow the branch to scale these personal community relationships into a professional, consistent experience. This ensures that the personal recognition earned in the community is reflected in the digital accuracy and efficiency of the bank's service, effectively digitizing traditional Algerian financial services.

Practical Feedback for the BEA Branch Management

- This study recommends a move to more modern and safe software with the fluidity to customize, track and easily access customer data that is always optimized and up-to-date.
- A CRM dashboard would move beyond raw transaction logs to provide real-time Service Quality Heatmaps. A CRM dashboard that tracks Efficiency Per Transaction Type (e.g., International Transfers vs. Local Deposits) and flags bottlenecks in real-time.
- Instead of reviewing month-end reports, the bank should have quality control routine real-time metrics, allowing for immediate reallocation of staff to maintain Operational Fluidity.
- Since trust, in Ouargla, is based on empathy and quality service delivery but managed online, the bank should invest in Community-to-Cloud Loyalty Program. It is a common trend in foreign banks like: Warba Bank (Kuwait) that operates "Pocket", a fully digital loyalty program based on Open Loyalty technology, Discovery Bank (South Africa) that Offers Vitality Rewards, which uses cloud technology to monitor healthy and responsible spending habits and rewards users with discovery miles for fitness, healthy food purchases, and responsible driving. And many more.

- Currently, the BEA bank's Service Quality is only assessed through the observation and number of operations. It is recommended that the branch integrate, a Real-Time Statistical SERVQUAL Measurement directly into the BEA-Net and ATM interfaces.
- Immediately following a transaction, the CRM sends a 3-question survey via SMS or App, specifically targeting the five dimensions (Reliability, Responsiveness, Assurance, Empathy, and Tangibles).
- Providing a Monthly Quality Coefficient by correlating these scores with the transaction logs, the branch can statistically prove which staff members or which specific hours of the day are dragging down the branch's service reputation, allowing for surgical training interventions.
- The CRM in the BEA Ouargla is barely used, and only dedicated for security and minimal customer management. The branch should clearly invest more in Marketing.
- The CRM algorithm should be programmed to run a Cross-Selling strategy during every customer update. If an asset shows they have recently expanded their commercial register to include Import/Export, the CRM should automatically alert the bank to offer a customized International Trade Finance package.

Proposed CRM Roadmap for Enhancing Local Service Quality

The core idea behind this roadmap is to move the CRM from a theoretical tool to an active system of intelligence.

Note. Created by the author

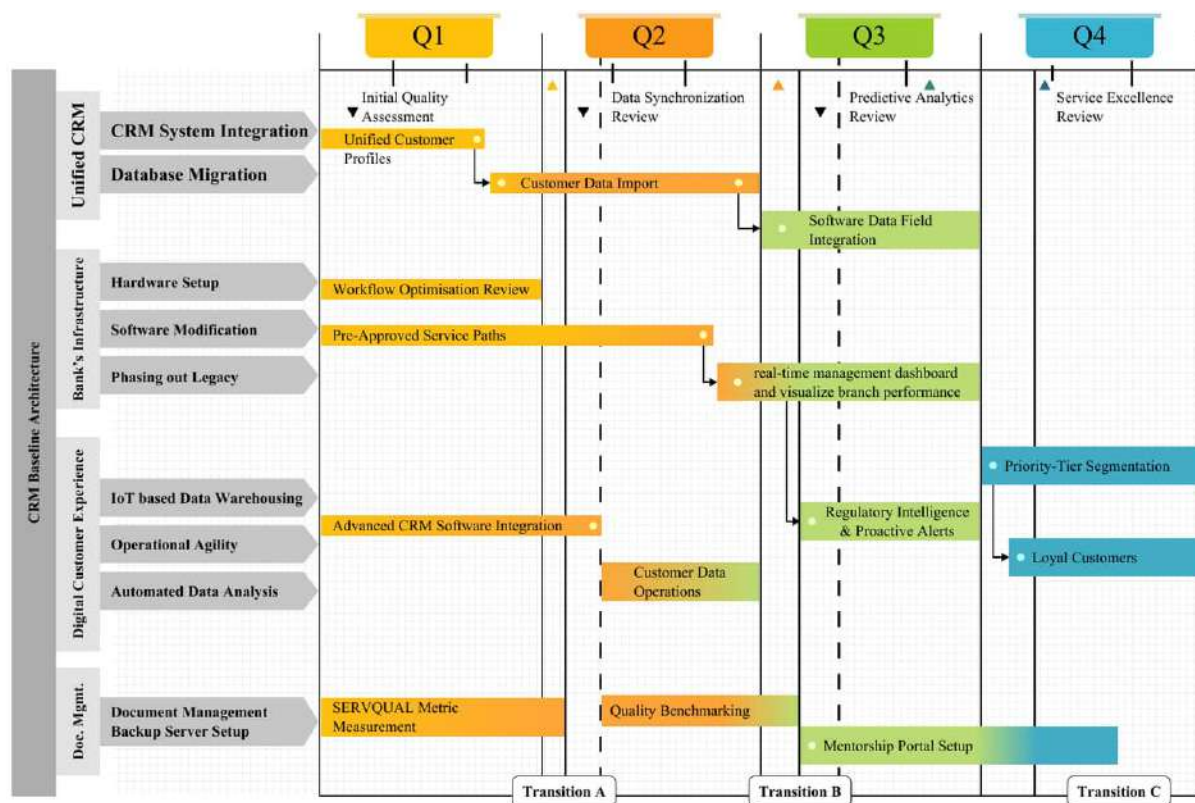


Figure 9.1. Quarterly CRM Implementation for Enhancing BEA's Service Quality

Pursue Unified Client Identifier Implementation

A structural limitation identified across all Algerian public banks by independent institutional assessment is the absence of a unified client identifier (identifiant client unique), a single reference linking all of a client's accounts, products, and interaction history within the bank's information system. (BAD, 2012) Without this foundational data architecture, meaningful CRM segmentation, behavioral analysis, and truly personalized service delivery remain technically constrained regardless of the quality of the banking software deployed. BEA Ouargla's management should advocate at the institutional level for the prioritization of unified client data architecture as the prerequisite for any subsequent investment in advanced CRM capabilities. This recommendation aligns with the Algerian Banking Modernization Programme's stated objectives and with the BAD's own technical guidance to the Ministry of Finance.

Perspectives for Future Academic Research

The findings of this research, particularly the refutation of the training deficit (H1c), are based on the expert insights of management. A logical progression for future research would be to conduct a Quantitative Analysis using a statistical approach. Future researchers could deploy a structured comparative-based questionnaire across all BEA branches in Ouargla. This would allow for a comparative statistical analysis (using SEM or ANOVA) to determine if the high levels of Operational Fluidity and Professional Assurance found in Ouargla are consistent nationwide or if they are unique to the Southern organizational culture.

Given the explicit finding that BEA Bank Ouargla currently operates without Artificial Intelligence within its CRM systems, a fertile ground for academic inquiry lies in the study of AI-Transition Readiness. Future scholars could investigate the structural and psychological barriers to integrating AI-driven predictive analytics within the Algerian public banking sector.

One of the most nuanced findings of this thesis was the relationship between CRM and service quality. There is a significant opportunity for future research in the field of Behavioral Finance to explore the Algerian customer's trust threshold. Future studies could investigate the psychological point at which a customer feels a loss of trust. Understanding the Socio-Cultural Variables that dictate how customers perceive digital trust versus face-to-face operational trust would provide a groundbreaking contribution to the literature on CRM in developing economies.

A final, groundbreaking perspective for future research lies in the pivot away from established institutional banking toward the nascent Algerian startup ecosystem and the rise of e-commerce and technology-based platforms. As Algeria moves toward a more digitized economy, research is needed to explore the application of CRM in Subscription-Based Models (SaaS, digital streaming, or monthly service deliveries). Unlike the transactional nature of traditional banking, these models rely on CLV. Future academic inquiries should investigate how Algerian startups can utilize lean CRM strategies to build digital loyalty in a market where online payment infrastructure is still maturing.

Chapter Conclusion

The empirical investigation detailed in this chapter provides a clear, grounded understanding of how Customer Relationship Management operates to influence service quality within the public banking sector of Algeria. Section One highlighted that while the BEA has successfully established a resilient, centralized infrastructure through its Delta Bank V8 modernization framework, it continues to navigate the structural complexities inherent in large state-owned financial networks. The thematic data analysis and hypothesis testing conducted in Section Two confirmed a positive relationship between internal CRM dimensions and service quality outcomes, but with a highly specific local caveat. The findings reveal that the BEA Ouargla branch operates within a distinct hybrid digital-manual environment; because the current system lacks advanced analytical CRM automation and does not utilize a unified client identifier, the branch heavily relies on its human capital, structured staff mentorship, and adaptive employee expertise to bridge technological gaps and maintain high standards of customer responsiveness and empathy.

Ultimately, this chapter synthesized these realities into a clear path forward, demonstrating that maximizing the branch's competitive relevance requires moving beyond basic transactional tracking toward a proactive, data-driven relational model. The actionable roadmap and management feedback provided in this study offer a practical blueprint for the local leadership to optimize workflows, decrease service errors, and better support the regional economy of Ouargla.

