Analysis of an online Customer Journey through an international niche market - Case study of the company Calltic

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(Confidential)

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When you want something,
all the universe conspires in helping
you to achieve it.

Paulo Coelho

Preface

In an ever faster changing world, characterized by interconnected digital networks and complex business dynamics, the online customer journey has emerged as a crucial battlefield for companies trying to build their presence and impact international markets. The aim of this thesis is to examine thoroughly the complexities of the online customer experience in the context of a global niche market, which is the anti-bypass fraud business in the telecommunications sector.

The focus is based on the specific difficulties faced by foreign businesses engaged in highly specialized industries in Africa. The case study is centered on the role of the Belgian company Calltic in that particular field. It reveals the complex nature of online engagement through a customer journey and its significant result for companies that operate in the intersection between advanced technologies and developing countries. The case of Africa will be an example that can be used as a general guide for other continents, such as Latin America and Asia.

The objective of the paper is to concentrate on the contextual complexities of the African continent while conducting a careful investigation of the online customer journey within the challenging boundaries of a global niche market. The study aims to analyze the different variables that affect each stage of the customer journey through the perspective of Calltic. The identification of gaps and obstacles in Calltic's online engagement approach is supported by an understanding of the distinctive issues peculiar to both the bypass fraud solution business and the African market. By negotiating these difficulties, the study hopes to propose useful information and recommendations that will improve Calltic's consumer engagement techniques and boost its online visibility.

There are several observations that can justify the motivation of the thesis. One of these, being the deficiency of online awareness. Despite operating in a very specialized niche, Calltic's online presence does not appear to effectively reach its target audience. This very lack of awareness is particularly outlined in the customer journey, where potential customers might not even be aware of Calltic's existence as a solution provider. This observation leads to critical questions about the strategies implemented by Calltic in reaching out to its audience and managing the online environment.

Another key observation is the complexity of the bypass fraud solution industry itself. Calltic has trouble converting its technical skills into a coherent and engaging online narrative while operating in a highly specialized industry that deals with complex security issues. It is a challenging task that necessitates a nuanced online strategy to explain the advantages of bypass fraud solutions to non-technical consumers while retaining confidence within the industry.

The third observation revolves around cultural differences between the foreign provider and the customers. Within the African market, Calltic comes across cultural and regional sensitivities that impact its online engagement efforts. Each African region possesses its own cultural habits and business dynamics, requiring a tailored approach to communication and engagement. Failing to recognize and navigate through these sensitivities can lead to miscommunication, misalignment with local practices, and weaken the online impact.

These three observations emphasize the importance of a strategic and adapted approach to online engagement. The purpose of the thesis is to provide recommendations, tools and essential insights to overcome the challenges mentioned above. As a result, the company will be able to strengthen its online environment to its best potential.

To fulfill the distinct objectives, this research adopts a large approach that gathers quantitative and qualitative methodologies. The foundation of this study was made with extensive literature exploration, a strict case study analysis, interviews in the sector and empirical data collection. By engaging with recognized theories, models, and best practices related to online customer journeys, the research establishes a strong theoretical model. The case study of Calltic adds a practical

dimension, enabling a meticulous investigation into its existing online engagement strategy and its ramifications on customer behavior, contextualized within the African business landscape.

Appreciations

Abstract

The African telecommunications sector has experienced a very fast growth and transformation over the past twenty years. The mobile phone penetration has boosted the market and people have started to leave traditional landlines in the lurch, reaching 46% of the population (GSMA, 2023) with a mobile subscription today in Sub-Saharan Africa, representing 8% of the global Gross domestic product (GSMA, 2023). The sector has been driven by both local and international investments in network infrastructures, expanding internet connectivity and mobile money services. However, some regions are still facing challenges such as limited rural coverage, regulatory restrictions and affordability issues. Still, the telecommunications sector in Africa remains a great opportunity for additional expansion.

A growing market tends to be victim of frauds for two main reasons: the first is the lack of regulations in proportion with the natural growth of the market itself; the second one is the constant growing number of users that creates attractive opportunities for fraudsters. African operators constantly have to deal with fraudsters trying to steal their money thanks to a multitude of means, one of them being the bypass fraud. This fraud has a significant impact on the networks with 11% of the total fraud in the telecommunications sector in 2019 (CFCA, 2021). Two years later, it even became the fourth most important fraud with 3.11 billion of dollars which is around 2.90 billion in euros[1]) in the entire year of 2021 (CFCA, 2021). Solutions were provided to fight this fraud and create business opportunities for companies, therefore becoming a niche market. Nowadays, Calltic is amongst the many worldwide options providers.

This paper aims to analyze the online customer journey in such a niche market, taking a deep look at the online challenges and technical difficulties faced by such providers and the cultural differences with the African operators in a fast-growing digital world. The recommendations proposed are based on successful traditional and more recent digital marketing strategies, taking into account Calltic's current online visibility challenges in this international niche market.

A detailed and strategic analysis of the company Calltic, the case study chosen for this paper, brought to light the key tools to create an online strategy. A first exploration of the current situation abled the need to analyze the internal parts of the company such as the strengths and weakness, and then the external parts, such as opportunities and threats (SWOT analysis). Moreover, an analysis of the STP and 4Ps strategies were made to understand the segmentation, targeting and positioning of the company.

Then, the creation of different personas, based on specific African customers, enables Calltic to have a better understand of their own customers and potential ones. Moreover, a complete analysis of the customer journey conducted to precious information to understand the missing points that could bring the company to a more successful online experience.

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[1] Currency of 24th of September 20223 at 12:39pm. Source: www.xe.com/currencyconverter

Acronyms

B2B: Business to Business

B2C: Business to Consumer

CCO: Chief Commercial Officer

CDR: Call Data Record

CEO: Chief Executive Officer

CLI: Calling Line Identification

CTO: Chief Technical Officer

GFA: Global Framework Agreement

GSMA: Global System for Mobile Communications Association

IMEI: International Mobile Equipment Identity

IP: Internet Protocol

ITR: International Termination Rate

KPI: Key Performance Indicators

LTR: Local Termination Rate

OECD: Organization for Economic Cooperation and Development

PoC: Proof Of Concept

SIM Card: Subscriber Identity Module Card

SMS: Short Message Service

RFP: Request For Proposal

STP: Segmentation, Targeting, Positioning

TCG: Test Call Generation

Telco: Telecommunications

VoIP: Voice over IP

Glossary

Business to Business: commercial transactions between two companies

Business to Consumes: commercial transactions between a company and individual customers

Call Data Record: represents all the data gathered regarding a call (origin number, terminating number, duration of the call, date, time, type of call, etc.). It is also made for billing purposes

Calling Line Identification: phone number that appears on the screen when receiving a call

Chief Commercial Officer: responsible for leading the company's growth and commercial strategy

Chief Executive Officer: responsible for managing all the company's operations and make the major corporate decisions. This is the highest position in the company

Chief Technical Officer: responsible for managing and leading the company's technological operations

Global Framework Agreement: agreement signed between a company and a multinational company to make sure that contract conditions will be the same for all their operations

Global System for Mobile Communications Association: non-profit organization unifying the mobile ecosystem all over the world

International Mobile Equipment Identity: number of the terminal or equipment used

International Terminal Rate: amount charged by a telco operator to let an international call end on its network (per minute)

Key Performance Indicators: tool that permits measurement of a company's success compared to its objectives and targets

Local Termination Rate: amount charged by a telco operator to let a local call end on its network (per minute)

Profiling: fraud detection solution based with the Call Data Record. It helps create profile of typical fraudsters behavior and detect them

Proof Of Concept: realization of a company's method to prove the feasibility and success

Request For Proposal: business document used to notify and describe a project that will be launched. It also requests bids from qualified providers.

Short Message Service: message sent from one phone to another

SIM Box: equipment that fraudsters use to make SIM Box (bypass) fraud

Subscriber Identity Module Card: small card inserted in the phone to store data about the number, network, etc. Millions of SIM cards are used to make bypass fraud

Test Call Generation: fraud detection solution to prevent bypass fraud by making call attempts

Telco: diminutive of telecommunications

Voice over IP: technology allowing calls to reach IP (Internet) network systems

1. Introduction

The use of online platforms in the digital era and the fast development of e-commerce have considerably changed how companies interact with their customers. The internet has provided businesses opportunities to reach clients globally and grow their international incomes. To be competitive, companies came to the conclusion that the essential need to propose an excellent online customer experience that will strengthen the reputation and will eventually lead to the purchase decision.

Analyzing and measuring the online customer experience is essential for a business in order to overcome different challenges in such a competitive international market. They will have to take into consideration the competition, online trends, market changes as well as cultural, political and economic environments that may be responsible of some disturbances.

This paper will focus on Calltic, a Belgian company operating in the telecommunications sector and overall in a particular niche market which is the bypass fraud fighting (also called SIM Box fraud in some regions). Bypass fraud involves unauthorized call routing and causes big losses for telco's (telecommunication operators) mainly in Africa, Latin America and Asia. By examining Calltic's case, the objective is to find out clarifications on how to create effective online customer experiences within a unique international niche.

In this analysis, we will explore the dynamics of the online customer journey, taking into account the influence of the digital era, the competitive environment and customer behaviors. By understanding how Calltic navigates these challenges, there may be possibilities to find ways to evolve online customer interactions, bring loyalty, and contribute to the company's success. Through this research, the aim will be providing recommendations that will enable Calltic to optimize their online customer journeys of their anti-bypass fraud solution.

To accomplish these goals, the paper will provide theoretical and experimental analyses that will bring the reader to a deep understanding of the online customer journey and its implications in the telecommunication sector, and overall for Calltic that is operating in an international market. Moreover, some interviews will be conducted with real actors within the anti-fraud world and will be providing valuable insights to connect the theorical findings with the practical ones. The paper will end with several recommendations that will help Calltic create its own online strategy and improve its online experience.

2. Calltic

2.1. The company

Calltic is an international Belgian company founded in 2017 and headquartered in Gent (North West of Belgium). Its expertise is bypass fraud detection solution development in the very dynamic Telecommunications Sector, one of the largest in the global economy. They currently provide an innovative solution for worldwide operators.

The solution is based on an acoustic analysis method that can detect this fraud in such a fast and accurate way, that it stops fraudsters' business cases once and for all.

The huge number of frauds in Africa lead to an interest from foreign companies, such as Calltic, in this expending market. The Belgian company has recently expanded to other continents such as Latin America. These regions are facing losses of millions of euros every year as fraudsters keep finding new ways to exploit weaknesses in their systems.

Figure 2-1. Calltic official logo

As this is a new technology, it is quite challenging to find an operator that agrees on an access to its network and sensitive information (even more so if it is a foreign company). After about one year and a half of discussions, testing and fine-tuning the solution, Calltic began their first collaboration with an operator in Cameroon in 2019 and has kept growing ever since. They now have a portfolio of 13 customers around the world.

Belgium as well as the rest of Europe used to face the same issue of bypass frauds. However, the current global European roaming made it non-profitable for fraudsters and they are no longer engaging in this activity on our continent, putting their focus somewhere else.
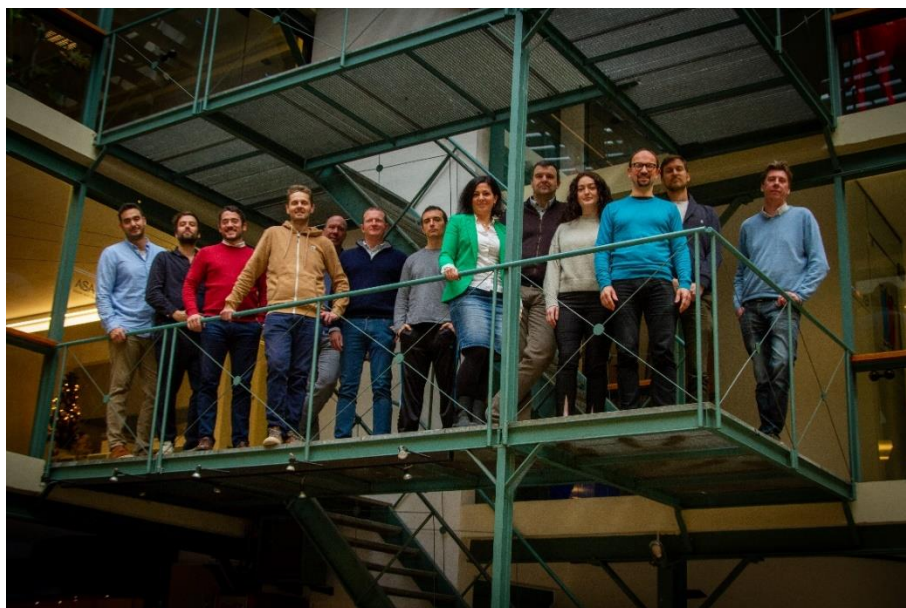
Figure 2-2. Picture of Calltic staff in the headquarter in Gent (January 2023)

Calltic has recently closed a funding of around 1.5 million of euros in order to expand its sales strategy and invest also in Research and Development. The current investors are private investors and also Belgian investment companies such as: the funds Qbic, Akiles and imec.istart.

The Management is represented by:

- **Guy Van der Meeren:**
    - CEO (Chief Executive Officer)
    - Background: CTO & cofounder Meucci Solutions (it now belongs to a competitor called Mobileum), acquired in 2014 by Sigos (now called Mobileum). Guy is trusted and recognized as a telco industry expert.
- **Filip Hoste:**
    - CTO (Chief Technical Officer)
    - Background: CTO Myforce, a Contact Center solution provider and more than 20 years software development expertise in the telco sector.
- **Frederik Van Coppernolle:**
    - CCO (Chief Commercial Officer)
    - Background: Former Meucci sales executive and more than ten years sales experience in telco fraud business.

The company staff is divided into 5 main departments:

- Sales
- Fraud operations
- Development & Information Technology (IT)
- Project management
- Human Resources (HR)

2.2. Calltic's current situation

- **Address:** Vijfwindgatenstraat 21, 9000 Gent, Belgium
- **Enterprise number:** BE.0681.919.205
- **Website:** www.calltic.com
- **Slogan:** "Calltic – Outside the box"
- **CEO:** Guy Van Der Meeren
- **Staff:** 15 employees
- **Current customers:** 13 customers (12 in Africa and 1 in Central America)
- **Gross margin**:
    - 2022: 909.258€ (BNB Consult Annual Account Financial Year 2022)
    - 2021: 584.920€ (BNB Consult Annual Account Financial Year 2021)
    - 2020: -15.711€ (BNB Consult Annual Account Financial Year 2019-2020)[2]
    - 2019: -66.313€ (BNB Consult Annual Account Financial Year 2018-2019)
- **Total equity**: 1,8 million € (BNB Consult Annual Account Financial Year 2022)
- **Net result:**
    - 2023: numbers will be confirmed by the end of the year of 2023. Calltic is planned to be profitable throughout 2023 thanks to new contracts with telco operators.
    - 2022: -31.119€ (BNB Consult Annual Account Financial Year 2022)
    - 2021: -70.676€ (BNB Consult Annual Account Financial Year 2021)
    - 2020: -517.012€ (BNB Consult Annual Account Financial Year 2019-2020)
    - 2019: -206.967€ (BNB Consult Annual Account Financial Year 2018-2019)

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[2] Calltic invested a lot of money in equipment, staff and sales strategies throughout 2018 and 2020.

- **EBIT (Earnings before Interest and Taxes):**
    - 2022: -7.709,34€
    - 2021: -82.220,59€
    - 2020: -532.851€
    - 2019: -221.372€
- **EBITDA (Earnings before Interest Taxes depreciations and Amortizations):**
    - 2022: 204.435,81€
    - 2021: 74.830,03€
    - 2020: -432.444€
    - 2019: -183.719€
- **Main competition:** FraudBuster (France), Mobileum (India), Latro (USA), Elite Business (Tunisia), Subex (India), Mobius (USA) and AB Handshake (USA).
- **Market share in Africa:** around 14%[3]
- **Customers**:
    - Orange Group: Cameroon, Congo, and Sierra Leone
    - Millicom Group: Tigo Honduras
    - MTN Group: Cameroun, Côte d'Ivoire, Ghana, and Guinea
    - Africell Group: The Gambia, Congo, and Sierra Leone
    - Axian Group: Telma Madagascar, Free Senegal and Tigo Tanzania
    - Other entities such as: AirtelTigo Ghana
- **Challenges for future growth:**
    - Technical restrictions: the solution requires installations of servers in very sensitive places (data centers) and require many authorizations
    - Operational issues: authorizations causing delays in the deployment of the projects
    - Financial: some telco operators do not have enough money to afford the solution
    - Commercial: no bypass fraud issue so no business case
    - Legal: contract management procedures take time and usually require from two to six months to eventually get a signed contract
    - Political restrictions: some countries are reluctant to new technologies

2.3. Bypass fraud

2.3.1 What's a Bypass fraud?

Bypass fraud (also called SIM Box fraud or interconnect fraud) is a type of telecom fraud that involves an unauthorized routing of international calls through unlicensed channels. Fraudsters use this technique to avoid paying the termination fees charged by operators for terminating international calls to their networks. Instead, they pay the local rate which tends to be much cheaper. Bypass fraud can thus result in significant financial losses for operators. Fraudsters use various methods to carry out bypass fraud, through equipment such as SIM boxes and by doing VoIP hacking.

Figure 2-3. Picture of a SIM Box (The Guardian Nigeria, 2019)

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[3] Based on an estimation made internally because there are no specific official entity providing such information.

2.3.2 The scenario of a bypass fraud

The general case scenario is as follow: a person receives an unknown call from a local number, picks up the phone, but it turns out that the person calling is a family member or a friend living abroad. Fraudulent SIM Boxes (devices with prepaid SIM cards) hijack international calls and transfer them to a local mobile network (via internet). In conclusion, the calls become local at the destination network and the fraudsters pay the local calling rate while avoiding the international rate. Find below an exhaustive example of a call process from Belgium to Cameroon in which Orange Cameroon is the victim. In this particular case scenario, Orange SIM cards are used for the bypass fraud on the Orange network, which can is called "onnet". Hence, there is a possibility that fraudsters also use SIM cards from competitors to make bypass fraud on Orange network, which is called "offnet".
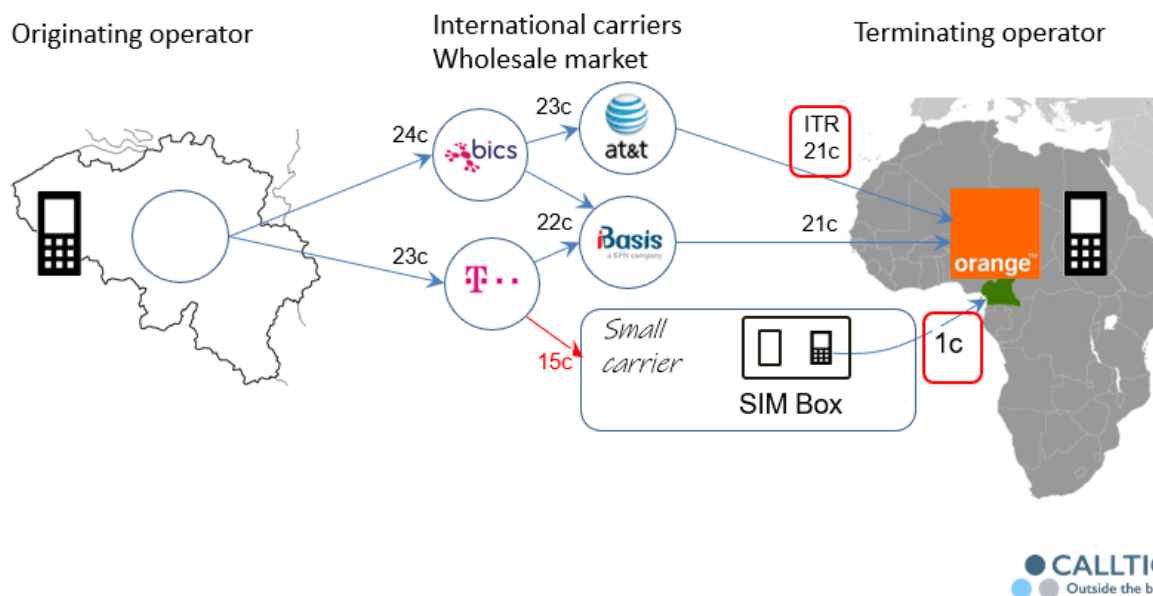
Figure 2-4. Example of bypass fraud scenario from Belgium to Cameroun (Calltic, 2023)

Someone calls from Brussels with Proximus (Originating operator) to Orange Cameroon (Terminating operator). Proximus charges the customer the international rate to Cameroon of 2,2€ per minute (Proximus, 2023). As there are not any direct telco cables between the two countries, the call is then transferred to international carriers in the wholesale market. Each carrier will have a commission throughout the way to destination.

Once the call gets to Cameroon, it should directly aim Orange Network and bring them 21 cents of revenue per minute, which is their International Termination Rate (also known as "ITR"). However, a local partner (small carrier) claims to be cheaper, charging only 15 cents per minute. Some traffic will be routed to this local partner because the price is attractive. In reality, this is a typical bypass behavior in which this small carrier is a fraudster. They will convert the international call to a local call using local SIM cards in their equipment (the SIM boxes) and eventually only pay the local fee which is, for this example, one cent per minute.

In conclusion, the fraudster receives 14 cents per minute (15 cents minus 1 cent to Orange for the local rate) and Orange Cameroon only gets 1 cent per minute for the Local Termination Rate (LTR). Taking the case of 1000 minutes of fraud, the fraudster receives 140€. Hence, Orange should receive 210€, but only receives 10€, which means a loss of 200€. The number of minutes differs from an operator to another but it can reach a level of hundreds of thousands minutes per month.

2.3.3 Detection generations

There were only two different generations of detections method before Calltic came up with its innovative concept. They represent the main classic solutions that providers offer in the market.

1) **Test Calls Generation (TCG)**

   TCG was the first solution created to protect operators' network against bypass frauds. TCG generates test calls from various origins around the world and analyzes the results to identify anomalies or suspicious activity. The system can detect incorrect Calling Line Identification (CLI) and alert operators to potential fraud. By using TCG, operators can identify fraudulent routes, block them, and optimize their network routing and billing processes. TCG is an important tool for telecom operators to reduce the risk of financial losses and is still being used nowadays.

   Providers usually offers a pack with a certain amount of calls that they would do within a certain range of time. For example: a pack of 10.000 minutes used in two months.

   The advantage of this solution is that it is accurate and easy, however it makes random calls and may miss many bypass calls. Indeed, fraudsters can still make a lot of revenues by finding ways to escape the detections.

2) **Profiling**

   Profiling is based on Call Data Records (CDRs) and is the second generation of anti-fraud solution used by telecom operators to detect fraudulent activity. It involves analyzing call traffic and subscriber behavior patterns to identify unusual activities that may indicate a bypass fraud. Operators can use profiling to identify potential fraudsters and prevent revenue losses as well. Profiling usually works as a monthly fee and daily reporting from the solution providers to the operator. Hence, this solution has its own technological limits and may be very slow in the detection. Fraudsters use advanced technology to also escape this solution as well.

2.4. What is Calltic concept?

The issue with the two solutions above is that the fraudsters are able to avoid detections. They usually utilize a variety of creative methods such as using different antennas within the day (changing locations), renting random SIM cards for one day (changing the IMEI) and completely tricking these anti-fraud solutions. In addition, there is also a risk of high false positives rate in the detections which leads to blocking numbers that were not used for fraudulent activities.

Calltic's concept is considered as the third generation of SIM Box fraud fighting, with a much faster and radical approach.

As explained above, a SIM Box call looks like a local call, even though it is in fact an international call. The technology of acoustic analysis was developed by the company to differentiate the local calls from the international calls based on the quality of the acoustic signal. Indeed, the acoustic path of a SIM Box is an end-to-end international call and Calltic's algorithms are able to make it detectable. Moreover, fraudsters are not able to escape this detection due to the physical characteristics of the SIM Box that cannot be skirted.

The complexity of Calltic requires, unlike almost all its competitors, a complex installation and implementation of equipment within the network of the customer. This means that it involves a significant number of staff members from various departments: Frauds, Revenue Assurance, Security, Core Network, IT, Finance, Purchase, Logistics, CTO, CFO and the CEO (if necessary). It also needs a complete Project Management in place to make the solution feasible. It usually takes from six months to two years (depending on the operator) to completely see the service up and running at the customer's site.

2.5 Calltic's Vision, Mission & Values

2.5.1 Vision

Assist telecommunication operators with managed services based on disruptive technologies and best in class customer service.

2.5.2 Mission

Calltic wants to be the leading provider of technology based managed services for bypass fraud detection in the telecommunications industry.

2.5.3 Values

2.5.3. Innovation

Innovation is the main force behind Calltic's bypass fraud solution. The company is constantly finding new ways to confront fraudsters and stay ahead of them.

2.5.3.2 Growth

Calltic wants to extend in the bypass fraud market but also grow its products portfolio by creating and developing new innovative anti-fraud solutions (Mobile Money and SMS frauds).

2.5.3.3 Excellence

Calltic stresses on excellence in all aspects of its work. The company wants to provide a high-quality service, continuously improving the solution and exceeding customer expectations.

2.5.3.4 Customer Service

Customers are the priority for the company. There is a colossal effort from the staff to deliver the best service with tailored solutions, outstanding support to ensure their satisfaction and success.

2.6 SWOT Analysis

The below SWOT analysis will allow internal and external evaluation and make Calltic aware of which areas the company stands out, the improvements that they would possibly have to make, which areas in which there is growth and the different precautions Calltic should consider protecting the company and the business.

STRENGTHS
- Expertise & Innovation
- Unique & advanced technology
- Radical results
- Reputation in the industry
- Loyal customers
- Customization
- Considerable growth potential
- Small & flexible: quick adaptation from staff

WEAKNESSES
- Technical requirements
- Fear of intrusiveness
- Prefinancing free trials
- Cash flow & high investments
- Internal communication
- Internal organization/structure
- Regulatory compliance
- Substantial competition

THREATS
- Decreasing international phone call volumes
- Security risks
- Challenging African market
- Technological advancements
- Regulatory changes

OPPORTUNITIES
- Bypass fraud solution as a must have for telcos
- African market growth
- New types of fraud
- Partnerships: GFA, Regulators
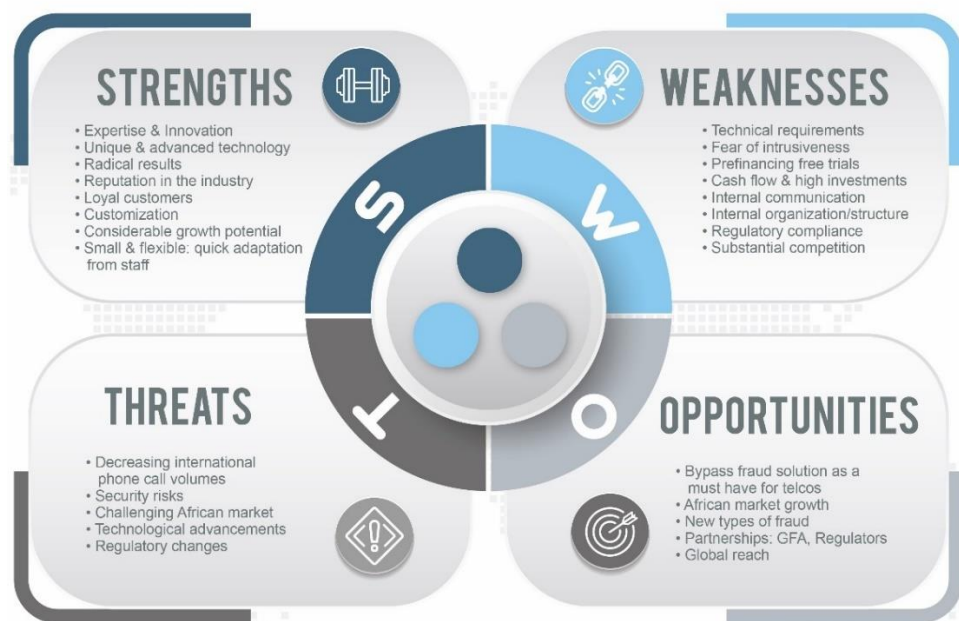- Global reach

Figure 2-5. Calltic SWOT Analysis

2.6.1 Strengths

- **Expertise & Innovation:** Calltic possesses the knowledge and expertise in the field of bypass fraud in the telecommunications sector. Their acoustic analysis solution innovated the bypass fraud business.
- **Advanced Technology:** the company has access to an advanced and unique technology to detect and prevent bypass fraud effectively with radical results for the customers.
- **Reputation in the industry:** Calltic has established a strong reputation as a reliable and trusted provider in the bypass fraud business. They are now able to fear the competition as an out-of-the box solution.
- **Loyal customers:** the company has a diverse and loyal customer base for long-term collaboration, indicating its ability to deliver quality solutions.
- **Customization:** Calltic is able to create tailor-made solutions for the customers based on their needs.
- **Growth potential:** the company owns a unique tool and hired the necessary staff to grow in the next few years and fear their competitors.
- **Small & flexible:** Calltic is still a small company in which its staff members are willing to adapt to any changes.

2.6.2 Weaknesses

- **Technical requirements:** Calltic often faces technical challenges that occurs many delays in the installation of their equipment due to technical requirements from the customers (security, IT, etc.).
- **Fear of intrusiveness:** some potential customers can be very scared about the intrusiveness of the acoustic solution and block the project.
- **Prefinancing free trials:** Calltic needs to prefinance the equipment, installation, and travels of the staff members before even having effective results of the trial.
- **Cash flow & high investments:** the company is still young and often faces some cash issues when several trials are agreed in the same period and a lot of investments are needed at once.
- **Internal communications:** Calltic is a small company that can face some internal communication discrepancies that may lead to confusion and ineffectiveness.
- **Internal organization/structure:** the staff structure of the company is flat. It can be a benefit for the communication in the company but that is also a risk for the management that could be overwhelmed by requests.
- **Regulatory Compliance:** The company needs to ensure compliance with evolving telecommunications regulations and keep up with legal requirements.
- **Substantial competition:** The bypass fraud industry is highly competitive, and Calltic may face challenges from other established players or emerging companies.

2.6.3 Opportunities

- **Bypass fraud solution as a must have for telcos:** the operators have the moral obligation of from the regulator to have a protection against bypass fraud. Calltic will always have its chance to make business.
- **African market growth:** the telecommunications sector continues to grow, and the demand for effective bypass fraud solutions will remain important. Calltic can capitalize on this growing market and expand its customer base.
- **New types of fraud:** fraud is dynamic, and fraudsters use all the means they have in their hand to create business cases. Calltic has the opportunity to invest in other fraud types such as refiling, mobile money, international SMS frauds, etc.

- **Partnerships:** Collaborating with telecom operators (Group Frame Agreement), regulatory authorities (common solution for all the operators in the country), or industry associations (GSMA events) can help Calltic gain market insights and enhance its reputation.
- **Global Reach:** Expanding operations globally can provide access to new markets and customers, creating opportunities for growth.

2.6.4 Threats

- **Decreasing international phone call volumes:** the growth of OTT technologies (Over The Top), such as WhatsApp, decreases the volumes of international calls all over the world. In consequence to this phenomenon, the bypass fraud business is slowly decreasing.
- **Security Risks:** The company needs to stay vigilant against potential security breaches, data theft, or cyber-attacks that could compromise its solution.
- **Challenging African market:** African Politics can suddenly become instable (military coup, demonstrations, war, etc.) and can be a real challenge for Calltic to do business. Moreover, due to the economy, the service may not always be paid for.
- **Technological Advancements:** rapid advancements in technology could result in a possible new technology from competition to compete with Calltic.
- **Regulatory Changes:** Frequent changes in telecommunications regulations. A stricter SIM cards registration may decrease the bypass fraud impact and require Calltic to adapt its operations.

3. Calltic's online situation

3.1 The current online marketing tools

Calltic does not currently have a specific online strategy, or a clear path that can be followed to reach objectives. Hence, they have some presence online via their main digital communication means mentioned below:

1) Their website.
2) Business social media platform: LinkedIn.
3) Email campaigns/newsletters (there are currently one or two per year).

On the side of these online tools, Calltic is also part of the GSMA (Global System for Mobile Association) and has access to their worldwide events that may also occur online.

The Management has noticed the lack of online activity and customers interactions. After noticing the importance of a customer success and online marketing strategy, soon Calltic's Management might eventually invest in a specialized staff and tools to propose a better online customer journey and build more trust with customers and prospects. Currently, there are six main challenging points to Calltic's online strategy (eConsultancy, 2008):

- No specific objectives or targets
- Lack of consistency
- Unclear responsibilities
- Lack of staff
- No digital value proposition
- No evaluation of KPIs

3.2 The online potential risk

Yet, even without a specific online strategy, Calltic has kept growing and expanding since 2018. Their portfolio of customers has more than doubled in the last three years (from 2020 to mid-2023) and they have been able to renew one hundred percent of their current contracts.

Their customers seem very satisfied with the quality of the solution, the high-end customer service and the costs of the solution as well. It appears that there is a very good collaboration due to the investment of Calltic in prioritizing the means for the customer.

The main explanation could be that the customers seek a solution that helps them fight bypass frauds with a long-term objective and would not be willing to change their current solution. It seems to be an easy answer, it is such an extremely niche market with quite a high number of actors. Another explanation could be that the customers want a proper service that includes regular contacts with their provider, which happens less than expected.

One of the dangers of Calltic not having any specific strategy, though having a very innovative solution, is that they do not become market leader. Their name has not reached all ears yet and some competitors are older and bigger with a renowned position in the market. If we consider that the solution could eventually be copied or if another company was able to be as effective as Calltic in the fraud detection, it would change the whole customers' perception. The main competitor, FraudBuster, is a serious threat because of their market leader position due to their 10-year-expertise. As one of the first Profiling solution in the market, they became famous among most telco companies in the world.

3.3 STP strategy
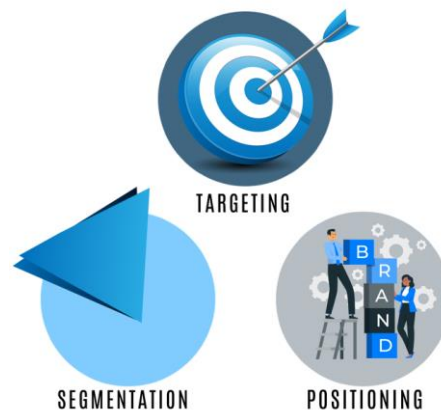
In a more theoretical aspect, there are between the brand and the customer three important points that should help Calltic have a better idea on their prospects, their profile, and their image in the sector. As an international company doing business in a multi-cultural market, Calltic notices that each customer may have different habits and behave differently. It is crucial for them to understand these differences.

The STP strategy is essential to analyze exhaustively the following three angles:

- Segmentation
- Targeting
- Positioning

3.3.1 Segmentation

A simple definition of segmentation consists in a division of potential customers based on shared characteristics. It is essential for Calltic to focus on a customer segmentation rather than on a market segmentation because Calltic faces cultural and demographic differences depending on customers location. In this particular case, it is required to be as specific and detailed as possible on the target customers. See below a non-exhaustive table from Forbes (2023) that briefly explains the differences. In addition, customer segmentation needs very specific information and characteristics, such as marketing Personas (See chapter 3.4 Personas).

Customer Segmentation	Market Segmentation
Customer segmentation deals with a part of your market	Market segmentation is more general, looking at the entire market
It creates user-based categories	It focuses on areas of the market
It groups customers together based on shared characteristics	It groups customers according to the products or services they purchase
Customer segmentation refines marketing and sales strategies with precise data points obtained from customers	It is market segmentation that sets the foundation for marketing and sales strategies

Tableau 1. Difference between Customer and Market Segmentation (Forbes, 2023)

3.3.1.1 Demographic Segmentation

- **Age:** the target in the telecommunications industry may vary from a country to another. Calltic considers entities from new operators to established enterprises.
- **Industry:** Calltic targets telecommunications industry and more particularly mobile network operators only.
- **Company size:** Calltic focuses on any size of telecom operators from small regional providers to large national or international telecommunications companies.
- **Job positions:** Calltic's marketing and sales efforts are directed to decision-makers and influencers within telecom companies. The focus is mainly made on Fraud & Revenue Assurance management teams, Wholesale and C-level executives (CEO, CFO, etc.). The average age is usually between 30- to 60-year-old.

3.3.1.2 Geographic Segmentation

As explained earlier, Calltic's targets may be global because bypass fraud is present all over the world. In 2015, the Communications Fraud Control Association (CFCA) estimated that mobile network operators faced losses of more than 38 billion of dollars due to fraud (CFCA, 2015), which represents around 35,65 billion of euros (Xe.com, 24th of September 2023, 13:07pm).

It is essential for the company to segment the markets and the Management decided to filter them by continents, with a focus on the countries with the highest rate of bypass fraud. The list below is represented from the highest interest to a lower interest.

- **Africa (North Africa and Sub-Saharan Africa):** Africa represents of a total of 54 countries and is the main target for Calltic. Indeed, the growing African market brings many fraud opportunities and is a constant victim of telco frauds. An article (Kouam, A., Viana, A. C., & Tchana, A., 2021) mentioned that around 78% of African countries are victims of bypass fraud, which some of them see up to 70% of the international traffic bypassed.
  Knowing the size of the continent, Calltic strategically chooses the biggest countries but also that are politically and economically stable such as Congo, Cameroun, Morocco, Ghana, Ivory Coast, etc. However, the high demand from the market also gives opportunities for Calltic to target operators from less developed countries such as French Guinea, Sierra Leone, Liberia, Madagascar, etc.
- **Americas (& Caribbean):** it is second main target market for Calltic, mainly for strategic reasons due to the high volume of bypass frauds as well[4]. Countries range from big countries (Colombia, Peru, and Argentina) to smaller countries (Honduras, Dominican Republic, Guatemala, Jamaica, Haiti, etc.).
  These cultures are very different from the African culture so the strategy might change. Calltic is still learning to understand the market trends and the economic health of these countries. Currently, the main targeted markets are linked to Group level decisions. Indeed, Calltic needs to show the good results of the solution with a proof of concept in one country. Based on those results, the Group will make a global agreement and extend the service to other entities. This makes it challenging for Calltic to create a clear segmentation marketing strategy.
  As an example, a Group requested Calltic to provide a Proof of Concept in the country of Honduras and will decide where else an implementation can be done. In this case, Calltic had to convince the Fraud Team in Honduras but also the Group decision makers based in the USA, Guatemala, and Luxembourg.
- **Middle East & Asia:** those are now under market research but could possibly be new targets for the future. Indeed, the same source (Kouam, A., Viana, A. C., & Tchana, A., 2021) mentions that Middle East sees a percentage of 60% of their countries as victims of bypass fraud. Countries like Yemen and Afghanistan may be some high potential customers, however the

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[4] Based on own experience from sales staff of Calltic

political situations there may be quite challenging. In Asia, Myanmar may be a potential targeted region.

3.3.1.3 Behavioral Segmentation

- **Website activity:** Calltic should track the activities of the customers on the website and the pages they visit the most, but this is not a usual practice so far.
- **Frequency of purchases:** as explained earlier, the particularity of the bypass fraud business is usually between one to five year-contract so a segmentation based on purchase does not seem accurate.
- **Loyal customers:** Calltic takes good care of their long-term customers by offering discounts, new features, extra services, and special visits from sales team.
- **Early adopters:** this is a segment that includes operators who are constantly looking for an innovative solution and would be triggered to try a new solution like Calltic. These operators are surely the ones that Calltic might want to target.
- **Insurance-conscious operators:** this is represented usually by small operators who do not face a high bypass fraud impact but still need a solution to protect their network from threats.
- **Value-conscious operators:** this segment includes operators with a cost-effectiveness focus. They want to see how valuable the solution is and how much return of investment (ROI) they can get out of the service.

It is essential for Calltic to also understand that there are operators focused on a mandatory PoC (Proof of Concept). This is not considered as a segmentation because it might lead to a high financial risk for Calltic. Indeed, all operators want free service for one month or more, try the service and concept, check their fraud level, and then decide not to hire the services. This may lead to a loss of more than dozens of thousands of euros worth of investment and installation. Calltic studies PoC requests case by case to avoid such issues. With the experience and proven results of the solution in many countries, the company tends to avoid them. In this case, an adaptation to a direct contract with a step-out clause might be considered.

3.3.1.4 Psychographic Segmentation

- **Security-focus operators:** these entities see security and risk management as a priority. They value drastic fraud prevention measures and are willing to invest in more advanced solutions (and innovative) to protect their revenues against frauds.
- **Innovators and risk-takers:** this segment includes operators who are innovative and open to taking risks in testing new technologies and approaches. They are likely to be receptive to innovative solutions and willing to stay ahead of fraudsters.
- **Technological operators:** some operators are experts and comfortable with a new technology. They actively look for services that align with their technical expertise and integrate well with their existing systems.
- **Reputation-conscious operators:** other operators place a strong emphasis on maintaining their reputation and brand image. They are willing to invest in anti-fraud solutions that enhance their credibility to the Regulator and counterparts in the country or Group which they are part of.

3.3.2 Targeting

As explained earlier, the target market is represented by all telecommunication companies worldwide that are in the need of bypass fraud detection services. The targets are divided in three groups, respectively listed by potential value: Africa, the Americas, Middle East & Asia. You will find below a detailed analysis of each of them.

3.3.2.1 Africa

The most important market for Calltic is Africa. Due to its business potential growth and opportunities, it should benefit the company's profitability within the next few years. Calltic's current focus on Africa represents around 80% of Calltic's business activities (Calltic, 2023).

For more than ten years, many foreign investors have been injecting money in Sub-Saharan Africa to boost the potential growth in terms of technology and mobile use (OECD, 2009), which therefore attracts fraudsters' activities. Several countries such as Ghana, Nigeria, Ivory Coast and Morocco are very well developed and have sufficient technologies to allow marketing strategies opportunities across their territories or at least in some capitals and other big cities. The countries are also well known to be victims of bypass fraud activities.

The graph below of statistics of mobile subscriptions tendency in Northern and sub-Saharan Africa, shows that the mobile use is becoming more and more important and keeps increasing over the years (World Bank, Open Data. 29th of June 2023, 10:00am). Numbers demonstrates the increase from less than twenty people per one hundred habitants in 2001, to more than seventy people having a subscription per one hundred habitants 20 years later. Moreover, Maghreb countries (Morocco, Algeria and Tunisia) have seen their population affording the use of more than one mobile. Sub-Saharan countries could reach these levels in the future with the new technological developments, giving an easier access to mobile phones.
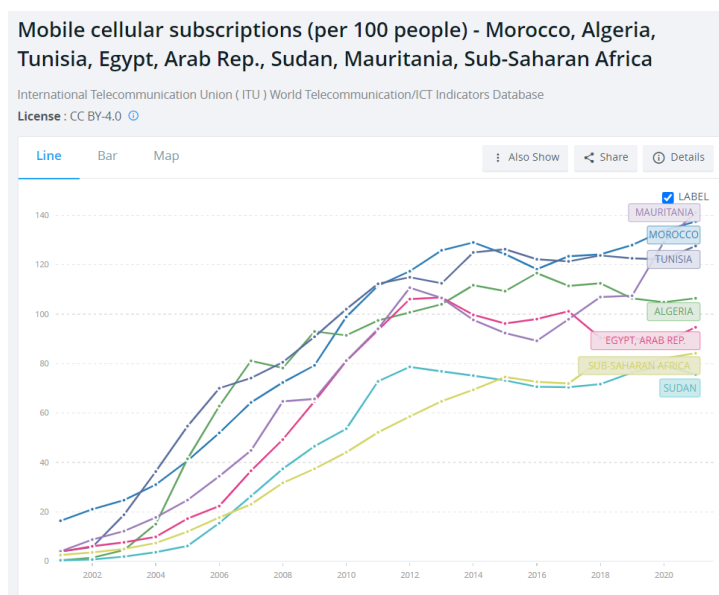
Figure 3-1 - Percentage of Sub-Saharan population using mobile between 2001 and 2021 (The World Bank, 2021)

According to the GSMA (Global System for Mobile Communications Association), the average penetration rate in Africa is supposed to reach 50 percent by 2025 and the mobile subscribers from 515 million in 2021 to 613 million in 2025 (GSMA, 2022), which is almost a 20 percent increase. Operators may still see some room for customer growth and high margins. Moreover, numerous countries remain quite undeveloped. For instance, French Guinea, Guinea-Bissau, Madagascar, Liberia, and Sierra Leone will eventually improve and thus become a great potential for the future of telecommunications in Africa.

Figure 3-2 - The Mobile Economy Sub-Saharan Africa 2022 (GSMA, 2022)

3.3.2.2 The Americas

The Latin market has not revealed its real potential yet. The main reason being that these countries must face economical restrictions and strict regulations, which makes projects very challenging. Some other countries simply have a lack of interest in the solution.
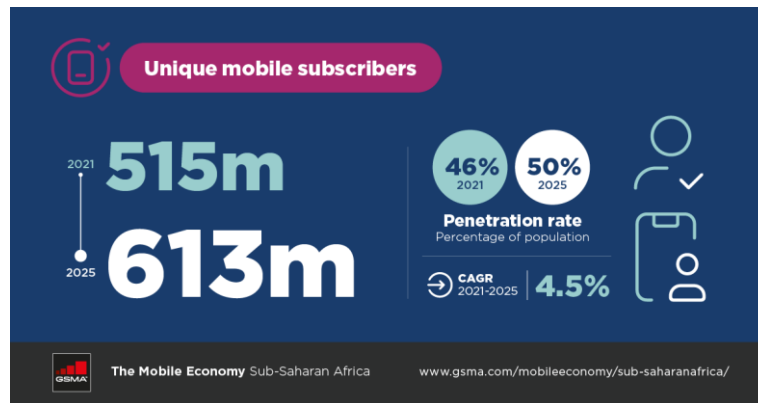
There is an important gap between the Americas and Africa in terms of interest. It might be due to cultural and behavioral aspects. So far, Calltic has not been able to meet the expectations of Latin customers to fight bypass frauds. It also seems that there is smaller growth potential because of a more saturated market with lower margins. These limited margins may not attract bypass fraudsters and bring other types of frauds that Calltic does not deal with.

Moreover, the market penetration is already at almost 70% and the objective is to reach 74% by 2025 (GSMA, 2022). Calltic may need patience or think of other strategies to aim effectively at Latin American customers in the future (new frauds or an on-site salesperson).

Figure 3-3 - The Mobile Economy Latin America 2022 (GSMA, 2022)

3.3.2.3 Middle East & Asia

This is still a brand-new market for Calltic. The countries are under prospection and market research by the same team. There will be a plan for sales opportunities by 2024.

3.3.2.4 Important note

Due to a lower business potential and lower focus by Calltic, it has been decided that the Americas, Caribbeans, Asia and Middle East will not be part of the analysis in this paper. The focus will be centered on the African market, hoping that it will bring very interesting insights of fraud management behavior and online customer journey. Of course, the results could be extremely useful to use for the other markets expansion.