In conclusion, by validating the critical interdependence between technical system integration and human capital dedication, this research successfully fulfills the core objectives of this investigation, contributing an operationally grounded, institution-specific case study to the evolving literature on service marketing and financial modernization in Algeria.

Conclusion

This thesis set out to examine the role of Customer Relationship Management in improving service quality at the Banque Extérieure d'Algérie Ouargla Branch, an institution that occupies a strategically critical position within both the Algerian public banking sector and the national energy economy. By adopting a qualitative, single-case study design grounded in the CRM multidimensional framework and the SERVQUAL measurement model, this research generated empirically grounded insights that extend beyond institutional description toward a theoretically meaningful contribution to the understanding of CRM effectiveness in developing-country public banking contexts.

The empirical investigation confirmed the main hypothesis: CRM dimensions positively contribute to service quality outcomes at BEA Ouargla. Specifically, the Delta-Banking V8 system and the KYC engine function as operational catalysts that enhance retrieval speed, data security, regulatory compliance, and departmental coordination, all of which translate directly into improvements across the SERVQUAL dimensions of reliability, responsiveness, and assurance. The study confirmed Sub-Hypothesis H1a: the branch has successfully transitioned from fully manual workflows to a hybrid digital-manual operating model, placing it among the most IT-mature institutions in the Algerian public banking sector. It confirmed H1b: the four CRM dimensions (customer knowledge, interaction, satisfaction, and value) are mutually reinforcing and do not operate in isolation. The refutation of H1c constitutes the study's most analytically significant finding: contrary to the initial assumption, BEA Ouargla demonstrates a robust culture of staff mentorship and continuous training that compensates for the analytical CRM limitations embedded in its current system architecture. H1d was confirmed: higher educational qualifications positively correlate with operational efficiency in managing the CRM system.

This study makes several contributions to the existing literature. First, it provides empirical evidence that in a developing-country public banking context, the human element mentorship, adaptive expertise, and institutional commitment is not merely a complement to digital CRM tools but a structural substitute for the analytical CRM capabilities those tools currently lack. This finding challenges the technologically deterministic assumptions implicit in much of the global CRM literature and supports a contextually sensitive model of CRM effectiveness. Second, the study demonstrates that regulatory compliance mechanisms specifically the KYC engine can function as proactive CRM instruments rather than operational obstacles, a finding with direct implications for banking institutions operating in highly regulated markets. Third, by situating the branch's CRM within the broader framework of Algerian public banking IS modernization, this thesis establishes a comparative baseline that future researchers can use to track the sector's evolution.

Beyond its academic value, this research carries direct implications for the commercial performance and economic contribution of the BEA Ouargla Branch. The data demonstrate that

effective CRM implementation even within the current architectural constraints supports client retention, enables cross-selling of specialized products (Islamic banking, international trade financing), and sustains the branch's competitive position as the primary financial intermediary for Ouargla's hydrocarbon sector. As confirmed through the thematic analysis, the branch's service quality directly supports the financial stability of industrial clients whose activities contribute to Algeria's national hydrocarbon revenues. In this sense, the effectiveness of CRM at BEA Ouargla is not merely an institutional performance question: it is a dimension of national economic governance.

Ultimately, This study demonstrates that while digital infrastructure provides the essential operational backbone, and while strategic CRM frameworks provide the theoretical scaffolding, the ultimate determinant of service quality in the Algerian public banking sector remains the quality of the human institutional commitment that animates both. For the BEA Ouargla Branch, and for the Algerian banking sector more broadly, the path to service excellence is not simply a matter of software acquisition: it is the sustained alignment of technological capability, professional human capital, and an unwavering institutional culture of customer centricity.

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Appendix B. Interview Guide (35 Questions)

People's Democratic Republic of Algeria
University Kasdi Merbah Ouargla Faculty of Economics, Commerce & Management Sciences
SEMI-STRUCTURED INTERVIEW
The Role of Customer Relationship Management in Improving Service Quality at BEA Bank — Ouargla Branch
<i>LMD Master's Thesis in Service Marketing — Academic Year 2025/2026</i>

Researcher	Miloud KARA — LMD Master's in Service Marketing
Supervisor	Prof. Boubakeur LOUAZENE
Interview Type	Semi-structured — Qualitative, In-depth
Target	Bank Specialist / Senior Official
Duration	Approximately 120 minutes
Date	From April 10th, 2026 to April 15th, 2026
Location	Banque Extérieure d'Algérie Ouargla Branch
Interviewee	Nabil Maamri
Position	Head of the Commitments Secretariat Department

To the Interviewee:

Thank you for participating in this research interview. This is part of a Master's thesis examining how BEA Bank Ouargla manages its client relationships and how this influences the quality of services delivered to clients.

There are no right or wrong answers. We value your professional experience and operational knowledge. The questions focus on the bank's daily practices — you do not need any prior knowledge of technical or academic terminology to answer them.

All information shared will be treated with strict confidentiality and used solely for academic purposes. With your permission, the interview may be recorded for transcription purposes only.

The interview is organized into ten thematic sections and should take approximately 45 to 60 minutes.

I Interviewee Profile & Interview Details

Q1

Could you briefly introduce yourself — what is your current position at BEA Bank Ouargla, how long have you been working here, and what does your day-to-day work involve?

- *Which department do you oversee or work in?*
- *Have you held other positions within the bank before your current role?*
- *How many staff members are in your team or branch?*

My name is Nabil Maamri, I currently hold the position of Head of the Commitments Secretariat Department at BEA Bank, Ouargla branch. I have been working with the Banque Extérieure d'Algérie since May 2010, which has given me nearly 16 years of perspective on our operations. That has allowed me to gain extensive experience within the banking sector.

Before assuming my current role, I worked as a Level 2 Studies Bank Officer, where I was mainly involved in analyzing financial files and supporting decision-making processes related to client commitments.

In my current position, my daily responsibilities revolve around supervising commitment-related operations, ensuring proper documentation, and coordinating with different departments to maintain smooth processing of client files. My role also requires close interaction with both internal teams and client-related processes to ensure efficiency and compliance with banking procedures.

Q2

In your years at BEA, how has the nature of your work changed — is it more complex, more digitized, or more client-focused than when you first joined?

- *What do you think has driven these changes — internal decisions, client pressure, or regulatory requirements?*
- *Has the volume of clients or transactions grown significantly?*
- *How would you compare BEA's pace of modernization to other banks you are aware of?*

Over the years, the core nature of our work hasn't changed fundamentally, but the volume and complexity of client operations have increased significantly. While the processes are more demanding now, I evaluate BEA's modernization pace as being highly competitive; we are consistently operating on par with other major banking institutions in the country to meet these growing demands.

Today, we deal with a much higher workload compared to earlier years, which requires greater organization, precision, and coordination between departments. This evolution is mainly driven by the continuous growth in client demand and the expansion of banking activities.

In terms of modernization, I would say that BEA is progressing at a pace that is generally comparable to other banks operating in the Algerian market. While there have been improvements in systems and processes, the level of advancement remains relatively aligned with the overall sector.

Q3

How would you describe BEA Bank's mission and strategic positioning within the Algerian banking sector — particularly compared to other public banks and private competitors?

- *What do you see as BEA's main competitive advantage?*
- *Has BEA's strategic focus shifted in recent years — for example, from purely corporate clients to broader retail banking?*
- *In your view, what sets BEA apart from banks like BNA, CPA, or private banks like Société Générale Algeria?*

BEA Bank holds a strong strategic position within the Algerian banking sector. One of its main competitive advantages lies in its leading position at the national level, both in terms of market share and operational capacity. We hold the largest market share both nationally and specifically here in the Ouargla region. Being ranked as the 7th largest bank in North Africa speaks to our scale.

What distinguishes BEA from other public and private banks is the value it delivers to its clients, combined with its strong financial capacity and national presence. The bank has the ability to handle large-scale operations and serve key economic sectors, which reinforces its credibility and attractiveness.

Overall, BEA's positioning is built on stability, experience, and its capacity to meet the diverse needs of both individual and corporate clients.

Q4

What is specific about the Ouargla branch compared to other BEA branches — in terms of the type of clients it serves, the volume of activity, and its strategic importance to the bank?

- *Does the Ouargla branch serve many industrial or energy-sector corporations given the region's economic profile?*
- *Is this branch considered a high-priority branch within BEA's national network?*
- *Are there any unique operational mandates or special authorizations that this branch holds?*

The Ouargla branch is unique due to our high activity levels and our focus on response speed and client data security. We serve a diverse portfolio that includes individuals and major industrial players. In addition, the branch handles a significant volume of activity, which reflects its importance within the bank's network, particularly in the energy sector like Sonatrach.

While we operate under standard national mandates without 'special' administrative powers, our branch remains a high-priority hub within the network because of our specialized services and the personal dedication our staff shows to both corporate and individual clients. Although the branch does not have specific formal authorizations that differentiate it structurally from other branches, it benefits from a high level of importance due to the nature of its clients and the volume of operations it manages.