3.3.3 Positioning – The 4Ps

Figure 3-4. Calltic 4Ps (2023)

3.3.3.1 Product

Innovation: Calltic's solution is totally advanced. It uses cutting-edge technology and innovative approaches to fight bypass fraud. Calltic wants to stress on the fact that they also do real-time monitoring and fraud detection algorithms.

Image: they show customers that they can crack through a problem both well and fast, that other providers cannot keep up. In conclusion, living up to the reputation of being the fastest and the best solution against fraud bypass available in the market.

Evolution: Calltic keeps looking for new solutions and follow closely fraudsters' behaviors to enhance their current solution and create new products for the customers such as Mobile Money and international SMS.

Customization: each country works differently, has different network infrastructures and customers' expectations. Accordingly, Calltic may need some adaptation. Depending on the request, they will also customize the solution.

3.3.3.2 Price

The price structure is a monthly fee for the service and one-time fees: one for the set-up and one for the activation). The cost may vary depending on the scale of the operations, the size of the country, the number of subscribers and the call traffic volumes. Calltic seems to be a premium and expensive solution though a substantial investment for a long-term collaboration. Indeed, it is a solution made to prevent bypass frauds and control the potential threats.

3.3.3.3 Promotion

The current marketing approaches for Calltic are:

- Industry events (Global System for Mobile Communications Association's events).
- Online channels (their website, LinkedIn, GSMA website).
- Sales presentations and success stories.
- Testimonials from influencers (ex: happy current customers).
- Medias (articles about Calltic).

3.3.3.4 Place

Calltic does direct sales to the global market. The sales staff (employees or consultants) travels around countries to have face-to-face meetings with the decision makers. Their job is to promote, convince, make deals, follow-up and extend contracts. However, depending on the region, some countries require a local entity and Calltic must do business through a local partner in these specific situations.

In the future, Calltic would like to have strategic partnerships with local Regulators to have their solution proposed to all the operators in the country in question.

3.4 Personas

3.4.1 Introduction

Personas are a generic stereotype of a group of customers that the company addresses to. It can also be considered as the general image of the company's audience. They are essential for Calltic's online image as they dispense the company a better understanding on which marketing initiatives to take. They are also intended to help the business in gaining deeper comprehension of the motives, challenges, behaviors, and preferences through the customer journey.

According to HubSpot, "*the companies that adopted Personas in their marketing strategy have increased website traffic of 210 (two hundred and ten) percent and boosted organic traffic by 55 (fifty-five) percent*" (HubSpot on YouTube, 0:33, 2023).

By looking at the situation of Calltic, it is noticeable that the emphasis has to be placed on both technical (IT, network, security, etc.) and strategic positions (fraud prevention, managers, the CEO, etc.) that will affect the decision-making on hiring the solution.

In this paper, personas will be pictured as potential customers in the African market, which represents more than 90% of Calltic's customers portfolio[5]. Knowing the important cultural, economic, political, and technological differences between some African countries (for example: Sierra Leone, Nigeria, Morocco and Ivory Coast), only international general Personas will be created. Of course, Calltic will be welcome to create Regional Personas in the future based on a specific targeted country.

It is also important to note that Personas must often be reviewed and updated since the market evolves at a very fast pace and changes over the time. For example, a Persona created and used in 2020 (pre-covid) is certainly divergent to a Persona created in 2023 with the new tendency of home-office and the increasing use of online tools.

The challenge for Calltic is that they are in contact with a lot departments of the operator for their projects: fraud, high management, finance, network, security, IT, logistics, Legal, etc. Knowing the objective of this paper: analyzing Calltic's customer journey, the focal point will be a creation of Personas that represents the decision makers (Fraud and Revenue Assurance).

Other personas could have been considered: the Technical Manager (responsible of the implementation of the solution), an IT-person (responsible of the Security), the Wholesale Manager

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[5] Calltic's insights based on personal experience and member of the staff.

(responsible of revenues and direct customer to the Fraud department), the CEO (responsible of the growth and financial health of the company) and many others.

3.4.2 Fraud and Revenue Assurance Director Persona

- **Name:** Ben Diallo;
- **Gender:** Male;
- **Age**: forty-seven year-old;
- **Location:** Lagos, Nigeria;
- **Position:** Fraud and Revenue Assurance Director;
- **Language:** English and French;
- **Industry:** Telecommunications;
- **Size:** Large (first in the market);
- **Group level:** yes;
- **Experience:** fifteen years in the company and twenty-five years in the industry;
- **Team:** fifteen people (fraud and technical analysts);
- **Attributes:** strategic, pro-active, adventurous, solution-driven and open to new technologies;
- **Defaults:** very demanding and also difficult to reach (phone or emails) and he does not answer to providers unless they have a common project going-on.
- **Goals:**
  - Making the possible to have excellent results in the bypass fraud fight and protect the company's revenues;
  - Stay up-to-date with what is in the market and the latest trends/technologies;
  - Always find the best solution against bypass fraud in the market.
- **Challenges and frustrations:**
  - Fraudsters are always evolving, changing their behaviors and are more difficult to be detected;
  - Revenue loss is still an issue even though Ben has acquired two well-known classic solutions that are not capable of detecting all the frauds and blocking them fast enough;
  - Ben's department have a limited budget but is aware of the cost efficiency of a company and is ready to request extra budget;
  - As soon as he wants to hire a solution that he thinks is revolutionary, he needs approval from the Chief Financial Officer (CFO) as well as the Group level;
  - Ben has not yet found a solution that clearly meets his expectations: speed and accuracy.
- **Decision-making behavior:**
  - Ben engages in discussions with counterparts in Nigeria, within the Group the company belongs to and also with his personal contacts from the telco sector;
  - He attends industry conferences such as GSMA events all around the world and especially in Africa;
  - He considers testimonials and success stories before making purchasing decisions.
  - He does research on the internet (GSMA website, Google Search, industry forums, LinkedIn, etc.);
  - Ben seeks solutions that provide excellent results in reducing revenue losses and preventing fraud;
  - Ben usually compares two, three or more vendors via a Request For Proposals (RFP);
  - Since he is very busy with many other frauds, Ben gives the hand to his Fraud team and the responsibility to the Senior Fraud Analyst who will lead the projects.

- **Preferred channels and communication:**
  - Ben likes human interactions and prefers direct communication channels such as person-to-person meetings, emails or phone calls (even though he is not easily reachable);
  - He likes the social media LinkedIn because it is full of useful information, and it is easy to manage his network. He also can connect via his phone whenever he has a break;
  - He attends industry conferences and seminars focused on telecom fraud prevention in Africa. It is always a way to meet other counterparts.
- **Expectations:**
  - Excellent results;
  - A fast and accurate solution improving with new features throughout the evolution of the fraud;
  - An outstanding customer service for his teams and a contact reachable whenever he and his team have questions;
  - A pro-active collaborator that also shares new fraudsters' behaviors, trends and how to solve them.
- **Quote:**
  - "If you tell me that your solution can detect bypass fraud faster than what is in the market nowadays, you will solve more than fifteen years of struggle";
  - "I would like to invest in your solution and equipment but I do not have budget for this year".

Note that you will find an graphical representation of Ben Diallo as a marketing persona in the Annex III.

3.4.3 Senior Fraud Analyst Persona
- **Name:** Giovanni Koffi;
- **Gender:** Male;
- **Age:** thirty-three year-old;
- **Location:** Abidjan, Ivory Coast;
- **Position:** Senior Fraud Analyst;
- **Language:** French;
- **Industry:** Telecommunications;
- **Size:** Medium (number two in the country);
- **Experience:** five years in the company and ten years in the industry;
- **Team:** Giovanni works with five other colleagues and their Fraud Manager;
- **Attributes:** analytical, pro-active, detail-oriented and creative;
- **Defaults:** prudent and lack of communication;
- **Goals:**
  - Analize data patterns and trends to identify new fraud techniques and develop effective countermeasures;
  - Collaborate with his colleagues to make sure that fraud prevention strategies are effective;
  - Look for new technologies that can help the operator fight bypass frauds. He also follow his manager's recommendations.
  -
- **Challenges and frustrations:**
  - Finding a balance between the need for accurate fraud detection solutions and minimizing false positives to avoid blocking legitimate customers;
  - Ensuring compliance with regulatory requirements in Ivory Coast;

- Evolving fraud tactics with his team and also the need to constantly update skills and knowledge to stay ahead of fraudsters;
- The operator acquired a solution one year ago via a three year-contract. They started facing some issues with them due to false-promises, lack of transparency and bad results. The solution is also very expensive. Giovanni's responsibility is to find another option as soon as possible;
- Giovanni cannot make a decision without his manager's approval (the Revenue Assurance Director).

- **Decision-making behavior:**
  - Giovanni engages in discussions with counterparts in Ivory Coast and with his personal contacts;
  - He follows his colleagues' recommendations as well team decisions based of Proof Of Concept results;
  - He attends industry conferences and webinars such as GSMA events in Africa focused on fraud prevention and revenue assurance;
  - Giovanni considers testimonials and success stories before making purchasing decisions;
  - He does research on the internet (GSMA website, Google Search, industry forums, LinkedIn, etc.) to have detailed and clear information on a solution provider;
  - Giovanni relies on data-driven insights and evidence-based research when selecting fraud prevention solutions;
  - He will value providers that offer outstanding customer service, constant availability and adaptability.

- **Preferred channels and communication:**
  - He prefers direct communication channels like email or phone calls to engage with vendors for detailed discussions and clarifications;
  - Social Media: LinkedIn is his main communication channel to connect with industry professionals, share insights, and seek recommendations;
  - He attends industry conferences and seminars focused on telecom fraud prevention in Africa. He usually travels with the RA (Revenue Assurance) director;
- **Expectations:**
  - Excellent results of fraud detection;
  - A fast and accurate solution improving with new features throughout the evolution of frauds;
  - An outstanding customer service reachable whenever they have questions;
  - A pro-active collaborator that also shares new fraudsters' behaviors.
- **Quote:**
  - "What I expect is an excellent contact and availability any time we need to talk about new fraud behaviors and trends";
  - "We do not have the final decision; we have a yearly budget to respect and it will depend on the PoC results".

3.4.4 Fraud Manager - Group Level position Persona
- **Name:** Angele Adebayo;
- **Gender:** Female;
- **Age:** fifty year-old;
- **Location:** London, United Kingdom;
- **Position:** Fraud manager at Group Level;
- **Language:** French and English;

- **Industry:** Telecommunications;
- **Size:** Large (fifteen entities in the whole African continent);
- **Experience:** ten years in the company and twenty years in the industry;
- **Team:** Angele works with four other colleagues in London Headquarters;
- **Attributes:** strategical, technical, analytical, straightforward and open-minded;
- **Defaults:** authoritarian with providers during negotiations;
- **Goals:**
  - Minimize revenue losses caused by frauds across the operator group's subsidiaries in Africa;
  - Develop and implement comprehensive fraud prevention strategies that align with the unique needs of each subsidiary;
  - Recommend new solutions to subsidiaries against bypass frauds;
  - Foster collaboration and knowledge sharing among subsidiary fraud management teams to enhance fraud detection and prevention capabilities;
  - Find the possibility to create a Group Frame Agreement (GFA) with the providers and reduce Group's costs.
- **Challenges and frustrations:**
  - Managing fraud prevention efforts across diverse subsidiaries with different operational structures, systems, and fraud landscapes;
  - Balancing the need for centralized supervision and control with subsidiary autonomy and flexibility in fraud management;
  - Ensuring consistent compliance with regulatory requirements and industry standards across all subsidiaries;
  - Finding new technologies against bypass frauds and recommend them to the subsidiaries.
- **Decision-making behavior:**
  - Engages in discussions with subsidiaries and counterparts within the African continent;
  - Angele regularly meets Fraud Managers from their subsidiaries to get recommendations, testimonials and feedback;
  - She attends industry conferences and webinars such as GSMA events in Africa focused on fraud prevention and revenue assurance;
  - Makes research on the internet (GSMA website, Google Search, industry forums, LinkedIn, etc.).
- **Preferred channels and communication:**
  - Angele prefers direct communication channels like phone calls, meetings and conference calls to engage with vendors. She likes detailed presentations that she can then share with her colleagues. She is open to face-to-face meetings as well;
  - Social Media: LinkedIn is her main communication channel to connect with industry professionals and read insights;
  - She attends workshops to align fraud management efforts with other departments and subsidiaries within the operator group.

- **Expectations:**
  - Excellent results for all the Group's subsidiaries;
  - A fast and accurate solution improving the Group revenues;
  - A semester meeting with all the subsidiaries. They must provide details on their current situation and share new fraud trends.
- **Quote:**
  - "We expect you to prove that your solution works in several countries. If the results are convincing, we will definitely introduce you to other entities from the Group".

4. Calltic's customer journey

4.1 Introduction

Analyzing the customer journey of a company can be very complex due to many factors such as the core business of the company, its culture, its location, its customers, and the business types: B2B (Business-to-Business) or B2C (Business-to-Consumers).

As explained in the previous chapters, Calltic is aiming at the telecommunication sector and more particularly the operators. It is obvious that this leads to a B2B environment with a different customer journey than a B2C with day-to-day consumers, such as the telco's themselves or FMCG (Fast-Moving Consumer Goods). Calltic deals with professionals and experts, therefore the approach will be focused on a totally professional environment. The company is willing to understand the African telco operators' journey from the start (a specific need: bypass fraud solution) to the end (a possible long-term collaboration with Calltic).

It is crucial to excel at what the expectations are for each of the steps of the customer journey. This will help analyze the aspects missing throughout the experience of a bypass fraud solution. Calltic may be forced to adapt and make some adjustments.

In an international market, the reader will certainly notice cultural, political, financial, and behavioral differences between countries in the African continent. Bear in mind that this study will seek to gather information and explain the findings as a broad image of the African Telco sector. It will also give an idea on the differences the reader may find with their knowledge of other continents. However, there will not be a generalization of the African market based on one example but more an idea on how the global African market works compared to the rest of the world. If there is more interest in a specific country, a deeper study of one target country is more than suggested.

Based on a higher business possibility in the African Market, it was decided to have a focus on this content rather than Latin America or Asia. However, the customer journey example will be an excellent and valid support if Calltic Management decides to consider another customer journey analysis in these regions for future expansion of the company.

Our Persona Ben Diallo, Fraud and Revenue Assurance Director of a Large telecommunication company has been chosen as example of a typical customer journey at Calltic. The reason of this choice is simply because, by experience, this is the first decision maker looking for a bypass fraud solution. Moreover, choosing a fictive person instead of a general picture gives a more practical and real life feeling, imagining that Ben Diallo is a real customer of Calltic. As a reminder, the sheet of Ben Diallo is available on the Annex III.

According to Lemon and Verhoef (2016) in the article "*Understanding customer experience throughout the customer journey. Journal of marketing*", the customer journey can be divided in four different stages:

1. Pre-purchase;
2. Purchase;
3. Post-purchase;
4. Renewal/loyalty.

Calltic's customer journey is described in the below tables with all the stages that are found above. Due to the length of the table, it has been divided in 4 parts. The three first parts represent the pre-purchase, with the two crucial steps of the awareness and interest/research (in blue) while the fourth part represents the Purchase, Post-purchase and Renewal. An exhaustive and detailed version of the table can be found on the Annex I.

Pre-purchase

Touchpoints	Awareness		Interest/Research	
	Word Of Mouth	Sales contact	Website	Linkedin
Customer process	• Internal & external contacts • Hear about Calltic	• NB: optional in the process • Direct contact • Email, phone or Linkedin • Meeting	• NB: optional in the process • Restricted information • Lackof of examples and concrete proof • "Too good to be true" feeling • No story telling • Different languages	• NB: optional in the process • Calltic's Linkedin page • Company information, followers and publications • People in common
Expectations	• Opinion • Recommendation • Advantages and disadvantages • Price • Solution	• First introduction • Explanation • Sales pitch	• The story and reputation of Calltic • Staff information • Solution details and advantages • Case studies and testimonials • Free trial possible • Own language version of the website • FAQ & Contact information • Social Media integration	• Extra information • Professional Branding • Engaging profile • Employees' activity • Company size and location • Followers and connexions
Customer feeling	Good	Curious	Curious	Good
Tools	CMS	CRM	CMS	Linkedin
Staff	Marketing	Sales	Marketing	Marketing

Figure 4-1. Calltic's customer journey, part 1 (2023)

Pre-purchase

Touchpoints	Interest/Research		
	Word Of Mouth	Contact Request	Presentation
Customer process	NB: optional in the process New Internal and External contacts Calltic's experience. Note that this part could be optional depending on the customer process	• Customer convinced • Direct contact with sales • Online meeting request	• Sales presentation • Solution • Price request • Customer cases • Results • Testimonials. • Customer fraud impact and budget
Expectations	Opinion of current customers Privacy safety	• Fast answer from sales staff • Introduction on the phone • Get a meeting	• Clarifications • Details on solution • Feasibility check • Who is behind Calltic • Trust regarding Calltic
Customer feeling	Curious	Good	Good
Tools	CMS	CRM	CRM
Staff	Marketing	Back-office	Sales

Figure 4-2. Calltic's customer journey, part 2 (2023)

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Pre-purchase

Consideration

Touchpoints	Visits & Offer	Installation	Live PoC	Visit & negotiation
Customer process	On-site Sales visit PoC contract discussion mandatory to ship equipment NB: financial negotiation in certain cases	• Green light • Technical visit from Calltic • Start of installation & implementation • Contact Calltic Fraud Analysts and IT • Duration from 3 months to 9 months • Challenge: sales is "out"	• NB: optional in the process • Proof of Concept starts • One month • Goal: evualate the solution • Contact with Sales and Operations	• Convinced • Collaboration • Price negotiation • On-site Sales visit
Expectations	Price quote Human interaction Build trust On-site solution presentation Technical questions	• Speed of installation • Safe • Effective deployment • Good Project Management	• Excellent results • Reduce fraud to the lowest • Detailed reports • Contact by Operations Team • Speed of detection • Potential increase of revenues	• Legal negotiation • Financial negotiation • Price discount • Flexibility • Incentives
Customer feeling	Good	Challenge	Excellent	Very good
Tools	CRM	CRM/ERP	CRM/ERP	CRM/ERP
Staff	Sales	Technical, IT & Operations	Sales & Back-office	Sales

Figure 4-3. Calltic's customer journey, part 3 (2023)

	Purchase		Post - Purchase	Renewal	
	Contract	Go Live	Follow - ups	Contact	Keep in touch
Touchpoints	Email & Teams	Teams Meeting & Email	Meetings + Sales Visit	Emails/Calls	Visit
Customer process	• Long duration • Emails and online meetings • On-site Sales visit if needed	• Agreement reached • Purchase Order • Officially live • Invoices	• Weekly meetings with Operations • Fraud Control • Requests from Customer • On-site Sales Visit after 6 months of live • Renewal process • Solve payment issues if needed	• Contact from Sales 3 months before contract expiration • Reminder for renewal • Share feedback • Share improvements • Price negotiation	• Annual sales visit • Follow-up customer satisfaction • New features/tools • Confirm contract extension
Expectations	• Agreement • Signatures	• Keep excellent results • Meetings with Sales & Operations Team • Weekly and monthly reports • Personalization	• Detailed reports • New features • Low fraud level remains • Meeting about the results • New requests	• Sales: transparent and constructive communication • Feedback from customer • Customer's will to extend (or not)	• Detailed report presentation • Meeting of current results • New negotiation • Deal with discount request • Relational gifts (if allowed)
Customer feeling	Challenge	Very good	Excellent	Excellent	Very good
Tools	CRM/ERP	CRM/ERP	CRM/ERP	CRM/ERP	CRM/ERP
Staff	Sales, Legal & CEO	Sales	Operations & Sales	Sales	Sales

Figure 4-4. Calltic's customer journey, part 4 (2023)

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4.2 Pre-Purchase Stage

This may be the longest and most important stage for the customer in this analysis. Calltic must target their customers' necessity to come up with a new solution to fight bypass frauds. This may provide the company new business developments and build trust with new prospective clients.

As the customers are based in Africa and Calltic's staff in Belgium, most of the interactions between the parties are done online. Although sometimes, a professional visit can be planned too. Now, there is no clear marketing strategy from Calltic. However, one can notice that a few non-monitored tools are already in place and mainly refer to owned medias:

1. A website that gathers the concept of the solution, contact details, staff and customer testimonials.
2. A business social media platform: LinkedIn.
3. Some event newsletters (once or twice per year).

Going deeper to the subject, the pre-purchase stage may be divided into 4 different steps:

1. Awareness
2. Interest/research
3. Consideration
4. Implementation

4.2.1 Awareness

Awareness is a key step of the Customer Journey. Before considering any collaboration, it is crucial to make sure that the customers truly need a bypass fraud solution and are also willing to change their current solution(s). Besides, we may wonder if they had heard about Calltic before.

In this example, Ben Diallo notices that their bypass fraud level has become very significant, and their international revenues have been dropping accordingly. The reason is either due to a non-optimal solution or perhaps their current tool(s) is (are) not sufficient to control the level of fraud. Because of pressure from the Wholesale Department, the Group and the Regulator, Ben has no choice but to find another solution available in the market.

He may have already heard of some other company names and therefore would contact them, however there is also a chance that he looks for new technologies in the market. The awareness of the customer is divided into two different options depending on the customer journey:

4.2.1.1 Option A - The customer already knows Calltic

Ben's first option will probably be the providers with whom he has been in contact, especially those he remembers positively. Assuming that this is the case with Calltic, he will contact the sales team and start commercial and technical discussions about a potential collaboration. If the bypass solution is already crystal clear to him, the Interest step may be skipped and get straight to the Consideration step. If it is not the case, Ben will surely request new meetings to have a refresh on the solution and its feature.

Note that the African telecommunication world is complex. Projects tend to take from six up to eighteen months or more and may be blocked or cancelled due to several challenges independent of Calltic:

- **Financial:** no financial possibility for the operator, currency issues, no budget available for that particular year, etc.
- **Political:** internal conflicts, instable government, civil war, corruption, etc.
- **Commercial:** no current interest from the operator or a contract was already in place with a competitor with no step-out close.

- **Technical:** the solution requires installations in very sensitive places (Data Centers) at the operator's location and requires several authorizations (Security, IT, Compliance, etc.)

4.2.1.2 Option B - The customer does not know Calltic

With quite some years of experience in the telecommunication market, Ben might look for an operator online. Although, in the first place, he is much more likely to ask internal contacts (colleagues) or external ones (local counterparts, Regulator and his personal portfolio) for recommendations. This way, Ben Diallo hopes to be suggested the best solutions available in the market. This process is usually called World of Mouth (WOM).

According to Forbes (2017), WOM is the most valuable form of Marketing if people focus on connecting with each other. It was also confirmed a decade ago by Nielsen, one of the market leaders in Marketing audience. In some research, it was claimed that "*92% of customers believe recommendations from friends or family*" (Nielsen, 2022), which shows that human beings are always willing to share their experiences and be trusted.

This is indeed an excellent tool in the telecommunication world. Word Of Mouth is very well established and most operators get in touch with each other at GSMA meetings to share both positive and negative experiences. Operators in general, are more likely to give credit to a solution provider with proven records and recommendations. Providers with a good reputation can see some returns in addition to their Sales team efforts. So far, Calltic has been contacted around ten to twenty percent of the cases[6].

Back to our Fraud and Revenue Assurance persona, Ben Diallo will certainly expect certain things from these contacts, such as clear details about how the solution works, the price and the positive or negative aspects.

Remember that a challenge in the telco sector is the long-term vision, which makes it difficult to change providers. For a bypass solution, the duration is mostly between one to three years[7]. Some companies work year-by-year because of budgeting purposes. Since Calltic's solution requires a major capex (capital expenditure) investment that need to be written off, short-term contracts tend to be renewed year by year.

4.2.1.3 The ideal option

The option 1 seems like a perfect scenario commercially speaking as it means that Calltic has a better chance to do business faster. On the contrary, option 2 would mean that the company name is spread within the market and the sales team can focus on building the relationship with the prospects.

Reality is somewhat different. Calltic's sales staff needs to make the effort from 80 to 90 percent of the time. Calltic would like to organically attract prospects more often. For this analysis, option 2 will be considered as it looks more like what Calltic is facing. To bring some context, please consider that Ben Diallo received a recommendation from his local counterpart, who has already hired Calltic for a collaboration for one year and is very happy with the solution.

4.2.2 Interest/Research

4.2.2.1 Calltic's Website

Now that Ben Diallo has heard about Calltic thanks to the recommendation, he may start showing interest in the company and embark upon the first customer journey touchpoint which is a visit of their website. He will probably make a first visit from his computer to have a large screen and go through the different tabs to understand more about the company: what they do as a business (What),

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[6] Number provided internally as an estimation.
[7] Calltic's insights based on personal experience and member of the sales staff.

where they are from (Where), how the solution works (How), who is behind (Who) and also their current situation.

Find below a non-exhaustive list of Ben's probable expectations as a Fraud & Revenue Assurance Director in this step of the online customer journey. Note that these assumptions are based on personal sales experience in the field, real interviews with different actors in the sector.

4.2.2.1.2 Expectations

- One's native language version of the website.
- Company's story.
- Location.
- Staff presentation.
- Clear explanation on how the solution works.
- Free Proof of Concept/trial possibility.
- Confirmation that Calltic provides a radical anti-bypass solution.
- Customization of the solution.
- Speed of detection of the solution.
- Case studies showing some results.
- Confirmation of a very low false positives percentage.
- Confirmation of a privacy safe solution.
- Current customers list.
- Testimonials from customers.
- Countries where Calltic has business.
- Frequently Asked Questions.
- Contact information.
- Social Media integration.

4.2.2.1.3 Overall look

When analyzing www.calltic.com, the website may appear quite basic with a WordPress design. However, it is clear enough to understand what kind of business the company does with a strong message: "Solving SIM Box Fraud. Once and for all". This sentence can be interpreted in two different ways:

- "One time and for all the frauds": it looks like a very confident company in its capability to resolve the fraud.
- "One time, finally such a solution!": this has a more "savor" against bypass fraud feeling.

Ironically, the word "SIM Box" is used even though many companies employ the term "bypass". As explained earlier, "SIM Box" is a synonym of "bypass" and everyone is free to use the word according to their preferences.

The website is divided into the main following six parts that will be described further: Home, News, Services, Testimonials, Contact and Jobs. The colors seem in accordance with Calltic's logo, and it is assumable that the big turning globe shows the international side of the company.

Also, there are three available languages: English, French and Spanish. This is a plus for prospects like Ben Diallo as he expects the website to be in his native language: English. The fact that the website is translated also shows the international look of Calltic.
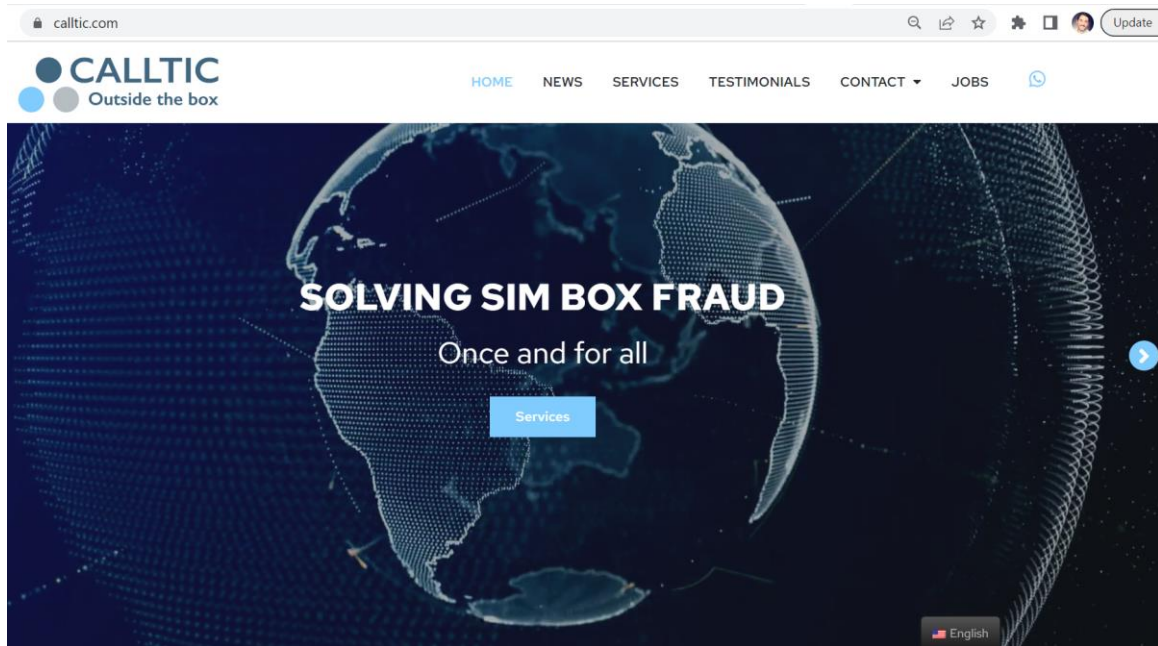
Figure 4-5 - Calltic's website home page (Calltic, 2023)

4.2.2.1.4 News

Either by clicking on the top of the website or scrolling down, the "news" section appears and shows that Calltic attends some GSMA events (for example: Barcelona and Mexico). This is positive because it means that the company is present in the international scene and invests in fairs attendance. Ben Diallo might have the chance to meet them in person if he and his team attend the same event. Besides this, there is no recent activity in this section nor a blog, which is regrettable.

4.2.2.1.5 Services

On "Services" section, appears a rather strong and persuasive message as per below (Calltic, 2023). Ben Diallo may understand that this is a totally radical and innovative approach. He may feel that this solution looks "*too good to be true*"[8] and trigger his curiosity, however no real explanation on how it works. It seems difficult to believe this type of promising message without having any proves yet.

> "*SIMBOX DETECTION - New approach*
> *Calltic has developed a radical new approach in telecom fraud fighting.*
> *Outside the box technology*
> *SIMbox interconnect bypass and IRSF have been the 2 largest fraud loss causes for telco operators for years now. Due to a completely new outside of the box technology Calltic is able to detect these types of fraud rapidly, accurately and effortlessly. With one single solution*"

When clicking on the "services" tab, a more detailed product description is available with graphs with some results of bypass fraud detection. These graphs underline an important decline and the positive impact between a post-Calltic and pre-Calltic situation. It also demonstrates that Calltic solution will help the companies get rid of fraud very fast, find all frauds and protect the network against countermeasures. With this, Ben Diallo might be a bit more convinced about Calltic but still would like to have some proves.

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[8] Insights once explained by their current customer in Central America

Figure 4-6 - Calltic's website services section (2023)

4.2.2.1.6 Testimonials

As a decision maker, Ben Diallo is very interested in current customers' testimonials as it brings more trust in Calltic and their solution. It also means that he can contact these people, get their own opinion and find proves that the solution actually works. As explain above, one of Ben Diallo's expectations is to see feedback from renowned telco operators in the bypass fraud market (MTN, Orange and Africell), more specifically in regions known to be struggling with this fraud.

Ghana is seen as the example in Western Africa, their government was experiencing a loss of around half a million dollars per month in 2019 (Pulse Ghana, 2019) before Calltic started to do business with the operators there.

On the website, Calltic provides four complete testimonials from different customers with an exhaustive interview with each of them. Ben was expecting some more references, but it is already convincing as a start. He will contact each of them and ask more insights.

4.2.2.1.7 Contact

Ben is looking for a phone number of Calltic's sales staff, but he only finds a contact form. He does not want to fill it in because he finds this too impersonal. He eventually finds a phone number and an "info" email at the bottom of the website with the company details. The fact that the office is in Gent (Belgium) is positive because it reminds him some great experience with a provided called Meucci Solutions (now Mobileum), that was also based in this region. What Ben did not notice at that time is that the CEO of Calltic (Guy Van Der Meeren) was one of the co-founders of that company. This is an important detail that will be explained in the interviews (Chapter 5).

4.2.2.1.8 About

Calltic provides a short presentation of all the staff members on their website: their position in the company, their picture, and a personal note. It may give the good image of a healthy workplace, with nice and motivated employees. Ben Diallo may feel at ease as there is a chance that they take great care of their customers.

4.2.2.1.9 Jobs

It looks like Calltic is hiring. It may be a sign that the company is growing in such a challenging and competitive market. However, Ben Diallo is not looking for a job so this section might not be too much of an interest to him.

4.2.2.1.10 Main frustrations

From this non-exhaustive analysis of the website, Ben Diallo may gather some useful information but also several frustrations:

- **Frustration 1:** the website looks a little too simple to completely believe the innovative solution.
- **Frustration 2:** Ben does not find the company history and how it was founded. There is not clear information about who is behind Calltic.
- **Frustration 3:** He is triggered by some graphs and descriptions of the service. However, he would like more transparency on the solution and concrete details: more information about the speed of detection, false positive rates, and some customer case studies.
- **Frustration 4:** there is a calling button on the top right corner of the Home page, but it does not work via the laptop, only from the phone version.
- **Frustration 5:** no Social Media integration has been created on the website, which is a pity if a prospect wants to check their LinkedIn page.
- **Frustration 6:** Ben expected a Q&A (Questions & Answers) to quickly answer to some questions and already clarify some doubts. He understands that he will have to wait for his first contact with the company.

Find below a table with a summary of Ben Diallo's reactions related to his expectations of information available on the website:

	Expectation	Reactions
WEBSITE	English vesion of the website	🙂
	The story of Calltic	🙁
	Location of Calltic	🙂
	The staff	🙂
	A clear explanation on how the solution works	😐
	A free Proof of Concept/trial possibility	🙁
	Understand that it is a radical anti-bypass solution	🙂
	Customization of the solution	🙂
	Detailed speed of detection of the solution	😐
	Some case studies showing some results	😐
	A confirmation of a very low false positives percentage	😐
	A confirmation of a privacy safe solution	😐
	Testimonials of customers	🙂
	The countries where Calltic is represented	😐
	Frequently Asked Questions	🙁
	Contact information	🙁
	Mobile Responsive	🙂
	Social Media integration	🙁

Figure 4-7. Ben Diallo's reaction on the website experience (2023)

Note that the website experience may be optional or postponed, depending on the customer journey. Indeed, this step might be skipped if the prospect decides to reach Calltic directly via LinkedIn (see following point 4.2.2.2 LinkedIn) or via a direct call (see the following section 4.2.3 Consideration).

4.2.2.2 LinkedIn

The B2B platform was chosen by Calltic as the main social media because it seems to be the best way for the sales team to reach out to new prospects and stay up to date on market trends. It is also the second touch point in the customer journey for Ben Diallo because he might find information that he missed in Calltic's website.

LinkedIn has reached over 900 million members worldwide and more than 63 million registered companies (LinkedIn, 2023). According to Forbes, this is the platform where most potential job applicants, customers and vendors go to learn about a business (Forbes, 2023). Africa and Middle East combined reach about 55 million users (LinkedIn, 2023) and it seems there is still a lot of room for them to grow in these regions.

4.2.2.2.1 Expectations

- Any missing information (or not clear) on the website.
- Professional Branding.
- Engaging profile.
- Employee's online presence and behavior.
- Sharing relevant information.
- Company size.
- Company location.
- Calltic's story.
- Number of followers.
- People in common.

4.2.2.2.2 Home page

In September 2023, the page showed 1325 followers which looks acceptable for a young and small company in this niche market. Indeed, LinkedIn recommends at least 150 as a start (LinkedIn, 2020). Ben Diallo sees that Calltic counts 17 employees[9] and it is an opportunity for him to check their profile and possibly start online interactions. It looks like Calltic has some fundings as well, which means that the company is trustful and trusted.

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[9] Different from 15 in the company description because LinkedIn also counts investors who linked to Calltic.
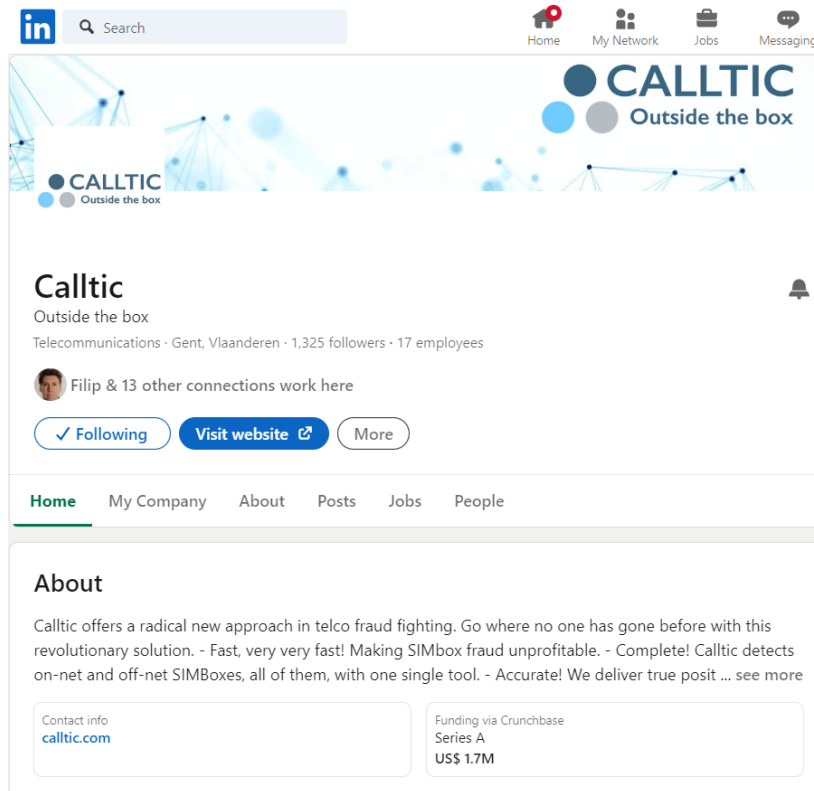
Figure 4-8 - Calltic's LinkedIn page (LinkedIn, 2023)

4.2.2.2.3 About

On the overview, Ben Diallo sees some similar information from the website but with slightly more details about two key factors: false positives and speed. He reads the following (Calltic, 2023):

"Calltic offers a radical new approach in telco fraud fighting.
Go where no one has gone before with this revolutionary solution.
- Fast, very very fast! Making SIMbox fraud unprofitable.
- Complete! Calltic detects on-net and off-net SIMBoxes, all of them, with one single tool.
- Accurate! We deliver true positives, no false positives. No more complaints from real customers.
- Effortless! Your fraud team has time to focus on other things. We will find the SIMBox fraud for you!
- Tackle IRSF with an optional feature on our same solution.
Stop losing money today! Feel free to contact us at info@calltic.com"

Ben also notices the company size from eleven and fifty people, the headquarters located in Gent and that the company started the business in 2017. However, the story behind Calltic and elements regarding their purpose remains absent. It is also missing their crucial message: mission, vision, and values.

4.2.2.2.4 Page posts

It seems that Calltic is not constantly active on LinkedIn and only a few posts are written occasionally. The lack of consistency as around twelve posts were published per year in the previous years. The main topics come off as:

- Attended events (for example: GSMA events).
- Customer visits in Africa.
- Hiring posts.

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Indeed, the post average seems week and to respect Ben's expectations, there should be:

- Interactions (comments and shares) from customers, employees, and influencers in the telco sector.
- Daily online engagement from Calltic.
- Frequent posts regarding the solution and the company itself.
- Blog posts related to bypass frauds and other frauds.

4.2.2.2.5 Main frustrations
- **Frustration 1:** Ben did not find more information on Calltic as he expected.
- **Frustration 2:** there is a lack of activity on the page.
- **Frustration 3:** there is a lack of relevant information on the company, the solution, and the bypass fraud.

Please find below a table with a summary of Ben Diallo's reactions related to his expectations on the LinkedIn:

Figure 4-9. Ben Diallo's reactions on LinkedIn experience (2023)

Note that the LinkedIn experience may be either optional or postponed, depending on the customer journey. Indeed, this step might be skipped if the prospect would be sufficiently convinced by the website and contact Calltic (see following chapter 4.2.3 Consideration).

4.2.3 Consideration

Ben Diallo's customer journey consideration phase with Calltic starts when he has gathered enough external and internal information about the company and the concept. The awareness and interest steps are now done since Ben is convinced enough by the potential of Calltic as a possible future provider. He likes to take risks and innovate. furthermore, his goal is to show his director that his team can reduce bypass fraud and money losses of the company.

There will be two major action steps: a contact request and several meetings. These will be gathering several touch points of the customer journey such as phone calls, emails, visits of the website and meetings.

4.2.3.1 Contact request

Ben Diallo may contact Calltic and request a meeting. The usual contact channels would be via email, phone, or the contact form in their website. He knows that the company is based in Belgium, but he does not know if there are any sales representatives in Nigeria. For that reason, Ben may first expect an online meeting.

It is important to be aware that the African culture tends to privilege much more interpersonal relationships. For this reason, people prefer meetings in person rather than online manners. However, the distance and the situation with the corona virus pushed companies to adapt. In telecommunication, operators invested in technologies and decided to be more open to a home-office culture.

Following the first contact with the sales team, several meetings will be planned throughout the whole process. Usually, those meetings are separated between different topics and expertise needed for the project: Fraud, IT, Security, Network, Purchase, Legal and Logistics.

In this step, Ben Diallo and Calltic will face the below challenges often end up delaying the project and bring frustrations:

- Ben Diallo is not always available.
- Ben's technical colleagues do not attend meetings and do not inform in advance.
- People do not reply to Calltic's emails or calls.
- There is no specific Project Manager at the telco's side.
- There is a lack of priority on the project from the operator's side.
- There might be technical blocking aspects (privacy, confidentiality, authorizations, etc.).

4.2.3.2 Meetings

As written above, the fraud team is very busy. After a first contact with Calltic's sales team, Ben planned the online meeting the following week. However, they had to call it off due to an internal emergency and didn't inform Calltic beforehand[10]. The sales team is experienced with this type of behavior in Africa and adapts to it. The same day, Ben Diallo is contacted by phone or email to agree on a new meeting date.

A few days later, the first meeting eventually takes place. Ben expects an exhaustive sales presentation from Calltic and learn more about the solution, the figures of the current results, some practical information, concrete examples of frauds, testimonials and also some other solutions the company proposes. He may require as many details as possible so that he can defend the project to his directors in case of a confirmed interest. Calltic will also prepare a list of information and ask specific questions to fulfill their KNC (Know Your Customer) objective. There is a bunch of crucial data needed for Calltic to understand the current fraud impacts on the telco network: the average minutes of fraud, average

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[10] Note that this is not always happening and cannot be a blind generalization. However, it does happen quite often based on sales experienced.

blocking time, ITR (International Terminal Rate) cost per minute, current solution(s) in place, expectations from the customer and budget available.

Ben received very positive feedback of the solution from counterparts and is now looking forward to testing it with a Proof of Concept (PoC). As mentioned earlier, Calltic is willing to stop the PoC system because the Directors consider that the company has enough proves that it works, meaning that it could directly start with a paid service. However, Ben Diallo claims that his network is different, and it is mandatory for him to see proves. He also wants to compare the effectiveness with other providers before he makes any decision. Depending on the case, the Management will analyze the situation and negotiate with the operator. The customer journey may either follow with a PoC contract or a commercial contract, depending on the scenario. For this case, we may consider that Calltic and Ben Diallo have reached an agreement for a PoC for one month.

The following weeks will be focused on different technical meetings with Network, IT and Security departments. The objective is to have a feasibility study to validate all Calltic's requirements. A project manager will be dedicated to the project for both entities: one for Calltic and one for the customer.

4.2.4 Implementation

The implementation phase is reached now where the technical requirements are validated which leads to a pre-agreement between both companies. The Implementation phase is divided into four main steps: Sales visit, Shipment, Installations, PoC Live and Negotiation. Note that the order may vary depending on the project.

4.2.4.1 Sales visit

One member of Calltic sales staff travels to Nigeria for several days. He will meet Ben Diallo in person and everyone else commercially involved in the project (Fraud team, Purchase, Finance, Wholesale, etc.). The stay may usually be around four to five days depending on their availability. The solution may be presented again to individuals who were absent in the first meeting. Ben also expects a price proposal to proactively prepare the budget and request approvals. In the meantime, he is asked to revise Calltic's Proof of Concept contract and have it signed by his upper Management.

4.2.4.2 Shipment

Once the PoC contract is signed by both parties, the equipment will be shipped from Belgium and will go through different phases before it reaches the operator's warehouse in Lagos, Nigeria. This step may take from one to eight weeks depending on the country and the customs procedures. Hopefully no boxes will be lost or blocked.

There are exceptions. "No contract, no service" is a known rule in the business-to-business world. However, the African culture does not always see it this way and projects might take more time than planned. It is possible that Calltic may have to adapt and be flexible by shipping the goods before the PoC contract is signed. A confirmed pre-agreement with the operator and an official letter from the CEO could help.

4.2.4.3 Installation

As soon as the equipment reaches the telco's facilities, Calltic's Project Manager will travel to Lagos and plan all the meetings to proceed to the installations in the different locations. In the meantime, Calltic's Operations and IT teams are being introduced to prepare the analytical (fraud analysis) and IT (VPN, traffic, etc.) parts.

This part of the project takes months and may be frustrating for Ben Diallo because he would like to start as soon as possible given the fact that the fraud level has begun to increase again. Calltic may be clear on the expectations and always communicate with Ben by mail, online meetings, or phone calls to avoid misunderstandings and poor customer experience.

Calltic's sales team is also left aside as this step involves more technical roles, so they need to stay in touch with him in order not to lose the contact. As Operations team is now the main contact, they will involve them whenever they have the possibility.

4.2.4.4 PoC Live

When the phase above is fully completed, the Proof of Concept may start and thus allows the Operations team to work on the frauds. The duration will be one month which is enough to evaluate the solution and the effectiveness of the solution. Bear in mind that most of the time, operators use PoC to compare a solution with their current one. The evaluation will be done by Ben Diallo and his team based on agreed Key Performance Indicators (KPIs):

- Excellent results.
- Bring fraud level to the lowest possible.
- Speed of detection.
- Low false positives rate.
- Exhaustive and clear fraud rapports.
- Customer service level with Operations Team.

4.2.4.5 Negotiation

After two weeks of service, Ben Diallo is very satisfied with the first results, and he is now totally convinced that he wants a collaboration. From that time, he decides to stop the contract with his current provider and collaborate with Calltic instead. He will contact the sales team to discuss contract conditions and price negotiations with the Purchase and Legal departments. It is important to remember that the PoC is one month. Ben is now having to face short deadlines and may need to act fast to avoid a period in which they are not protected against bypass.

Meetings will certainly start online as sales will pro-actively organize another visit in person in the coming weeks. Of course, the contract may be signed only if both parties find an agreement. Discounts and legal exceptions (special payment term, clause for convenience, etc.) will most definitely be requested by the customer. The negotiation phase may continue in the Purchase stage due to very slow processes on the operator's side.

4.2.5 Some exceptions to the rule

Note that the Pre-purchase step might be skipped depending on the project and the telco operator involved. Indeed, two exceptions can be found in such process: a direct implementation via a Group Frame Agreement or an extended process via a request for proposals. These aspects may completely change the customer experience as it will respectively either shorten it or make it much longer. In both cases, it looks like the awareness stage is the most important phase to grasp a business opportunity.