Q5

Can you describe the internal organizational structure of the Ouargla branch — how many departments does it have, how are they organized, and how do they coordinate with each other on a daily basis?

- *Is there a clear separation between front-office and back-office operations?*
- *How many full-time employees work at this branch?*
- *Does the branch operate any sub-agencies or extensions in the surrounding area?*

The internal organizational structure of the BEA Ouargla branch is composed of units designed to ensure efficient banking operations. At the top, there is the branch manager and the deputy manager, foreign trade, and accounting. followed by core departments such as the Commitments Secretariat, Cash Services. Operationally, the branch is divided into different services, including administrative management, commitments management, and cash operations. The cash service includes the front office, where direct interaction with clients takes place. The back office handles more technical and support, including transfers, cheque processing, electronic clearing, and foreign trade operations.

Coordination between these departments is ensured through a structured distribution of roles and responsibilities, allowing for smooth and efficient processing of financial operations. While there is no rigid separation between front-office and back-office activities, there is a strong emphasis on coordination and integration to guarantee service continuity. All employees work on a full-time basis, and the branch does not operate any sub-agencies, as it is the only BEA branch in Ouargla. It operates under the regulations and supervision of the central bank.

III Types of Services Offered & Their Evolution

Q6

Could you walk me through the main categories of services that BEA Ouargla offers to its clients — both individual clients and corporate or institutional clients?

- *Does the branch offer retail banking services such as savings accounts, consumer loans, and credit cards to individual clients?*
- *What corporate or business services does the branch provide — trade finance, letters of credit, leasing?*
- *Are there any services specific to the oil and gas sector or industrial companies in the region?*

We offer a comprehensive suite of services tailored to natural individuals, company employees, and corporate entities. This includes opening various accounts current, commercial, foreign currency, and savings as well as managing essential financial operations like payments, transfers, and check clearing. We also provide diverse credit facilities for operations, investment, and consumption, alongside Islamic banking services and both local and international credit cards. A major part of our local identity involves managing the accounts of national companies like Sonatrach and financing both local and international projects.

Q7

Has the range of services offered by BEA Ouargla expanded or changed significantly in recent years? What new services have been introduced, and what drove these changes?

- *Were any new services introduced because of client demand, regulatory pressure, or competitive pressure?*
- *Were any old services discontinued or replaced by newer alternatives?*
- *How long does it typically take from when a new service is approved centrally until it is actually available to clients at this branch?*

Our service range has expanded significantly in response to client demand, most notably with the launch of Islamic banking in 2022. We have also introduced several technical and digital services such as the OGA, WimPay, and payfon applications. Usually, once a service is approved centrally by the head office and the Bank of Algeria, our branch moves quickly to implement it and make it available to our local clients.

Q8

Does BEA Ouargla offer any international banking services — such as foreign currency accounts, international wire transfers, import/export financing, or correspondent banking with foreign institutions?

- *Are these international operations handled through a specialized system or through the same general platform used for domestic transactions?*
- *Have international transactions grown in volume with the expansion of the energy sector in Ouargla?*
- *Are there any limitations in the current system when processing international transactions?*

Yes, we provides a range of international banking services. These include foreign currency accounts, international transfers, and support for import and export financing. The volume of international transactions has increased in recent years, particularly due to the expansion of economic activities in the region, especially in sectors such as energy and industry. Both individuals and businesses are increasingly engaged in international financial operations. However, these operations are subject to strict regulatory controls related to foreign currency management, which can sometimes introduce constraints in processing transactions. These limitations apply to both international and certain domestic operations, as they must comply with national financial regulations.

Despite these constraints, the branch continues to play an important role in facilitating international financial flows, supported by BEA's presence in Africa such as Mauritania and Senegal, as well as in Europe, particularly in France.

Q9

In your view, what is the quality of service delivery for each major type of service — are some services delivered more consistently and reliably than others? Which ones and why?

- Which services generate the most client complaints or dissatisfaction?
- Which services do clients seem most satisfied with?
- Is there a correlation between the complexity of a service and the frequency of errors or delays?

From my perspective, the quality of service delivery at the branch is significantly improving over time it is closely linked to the continuous increase in the number of clients and the volume of operations, which pushes the bank to enhance its performance and reliability. Certain services, particularly loan-related services, tend to generate a higher level of client satisfaction, as they directly respond to important financial needs.

There is indeed a relationship between the complexity of services and the likelihood of delays or issues; however, this does not necessarily lead to frequent errors. Instead, the growing experience of staff and the repetition of operations contribute to improving service quality and reducing inefficiencies. The increasing demand for services has encouraged the bank to continuously improve its processes, which positively impacts both service reliability and client trust.

Q10

Has BEA obtained any quality certification — such as ISO — or adopted international service quality standards for its operations? If so, how has this influenced the way services are delivered at branch level?

- When was this certification obtained and which departments or processes does it cover?
- Has ISO certification changed how errors and complaints are tracked and resolved?
- Do staff feel that the certification requirements impose additional procedures, or do they find them genuinely helpful?

N/A

IV

Client Information Management System & Digital Tools

Q11

When a client arrives at your branch — whether a regular or a new one — how does your team access their information? Can you walk me through the actual process from the moment the client walks in?

- Is this done through a centralized computer system, paper records, or a combination of both?
- Can any staff member access a client's full history, or is access restricted by role?
- How long does it typically take to retrieve a complete client file?

When a client visits our branch, we follow a systematic identification process. We first verify their identity using their national ID and banking credentials. Our team utilizes a dedicated search engine known as 'KYC' (Know Your Client). While we still maintain paper archives and physical records for certain documentation, the digital system allows us to immediately retrieve core profiles, personal preferences, and specific service customizations. Generally, file retrieval is instantaneous, enabling us to provide a prompt response to the client's request right at the counter.

Accessing and retrieving our client's data is usually instantaneous and fast, except in special cases, and the response is immediate. Anomalies are represented by international lists such as blacklists and PPE/PEP (Politically Exposed Persons).

Q12 Does the bank use a centralized digital platform to record and manage client interactions and accounts? If so, when was it introduced, and is it a system developed by BEA or provided by an external company — and is it an international or locally developed solution?

- How was the transition from the previous method to this system managed?
- Is the same system used across all BEA branches, or does Ouargla use a localized version?
- Who is responsible for maintaining and updating the system — local IT or the head office?

No we do not use a digital platform, The system used in the Ouargla branch is an integrated system that supports most of the bank's operational activities. It allows for the storage, processing, and management of client data in a centralized manner.

Q13 Does the system allow staff to see a client's complete interaction history — including past requests, complaints, products held, and previous transactions — before or during a service encounter?

- Does having access to this history change how staff interact with and serve the client?
- Are staff encouraged to use this information to suggest relevant products or solutions proactively?
- Is this history accessible across all departments, or only to the department that originally handled the case?

For managing our core operations, we rely on the DELTA-BANKING V8 system. This system is quite comprehensive, it allows various departments particularly the financial and commercial administration to record new clients and manage savings, credit, and accounting data. It provides a shared history of interactions that helps us understand and manage client needs with greater efficiency and speed. While complaints are still recorded in a dedicated physical register available to all clients, the system itself is the backbone that ensures our internal departments coordinate effectively.

Q14 Does BEA Ouargla offer any digital services that clients can access remotely — such as online banking, a mobile application, SMS alerts, or an e-banking portal?

- What percentage of clients actively use these remote channels, in your estimate?
- Has the introduction of digital channels reduced the number of clients who physically visit the branch?
- Are there any plans to expand digital service offerings in the near future?

We provide a comprehensive reliability of digital services to bridge the gap between physical and remote banking. This is primarily facilitated through the BEA-NET platform, which we have tailored into three distinct tier categories: Individuals, Professionals, and Corporate Entities. Depending on the tier (Silver or Gold) clients can perform everything from simple balance inquiries and RIB printing to complex international transfers and collective payment processing. We also offer SMS alerts and online card management to ensure clients stay connected to their accounts. While these digital channels are expanding, our observation at the Ouargla branch is that many clients still prefer the personal touch of a physical visit for their primary banking needs. Consequently, we view the digital system as a complementary tool that enhances convenience rather than a replacement for face-to-face interaction.

Q15

How much of the staff's daily work — such as processing requests, generating reports, or following up on pending cases — is handled automatically by the system versus done manually?

- Which tasks are still done manually that you wish the system could handle automatically?
- Has automation noticeably reduced errors or improved processing speed?
- Are there any tasks where the system actually creates more work than it saves?

Currently, our work is a hybrid of manual and semi-automated tasks. We often begin by recording client information on paper before entering it into the system. While I personally advocate for a total digital transformation, the current system has already significantly improved our processing speed compared to our old methods. However, one of our main operational burdens isn't the system itself, but rather the occasional imbalance in task distribution among staff when managing these digital inputs.

V

Measuring Service Quality — The CRM–Quality Link

Q16

Looking at the period before and after the current system was introduced — what is the most visible and measurable change in the quality of service that clients receive?

- Can you give a concrete example of a service that improved because of the system?
- Are there any statistics or internal reports that document this improvement?
- Did any external parties — such as the central bank or client surveys — also observe this improvement?

There has been a continuous and palpable improvement in our response times since we integrated the current system. A concrete example is the 2024 launch of the "Small Importer" platform, which streamlined a previously complex process. While we don't have public statistics to share, the most telling evidence is the feedback from our clients; many who moved to competing banks eventually returned to BEA Ouargla specifically because they recognized the superior quality and consistency of our service.

Q17

When a client visits the branch, how quickly is their request typically processed — from arrival to resolution? Has this turnaround time improved in recent years, and what do you attribute this to?

- Are there any official targets for service response time — for example, maximum waiting time or maximum processing time per request type?
- Which types of requests take the longest, and is the system of any help in speeding these up?
- Do clients ever leave without being served due to delays?

In some cases, processing times is notably longer than in previous years because we have introduced new verification steps to ensure data accuracy. However, our philosophy at the Ouargla branch is to prioritize quality, security, and efficiency over speed for speed's sake. We are committed to finishing the work; it is common for our staff to work overtime to ensure that even the last client of the day is served with the same level of care.

Q18

How consistent is the service quality at your branch — meaning, does a client receive the same level of service regardless of which employee helps them, which time of day they visit, or how busy the branch is?

- *Were there noticeable inconsistencies in service before the current system was in place?*
- *Has the system helped standardize how staff handle requests and access client information?*
- *Do you think all staff members use the system to the same degree, or are there gaps in usage?*

Ensuring a consistent service experience is a core priority for us. Whether a client is the first to arrive in the morning or the last to be served during an afternoon rush, we strive to maintain the same high standard of quality. The system plays a crucial role here by standardizing how we handle requests, which minimizes variations between different staff members. We invest heavily in continuous training to ensure every employee at the Ouargla branch is equipped to provide professional and reliable service regardless of the volume of foot traffic.

Q19

Do your staff members have enough knowledge and confidence to answer client questions accurately — not just about the client's account, but also about the bank's products, procedures, and regulations?

- *Does the system help employees access the information they need to answer client questions on the spot?*
- *Are there situations where clients leave unsatisfied because a staff member could not answer their question?*
- *How do staff handle inquiries that fall outside their immediate area of expertise?*

Our staff members are trained to be a reliable source of information for our clients across all interaction channels be it in-person, over the phone, or online. We ensure that our team has a comprehensive understanding of our accounts, products, and internal procedures so they can provide accurate guidance. However, we maintain a culture of precision; if a query falls outside a specific employee's immediate scope, they are instructed to verify the details with senior management before making a definitive decision. This approach ensures that we never compromise on the accuracy of the information provided, which builds deep trust with the people we serve.

Q20

Does the bank make any effort to treat clients as individuals rather than as account numbers — for example, by remembering their preferences, anticipating their needs, or offering them tailored solutions?

- *Is this kind of personalized attention formalized — meaning, is it part of how staff are trained and instructed to behave — or does it depend on the individual employee?*
- *Does the system facilitate this personalized approach, or is it left entirely to the employee's memory and initiative?*
- *Do corporate clients receive a noticeably more personalized level of service than individual clients?*

We make a conscious effort to treat our clients as individuals. The system facilitates this by helping us remember their preferences and anticipate their needs, allowing for a more tailored experience. This is especially true for our corporate clients, who receive a high level of personalized service to match the value they bring to the bank.

Q21

How has the physical environment and equipment of the branch — the layout, waiting area, technological infrastructure, and visual appearance — evolved over recent years, and does this affect client perception of service quality?

- *Has the branch undergone any major renovation or re-equipping in recent years?*
- *Are the technological tools available to staff — computers, printers, screens — considered adequate and up-to-date?*
- *Do clients ever comment on the physical environment of the branch — positively or negatively?*

The physical environment of our branch is in a state of continuous evolution. We recognize that the atmosphere of the bank is part of the service quality experience, and we are currently undergoing renovations to further improve our facilities. From a technical standpoint, we ensure that our staff has access to updated computers and printers to maintain operational efficiency. Feedback regarding our physical space has been generally positive, and we remain committed to providing a professional and welcoming environment for both our staff and our clients.

VI

Customer Satisfaction, Loyalty & Performance Statistics

Q22

How does BEA Ouargla currently measure or assess whether its clients are satisfied with the service they receive? Are there any formal tools — surveys, complaint forms, client meetings, or digital feedback mechanisms?

- *How frequently are client satisfaction results reviewed, and who has access to them?*
- *Has client satisfaction visibly improved since the current system was introduced?*
- *Are there any benchmarks or targets for client satisfaction that the branch is measured against?*

While we do not currently employ digital surveys or automated feedback loops, we monitor customer satisfaction through more traditional and organic indicators. The most significant metric for us is the steady growth in our client base, we believe that the consistent increase in people choosing BEA Ouargla is a clear testament to the quality of our services. For direct feedback, we provide formal complaint registers which are reviewed to identify areas for improvement. In our view, the loyalty of our clients is the most authentic measure of the system's success in meeting their expectations.

Q23

Can you share some key performance statistics about the branch — for example, the number of active clients, daily transactions, complaint rate, average processing time, or client retention rate? Have these figures improved over recent years?

- *Are these statistics tracked centrally by the system or compiled manually?*
- *Are there specific indicators that the head office or the Banque d'Algérie requires you to report regularly?*
- *Which statistic, in your view, best reflects the quality of service delivered at this branch?*

Our performance tracking is currently a manual process, where we aggregate data on transaction volumes and client activity levels. We generate monthly, periodic, and seasonal reports that highlight our operational health. From my perspective, the most vital KPI for this branch is the level of trust the community places in us. This trust is reflected in the continuous growth of operations and the long-term retention of our most valuable clients, which effectively mirrors the overall service quality we deliver.

Q24

In your experience, how loyal are BEA's clients in Ouargla — do they tend to maintain long-term relationships with the bank, or do you notice clients switching to competitors? What do you think determines their loyalty?

- *Do you observe a difference in loyalty between individual clients and corporate clients?*
- *When a client leaves for a competitor, do you know why? Is this information captured by the system?*
- *What does the bank do proactively to retain its most valuable clients?*

The majority of our clients value long-term relationships with us. While we do occasionally see clients move to competitors due to promotional offers, many eventually return. At present, we don't rely on aggressive short-term retention offers; instead, we focus on providing consistent, long-term value that builds genuine trust, which we believe is the strongest driver of loyalty in the Ouargla market.

VII

Institutional Reputation & Regulatory Standing

Q25

How would you describe BEA Ouargla's relationship and standing with the Banque d'Algérie as the national regulatory authority — does the branch have a strong compliance record and good institutional reputation?

- *Has the branch been subject to any inspections or audits by the Banque d'Algérie in recent years?*
- *Were there any recommendations or corrective measures issued as a result of such reviews, and how were they addressed?*
- *Does the current management system make it easier to meet regulatory reporting requirements?*

The BEA Ouargla branch holds a distinctive position in the eyes of the Bank of Algeria, primarily due to our strategic responsibility in managing the financial accounts of Sonatrach, the nation's largest industrial entity. This responsibility necessitates a high degree of regulatory compliance. Our current system is designed to meet these rigorous reporting and auditing requirements more comprehensively than ever before, ensuring that our operations remain transparent while we simultaneously focus on enhancing service quality for all our clients.

Q26

Is BEA's reputation among its clients, the local business community, and the broader Ouargla region something the bank actively works to maintain and improve? What efforts are made in this direction?

- *Does BEA have any formal partnerships with major energy or industrial companies in the Ouargla region?*
- *Does the bank engage in any social responsibility or community development programs in the region?*
- *Have there been any events in recent years that significantly helped or damaged the branch's reputation?*

We are very active in maintaining our reputation through community engagement and professional presence. We participate in major events like the Webexpo in Constantine to support digital innovation, the Real Estate Developer Salon, and the International Iron and Steel Fair. Beyond business, BEA prioritizes social responsibility, such as our involvement in financing the AADL 300,000 housing units and participating in humanitarian initiatives like providing Eid clothing for orphans. These efforts are not just about branding, they demonstrate our commitment to the socio-economic fabric of Algeria.

VIII Staff Training, Capacity & Knowledge Management

Q27

When staff members are introduced to a new system, procedure, or service, how is training organized — who provides it, how long does it last, and how effective do you consider it to be in practice?

- *Is training conducted on-site or at an external training center?*
- *How long does it typically take for a new employee to be fully operational with the system?*
- *Is there any follow-up or refresher training after the initial onboarding?*

To ensure our staff is proficient with new systems and procedures, we implement continuous, specialized training. This training typically takes place in Algiers at specialized centers or the National School of Banks. We believe in a sustained approach, where initial orientation is followed by ongoing technical updates and monitoring to ensure that every team member can utilize our modern systems effectively.

Q28

In your observation, do staff members with higher educational qualifications tend to adapt to the management system more quickly and use it more effectively? And do you see a difference in service quality between more and less educated staff?