4.2.5.1 Global Framework Agreement (GFA)

Considering that Calltic is already well known and signed a Global Framework Agreement with a Group, the decisions may directly impact all the entities. As an example, an operator receives the request from their Group Headquarters to work with Calltic and must follow their indications. It will somewhat skip the Interest and Consideration steps and the Proof-of-Concept part. The negotiations will also be avoided since the price will have already been agreed and fixed via the group contract.

It may appear as a great option for Calltic which will save some valuable marketing budget thanks to their proved effectiveness. However, it makes the customer journey look more impersonal when the operator seems to be forced to work with Calltic.

Notice that some groups do not force telcos operators to work with a provider. They make suggestions instead and let them choose freely whatever provider they desire to work with, except if the provider is blacklisted due to unsatisfactory performance or poor reputation.

4.2.5.2 Request For Proposal (RFP)

This is an official procedure from the operator and every department in the company needs to respect it. In this case, Fraud Manager must follow the process and cannot choose a specific provider. In the contrary, they must challenge several providers at the same time via a Request for Proposal. They may request a Proof of Concept to all the providers and analyze which solution enables the best technical results and the best financial offer for the company. An RFP is however less convenient because of little flexibility, strict rules, and long delays.

In the case, an outstanding marketing and sales strategy needs to be in place to make sure that Calltic is contacted when the operator decides to start an RFP.

4.3 Purchase Stage

The purchase stage is reached when Ben Diallo and his colleagues are seduced by the Proof Of Concept results, the service and the whole customer experience offered by Calltic. It will give rise to price negotiations, the contract signature and the officialization of their collaboration. As explained above, discussions may already start in parallel within the pre-purchase stage, depending on the progress made during the PoC. As a commercial gesture, good will and flexibility, Calltic will not stop the service between the end of the PoC and the final agreement. The reason is that there is a high chance that bypass frauds come back, which would be a considerable negative effect on the customer experience. This gesture may be considered as a big plus for Ben and his company.

4.3.1 Contract signature

If no agreement is reached during the pre-purchase, discussions will carry on until both companies are satisfied with the conditions. Not only will Ben Diallo sign the documents but also Management people such as the CFO, CEO, and the Legal Manager, depending on the company structure. Calltic will do what is necessary to speed up the process, but they expect constant delays from the customer. The main touch points in this stage will be phone calls, WhatsApp, emails and online or personal meetings.

4.3.2 Officially live

The contract has been signed and the official collaboration can begin. Calltic will start invoicing for the monthly service. Ben's expectations on Calltic at this point remain the same as the PoC step: excellent results, pro-activity, weekly meetings, and reports, etc. He also expects Calltic to propose some new possible features to the solution in the following months.

4.4 Post-Purchase Stage

Ben Diallo was convinced. Calltic is now an official provider after a non-negligeable period. He is proud of his choice because of the accuracy and relevancy of the solution. The post-purchase stage is crucial to secure a long-term collaboration and Calltic will make sure that the customer experience is exceptional. There will be two main steps throughout this period.

4.4.1 Follow-up meetings and reports

Ben expects an excellent customer service from the Operations team and clear communication by email, phone as well as even online meetings. Calltic's analysts will work closely with the operator's analysts to share detections, suspicious behaviors, and new trends. Weekly and monthly reports will be shared, and weekly meetings organized. Ben Diallo may also expect an increase in the international incoming calls revenues as a logic step when bypass fraud decreases but it cannot be promised[11].

Calltic's sales team will also stay in touch with Ben Diallo and make sure that he is satisfied with the company. There will also be communications to follow-up on cash collection and Ben Diallo should

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[11] Statement based on experience in the bypass fraud market. However, this is not a one hundred percent fact and will depend on the specific country, operator, and international call trends.

make sure that invoices are paid. Indeed, it seems common that a thirty-day payment term in Africa converts into a sixty-day (or more) payment term[12]. Calltic will be flexible, but they may temporarily stop the service if too many unpaid invoices are accumulated.

4.4.2 Sales visit

Calltic's sales team will organize meetings in Lagos around once or twice per year as commercial visits. It is always a good opportunity for them to get some feedback, stress on the excellent results and propose new features. As explained in the previous chapters, the African culture is based on human relationships and person-to-person discussions. Focusing only on digital means may affect the collaboration and open the door to other providers.

4.5 Renewal Stage

The renewal stage is that last part of the customer journey and a crucial moment for Calltic in which all their work during the collaboration will be reviewed. The objective for the company is to ensure Ben Diallo is convinced to proceed to a renewal of the contract.

4.5.1 Contact and sales visit

The service and solution remain the same. The important tasks in this stage rely more on sales team that must persuade Ben Diallo to continue the adventure and opt out for a renewal. The process starts around six months in advance where sales will make personal visit in Lagos and start new price discussions. Ben may expect:

- An annual report with the results.
- New features as added value.
- New products.
- A loyalty discount for long-term collaboration.

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[12] Based on sales experience as a member of the sales staff at Calltic

5. Interviews

After the analysis of a typical online customer journey with Calltic, it was noticeable that one of the most crucial objectives would be to appear in the awareness of the Pre-purchase stage. Indeed, if Calltic seems still unknown in some regions[13] probably due to the young age of the company and they might indirectly miss out on opportunities to do business.

Drawing upon observation is a first step and it appeared logical that interviewing real actors in the sector would help have clarifications on how the market and operators work within the African continent and how people behave when we focus in online marketing. The final purpose of the interviews is to bring more practical information regarding the online customer journey and understand better the behaviors of buyers in the bypass niche market in Africa.

The choice of the methodology for this thesis lead to a qualitative analysis of the subject because the timeframe did not seem reasonable to opt out for a quantitative analysis. Some quantitative surveys would be an interesting future phase to validate and quantify the qualitative data and bring new findings (Saunders, Lewis & Thornhill, 2009).

The sampling was carefully chosen according to profiles of prospects and customers that Calltic will be focusing on. It was also crucial to diverse the chosen regions and have a wider idea on telco operators within the African continent. The following criteria was used to choose the right people: position, experience, decision making, region and availability.

5.1 People interviewed

The people interview have an experience of between five and fifteen years of experience in the anti-fraud business. Note that some of them are customers and others are prospects, which also gives neutrality to the information received. Due to the different locations and time zones, the meetings mainly took place via online meetings with Teams. The reader may find the complete interviews transcriptions in the annex V.

5.1.1 Stéphane Tella - Orange Group - Online meeting on 03/07/2023

Stéphane Tella is based in Paris, France. The name of is position is International Fraud & Revenue Assurance Manager. Stéphane has been working for the Orange Group since 2004. He joined the Fraud Team in 2009 and has thus almost fifteen years of experience in the fraud business and is the main contact with French-speaking entities in Africa but also around the world. His objective is to give support these entities in terms of fraud and making sure that they follow their responsibilities in terms of telecommunication fraud control.

5.1.2 Nelson N'Goran - Orange Ivory Coast – Online meeting on 09/08/2023

Nelson N'Goran is in his thirties and originally from Ivory Coast. After living his childhood in England, Nelson starts his studies at Bangalore University in which a completes a master's degree in computer sciences. He starts his career in the Fraud sector with MTN Ivory Coast for six years to eventually join the competitor, Orange Ivory Coast, to start a position as manager. He is now based in Abidjan, where Orange's headquarters are situated. His current position is Fraud Revenue Assurance and Risk Management Manager. He reports to his direct manager: the CFO.

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[13] Based on personal experience and people's feedback as an employee of the company

5.1.3 Alhassane Diallo - MTN Guinea - Online meeting on 22/08/2023

Alhassane Diallo was born and raised in Guinea. He has been working for MTN Guinea since 2015 and experienced different positions before joining the fraud team 3 years later. He left the company in 2020 for another opportunity, hence came back one year later. He is now responsible of the section and has been leading the team since 2021. He is based in the capital of Conakry. His position is: Revenue Assurance and Fraud Management Team Lead. He reports to his direct manager: the CFO.

5.1.4 Tarik Benabdillah - Inwi Morocco - Online meeting on 25/08/2033

Tarik Benabdillah was born and raised in Morocco. He is in his forties and has been working for more than ten years at Inwi Morocco. He joined the company in 2009 and has always been part of the Fraud team. In 2021, Tarik joined the Management team and leads the fraud team. His position is: Technical Fraud Manager. Tarik reports to his direct manager: Mohamed Temsamani (Revenue Assurance Director) who is very well known in the Fraud Business because of his experience with many different anti-fraud technologies. Inwi headquarters are based in Casablanca.

5.1.5 Lyla Lassal - Ooredoo Algeria - Online meeting on 21/09/2023

Lyla Lassal was born and raised in Algeria. She studied at HEC Algiers and has been working in the telecommunications sector for more than twenty years. She started the fraud business in 2005 at Djezzy Algeria and joined the Management team in 2010. She eventually starts a new position at the competition, Ooredoo Algeria. She has now been leading the Fraud team at Ooredoo since 2018. Her position is: Revenue Assurance Operational Director. She reports to her direct manager: the CFO.

5.2 Questions & expectation

5.2.1 Questions

The interview was divided in four different categories: General, Pre-Purchase, Purchase and Post-Purchase which are the main phases from the online customer journey. It seemed important to separate the questions and lead the interview in such a way that that focus would be made on each phase. The goal was to compare the findings of the different interviews and see if there is a correlation between them.

It would have been ideal to make the interviews in person, however the international context of the research did not give the opportunity to travel and thus the option of online meetings seems to be the most effective choice.

The complete list of questions can be found on the Annex IV.

5.2.2. Expectations
- Decision maker's insights.
- Preferred sales channels.
- Specific Bypass features expected to find online.
- Key words + platforms used.
- Specific online presence possibilities.
- Online strategy insights for Calltic.
- Specific Calltic features expected to find online.
- Customers' pain points.
- Importance of feedback/testimonials.
- Sales/Online interaction.
- Improvements for Calltic.
- Seek for good experience.
- Online persuasion.

5.3 Observations

5.3.1 General

5.3.1.1 GSMA

The interviews confirmed the importance of events and forums organized by the Global System for Mobile Communications Association (GSMA). Indeed, they are crucial for telco professionals to be informed about new trends in fraud prevention. This type of events gathers Fraud Managers for the purpose of networking and discussion about anti-fraud solutions such as Calltic. Tarik Benabdillah certified: "*our main source of all anti-fraud news is the GSMA and all that goes with it*" (Translation from French - Tarik Benabdillah, 2023) and Stéphane Tella mentioned that: "*Today, I'm not even Googling. I'm going to look on the GSMA, via the FSGA forum*" (Stéphane Tella, 2023). However, according to Lyla Lassal, she does not see the need to attend to these events.

Besides GSMA events, Alhassane Diallo and Tarik Benabdillah stressed on the fact that Calltic should organize their own events, by inviting their customers and prospects, proposing workshops, share case studies and exchange information. This idea may indeed strengthen Calltic's image, hence requires a consequent budget because Calltic would have to cover all the expenses. This type of workshops may be an option once the company as grown. Instead, they could start with online workshops.

5.3.1.2 Group level

In addition, Stéphane Tella and Alhassane Diallo commented that Group communications towards their entities is also very helpful. They provide them updates about new technologies in the market. Both believe that a Global Frame Agreement and a good communication with Groups will always be in favor to the provider. Note that Groups do not usually push entities but only recommend the tool, positively or negatively. Stéphane Tella explained:" I'm *always interested, and I've always pushed the subsidiaries to accept PoCs. After that, if it's something we know about and it has not worked, we will tell them that it's not relevant*" (Translation from French – Stéphane Tella, 2023).

5.3.1.3 LinkedIn

Lyla Lassal and Nelson N'Goran explained that they daily use LinkedIn to see posts from telco professionals and interact within groups as well. Alhassane Diallo sees LinkedIn as a platform for salespeople where Fraud Manager like him are always contacted. Tarik Benabdillah added that he uses it and likes it, but he is not convinced that everyone is active in the platform.

Surprisingly, neither Nelson N'Goran, Tarik Benabdillah, nor Alhassane Diallo were aware that Calltic existed on LinkedIn. It is difficult to make hypotheses to understand the reason but it can bring to different options that may be tested: a) Should Calltic invest on LinkedIn Ads?, b) Is the prospect focus enough on LinkedIn regarding a new provider?, c) should sales staff promote the page when presenting the tool?, or d) should sales interact with the customer first and then promote the page?.

According to Lyla Lassal, Calltic should be more present on LinkedIn and communicate more with the Fraud community by sharing, commenting, and publishing content with customers and prospects.

5.3.1.4 Newsletters

Both Lyla Lassal and Tarik Benabdillah mentioned newsletters as another tool often use to get information. Tarik considers that any Fraud Manager should be using all communication means, including emails and newsletters. This statement is a contradiction to Stéphane Tella and Alhassane Diallo who informed that they do not read emails because they do not have time. The hypothesis for this topic is that it probably depends on each person and their priorities in their work.

5.3.1.5 How did they know Calltic?

Stéphane Tella and Tarik Benabdillah noted that they initially know Calltic thanks to the CEO Guy Van Der Meeren because of his presence and expertise in the anti-fraud industry for twenty years (Meucci

and Sigos). Guy could use it as a leverage to share his expertise on LinkedIn and influence the online community. On the contrary, Lyla Lassal, Nelson N'Goran and Alhassane Diallo heard about the company thank to Calltic's sales teamwork during prospection. There is not a clear reason explaining both scenarios, the hypothesis is that it depends on the experience of each actor and how they behave as customers.

5.3.1.6 Calltic's website

As explained in the previous chapter, the website is lacking details and transparency about the solution and its functionalities. Stéphane Tella and Nelson N'Goran expressed that such an "empty" website does not give trust to a company even though they understand that the company needs to protect itself from competitors. In this case, they are fine to receive more information during further meetings. In contrast, Tarik Benabdillah informed that he is totally satisfied with the information on the website. According to him, the most important aspect of a solution is the Proof of Concept. Moreover, Alhassane Diallo did not need to check it because he already had all the information needed from MTN Group to be convinced. According to Lyla Lassal, providers' website is always the same message, so she prefers to join Tarik's logic and focus on a PoC. Stéphane claims that he liked the marketing message "Fast, very fast" and "Radical new approach" but he requires more details for the three statements by saying, for example, that solution can block a fraudulent number in one call or after thirty seconds. He added that "Untouchable by countermeasures" is a very good message hence it should be on the top of the list. Calltic could make some extra research on the use of these words in their online communication and check the impact.

5.3.1.7 Cultural differences

An important note from Tarik Benabdillah is that behaviors might not only depend on culture from the country but also on the company culture and its priority on the bypass frauds (or any other type of frauds). It has not been asked or confirmed by the others, but this topic is worth the reflection.

5.3.2 Pre-purchase

5.3.2.1 References & case studies

We have seen in the analysis of the customer journey how references and case studies can be crucial before a purchase decision. According to Nelson N'Goran and Alhassane Diallo, they are mandatory for them to consider a new provider. They always contact other Group entities or local counterparts and request their feedback about the quality of the solution. As member of Orange Group, Stéphane Tella confirmed that he systematically informs the entities about a new product, but only when it has been approved by the Group. He also suggested that Calltic should have more case studies testimonials on their website, especially for Latin America. Conversely, Lyla Lassal does not trust references because she claims that a solution may work in a region and not another one. Tarik Benabdillah confirmed the same information and prefers rather to directly challenge the provider: "*Before acquiring the solution, we do a PoC. We create a real challenge for the solution. Because the fraud context changes from country to country*» (Translation from French - Tarik Benabdillah, 2023).

5.3.2.2 Google

Stéphane Tella does not believe in Google Search to look for a bypass solution. He believes that actors in the fraud industry always refers themselves to the GSMA. Nelson N'Goran thinks quite the opposite: "I *always look on the internet via Google. First, I do a search, then I analyze the different solutions that I find*" (Translated from French – Nelson N'Goran, 2023).

Google ads seem to be helpful for Calltic to appear on the top rank. However, Nelson N'Goran claims that a company making ads may appear as unstable and issues to gain customers. On the contrary, Tarik Benabdillah believes that companies doing ads and SEO campaigns could be financially very healthy but offering a bad solution. On the contrary, Alhassane Diallo and Lyla Lassal are fine with Google ads.

The common Google Search keywords would be:

- Nelson N'Goran: "Bypass -profiling-TCG" and "Bypass simbox"
- Alhassane Diallo: "simbox", "bypass" "detection de bypass" and "detection de simbox"
- Tarik Benabdillah: "Bypass telecom", "Interconnection fraud", "Telecom fraud solution" and "Bypass fraud"
- Lyla Lassal: "Fraudes SIM Box", "Fraudes Bypass"

5.3.3 Purchase

5.3.3.1 PoC

Stéphane Tella and Nelson N'Goran also stated that a Proof of Concept is crucial to check the effectiveness of the solution and validate a new provider. Moreover, the technology and technical aspects should be underlined. It was confirmed by Tarik Benabdillah as their operator likes to challenge providers and systematically requires, as explained above, a proof that the solution works in their region.

5.3.4 Post-purchase

5.3.4.1 Corporate events

Alhassane Diallo and Tarik Benabdillah suggested Calltic to organize workshops or trainings to Calltic's customers because, it would strengthen the image to Calltic according to them.

As customer service experience, Lyla Lassal claimed that she expects a dedicated team with weekly reports and meetings. Added to this, Tarik Benabdillah expects Calltic to align on fraud trends and requires very close follow-ups and be a partner for win-win collaboration. Stéphane Tella also gave importance on the Return On Investment (ROI) for the entities

5.4 Conclusion of the interviews

The interviews confirm that there is a challenge to make a generalization of a typical profile. There are too many differences between profiles and how they behave. The information provided varied much from one person to another, depending on regional and cultural habits. Moreover, the company culture seems to have a powerful influence in the way of making decisions and maybe different than the local culture. For example, MTN Guinea is managed by MTN Group which is in South Africa and Ooredoo Algeria is managed by Ooredoo Group in Qatar.

Still, it is possible to notice the importance of need for online presence on the internet such as Google, LinkedIn, and a request of a well-made website. Moreover, many insisted on the power of testimonials and references that will strengthen any bypass fraud provider. Using Guy Van Der Meeren's image could be an interesting way to communicate online due to the trust people have in his expertise.

Hence, this small sampling does not allow to write clear and advanced conclusions according to the people interviewed. A much wider sampling and focus by region; and a deeper analysis divided by subjects (LinkedIn, Website, corporate events, etc.) would be needed to conclude with more accuracy the behavior of such profiles. However, this would require a qualitative analysis beyond the scope of the dissertation (too many people). More theoretical and practical research were made to understand the customer journey and provide some recommendations that will be explained in the next chapter.

6. Recommendations

The previous chapters gave rather clear ideas on the critical parts of a customer journey with Calltic, and in which stage some efforts need to be made. The objective of this chapter is to recommend tools and strategy that Calltic may put in place to propose a better online experience and attract more prospects. Understand that there will not be recommendations for all the touchpoints but only the ones that are crucial to Calltic and where the earlier analysis proved that improvements need to be made.

6.1 Personas

As explained previously, creating personas is vital for any company to have a picture of their ideal customer and create personalized content for them. The Digital Marketing Institute explains: "*Personas provide valuable insights that you can use to convey your message to the right audience at the right time. They also enable you to perform market research, targeted advertising, usability testing, and keyword research more efficiently*" (Digital Marketing Institute, n.d.).

According to an article published by the international audit company Deloitte, "*client-centric companies are 60% more profitable compared to companies not focused on the customer*" (Deloitte, p.5, 2017). This shows how important it is to create personas and focus on clear marketing strategies based on these targets. Furthermore, the British media Startup Magazine confirms that "*Marketers who use buyer personas enjoy 73% higher conversions than those who do not*" (Startups Magazine, n.d.).

Using personas may also help Calltic save costs that they could use for other business means. The Global management Consulting Company McKinsey confirms that "*Personalization reduces organizations' marketing and sales costs by 10-20%*" (McKinsey & Company, 2020)*.

Three examples were described in the chapter "3.6 Personas" to already give Calltic a good idea of the typical individuals that might be looking for a solution such as Calltic:

1. Fraud and Revenue Assurance Director
2. Senior Fraud Analyst
3. Fraud Manager - Group Level position Persona

There could be plenty of other personas suggested to Calltic's Marketing team for some very specific stages of the customer experience such as:

1. Wholesale: interest (Pre-Purchase)
2. Technical: installations (Pre-Purchase)
3. IT/Security: installations (Pre-Purchase)
4. CEO: signature of the contract and renewal (Purchase and Post-Purchase)
5. CFO: signature of the contract and renewal (Purchase and Post-Purchase)

This is up to the company to do research and understand which persona should be added for which touchpoint. However, it may be preferable to first focus on the three previously proposed and fine-tune them. It is recommended to constantly update them. Indeed, they change as digital era changes with phenomenal situations like covid-19.

Individual interviews with customers may be an excellent tool (see chapter *"5. Interviews")*. Adele Revella, author of the book "*Buyer Personas: How to Gain Insight into your Customer's Expectations, Align your Marketing Strategies, and Win More Business*" (Buyer Persona Institute, 2022), claims that "*…ten interviews is going to tell you everything you need to know. This is qualitative research that can be done by spending 20 to 30 minutes…*" (The Marketing Meetup, 2021).

Also, some surveys would be of use to get as many details as possible: numbers, budget ideas, pain points, purchase behavior, frustrations, etc. Calltic may also analyze prospect social media such as LinkedIn to know more about them and therefore see what other potential customers Calltic has in common.

One may put some extra care on making a clear difference between creating a Buyer Profile and a Buyer Persona. The first one is created for all the solution Calltic may provide when the second one is specifically created with data from research and aiming one specific solution (ex: the bypass solution). You will find a comparison below:
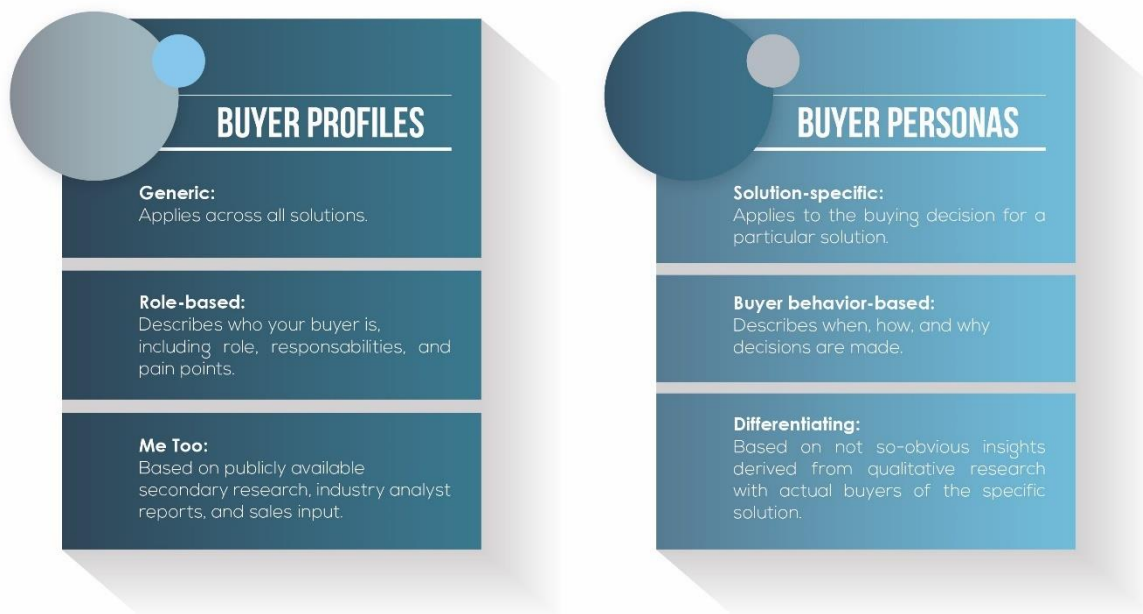
Figure 6-0-1. Difference between Buyer profiles and Buyer Personas (Buyer Persona Institute, 2022)

From what was observed in the previous analysis, creating Personas will be important mainly for the Pre-Purchase, more specifically for the awareness and interest/research steps of the customer journey. It may also be relevant to imagine later the use of the personas in an online strategy for other steps such as post-purchase with the use of the solution and the renewal process.