- *Is there a clear difference in system usage between front-line staff and back-office staff?*
- *Would more specialized or technical training help staff use the available tools more fully?*
- *Is there any informal knowledge-sharing between experienced and newer staff members?*

Naturally, employees with higher technical competencies tend to adapt to new systems more quickly. However, thanks to our intensive training programs, we find that performance gaps between staff members are minimal once they are fully onboarded. We also foster a culture of informal knowledge exchange; experienced staff members often mentor newer colleagues, ensuring a collaborative environment that maintains our service standards.

Q29

Overall, do you think BEA Ouargla's staff are making full use of the capabilities of the current system? Or is only a fraction of its potential being utilized?

- *What prevents staff from using the system more fully — technical barriers, time pressure, lack of training, or cultural habits?*
- *Are there features or functions in the system that are rarely or never used by staff?*
- *What single change would most improve how staff engage with the system?*

I believe our staff's capabilities effectively complement the system's potential. The features and functions provided by our current tools facilitate high operational efficiency, and our team consistently works to leverage these capabilities to their maximum extent to deliver quality results.

Q30

What were the biggest difficulties the branch faced when introducing the current client management system — whether technical, organizational, or human challenges?

- *Were there technical problems such as data migration, system slowness, or connectivity issues?*
- *Were there human challenges — staff resistance, distrust of the system, or preference for old habits?*
- *Were there any client-side challenges — such as clients being reluctant to provide their personal information?*

The primary challenges we face are technical and infrastructural rather than human. These include occasional power outages, hardware issues, or connectivity problems with the system itself. Interestingly, we did not encounter resistance from our staff or clients; both groups have been very supportive of the transition and recognize the benefits of modernized processes.

Q31

Has the branch ever experienced a system outage or technical failure that disrupted service delivery? How did the team manage client service during that downtime, and what lessons were learned?

- *Was there a backup or manual procedure in place to maintain service continuity?*
- *How did this affect client satisfaction during the period of disruption?*
- *Did this experience lead to any changes in how the system is maintained, backed up, or monitored?*

When technical failures occur, we immediately pivot to manual and paper-based procedures to ensure service continuity. Maintaining these manual backups is essential in a high-traffic environment like ours. While we are working to improve system maintenance, the DELTA-BANKING system provides some security by automatically saving client data, ensuring that no information is lost during a system crash.

Q32

In your view, what is the single most important obstacle that currently prevents BEA Ouargla from achieving an even higher level of service quality for its clients?

- *Is this obstacle internal — such as staff, budget, procedures — or external — such as clients, regulations, or infrastructure?*
- *Do you think the current system is the right solution for this branch, or does it need to be upgraded or replaced?*
- *If you could change one thing about how the branch manages its client relationships, what would it be?*

The most significant obstacle to achieving a higher level of service quality is the imbalance between our current administrative structure and the pace of technical growth. While paper-based archiving is arguably safer for certain records, it is significantly slower and can become a burden during peak periods. I believe that a total digital transformation is a necessary next step to properly manage the increasing volume of clients and their expectations.

Q33

Looking at the overall picture — do you believe that the way BEA Ouargla currently manages its client relationships genuinely and measurably contributes to a better quality of service? Or is there a gap between the tools available and the quality actually experienced by clients?

- *Can you give a specific example where the system made a real and visible difference for a client?*
- *Do you think BEA Ouargla compares well to other banks in the region in terms of client management practices?*
- *If a competitor offered identical products to BEA, would clients stay loyal to BEA, and why?*

There is no doubt that our approach to managing client relationships directly enhances our service quality. The tools and systems we use allow us to offer customized products that often exceed client expectations. At BEA Ouargla, we have built an integrated ecosystem that leverages technology to improve response speed and better understand customer desires.

Q34

What practical improvements or investments would you recommend to BEA Ouargla's management to significantly enhance client relationship management and service quality at this branch?

- *Should the priority be on upgrading the technology, improving staff training, redesigning internal processes, or all three?*
- *Are there best practices from other BEA branches or from international banks that you think could be adapted here?*
- *What would a truly 'ideal' client experience look like at BEA Ouargla in five years?*

Looking toward the future, the most critical areas for development are organizational structure and the management of work pressure. To truly enhance our service quality, we need a multi-faceted approach: increasing the number of physical branches to distribute the workload, and more importantly, fully embracing digitalization and automation within our current system. We must invest in continuous Research and Development (R&D) to ensure our services remain modern and can offer truly personalized experiences for every client. Furthermore, I believe there is a significant opportunity to adapt international banking standards and CRM best practices to our local context. This should be done under the careful guidance and supervision of the Bank of Algeria to ensure that our administrative evolution keeps pace with global technical standards.

Q35

Is there anything important about how BEA Ouargla manages its client relationships or delivers service quality that we have not yet discussed, and that you believe this research should capture?

- ▶ Any recent developments or upcoming changes you are aware of?
- ▶ Any particularly successful practice within the branch worth highlighting?
- ▶ Any aspect of the Ouargla context — regional culture, client profile, economic specificities — that you think researchers from outside the region often miss?

If I were to highlight one final, crucial point for this research, it would be the administrative organization itself. While we have discussed the 'system' and the technology at length, the organizational framework that supports these tools is the real axis for improvement at this branch. The effectiveness of any digital tool is fundamentally tied to how the branch is structured and how tasks are distributed among the staff. For BEA Ouargla to reach its full potential in service quality, the administrative structure must be flexible enough to support the speed and efficiency that our modern system is capable of delivering. Capturing this link between administrative reform and technical capability is essential for understanding our operational reality.

Thank you very much for your time and your valuable professional insight.

Your contribution is essential to this research and will help formulate practical recommendations for BEA Ouargla and the broader Algerian public banking sector.

Researcher's Signature



Interviewee's Signature



MAAMRA Nabil
Service
BBAment/PI
Id 032



WIMPAY BEA

Télécharger l'application



WIMPAY BEA

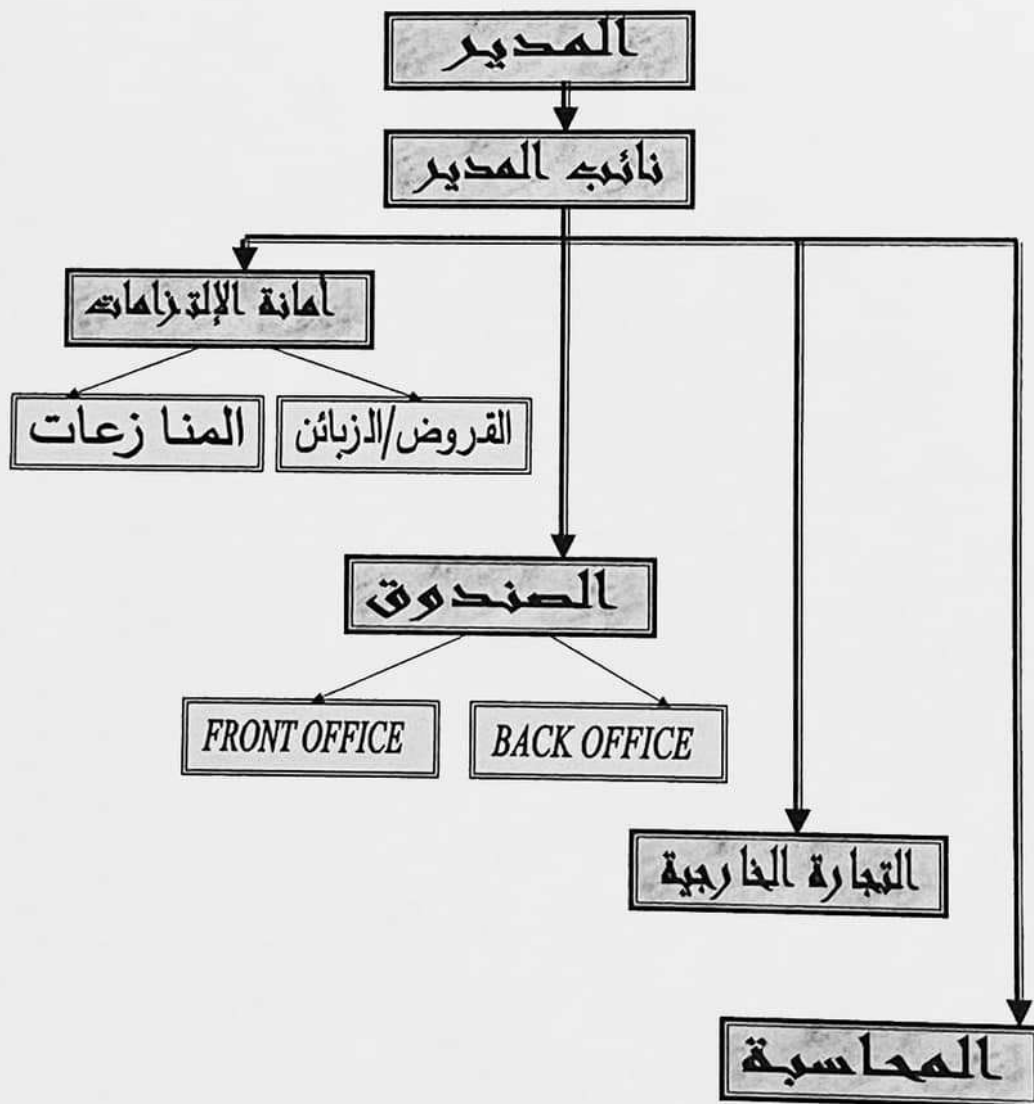


Une banque à la hauteur
de vos aspirations



BEA
بنك الجزائر الخارجي
Banque Extérieure d'Algérie





DETERMINATION DES PLAFONDS PAR TYPE DE CARTE MASTERCARD

Type de Carte « Mastercard »	Carte Prépayée	Carte Classique	Carte Platinum	Carte Business	Carte World Business	Carte World Elite
Plafonds	2000 €	2000 €	5000 €	7000 €	8000 €	10.000 €

COMMISSIONS SUR LES PRODUITS MONETIQUES
CARTE MASTERCARD

La tarification à appliquer sur les Cartes MASTERCARD est comme suit :

Nature des Opérations	Type de Carte « MASTERCARD » / Commissions		
	Prépayée	Classique	Platinum
Emission	1000 DA	1000 DA	5000 DA
Renouvellement/Reconfection	1000 DA	1000 DA	5000 DA
Rédaction Code Confidentiel	1000 DA	1000 DA	1000 DA
Blocage	Contre Valeur de 5 €	Contre Valeur de 5 €	Contre Valeur de 5 €
Opposition	Gratuit	Gratuit	Gratuit
Transactions DAB/GAB	Zone EURO : Fixe : 2,00 € Variable : 1,5% MT Trans.	Zone EURO : Fixe : 2,00 € Variable : 1,5% MT Trans.	Zone EURO : Fixe : 2,00 € Variable : 1,5% MT Trans.
	Hors zone EURO : Fixe : 2,00 € Variable : 2% par Trans.	Hors zone EURO : Fixe : 2,00 € Variable : 2% par Trans.	Hors Zone EURO : Fixe : 2,00 € Variable : 2% par Trans.
POS (TPE et autres) E-commerce	Zone EURO : 1,5% par Transaction	Zone EURO : 1,5% par Transaction	Zone EURO : 1,5% par Transaction
	Hors Zone EURO : 2% par Transaction	Hors Zone EURO : 2% par Transaction	Hors Zone EURO : 2% par Transaction
	Business	World Business	World Elite
Emission	5000 DA	5000 DA	10.000 DA
Renouvellement/Reconfection	5000 DA	5000 DA	10.000 DA
Rédaction Code Confidentiel	1000 DA	1000 DA	1000 DA
Blocage	Contre Valeur de 5 €	Contre Valeur de 5 €	Contre Valeur de 5 €
Opposition	Gratuit	Gratuit	Gratuit
Transactions DAB/GAB	Zone EURO : Fixe : 2,00 € Variable : 1,5% MT Trans.	Zone EURO : Fixe : 2,00 € Variable : 1,5% MT Trans.	Zone EURO : Fixe : 2,00 € Variable : 1,5% MT Trans.
	Hors Zone EURO : Fixe : 2,00 € Variable : 2% par Trans.	Hors Zone EURO : Fixe : 2,00 € Variable : 2% par Trans.	Hors Zone EURO : Fixe : 2,00 € Variable : 2% par Trans.
POS (TPE et autres) E-commerce	Zone EURO : 1,5% par Transaction	Zone EURO : 1,5% par Transaction	Zone EURO : 1,5% par Transaction
	Hors Zone EURO : 2% par Transaction	Hors Zone EURO : 2% par Transaction	Hors Zone EURO : 2% par Transaction

❖ CONDITIONS DE BANQUE – EDITION DECEMBRE 2017

**FORMULAIRE DE DEMANDE DE FINANCEMENT SUR LES RESSOURCES DU FONDS
POUR LES PAYS A REVENU INTERMEDIAIRE
(À remplir par le pays récipiendaire/entité du secteur privé)**

1. Désignation du projet ou programme : Programme d'appui à la supervision de la mise en œuvre des plans de modernisation des systèmes d'information des banques publiques.

2. Pays : République Algérienne Démocratique et Populaire

3. Organe d'exécution : Direction des Banques Publiques du Trésor et Cabinet du Ministère des Finances

a) Appellation : Ministère des Finances

b) Adresse : Immeuble Ahmed Francis ; Cité Malki, Ben Aknoun
16033 Alger, Algérie

4. Description des activités. Le projet comprend les quatre (4) composantes:

A. Renforcement des capacités du Ministère des Finances dans la supervision de la mise en place des plans de modernisation des banques publiques.

- Appui au renforcement des capacités de la Direction des banques publiques au Trésor ;
- Définir, avec chaque banque, une feuille de route précise en y indiquant les objectifs, les étapes et le calendrier de mise en œuvre du plan de modernisation de son système d'information ;
- Définition des critères d'évaluation et d'appréciation de la modernisation des SI

B. Appui à l'audit de la solution « DELTA »

Donner une appréciation qualitative de la solution Delta sous les angles : (i) l'effectivité de la solution delta dans sa dernière version et sa capacité à fournir toutes les fonctionnalités requises pour une gestion bancaire performante ; (ii) la pérennité de la solution « DELTA » ; et (iii) l'avantage comparatif de la solution « DELTA » par rapport à une solution « Global Banking » (iv) la capacité et les ressources de la société à implémenter et accompagner la migration vers les nouvelles versions Delta des trois banques concernées et cela éventuellement pendant la même période.

C. Réalisation d'une étude d'opportunité et de faisabilité de la mise en place d'une Société de Service d'Informatique bancaire

La mission consistera à fournir une analyse pertinente devant aider à la prise de décisions sur la base de différentes variantes (externalisation, filialisation, mutualisation ou autres...). Elle comporterait notamment : i) une étude préalable qui permettrait de définir toute la conception de la solution d'externalisation ; ii) étude de faisabilité juridique, les statuts juridiques des sociétés (GIE, SA...), les actionnaires, les parts de capital ; et iii) une assistance à la mise en œuvre de la solution retenue.

D. Réalisation d'une étude d'opportunité et de faisabilité de la mutualisation des infrastructures informatiques (centre de secours, centre de calcul, etc.)

Réaliser le cahier des charges à destination d'une société qui réalisera l'ensemble des travaux et mener le dépouillement des réponses à l'appel d'offre et donner son avis. Il s'agira de mettre en évidence, les économies qui peuvent en résulter en termes de coût et de maintenance par rapport à une situation où chaque banque faisait seule face à ces dépenses.

5. Justificatif des activités :

- Les autorités algériennes souhaitent que les banques du secteur public soient au niveau des standards internationaux en matière de gestion.
Elles veulent donc impulser une nouvelle dynamique au processus de modernisation des Systèmes d'information des banques publiques. La application des instructions de leurs Conseils d'administration respectifs, chacune des six banques s'est engagée dans un processus de modernisation de son système d'information.
- Le Renforcement de la fiabilité du réseau de communication
- Le Renforcement de la sécurité des systèmes d'information reste une priorité.

6. Coûts estimatifs du projet

- a) En devise : 536 700 Euros
- b) En monnaie locale : 28 248 Euros
- c) Montant total : 564 948 Euros

7. Plan de financement

- a) BAD : 536 700 Euros
- b) Gouvernement : 28 248 Euros
- c) Total : 564 948 Euros

8. Mode d'action proposé

- a) Services : Consultation restreinte (internationale)
- b) Autre, y compris formation : Appels d'offres nationale et internationaux

9. Plan d'exécution

- Renforcement des capacités du Ministère des Finances dans la supervision de la mise en oeuvre des plans de modernisation des banques publiques: *Janvier 2012 à 30 juin 2013*
 - Appui à l'évaluation de la solution « DELTA »: *Janvier 2012 au 30 mars 2012*
 - Réalisation d'une étude de faisabilité de la mise en place d'une Société de Service d'Informatique bancaire: *Mars à juin 2012*
 - Réalisation d'une étude de faisabilité de la mutualisation des infrastructures informatiques (centre de secours, centre de calcul, etc.): *Avril à septembre 2012*
- Délais d'exécution : 18 mois

10. Preuve de l'engagement du Gouvernement à exécuter le projet, l'étude ou le programme visé (e) (à intégrer à la Note de dialogue)

- Au cours de ces dernières années, l'Algérie s'est engagée dans la mise en oeuvre d'un programme de modernisation de son secteur bancaire et financier. Ce programme constitue la pierre angulaire des réformes engagées par le gouvernement, en vue d'améliorer le climat des affaires et d'assurer au pays une intégration avantageuse dans l'économie régionale et mondiale.
- Le Gouvernement avait déjà instruit les banques publiques, à travers leurs Conseils d'Administration (CA), à procéder à la mise à niveau de leurs systèmes d'information, dont l'aboutissement permettra d'améliorer substantiellement la qualité de l'intermédiation bancaire.
- En application des instructions de leurs Conseils d'administration respectives, chacune des six banques s'est engagée dans un processus de modernisation de son système d'information.