6.2 Digital Marketing strategy

Ben's online customer journey showed that he searched for Calltic directly by typing "Calltic" because the company was recommended to him. However, it might be important to consider the situation where Ben would have decided to do some research on the internet himself.

6.2.1 Owned, Paid and Earned Medias

Before Calltic applies for the recommendations, it is key to understand the three vital components that will be put in place: owned, paid, and earned medias. Find below a short description:

6.2.1.1 Owned

This is the content that the company owns, controls and share on its own means and resources. Here are some examples:

- The website.
- A blog.
- Email campaigns/Newsletters.
- The LinkedIn pages.

6.2.1.2 Paid

This is the content that the company pays for, to have its content visible through publicity and investment in Search options. The Paid media will generate traffic on the owned media. Some examples:

- LinkedIn Ads.
- Google Ads.
- Retargeting.
- Affiliate.

6.2.1.3 Earned

The company does not own the content. However, it makes the company more visible without additional costs. Some examples:

- Article from medias.
- Blog posts from influencers.
- Shares, likes, comments, and mentions from the audience.
- Influencers content.
- Reviews.
- Calltic content published on other platforms.

6.2.2 Action plan

From what was observed earlier in these writings, Calltic has a more passive activity using Owned Media and some Earned media as per below:

Owned	Earned
Website	LinkedIn Likes
Linkedin	LinkedIn shares
Newsletter	
Emails	

Figure 6-0-2. Calltic's Owned and Earned Media

A recommendation is that Calltic may want to combine all the medias (owned, earned, and paid) to have a better online visibility for their customer targets. However, it is crucial for them to have a clear action plan. According to Gallic and Marrone (*Le Grand Livre du Marketing digital*, p64-68, 2020), they must be able to define the 5W+2H rule as explained in the following lines:

- **Why:** what is the objective we want to reach? And how can our online presence make us successful?
- **Who:** who are our specific targets? How are we going to segment them for customized messages?
- **What:** what will we say? What messages do we want to share? What words are we going to use?
- **Where:** which channel are we going to use? What will work best between our website, LinkedIn page and newsletters?
- **When:** which day and at what time should we publish?
- **How:** how are we going to do this? Should we do it ourselves or hire an agency?
- **How much:** what is our budget and how much can we afford?

6.3 Google performance

6.3.1 Google Company Page

By creating a Google page, it will increase online visibility for Calltic. According to a global survey (ThinkwithGoogle, 2020), more than 50% of shoppers surveyed said that they use Google to discover new brands and 49% for a new product. When a potential customer makes research of "sim box fraud solutions" or the name of the company, Google created a system that Companies' page appears in the listing of "Google My Business". Making a Google Business page is free and does not take long. This recommendation is probably worth the time and consideration.

It is a powerful tool to make a good first impression and increase the organic traffic on the website and LinkedIn page. Calltic can add the following relevant information:

- Website.
- Phone number.
- Location: a street address and service area.
- Location in Google Maps.
- Photos.
- Services description.
- Customers have also a possibility to ask questions.
- Reviews about Calltic can be made and increase the chance of Calltic to be seen and trusted.

As soon as a search is done with relevant keywords or the company name, Google My Business listing appears prominently in the search results, providing essential information about Calltic right on the search engine page. Moreover, Calltic would have the possibility to track the performance of the Business page. Google provides the number of profile views, calls, website clicks, etc. with personalized time frames. A full list of reporting is available on Google's website (Google Business Profile Help, n.d.).

6.3.2 Google in Africa

Taking African continent as the target market for Calltic, statistics (StatCounter Global Stats, 2023) show that Google is also dominating the search market share in the continent with 96.85% in the last twelve months (desktop, tablets, and smartphones). Calltic may want focus on all the tools that Google can offer to boost their online presence and evolve the online customer experience in the Pre-Purchase phase.

The African digital market is growing, and more people have access to technologies nowadays. According to Google itself (2020) and the International Finance Corporation: "*Since 2000, the number of people with access to the Internet has grown to over 520 million, or almost 40% of the population. Sixty percent of Africa's Internet population accesses the Internet through mobile phones, and an increase of 10% in mobile Internet penetration*".

In the Maghreb region, Morocco became the country with the biggest internet use with more than eighty-eight percent of penetration in Africa (desktop and mobile) in 2023 (Statista, 2023). Google (2020) also added that "*By 2025, the Internet economy has the potential to contribute $180 billion to Africa's economy growing to $712 billion by 2050*".

6.3.3 Google Reviews

Google Reviews are crucial for a company especially when the reviews are positive because they directly influence the customer's decision to click on Calltic's website or LinkedIn page. Dexa, a Copenhagen-based software company, confirms from their own research (2023) that "*97% of participants said customer reviews factor into their buying decisions. And 92% of consumers hesitate to make a purchase when there are no customer reviews*". Moreover, reviews can be an excellent asset

for a better position in Google Search and increase the clicks rate. Indeed, Google (2023) uses algorithms that will reward high-quality reviews and content showing expertise.

In the case of Calltic, the purchase may be much more complex because of the many other factors (cultural, economic, political, and technological) that directly or indirectly influence the customer experience. However, the purpose of seeing reviews enables the customer in their decision to get to know more about the company and the bypass fraud detection solution.

The purpose of this recommendation is to suggest that Calltic prepares a campaign and ask some of their customers to put an honest review in exchange of an incentive (discount, free feature, etc.). Expert employees may also be invited to write a high-quality review. An exhaustive list of Google's recommendations is available on their website.

Reviews can also be a risk especially when they are bad. This may be a threat for the online success of Calltic and its reputation. A study (Dixa, 2023) mentions that "*86% of people hesitate to do business with a company if it has too many negative customer reviews*". Calltic may want to be vigilant in monitoring the reviews and spot the fake ones. For example, someone from the competition with some bad intentions, could write a fake review and put Calltic's online reputation at risk. However, Google gives the opportunity to report a fake review if it violates the policies. In the meantime, there is a possibility for the marketing staff to respond to the review and defend the company in case of a bad review.

6.3.4 Google Search Engine Optimization (SEO)

6.3.4.1 Definition and concept

Cambridge University (2023) defines Search Engine Optimization as "*methods of making sure that the address of a website is shown near the top of the list of results of an internet search*". In a more business context like Calltic, it should be combined with the following definition: the method of improving a website to increase its visibility when people search for a bypass fraud detection solution.

The Search Engine Optimization is a key for Calltic in their online strategy and some investment will have to be made. More than 96% of the African users (Sub-Saharan and Maghreb combined) use Google Search as their main tool (Statcounter Global Stats, 2023). There are other alternatives than Google for the SEO such as DuckDuckGo, Qwant and Ecosia. However, as Google is dominating the global market, chances for Calltic to reach their target on Google might be much higher than any other tool.

Google uses an algorithm that is constantly evolving and seeking to give the best and most relevant results to the users. The algorithm takes many aspects into account that requires optimization:

- The website content and keywords used.
- The structure of the website content.
- The technical part of the website (server and Content Management System used).
- The popularity of the website.
- The page load time.

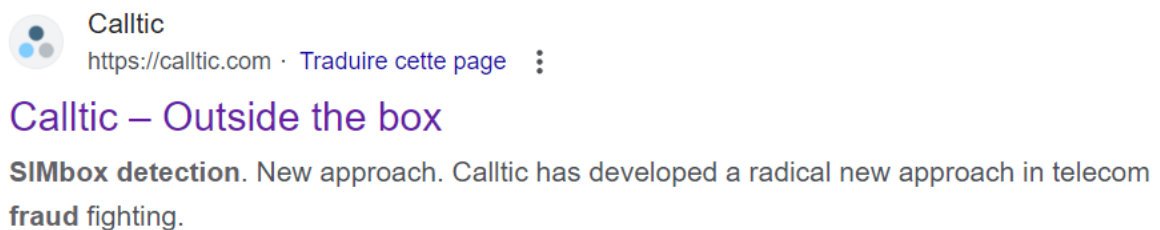### 6.3.4.2 Research of a bypass fraud solution

Find below a table with some examples of keywords used in Google Search for bypass fraud solutions. The list is based on experience and on keywords proposed by the professionals in the chapter 5 "Interviews". The ranking may of course differ on each person's online behavior, IP address, location, historical search, and cookies. For this research, the location was Brussels (Belgium) with a neutral computer (no specific bypass search history). Bear also in mind that paid ads were not considered in this ranking.

GOOGLE SEARCH		
Keywords	Page	Rank
sim box solution	1	5th
simbox solution	1	5th
simbox fraud detection solution	1	3rd
Bypass simbox	None	None
SIM Box solution	1	5th
SIM Box fraud detection	1	8th
SIM Box fraud detection solution	1	3rd
innovative bypass fraud solution	1	2nd
sim box fraud detection solution	1	4th
bypass fraud detection solution	1	4th
Bypass -profiling-TCG	None	None
best SIM box fraud solution	1	5th
Fraudes SIM Box	1	8th
bypass fraud detection	1	28th
bypass fraud solution	None	None
Interconnection fraud	1	6th
Fraudes Bypass	1	8th
simbox	1	40th
simbox fraud detection	1	5th
sim box fraud solution	1	4th
innovative SIM box fraud solution	1	21st
Bypass fraud	None	None
simbox fraud detection solution	None	None
Bypass telecom	None	None

Figure 6-0-3. Calltic Rank positions on Google Research for a bypass fraud solution (06/2023)

Results vary from a keyword to another. A positive sign is that the user sees Calltic in most cases already in the first page. However, it did not appear in some searches where a "none" is mentioned. Some further investigations would be worth the investment. There is still some effort to make to reach higher ranks, which currently are used by competitors (FraudBuster, Mobileum, Subex, Latro, etc.). The objective is to end up on the first rank. Some research (Search Engine Journal, 2020) even confirmed that more than twenty-five percent of people click the first Google Search result.

Calltic will need to optimize it and make Google's algorithm work for them. As a first step, it is crucial to realize how Calltic appears in the Google Search. Please find below the result:

Figure 6-0-4. Calltic appearing on a Google Search (2023)

One of the fundamentals to make it go higher in the ranks is to first optimize the following points: the title, the URL, the description.

From Claire Gallic and Rémy Marrone's suggestions, Calltic should put the following in place (Gallic, C., & Marrone, R., 2020, p.178). If the company can write these three following parts in an effective way, it will naturally lead to an increase in brand awareness and organic traffic.

- **The title:**
  - Write to be between fifty and seventy characters.
  - Place the keywords before the name of the company.
- **The URL:**
  - Always write contain the domain name.
  - Add from three to five other keywords (but different from the title to avoid over-optimization[14]).
- **The description:**
  - Write between 280 and 320 characters with a call-to-action message for the customer.

6.3.4.3 SEO Budget

An SEO campaign takes time and effort. It should be seen as an investment for the long-term benefits. In terms of budget, it might cost some important amount of money. According to the professional French marketers Claire Gallic and Rémy Marrone in their book "*Le Grand Livre du Marketing digital*", a budget of at least 3000€ is necessary for a one-off exhaustive SEO campaign (Gallic, C., & Marrone, R., 2020, p.70).

Ahref also confirms that most businesses would be paying a monthly retainer for SEO between 456€ to 1,370€ per month (Ahrefs, 2023). According to the same source, SEO service based in Central America, South America, or India, charge the least. These countries can be considered in case Calltic does not want to invest too much money. They also claim that freelancers tend to be cheaper than agencies or consultants.

6.3.4.4 Free SEO analysis

For low-budget companies, there are website specialized in SEO analysis that propose a quick SEO analysis for free. The results might be limited but it already gives an idea on the company's website health. British YouTuber and author Neil Patel is specialized in marketing tactics such as SEO. To help companies, he created a free audit tool called Ubersuggest. See below an analysis made for Calltic. It is important to understand that this should not be the only tool used for SEO audit, but it already gives an excellent idea on the weak parts. There are other free tools available for free such as:

- https://seositecheckup.com
- https://suite.seotesteronline.com/seo-checker

Website performance
- The on-page SEO score is 59 out of 100 which leaves room for improvements.
- The total estimated monthly organic traffic is only 2.
- Incoming other hyperlinks (backlinks as Neil calls them) is mentioned as great, with 72 links.

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[14] Over-optimization is also monitored by Google and can give a negative impact as penalization.
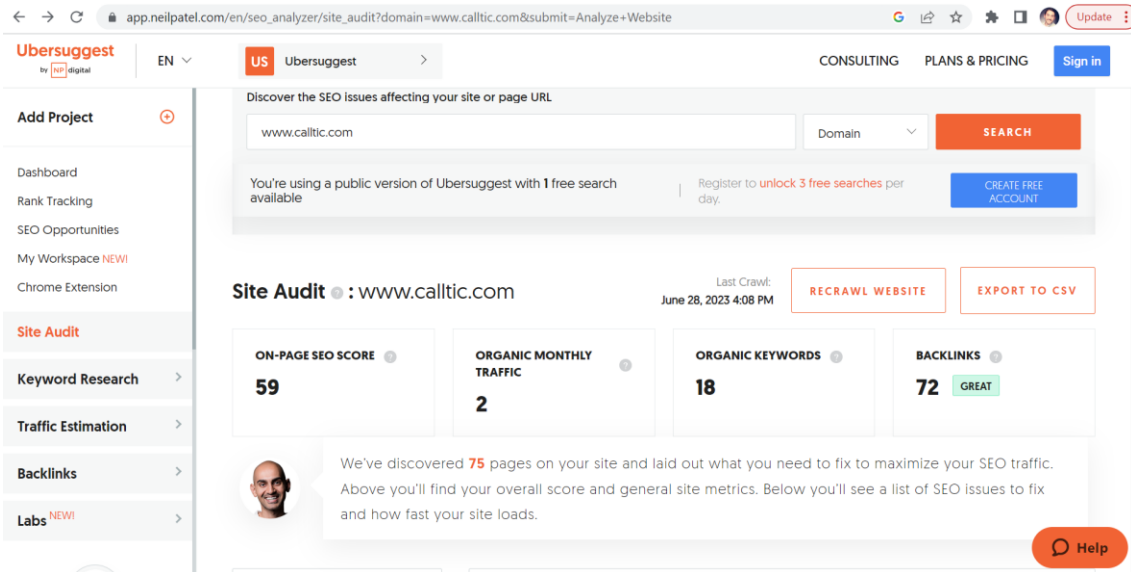
Figure 6-0-5. SEO audit. Website performance June 2023 (Ubersuggest from Neil Patel, 2023)

Pages quality

- Sixty-six pages are successful, but three pages are broken. One of the broken pages must be the WhatsApp icon explained in Ben's customer journey. This needs to be analyzed and fixed.
- Twenty-seven pages have low word count, fifty-four pages with duplicate title tags and twelve pages without a H1 heading, which is the highest section level on the website (Mozilla, 2023). Calltic might want to correct this as soon as possible.
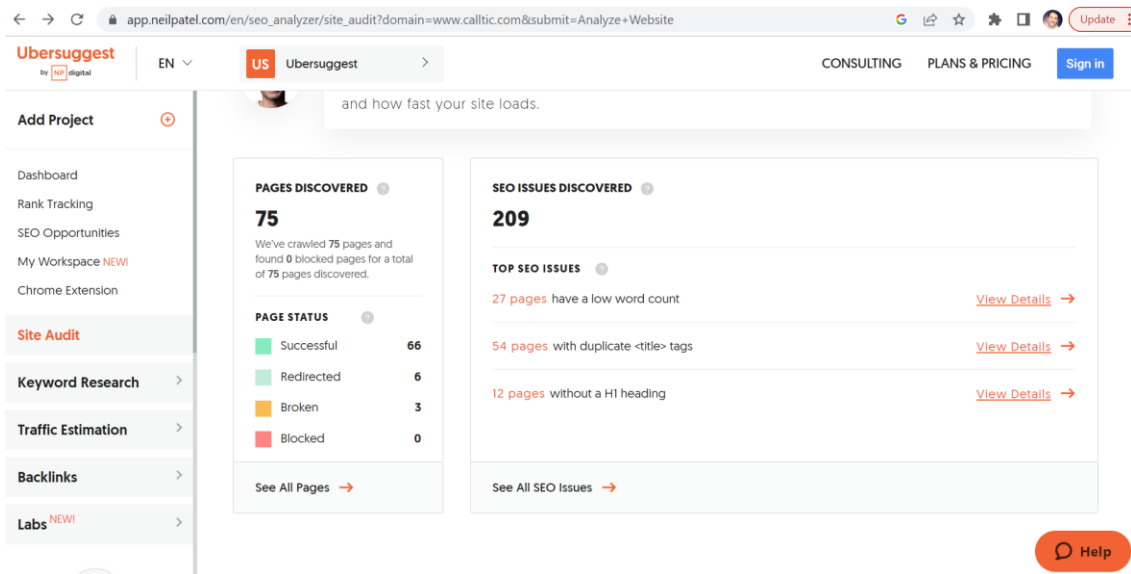
Figure 6-0-6. SEO audit. Page performance June 2023 (Ubersuggest from Neil Patel, 2023)

Site speed: Laptop

- The load time looks great for the desktop with one second and a half.
- Some improvements are suggested for the interactivity speed which is almost fifty percent than the recommendation of two hundred milliseconds.
- The visual stability is poor.
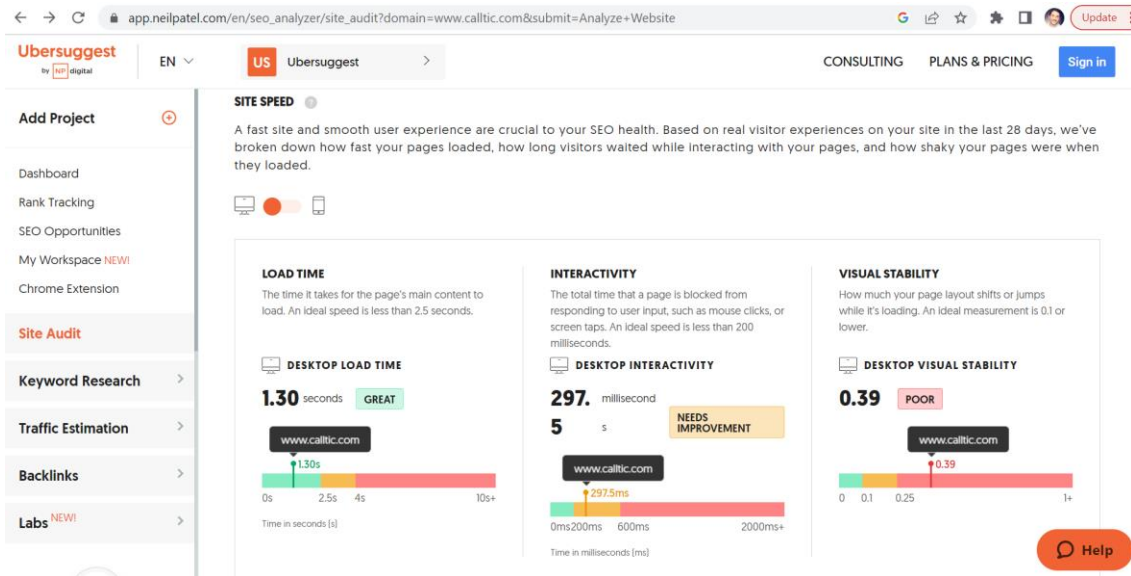
Figure 6-0-7. SEO audit. Site Speed Laptop June 2023 (Ubersuggest from Neil Patel, 2023)

Site speed: Mobile

- Load time for the mobile version believed to be more than six seconds. It seems to be a little less in reality (around three to four seconds) but still looks too much for a good customer experience.
- The interactivity is eight times the recommended average so Calltic should also prioritize changes on this.
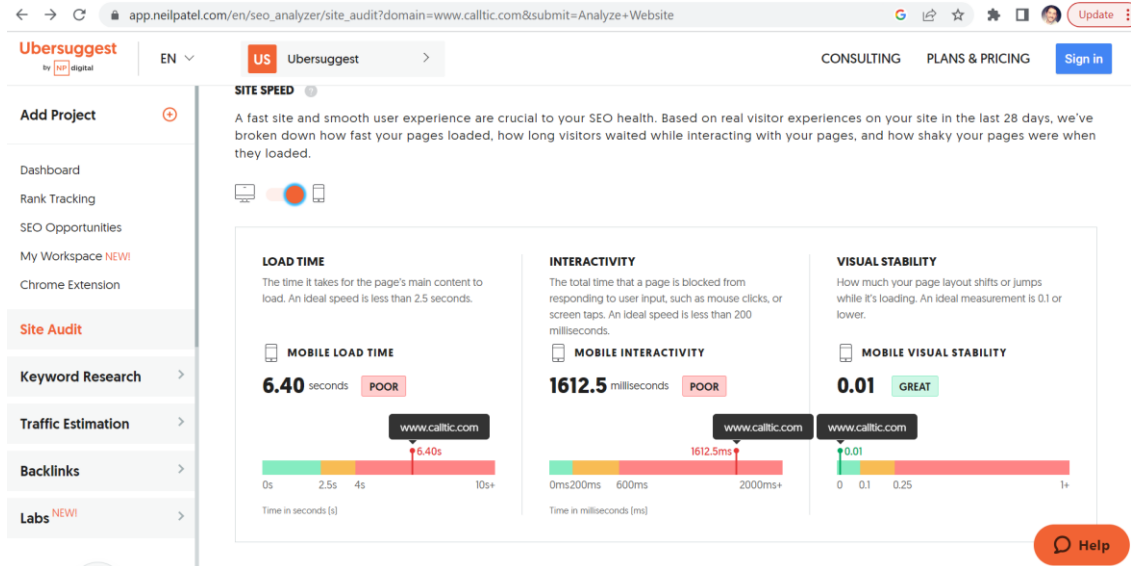- The visual stability of the website is considered as ok.

Figure 6-0-8. SEO audit. Site Speed Mobile (Ubersuggest from Neil Patel, 06/2023)

6.3.4.5 Mobile version focus

Tendencies show that people have been using more and more their smartphones to make over their laptops to do research instead. Statistics prove (Statista, 2023) that around half of web traffic worldwide is now on mobile devices and it will keep growing throughout the following years. CNBC (2019) projected that "*nearly three quarters of the world will use just their smartphones to access the internet by 2025*".

As noticed on the above analysis of SEO health of Calltic, it is crucial to have an optimized mobile version and avoid losing leads and opportunities due to speed or interactivity. Google also highly recommends business to have a mobile version of their website, not only because the use is growing. It is not obligatory for Calltic, but it will help increase the SEO position.

According to Statista (2023), "*the mobile penetration rate in Sub-Saharan Africa rose significantly from 2012 to 2020, and growth is expected to continue in to 2025. By 2025, it is expected that half of the Sub-Saharan African population will subscribe to a mobile service*" so Calltic must be ready for the future change of trends. The GSMA (2022) added that by 2026 there should be sixty-one percent of smartphone connections.

Moreover, the expansion of the internet in some African countries lead to most of the traffic being generated from mobile usage. In Sudan and Nigeria, mobile traffic is respectively eighty-four and almost eighty four percent as well in 2022 (Statista, 2022). If the reader is interested in knowing more about the users on the African continent, Statista provided some exhaustive information that will be found in the references below (Statista, 2023).