11. Nom du coordinateur du projet : Monsieur Badache Abdelaziz Directeur d'études à la Direction Générale du Trésor sera chargé de suivre les activités et l'utilisation des ressources du fonds :

12. Nom du Secrétaire Général du Ministère des Finances

M. Miloud BOUTABBA, Secrétaire Général du Ministère des Finances ;
et Vice-gouverneur auprès de la Banque africaine de développement

13. Signature /Sceau du Ministère des Finances

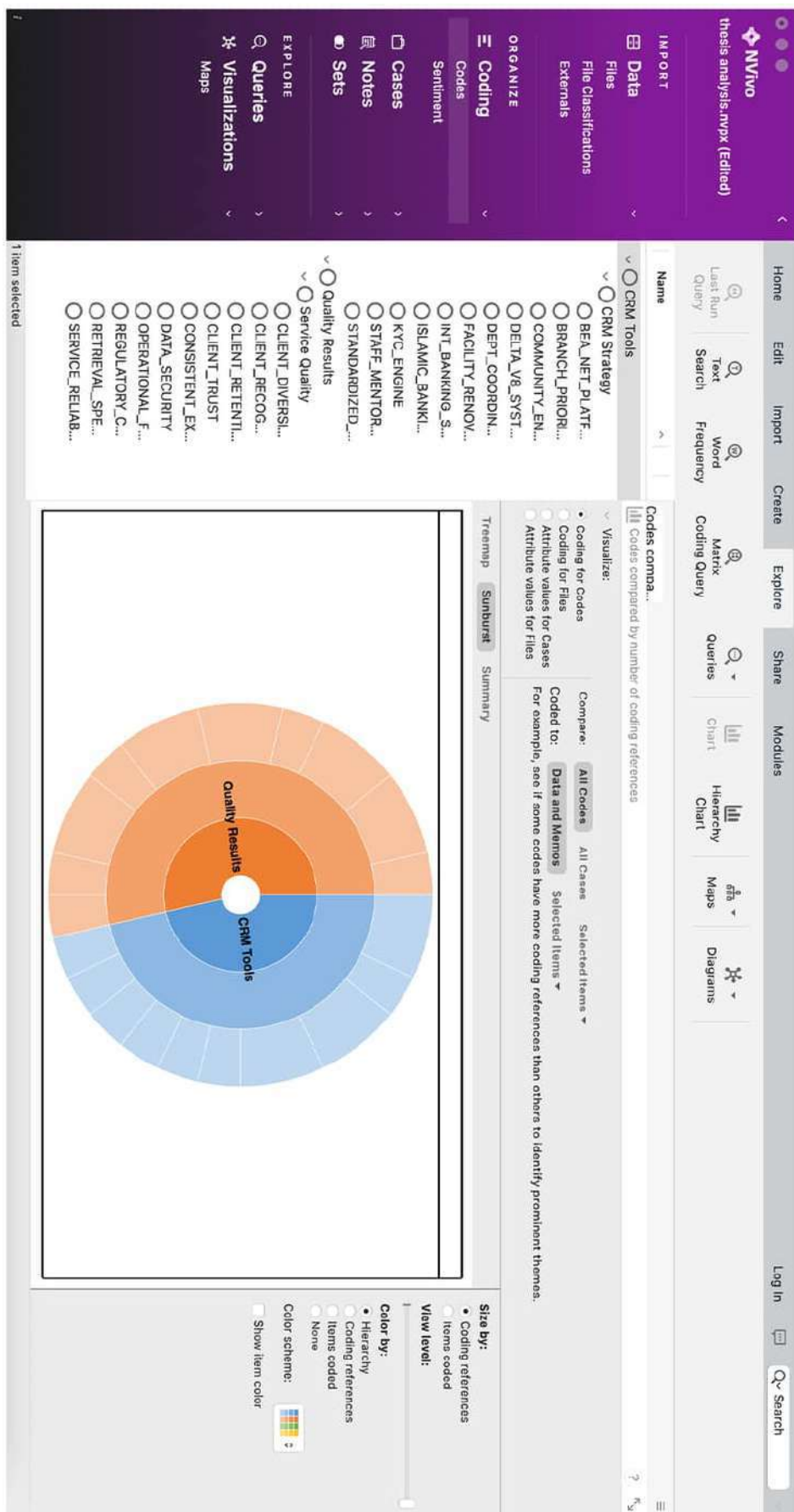
Monsieur Le Secrétaire Général du Ministère des Finances

Date : 2 DEC 2011

	CPA	BNA	CNEP	BEA	BADR	BDL
Etat Système d'Information (SI) initial	Système Décentralisé – Solution actuelle: DELTA Bank V7	Système Décentralisé Solution actuelle Site central : système propriétaire Agences : DELTA Bank V4 et quelques agences en Delta Bank V8	Système Décentralisé Solution actuelle 2004 : Système propriétaire bâti autour du système de comptabilité DANSYS	Système Décentralisé Solution actuelle 2003 : Delta Bank V4 en agence et SI propriétaire en central	Système Décentralisé Solution actuelle 2004 : SYBU (Stéria) remanié complètement par la BADR	Système Décentralisé Solution actuelle Système propriétaire bâti sur des outils technologiques obsolètes
	Couverture fonctionnelle partielle	Couverture fonctionnelle partielle	Couverture fonctionnelle partielle	Couverture fonctionnelle partielle	Couverture fonctionnelle partielle	Couverture fonctionnelle partielle
Stratégie de modernisation	S'interroge sur ses choix : Poursuivre avec DELTA (centralisation, Choix d'un Global Banking Le CPA va lancer un AO cabinet pour une assistance dans ses choix stratégiques.	Décentraliser sur la version V8 de DELTA. Acquérir des logiciels pour fonctionnalités non couvertes par Delta : Gestion de la trésorerie, lutte contre le blanchiment, Gestion des garanties, gestion du risque client, gestion des incidents de paiement, Ressources humaines, gestion des immobilisations, CRM.	Choix du Global Banking Téménos	Centraliser sur la version Delta V8.3.	Choix du Global Banking FLEX	Choix de Global Banking
Travaux Intermédiaires		Le Conseil d'administration a demandé d'étudier solution Global Banking. 2010 : Uniformisation de Delta V8 (système central + toutes les agences) + ajout des modules engagements et commerce extérieur		2008 : uniformisation Delta V8.3 dans toutes les agences et Central + module Engagements et commerce extérieur		En 2005 : 1 ^{ère} AO Global Banking, arrêté suite au projet d'ouverture du capital, En 2008 : 2 ^{ème} AO Global Banking : choix de VIVEO. Arrêt suite à

							achat de VIVEO par TEMENOS qui n'assure plus ce produit
Choix de solution Global Banking	Non décidé	Non décidé	Choix effectué en 2009 (Solution TEMENOS)	Pas d'actualité	Choix effectué en 2009 (solution ORACLE (I-FLEX))	En cours d'évaluation de la solution	
Assistance externe Appel d'offre (AO)	Oui (AO à lancer)	NON	KPMG	NON	DELOTTE	NON	
Assistance externe maîtrise d'œuvre (MOE)	NON	Représentant Delta en régie.	OUI	NON	UNICORE	En cours AO	
Nouveau SI opérationnel	Pas de visibilité	Premier trimestre 2012 (centralisation de la solution DELTA BANK)	Projet en suspens (problème entre CNEP et Teménos sur l'allocation des ressources).	2d semestre 2012 (centralisation de la solution DELTA BANK)	Juin 2012	Juin 2013	
Réseau de Communication	Réseau obsolète à base de lignes X25 doublé de VSAT bas débit- Etude technique réalisée - Elaboration d'un schéma directeur de développement du réseau Telecom Contrat en cours de négociation avec Algérie Télécom ; Futur réseau prévu à partir de 2012.	En cours de modernisation avec Algérie Télécom – remplacement des lignes X25 par réseau RMS en fin novembre 2009. VSAT bas débit Les liens de secours sont en cours de déploiement avec la technologie Wimax et xDSL.	Réseau obsolète à base de lignes X25 doublé de VSAT bas débit- Contrat signé avec Algérie télécom pour moderniser le réseau et remplacer les lignes X25 par des lignes ADSL et Fibre optique	Réseau modernisé par le déploiement des lignes ADSL et fibre optique avec stations VSAT comme solution de secours	En cours de modernisation avec Algérie Télécom – remplacement des lignes X25 par réseau RMS – VSAT bas débit	Réseau obsolète à base de lignes X25 doublé de VSAT bas débit-	
Sécurité –	Politique de sécurité réalisée – en cours de mise en œuvre	Sécurité sur les accès de premier niveau – pas de politique de sécurité ; mais s'inscrit dans le cadre du plan d'action élaboré suite à la mission Ernest Young.	Sécurité sur les accès de premier niveau – pas de politique de sécurité	Sécurité sur les accès de premier niveau – pas de politique de sécurité	Sécurité sur les accès de premier niveau – pas de politique de sécurité	Sécurité sur les accès de premier niveau – pas de politique de sécurité	
Plan de continuité de service – Site de secours Externe	Deux sites de secours existent : SI DelhaBank et activité de télécompensation– Plan de secours informatique global en cours de réflexion	Non Opérationnel- Construction en cours à Ghardaia- Equipement et logiciel en cours d'acquisition	Non disponible et pas à l'ordre du jour	Site de secours réalisé et opérationnel à SETTIF	Non disponible - En cours de réflexion	Non disponible - En cours de réflexion	

Appendix F. Qualitative Data Analysis Softwares Outputs



Appendix G. Delta CRM System Interface Documentation

Delta Bank - DELT - Gestion des habilitations - 14/01/17 [Modific]

Utilisateur

Code: DELT DELTA INFORMATIQUE

Profil: 6000 DIRECTEUR D'EXPLOITATION

Autorisation par défaut

Habilitation agence par défaut: [v]

Droits utilisateur: [v]

Numéro de programme	Désignation	Droits	Agence	Programme
450525	Sauvegarde apres traitements fin journee	*	Toutes	cbsauvap
450530	Lancement des editions de fin de journee	+	Toutes	cbedition
450535	Consultation message probleme FJO	+	Toutes	cbconsecd
450540	Sauvegarde des impressions en fin de jou			cbsauvimp
450545	Post TFJO contrôle Table 089	*	Toutes	ext788_001
450550	Affichage des processus en cours ...	*	Toutes	ext788_002
450555	Post TFJO contrôle des dossiers virement	*	Toutes	ext788_003
4510	Traitement des donnees externes	*	Toutes	
451005	Parametrage des interfaces	*	Toutes	cbginterf
451010	Contrôle et intergration	*	Toutes	cbintnvt
4515	Parametrage des transferts inter-sites	*	Toutes	

Choix

Creation

Modific.

Duplic.

Interro.

Suppres.

En

DELTA Bank - DELT - 01/07/2011

DELTA Bank

Menus personnels

- Menus clients
- Virements automatiques
 - test
 - Chargement de données
 - Administration des données
 - Gestion de la paie
 - Reperçage d'un overbookement
 - Consultation
 - Liens consultables
 - Calls de report ing
 - Gestion de dette
- Exploitation informatique
 - Traitement de fin de journee
 - Remontée automatique des guichets
 - Ouverture/fermeture de l'agence
 - Ouverture/fermeture du site BSA
 - Sauvegarde avant traitement fin journee
 - Lancement traitement fin de journee
 - Sauvegarde apres traitements fin journee
 - Lancement des editions de fin de journee
 - Consultation message probleme FJO
 - Post TFJO contrôle Table 089
 - Affichage des processus en cours ...

Delta Bank - Utilisateur

Delta Bank

Report

ch	AGL	Adressé	Proces	00:00:00	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105
e. aglo	1681	1683	0 17:35 pta/704	00:00:00	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105
e. aglo	2277	2194	0 17:35 pta/713	00:00:00	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105
e. aglo	2407	1192	0 00:10 pta/705	00:00:00	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105
e. aglo	4179	1	0 00:10 pta/740	00:00:00	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105
e. aglo	5122	1	0 17:41 pta/742	00:00:00	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105
e. aglo	8272	1	0 14:47 pta/743	00:00:00	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105
e. aglo	8448	4443	0 17:43 pta/713	00:00:00	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105
e. aglo	8617	8421	0 17:37 pta/705	00:00:00	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105
e. aglo	7414	7104	0 17:35 pta/740	00:00:00	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105
e. aglo	7951	7107	0 14:48 pta/705	00:00:00	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105
e. aglo	8178	8177	0 17:44 pta/743	00:00:00	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105
e. aglo	8811	1	0 13:20 ?	00:00:01	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105
e. aglo	8888	1	0 14:48 pta/743	00:00:01	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105
e. aglo	8600	23481	0 17:45 pta/740	00:00:00	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105
e. aglo	8940	8460	0 17:48 pta/740	00:00:00	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105
e. aglo	11624	10502	0 00:34 pta/740	00:00:00	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105
e. aglo	11089	11648	0 14:30 pta/743	00:00:00	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105
e. aglo	11847	11872	0 18:38 pta/743	00:00:00	/opt/435/genexo-2.30.07-gue/lib/fglrun-bis	/delta/obj/VD10.0.1110/GEN_2.30.07.GUE/obj/compa/objgenex.41e	TESTING07 105

Page 1

Delta Bank - DELT - Paramètres généraux - 01/10/2010

Identifiant
 Profil Actif ☐

Caractéristiques
 Hôte
 Adresse
 Port
 Base DN

Identification utilisateurs
☐ Anonyme
☐ Simple (LOGIN)
☐ Simple (Fichier XML)

Fichier
 Fichier de config

Login
 Utilisateur (rootdn)
 Mot de passe
 Algorithme de cryptage

Secret
 Secret

Caractéristiques
 Option de sécurité
 Utilisation d'une connexion sécurisée (SSL) ☐ Certificat SSL
 Utiliser TLS ☐

Option de traces
 Traces actives ☐

Option de recherche
 Filtre

Attributs de recherche
 Attributs

Choix
 Creation
 Modific.
 Duplic.
 Interro.
 Suppres.
 Fin

Creation

Certificat SSL

Informations SSL/TLS
 Chemin complet du fichier des autorités de certification racine
 Chemin complet du fichier de certificat
 Chemin complet du fichier de clé de certificat

INS



Delta Bank - DELTA - C000

Identifiant

Agence 00056 ...

Type 100 ... CASH WITHDRAWAL BY

Caisse 001 MAIN CASH DESK ALL

Compte à débiter

Agence 00092 ... DURRÉS

Numéro 10010205778 ...

Intitulé ALTIN GJIKA

ALL CURRENT A/C INDV

Caractéristiques

Date de valeur 07/08/2007

Chèque client

Chèque 00000002

Montant 1.000,00

Perception des frais Sur le compte

Frais d'opération

Commissions 150,00 ALL

Frais 0,00

Taxes 0,00 ALL

Informations complémentaires Validation

DeltaBank client

Retrait d'espèces

Bénéficiaire

Client 8009210000 - ALTIN GJIKA

Compte

Compte à débiter 00092 - ALL - 10010205778 ALL CURRENT A/C INDV

Date de valeur 06/08/2007

Identité du porteur

Retrait

Devise ALL - LEK

Caisse 011 - Secondary Cash Desk ALL-011

Type 100 - CASH WITHDRAWAL BY COUNTER CHQ

Chèque

Client

Gachet

Perception des frais Sur le compte

Informations complémentaires

Numéro 00000002

Montants de l'opération

Montant du retrait 1.000,00 ALL

Frais d'opération 150,00 ALL

Net à débiter 1.150,00 ALL

Net du retrait 1.000,00 ALL

Détail des frais

Validation

Valider Annuler Réinitialiser

DELTA--20100407-22564

SLIP OF BLENJE VALUTE No. 363

Branch 11013 TIRANA 1

Currency ...: ALL LEK

Cash positio: 001

Teller DELTA

Remitter's name ANDRE DUPONT

Address 6 DESHMORET E KURTIT T

Home country 008 - SHQIPËRI

Identity record nature: CNI No : 24234

In TIRANA

Foreign currency amoun: 800,00 A

i.e. 5,69 E

Commission 1 0

Commission 2 0

Chges 0

Tax 0,00 A

Net to credit 5,69 E

Amount sold 3,00 E

Amount paid back 97,00 A

Value	Number	Amount
1000	1	1.00
TOTAL ALL RECEIVED		1.00
Value	Number	Amount
200	1	20
TOTAL ALL PAID BAC		20

Bank of Tours

Bordereau d'achat de devises n°000026

Le 6 août 2007 à 11:46

Agence : 00056 - TIRANA

Devise : ALL - LEK

Caisse : 001 - MAIN CASH DESK ALL

Guichetier : DELTA

Remettant

Nom : ANDRE DUPONT

Adresse : 6 allée des cyllias 37000 TOURS

Pays : 250 - FRANCE

Pièce d'identité

Nature : CNI - NATIONAL IDENTITY CARD

Numéro : 254

Rémis le 1 janvier 2001

Mutif : OWN RESOURCES

Montant en devise : 800,00 ALL

Taux de change : 155

Billetage reçu			Billetage rendu		
Coupons	Montres	Montant	Coupons	Montres	Montant
1	1000	1000,00 ALL	1	200	200,00 ALL
Total		1000,00 ALL	Total		200,00 ALL

Montant Hors Taxes : 6,02 EUR

Pertes : 0,00752

Frais et Taxes

Intitulé	Montant
FX CURRENCY PURCH.	100,00 ALL
COMMISSION	
TAX RATE (VAT)	0,00 EUR

Arrondi : 0,00 EUR

Net à créditer : 5,27 EUR

Net sans arrondi : 5,27 EUR

Montant rendu : 5,00 EUR

Montant rendu : 35,00 ALL

Billetage rendu			Billetage rendu		
Coupons	Montres	Montant	Coupons	Montres	Montant
5	1	5,00 EUR	20	1	20,00 ALL
Total		5,00 EUR	10	1	10,00 ALL
			5	1	5,00 ALL
			Total		35,00 ALL

Signatures

Client

Guichetier

Opération effectuée