For Maghreb region, also a very important market for Calltic, penetration went up to one hundred forty percent in countries like Morocco. It means, as explained in the Chapter 3, that some people own more than one device. These numbers were also confirmed by Statista (2023).

These figures conclude that Calltic is highly recommended to follow the mobile trends, adapt their website for a better customer experience and follow the trends of mobile use in Africa soon.

6.3.4.6 Wikipedia
Wikipedia is one of the most popular resources to find information of all types on the internet. According to Wikipedia itself, it reached more than six million articles in English and three hundred languages. According to Statista (2023), it is one of the most visited websites in the world, every month on average.

Calltic having its own Wikipedia page might be a benefit for the visibility of the company. There is indeed a possibility to describe the company, the innovation behind the solution and show more credibility. It is known that Wikipedia is the most valid source for scholarly research, but it can be used for business purposes.

Moreover, backlinks can be added on Wikipedia that could lead to Calltic's website. SEO marketers confirm (uSERP, 2023) that more than sixty-five percent of backlinks have a big impact. Calltic can create relevant content on Wikipedia with explanations of their concept and the innovation, providing at the same time backlinks that will lead to Calltic's website. Statistics of the impact are unfortunately not available on the internet, but it might be worth the consideration. As explained, SEO is a long-term investment.

Find some examples below:

- https://en.wikipedia.org/wiki/SIM_box
- https://en.wikipedia.org/wiki/Phone_fraud

6.3.5 Google Ads
6.3.5.1 Some figures
Google Ad was created in 2000 and the company managed to create a very powerful ad service that is now worth more than fifty billions of dollars (Shacknews, 2022). Google is also known to be the leader in the market when it comes to desktop search engine worldwide, which is more than eighty-five percent in 2023 according to Statista (2023). Their competitors are far behind with only eight percent for Bing and less than three percent for Yahoo. Moreover, the mobile version market share is

even higher for Google with more than ninety-six percent, based the same source (Statista, 2023). Note that Amazon has not been considered because their business is not related to what Calltic is looking for.

If the company wants to reach customers worldwide and be the first on the rank before their competitors, they need to follow the trends and look at tools that will provide them the best chances to be more visible. The answer is Google. On top of that, free SEO is not the only and unique solution for a top rank on Google Search because paid ads will always come first on the Search and who knows the consequences when Google updates the algorithm and force companies to pay so that they make sure they keep their website on the top rank.

6.3.5.2 Types of ads recommended

From currently eight types of ads available on Google, the following ones are the ones Calltic might consider:

- Search campaigns: Text ads on search results.
- Display campaigns: Image ads on websites.
- Performance Max campaigns: access to all channels from a single campaign with Google AI optimization.

Knowing exactly which type of ads is meant for Calltic will depend on three main factors that they need to define:

- Their marketing goals. For example: "brand awareness" as a start and "product and brand consideration" in the future.
- Their brand strategy.
- How much time they would like to invest in it.

Search ads are known to be great for services companies (Nik Armenis, 2022) and are the first recommendation for Calltic to start a Google Ads campaign. As explained earlier in this paper, Fraud Managers might directly look for a anti bypass solution via Google Search and this is where Calltic should be in the first place.

Display campaigns would be the second recommendation because it is meant for remarketing and brand awareness. As soon as Calltic's online presence is more stable and well structured, Calltic's marketers are suggested to take an extra step in testing the Search Ads campaign. Calltic marketers may also consider Video Ads in a future as soon as they are ready to start a YouTube channel.

At last, Performance Max campaigns is a great way to do campaigns if no time wants to be invested, Google will do everything in once using Artificial Intelligence Optimization and aim the audience in the most efficient way.

A reminder that it is crucial that the ads work for both desktop and mobile versions. More focus will probably be needed for the mobile version in a near future. According to Google itself (2020), sixty percent of smartphone users have contacted a business through search. However, the company's marketers need to first focus on current tools such as the website that, as explained, need some clear improvement on the SEO level.

6.3.6 Google Trends

Google Trends is an amazing and free tool to discover and understand the search trends and the keywords used in Google Search. Unfortunately, as the bypass fraud market is small, Google does not have enough data to show the trends of the keyword "bypass fraud solution" (or SIM Box fraud solution) even translated in French (as many African countries are French-speaking countries). In this case, a suggestion is that Calltic makes research and make queries to their current customers on which keywords they use the most when looking for a bypass fraud solution. After completing the list of

keywords, it will help the marketing team decide on which one to focus on for the website, articles, etc.

The terms "SIM box" and "Bypass" are synonyms. We might wonder: "which one is the most common used?". This brings a lot of confusion for the SEO strategy. A good practice is these situations is to check which word is currently searched the most. Please note that people tend to write the words differently such as "simbox" and may change the results.

In the example below, Google Trends clearly shows (see below) that the word "Bypass" is most likely to be used than "SIM Box". The comparison has been considering:

- The location: Worldwide[15].
- The timeframe: the last twelve months (July 2022 till June 2023).
- The specific category: "Internet & Telecom".

"Bypass" term has with an average of ninety-one percent of popularity compared to "SIM Box" with four. It seems obvious that "Bypass" should thus be considered by Calltic as a more accurate word between the two to use in their digital communication. This example can be applied to as many words as necessary.
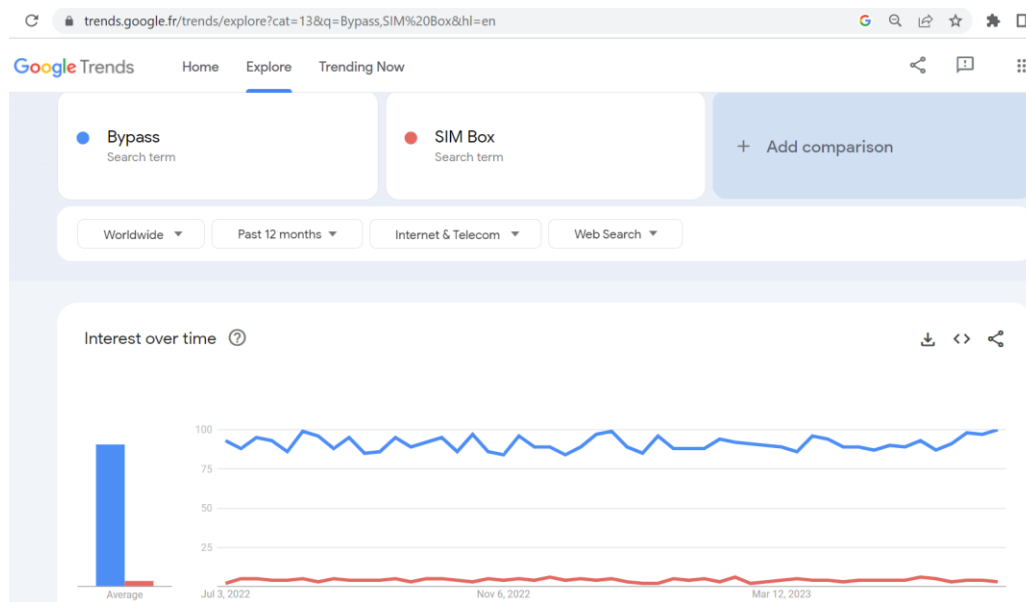
Figure 6-0-9. Comparison of the interest in "SIM Box" and "Bypass" in the last twelve months between 07/2022 and 06/2023 (Google Trends, 2023)

Moreover, Google Trends is a big asset for Calltic because it shows the location in which a certain word is being searched (African countries in this case). The details provided will help Calltic understand which country has more search activity and consider if a targeted strategy on this country is relevant. The below graph shows the interest of the term "Bypass" by region (countries and cities), which gives the hypothesis that either fraudsters may be doing some benchmark in the region to start making fraud or/and because the Fraud Managers in the region are trying to find some insights and solution to fight them.

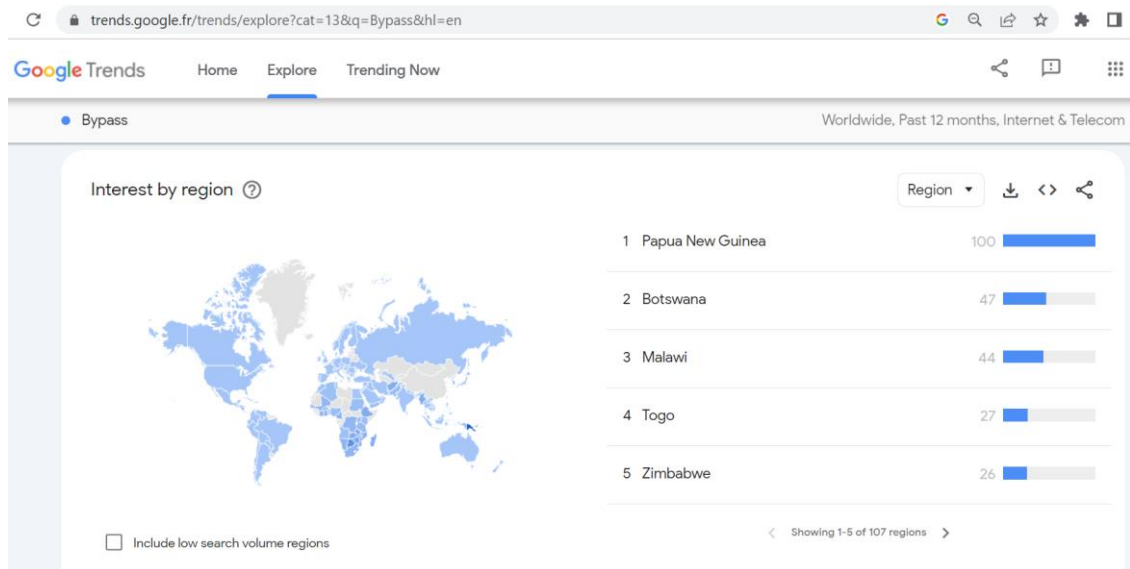[15] There is currently not a possibility of Africa only.

Figure 6-0-10. Regional interest in "Bypass" in the last twelve months, between 07/2022 and 06/2023 (Google Trends, 2023)

Seasonal trends also show the needed make other advertising optimization. Coming back to our Persona Ben Diallo, it would be an excellent way for Calltic to understand if there is a specific time of the year in which he would be looking for a new solution. If it is the case, some targeted marketing time frame could be considered. Indeed, Calltic does not want to make ads during Eid al-Adha festivities when most prospects are out of office.

6.3.7 Google Analytics

Google Analytics is a crucial tool that is highly recommended to Calltic so that they can measure data of the customer journey, understand how customers engage with Calltic's website and their LinkedIn page. Also, this is a free tool and might be a good start before considering the Premium version.

According to Forbes (2022), there are five main reasons why companies should use Google Analytics:

- Insights to Help Improve ROI.
- Better Understanding of Client Behavior.
- Targeted Marketing.
- Search Engine Optimization (SEO).
- Creating Innovative Business Ideas.

According to Statista (2022), Google is the most dominant company in this field with around 70 percent of the global total market share. In 2021, Google Analytics had a market share of 30 percent, followed by Google Universal Analytics and Google Global Site Tag who had respectively 24 and 20 percent. Calltic is invited to look at these two other Google features in the future. However, they will not be detailed in this paper as the objective is to focus on the first steps of a relevant online strategy.

Facebook Pixel can also be seen as an option but will not be explained in this paper as an option for two reasons: Calltic's audience is not targeted on Facebook, and it might be more relevant to combine all tools with one main company: Google.

6.4 Calltic's website

6.4.1 SEO Optimization

6.4.1.1 Speed

The average speed of the page turned out to be very slow and it needs to be optimized before launching any Google Ads campaign. According to research a from Google, seventy-nine percent of users will leave the website and go back to search if they notice that the site is too slow (Search Engine Watch, 2018). In this case, the pay-per-click is still counted and charged to the company, so it is also a waste of money. Calltic is thus highly recommended to first fix the weak features of the website before starting any paid services.

6.4.1.2 Words

Calltic marketers are recommended to focus on words that are most used. Please find some proposition of powerful marketing communication that Calltic should work on. The following is based on what already exists, on personal thoughts and interviews.

- "Untouchable by countermeasures".
- "Fast, very fast".
- "Radical new approach".
- "The most innovative and accurate tool in fraud business".
- "No escape".
- "The fastest detection tool in the fraud industry".
- "The newest fraud detection tool generation".

6.4.1.3 Links

Links should always be optimized and verified via SEO tools such as the one used earlier from Neil Patel. Broken links or links without H1 heading will damage the website and SEO performance.

6.4.1.4 Mobile and desktop

As seen earlier in the SEO free analysis tool, it is important to mention that the recommendations above are meant both for desktop and mobile versions to reach as many users as possible.

6.4.1.5 Use of the right tools

As explained in the chapter related to Google, it is important to use tools to measure the 57performance of a strategy and get the best outcomes from them. It is also crucial to use the right tools and Google is powerful enough in the market to provide what a company needs for a start a Digital Marketing strategy. "SEMrush" is also suggested by Frédéric Canevet and Grégoire Gambatto (p.128, 2020) in their book "*Le Growth Hacking, 8 semaines pour doubler le nombre de vos prospects*" because it helps decide of the best keywords to use.

6.4.1.6 Competition

A strategy may suggest that Calltic should observe competitors and deeply analyze their websites and other communication means. From the insights, the marketing team may understand the keywords used, compare and make it better than them.

According to the same authors (p205, 2020), there is even a possibility for Calltic to bid on competitors' keywords to show in their proper ads in Google AdWords.

If the job is well done, Calltic may appear on Google when a prospect is looking for their competition. For example, if a prospect writes "FraudBuster" on Google, Calltic would appear in the research as PPC (Pay-Per-Click) advertisement. Moreover, Calltic can use the trademarks as keywords, but it is prohibited to use them for advertisement purposes (Google, 2023).

6.4.2 Social Media Integration

Adding social media integration on Calltic's website is crucial for the company because it allows the audience to easily access the LinkedIn page from the website if they are looking for more information; exactly like Ben Diallo did in the customer journey example.

A LinkedIn logo should be integrated on the top corner of the website, just like the WhatsApp one, allowing the audience to click on the LinkedIn page and follow it as well. This tool is very valuable for Calltic because it also gathers data insights and analytics, allowing marketers to get more information on decision-making and marketing efforts to make.

Another great integration would be a social media sharing link button, allowing blog posts to be easily shareable by the audience to their community and grow Calltic's brand awareness. This will also help increase their online visibility and improve search engine rankings.

6.4.3 References and Testimonials

The customers want to trust Calltic and see references and testimonials from current customers. This might be the first thing that the customer wants to see when clicking through the website.

References are missing. Calltic is highly suggested to mention which company they work with by adding a logo and maybe a quick message such as: "they trust Calltic because of the excellent results provided". A research (The BigCommerce Blog, 2023) claims that seventy-two percent of the people said that positive reviews and testimonials make them trust a business more.

The company already published four testimonials via short but straightforward interviews with key decision-makers in the anti-fraud Business. However, the testimonials should be more easily reachable on the website. Indeed, only one testimonial appears when clicking on "testimonials" above and then requires different clicks to see them all, someone might miss one of them. A more optimal way would be to make the all the testimonials visible on the same page.

Moreover, as we discovered in the interviews, they suggest that Calltic adds more testimonials from other customers because they will be very likely to contact them.

6.4.4 Marketing content

6.4.4.1 Facts

It is crucial to write and underline marketing words and facts that the customer is expecting to see. Our persona Ben Diallo expected many of them during the awareness and consideration process that were not clearly appearing on the website. This brought frustration to him and Calltic wants to avoid this. Find below suggestions of facts that should be more underlined:

- Detailed speed of detection of the solution: "fast", "1,5 call needed".
- A confirmation of a very low false positives percentage: "false positive percentage is half of what is in the market so far".
- Impossible to counter the solution: "Untouchable by countermeasures".
- A confirmation of a privacy safe solution: "Privacy safe".
- Long-term solution: "In 2 years, the fraud went down by 90%".
- Some case studies showing some results.

6.4.4.2 Calls-to-Action

It is suggested that Calltic reevaluate a call-to-action strategy and have more interactions with the audience on their website. This type of button literally calls the user to take an action that Calltic wants them to do. Some examples of call-to-action button are:

- "Learn about our solution".
- "Check our testimonials".

- "Get to know our references".
- "Contact us".
- "Follow us".

There should be linked to one another. If the user clicks on "Learn about our solution" and enters the page, there should be another call-to-action button saying "Contact us" to keep the connection with the user and make them contact the company.

6.4.4.3 Blog

A company blog as inbound marketing is another recommendation for Calltic. Knowing the expertise of the staff member, the marketers should be able to gather enough relevant information and topics to make tons of articles that could be shared with the community on the website and then sent to other platforms such as LinkedIn and leverage the audience. Publishing quality articles is a great way to attract new prospects, increase trust in the company by showing its expertise. It will increase more traffic on the website and optimize the SEO ranking as well. A research made by Brian Dean (2021), an American SEO expert, shows that out of 502 B2B companies, 72% of them have a blog. He added that "*education content receives 52% more organic traffic than those that mainly publish content about their company*".

Moreover, a publication on the blog can be also shared on Social Medias such as Calltic's LinkedIn company page and leverage the audience. The content may be shared by other people in the sector such as customers, experts, etc. and create even more visibility without any specific budget. Another study published from Marketing Charts (2020) shows that sixty five percent of Business-to-Business professionals consider the vendor websites as very influential content.

Different types of subjects can be tackled. Here are some examples:

- Bypass fraud.
- Calltic's story.
- Calltic's technology.
- Success stories with Calltic's customers: results.
- Case studies with Calltic's customers: new fraudsters' behavior.
- New solutions in Calltic's products portfolio.
- Customer success stories and testimonials.
- The future of bypass fraud prevention.

Frequency is also important and new posts must be uploaded frequently to keep attracting audience on the website. According to Marketing Insider Group (2023), a company publishing more than eleven posts per month see an increase of more than three times the traffic compared to those that only write an article once per month.

6.4.4.4 Storytelling

The French digital marketing experts Rémy Marrone and Claire Gallic explain the importance of storytelling in their book "*Le Grand Livre du Marketing digital*". According to them (2020, p.5), storytelling is the first strategic element to put in place to have a successful digital marketing because it brings a desire of transparency and the sharing of common values. They also claim that we are nowadays in a "bottom & up" communication which consists of a communication done by the company and the customer, and not an up to bottom communication (from the brand to the customer) as it used to be.

Some examples that Calltic could mention in their storytelling:

- Share the internal living in the company (staff, internal events, teambuilding, etc.).
- Put forward external events (new product launches, conferences, partnerships, etc.).

- Value the expertise of Calltic with their solution (and the ones to come).
- Make customers share their satisfaction and share them.
- Share the company's values.

Of course, storytelling is not only meant for the website and should also be used for any communication means such as newsletters, blogs, and LinkedIn publications. Calltic might want to use Google Trends to find the relevant words and topics to write their stories.

6.4.4.5 Frequently Asked Questions

An FAQ (Frequently Asked Questions) is highly recommended to help Calltic build more trust with the prospects by showing transparency and credibility. When discovering a new product, customers tend to ask a lot of questions, and this is confirmed for many presentations made by Calltic sales team[16].

An FAQ may be a key to improve SEO because many important keywords are used and attract organic traffic. Calltic may help the prospects have pre-defined answers to common questions (service, how it works, compatibility, features, customization, etc.) and gain some time in their online customer journey. To make an efficient FAQ, Calltic sales and operations people should gather and think about the most frequent questions during their meetings with the customers. Marketers should also check customers reviews and get some important insights from there (cf. only if Calltic decides to follow the recommendation of creating a Google page).

Find below some examples of questions that a customer might ask[17]:

1. What is Calltic and what do we do?
2. What makes Calltic different from their competition?
3. How long does it take to implement the solution?
4. How fast does Calltic detect a bypass fraud?
5. What is the average of false positive rate?
6. Is Calltic's solution intrusive?
7. What are Calltic's current customers and what countries are covered?
8. Is there a possibility to increase our international revenues with the solution?
9. Which other solutions does Calltic provide?

6.4.4.6 Email and Contact form

The usual expectation in a B2B website is a contact form or at least an email that the visitor can use to make any inquiries or show interest in the company. Social Medias are known to be a very fast way to get a quick answer, however employees of corporate companies may want to make an official request via official ways: emails, a call, or a contact form.

The contact form on the website is fast and does not require many efforts besides writing a name, email address, the country, the company, the object (sales, marketing, etc.) and details of the request. The next step is awaiting a fast answer from Calltic with the details requested. This is a great way for Calltic to gather information and data about these leads for further marketing communications such as newsletters. This is already in place on the website but it should require more information from the sender as recommended above for data purposes (company, country, etc.).

Calltic also provides an email address "info" and a phone number, it might be suggested that they provide different emails and numbers depending on the contact purpose: sales, marketing, media, etc. to make the communication easier. Nevertheless, the disadvantage of not using the contact form is that no data will be gathered for marketing purposes.

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[16] Based on personal experience as a Sales staff member of Calltic.
[17] These questions were based on personal experience as a Sales staff member of Calltic.

From experience in the market, it looks like telco operators tend to contact providers directly via references that they get from the GSMA members (more details will be explained in this paper) and might not be willing to use the contact form. Indeed, this common practice is because the Telecommunication sector is a small world based on references and building a strong network can be fast. In this case, the logic would say that creating a contact form might be useless. However, a question can be raised: would Calltic's website experience look professional by not providing a contact form? The answer might be simple: no. It is still crucial that Calltic provides a contact form, not only for their image but also because they might be contacted by other people than potential customers: medias, service providers, marketing agencies, etc.

6.5 LinkedIn

LinkedIn was launched in 2003 and is now the worldwide leader in social media for Business-to-Business (B2B) with over 930 million members from 200 countries and regions worldwide (LinkedIn, n.d.). Middle East & Africa regions gather more than 54 million users, still behind Latin America and Asia-Pacific with respectively 146 million and 202 million of users.

To focus more on Africa, Northern Africa had the largest number of LinkedIn users with around sixteen million active users in 2022. Western and Southern Africa follow with respectively thirteen million and eleven million (Statista, 2022).

Their objective is to connect professionals to create opportunities, collaborations and hire people. LinkedIn is an excellent tool for reputation management as communication can be directly made to all the professionals in their network. If made correctly, a publication, a comment to a publication, or even a "Like" can lead to an opportunity.

6.5.1 Strategy

As per the earlier analysis of Ben Diallo's experience, Calltic has a LinkedIn page with some staff members connected, publishes a picture occasionally from a specific event and reached around 1300 followers. It seems to be a good start, but Calltic's Management explained that they could not understand the lack of interaction with their community with such a number of followers. The answer may be simple: having followers is not enough.

Find below a few facts from marketing professionals that stress on the reason why Calltic should focus on LinkedIn rather than other social media:

- Sixty-five million LinkedIn users are business decision-makers (LinkedIn, n.d.).
- Calltic's business is exclusively for the B2B market so there is a better chance for them to find their target on LinkedIn[18].
- Ninety three percent of B2B marketers use LinkedIn to publish content in 2020 (LinkedIn, 2023).
- LinkedIn has eight percent more in the engagement rate than Facebook (Marketing Insider Group, 2023).
- There is from one to two times higher conversion rates on LinkedIn (LinkedIn, n.d.).
- "*audiences exposed to brand and acquisition messages on LinkedIn are six times more likely to convert*" (LinkedIn, 2023).

These words conclude that investing some (quality) time on LinkedIn will definitely make Calltic more visible. It is recommended for Calltic to set up a clear strategy for each objective they might have. Here are some examples of objectives that should be taken into consideration by Calltic's Management. From each objective should be respected the 5W+2H rule explained earlier above.

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[18] Based on personal experience as a sales member of the company

- Increase the number of followers?
- Increase the brand awareness?
- Have more interaction: likes, comments and shares?
- Create leads in Africa for new opportunities?
- Reach more Latin American prospects to prepare their market penetration?
- Keep in touch with the current customers in Africa?
- Find more easily some new candidates?

6.5.2 Company page optimization

Calltic marketers must verify the quality of the LinkedIn page and make sure all the information provided (description, number of employees, location, and the overview) is correct, relevant, and attractive. The more exhaustive the company profile is, the better. There is also no harm in checking how main competitors describe themselves and behave on LinkedIn. This is actually a great way to get inspired and outstand from them.

According to LinkedIn, the pages with complete information have 30% more weekly views (LinkedIn Marketing Solutions, n.d.). Also, companies with exhaustive and active pages are more successful at achieving growth. This includes:

- Five times raise in page views.
- Seven times raise in average impressions per follower.
- Eleven times boost in clicks per follower.

Moreover, Calltic is highly recommended to keep track and measures Key Performance Indicators (KPIs) for their page and adapt the weakest ones. Some examples would be:

- Type of followers: who is following Calltic's page?
- Location: where are the followers from?
- Number of followers: does Calltic's company page attract enough people?
- Impressions and reach: how many people have seen Calltic's page?
- Engagement rate: what kind of content engages most with the LinkedIn community?
- Viewer information: who viewed the company profile? Is it a prospect, a competitor?
- Post views: How is Calltic engagement growing?

6.5.3 Constant activity

It is crucial for any companies on social media to be active and constantly present on the platform to gain awareness and an excellent online reputation. It is a great opportunity to share blog posts content from the website and use the storytelling strategy and strong marketing messages for the audience.

According to the Influencer Marketing Hub (2023), "*the ideal posting frequency for LinkedIn is two to five times per week, up to 20 times per month*". However, it should not be more than once per day because too many posts might be threatened by LinkedIn's algorithm which might ignore some of them.

It seems logical that a certain schedule to post on LinkedIn should be respected to make sure that it reaches as many people as possible. Much research proposes different timeframes but there is usually a common idea: post within the business hours.

According to Sprout Social (2023), the best moments to post are Tuesdays and Wednesdays from ten o'clock in the morning until noon. The best days to post on LinkedIn are usually from Tuesdays to Thursdays. However, the days to avoid posting are on weekends. Though, it can be confusing because weekends are also moments when decision-makers may have more time to read messages, posts and read articles.
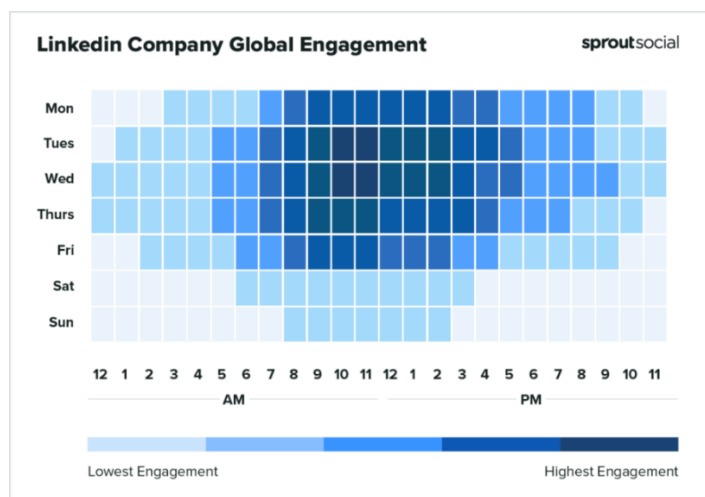
Figure 6-0-11 - LinkedIn Company Global Engagement time frame (Sproutsocial, 2023)

Another important detail into account is the period of the year, Calltic is not recommended to focus on posting during summer holidays or winter holidays as most targets are away from work. In the contrary, there are some moments during the year when Calltic must be present such as the International Fraud Awareness Week in which, targets such as Fraud Managers might be present online and open to learn about new topics about bypass fraud.

6.5.4 Calltic Staff as ambassador

One recommendation for Calltic is to make sure that all employees of the company should be connected on the platform and recognized themselves as staff members via adding it in their LinkedIn profile. They will be able to share company contents and build brand awareness.

Moreover, the Sales staff must be the most active on the platform with the Marketing team and interact with the telecommunications community, overall, in the fraud business. They are, at some point, the main online image of the company and should constantly promote it by sharing relevant content and interacting with the audience.

Moreover, the CEO should also be present on the platform by commenting, sharing, and publishing scientific content about frauds in Africa and increase the trust from C-level actors.

There are three CEOs that can be suggested as great examples in the telecommunication business (please bear in mind that these people are examples out of many, but the below list should be short and leave the readers find their own examples):

- Small scale: Michael Vanhamme, CEO of A.S. Mobility (an Orange Belgium Subsidiary).
    - More than 2200 followers.
    - *https://www.com/in/michaelvanhamme*
- Medium scale: Djibril Ouattara, CEO of MTN in Ivory Coast.
    - Around 13.500 followers.
    - *https://www.LinkedIn.com/in/djibril-ouattara-3b985a*
- Big scale: Christel Heydemann, CEO of Orange Group.
    - More than 66.300 followers.
    - *https://www.LinkedIn.com/in/heydemannchristel*

Another recommendation would be increasing the Social Selling Index (SSI) for all the staff members present on LinkedIn. Having a score below than fifty out of one hundred already shows that some progress needs to be made. The rank is divided in four scores (of twenty-five each) as per below:

1. Establish your professional brand: it requires an updated and exhaustive profile but also constant and relevant publications.
2. Find the right people: create a list of qualitative prospects and connect with them.
3. Engage with insights: share interesting and relevant content with prospects.
4. Build relationships comments, shares, likes, send personal messages to the network and recommend skills.

Please find below an example of a SSI showing the lack of activity, interactions, and engagement in the platform. The analysis is quite exhaustive and gives an opportunity to evolves the weak parts. According to LinkedIn, sales professional with a high SSI score has 45% more sales opportunities than peers with a lower SSI score (LinkedIn Social Selling Index, 2023).
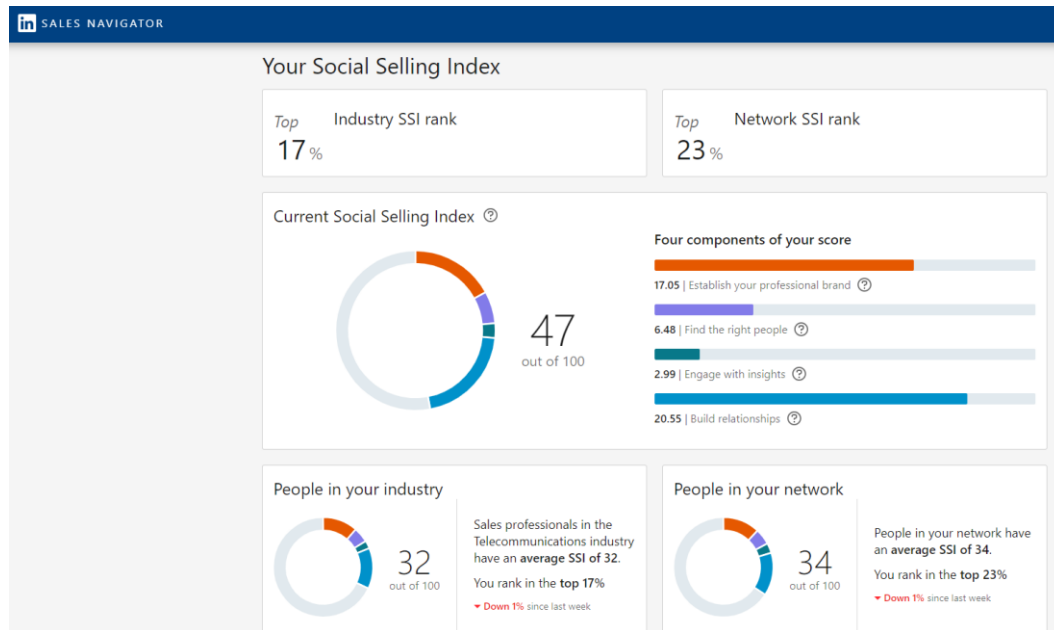
Figure 6-0-12 - Example of Social Selling Index. Sales Navigator (LinkedIn, 2023)

Moreover, the marketers responsible for the Calltic page should also publish content mentioning (or tagging) the employees, value their work in the platform. This will create more online interactions within the company and expand it to the LinkedIn community.

6.5.5 Experts as ambassadors
Calltic should investigate attracting external ambassadors and stakeholders in the fraud business. There seems to be a tendency to use the term "influencer" nowadays, this might be more related to B2C (such as clothes, drinks, cosmetics, and food brands). However, it is important to make a different between the two: an influencer usually gets paid for sharing contents and may receive millions of euros with a collaboration with a brand. Typical examples may include Cristiano Ronaldo for Nike, Selena Gomez for Pantene, or Chris Hemsworth for Hugo Boss.

On the contrary, an ambassador usually has lived a positive experience with the brand and would like to share it, without getting money for that. The Ambassador may independently post content related to fraud, more particularly to bypass fraud and spotlight Calltic and their excellent results using an innovative solution. The person can have a small or big influence depending on how notorious they are. Ambassadors can be many types of people such as:

- A current customer who is very satisfied with Calltic and would like to share it to their communities.
- An expert in bypass fraud detection who has seen Calltic results directly or indirectly.

- A member of the official Fraud and Security Group of the GSMA who wants to present a totally innovative solution.
- A Belgian media that would be interested in publishing an article about Belgian innovative international companies.
- An international media that would be interested in discussing bypass fraud globally and wants to know more about relatively "new" companies in the market such as Calltic.

Note that there might be a possibility to "pay" a current customer as an ambassador by giving a discount in their next invoices, providing new features for free, or giving one month of service for free in exchange for some publications. Nevertheless, this topic needs to be treated with care and should not be a main strategy because it could be seen as a type of corruption or preferential treatment.

6.5.6 LinkedIn Ads

As soon as all the topics above are fulfilled and Calltic is able to attract more audience, the marketers can opt out for a paying version, called LinkedIn Ads, that will enable the company to target and attract qualified African telco operators that do not know Calltic yet. Of course, the marketers need to keep in mind what kind of objectives they want to reach.

The greatness of advertising on the platform is that it provides tools to define specific segmentation criteria's that may allow Calltic to reach their targets with more accuracy. Moreover, there is a possibility to choose the type of desired campaign depending on the objective of the customer journey:

- Awareness: create brand awareness.
- Consideration: reach more website visitors, more engagement or video views.
- Conversion: create leads, website conversions and job applications.

For Calltic case study, it is recommended that they focus first of brand awareness as defined as one of the main objectives, so option number one.

LinkedIn proposes four types of advertisement strategy that will be shortly explained below.

6.5.6.1 Sponsored Content

This consists in a paid ad that will appear in the news feed of the target in the middle of the LinkedIn home page. They can be different types such as an image, a video, an event, a document, or a carousel (series of cards) and can reach a diverse type of audience from different industry. Calltic would pay via the cost per click concept (CPC)"

Figure 6-0-13 - Example of a Sponsored Content (LinkedIn, 2023)

6.5.6.2 Sponsored Messaging

This is a more specific targeting advertisement possibility as LinkedIn proposes Conversation Ads.

There used to be another type of ads which was Messaging Ads, but LinkedIn discontinued it because of the lack of success and the intrusive aspect of the communication. Moreover, the expert AJ Wilcox from B2Linked, a LinkedIn ads agency, claims (2023) that only fifty five percent of people would open the message and around three percent click on the Call to Action such as "Yes, contact me", etc.

A personalized message is sent to a specific target with the name of a specific sender from Calltic (for example: Frederik Van Coppernolle, the Chief Commercial Officer) to make it look like it is sent personnaly. The target can be specified according to the job title and the industry. There used to be a Location option, but the European Union discontinued it (LinkedIn, 2023). Note that there are also few restrictions to keep in mind such as a required sender permission and a possibility to only reach first degree connections.
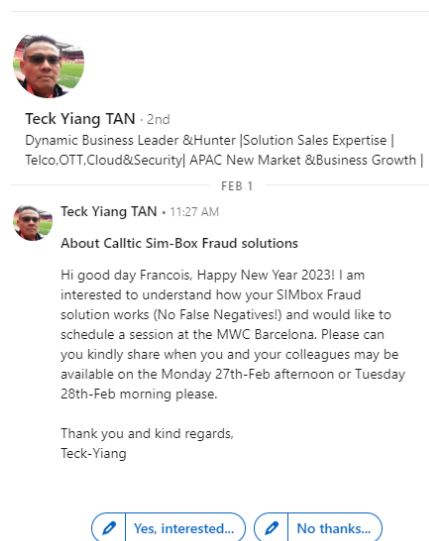
Figure 6-0-14 - Example of sponsored messaging (LinkedIn, 2023)

6.5.6.3 Dynamic Ads

These are personalized ads made directly to the audience and showing up on different places across LinkedIn such as the profile. The format is usually as follow: the picture of the target on the left and the logo of the promoter (Calltic in this case) with a personalized message and Call-To-Action. This is usually used to convert website traffic, boost an event attendance, boost followers, etc. They are called dynamic mostly because they are changing after a lapse of time or when scrolling down the page. Four options of ads are available: follower (gain followers), spotlight (industry insights), jobs (attract new employees) or content (attract leads) ads. As a start, Calltic would probably need to choose the follower ads to gain more quality followers by targeting the right audience in LinkedIn's Ads campaign filters.
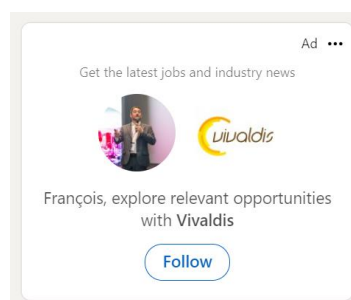

Figure 6-0-15 – Example of Dynamic ad (LinkedIn, 2023)

6.5.6.4 Text Ads

Text Ads is the first original ad format provided by LinkedIn. This is a very standard format with a title, a text, and a picture (a little like the ones on Google) with a Pay-per-Click system depending on the budget per day that the company would like to spend. This option can be a great cheap first step in a marketing paid campaign (lowest price is two euros per click). They are usually seen on the right side of the platform.
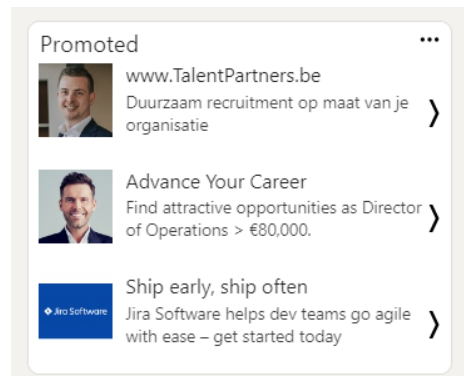

Figure 6-0-16 - Example of text ad (LinkedIn, 2023)

6.5.6.5 An ad option for Calltic

It seems that the most popular ads on LinkedIn would be the Sponsored Content with an image or a video. As the old say "*a picture is worth a thousand words*", using image sponsored content might be a very good start for Calltic. Forbes claims that images and videos are great for the brand experience because it is more visual than text. Also, videos may have a powerful asset because besides the fact that the message is even more visual than an image, it also gives an opportunity to share on YouTube (Forbes, 2022).

However, there is not a universal rule to make ads on LinkedIn. It depends on the strategy, objectives, audience chosen, and investment made by Calltic in the platform. A good way to discover which ad will be the most effective is to make some low budget campaigns at first and compare the results (A/B Testing) and use different KPIs (growth rate, engagement rate, leads generated rate, actions rate, etc.). After a few weeks, marketers should already have a good idea on which campaign had the best results.

6.5.6.6 LinkedIn Ads budget

Budgeting ads on LinkedIn will depend on Calltic's Managers decision on how much money they would like to invest in the platform. The minimum requested is 10€ and the recommended daily amount to invest is between an average of 50€ and 100€ which can lead to between 1500€ to 3000€ per month and between 18.000€ to 36.000€ per year. It is critical that Calltic makes tests as explained above.

6.6 Email campaigns

Mentioned several times in this paper, email campaigns or newsletters are also recommended for Calltic as a tool in their online customer journey strategy. Email campaigns have two main advantages for the company:

1) Keep a constant contact with their current customer.
2) Catch the eye of potential customers so that they never forget about Calltic.

It is important to realize than besides the increase of social medias use for business purposes, the email practice stays very strong as communication practice at work and email marketing business is key. According to Statista (2022), the number of global email users should increase to 4.6 billion users by 2025, which would represent more than the half of the current global population of 8 billion in

2023. The same source claims that worldwide revenues of email marketing will increase from 2020 to 2027 by around 238,67% and reach 16.4 billion of euros.

An American study (Campaign Monitor, 2021) of 1000 small business owners (in Europe: companies having less than 250 employees and less than 50 million of euros in revenues, according to SPF Économie) also shows that email marketing was ranked as the second most effective medium for building brand awareness (after Social Medias). According to the same study, email marketing has the highest return on investment for small businesses. This may not prove with accuracy that it will always be the same in all the African countries, but the American workstyle is usually seen as one of the examples in practice for decades and may be used as a guide for the next trends.

Moreover, Calltic must not forget the necessity to adapt their content to mobile device adaptation with the increasing use of smartphones to read emails. According to Forbes (2019), 55% of emails are read via mobile devices and MailChimp (n.d.) confirms that mobile-friendly responsive email templates get an increase of 15% of clicks.

Hence, there is always a risk that users do not read their emails and by experience, African work environments are very challenging because most people read half of their emails and just ignore the rest. The question might raise on the reason why Calltic should start email campaigns if there is already only half the chance to see success. If Calltic, does it well and carefully target the right audience (see Segmentation), there might be always a chance that a decision maker will read the emails. It also depends on the marketing strategy, a reminder is that Calltic's purpose of an email campaigns should not be selling the solution directly but attracting prospects, bring trust in the company so that they have always the name "Calltic" in their mind.

Of course, it is crucial to bear in mind that spam filters must be avoided. Calltic needs to make sure that the content and object of the email will not lead to the spam box. To make effective email campaigns, Calltic may be suggested to hire a skilled agency to help them create automated, attractive, and mobile-friendly content. However, if the budget is low, the marketing staff may already start themselves with some A/B tests via their current CRM platform (or via MailChimp) and compare what works best.

Different topics may be used for an email campaign: an event attendance (GSMA), new features of the solution, bypass fraud insights, success stories, case studies, FAQ, festivities (Christmas, Eid al-Adha, New Year), or even incentives and discounts. There is also a possibility nowadays to get some help with Artificial Intelligence tools that may create content for Calltic as well, however this topic will not be detailed in this paper because it is too new in the market and will avoid confusion and keep a focus on the current marketing strategies.

6.7 Global System for Mobile Communications Association events

The GSMA, known also as Global System for Mobile Communications Association (originally called Groupe Speciale Mobile Association) is a non-profit organization unifying the mobile ecosystem all over the world. The Association was founded in 1982 in Europe and grew up internationally and gather expertise in technology from all over the world. They are currently represented by 750 mobile operators and 400 companies in the global sphere.

As Calltic being a member of the GSMA, should take advantage of all the benefits:

- Get data and resources regarding current customers and prospects (as long as they are also a member of the GSMA themselves).
- Be part of the Fraud and Security Group (FASG) and be visible within meetings and international events (México, London, New York) in which potential customers may attend. The FASG is also divided into sub-groups based on the location (Africa, Latin America, Asia, etc.).

- Attend and exhibit in GSMA events such and the Mobile World Congress (Barcelona, Kigali, Las Vegas, Riyad, Shanghai, etc.).

It is highly recommended that Calltic attend these events because, from the experience in the field, chances are high that sales and marketing team may be able to meet key decision-makers from the African market (to be specific, best chances would be at events in Barcelona and Kigali). There is no need for statistics to claim that African culture likes face-to-face meetings, even though we noticed that it is progressively adapting to a digitalized environment as well.

As we could read in the results of the interview, it seems that the GSMA events are seen as one of the central points for the telco operators in the fraud context. It is also a good opportunity in the awareness stage for Calltic customer journey. Operators can connect with others (networking), learn and share about fraud behaviors within the FASG (awareness), explain case studies of success against fraud with a current provider (references), get to know new suppliers (lead opportunities), meet current providers (loyalty) or potential ones (consideration).

Moreover, Calltic is suggested to invest in events and stand out by presenting Calltic's business cases during the fairs to the attendants. This is probably a more sales job to do and a lot of preparation is needed to make a great presentation, but the results are worth the investment. Indeed, presentations are usually in front of fifty to one hundred people and allow the ones interested to ask questions and clarify any doubts they would have. Exhibiting is also a great added value as the company is fully present at a stand. Calltic has been doing it for four years at the Mobile World Congress in Barcelona and for two years in Mexico. However, it does not seem to help the business growth.

A different approach could be that Calltic measures the Return on Investment (ROI) with specific KPIs such as:

- Numbers of new opportunities in the pipeline.
- Numbers of qualified prospects met.
- Value of the pipeline generated.
- Numbers of business meetings with current customers.

An example analyzed by Calltic's Management is that the event MWC In Barcelona is too big (2400 exhibitors in 2023) and topics are too varied for Calltic to attract quality prospects (38 different fields, where fraud is a very thin part of them). A recommendation would be to reconsider this exhibiting budget and put it in other online marketing tools. Sales staff may still attend the event and still be able to meet current and potential customers as visitors.

6.8 Budget

6.8.1 Current marketing expenses

Having a clear picture on the current marketing spending may help Calltic's Managers understand better the results of their marketing efforts and optimize their expenses. Since the company did not put a tracking in place to measure the ROI of marketing actions, it is quite challenging to understand which marketing tools work best and which are the ones that should be reconsidered. The reader will find below a table that gathers all the current marketing expenses (online and offline) based on a one-year time frame (2023). The calculations were done with the collaboration of Calltic to have transparency and have the possibility to propose reasonable suggestions. Bear in mind that only the direct costs were calculated, a deeper cost accounting analysis will be needed to calculate the indirect costs for each theme.

The table has been divided into four main categories below. Events attendances are usually considered as offline marketing; however, it was separated for this analysis. Indeed, the high amount

invested demonstrates that some cost-cutting may be able to have a more balanced marketing budget.

1. GSMA subscription.
2. GSMA Events.
3. Online Marketing.
4. Offline Marketing.

Themes	Yearly budget
GSMA subscriptions	**13.000,00 €**
GSMA Events	**15.880,00 €**
MWC Barcelona	2.120,00 €
Mobile 360 Mexico	9.260,00 €
New York	1.900,00 €
Croatia	1.160,00 €
Bucarest	1.440,00 €
Online Marketing	**2.380,00 €**
Email campaigns	0,00 €
Website maintenance	500,00 €
Designer costs	1.880,00 €
Offline marketing (events excl.)	**2.678,00 €**
Goodies, flyers, etc.	1.728,00 €
Medias	0,00 €
Designer costs	950,00 €
Total marketing costs	**33.938,00 €**

Tableau 2. Table of current marketing total expenses made by Calltic (2023)

As explained, it is noticeable that most of the budget is spent on the GSMA affiliation and events, representing a total of more than 80 percent. This GSMA affiliation is mandatory to allow free entrance to GSMA events. This subscription is nearly forty percent of the total value and is thus a considerable investment, hence necessary for the company because GSMA provides access to a worldwide telco network.

Find below the summary of the total expenses:

Themes	Budget %
GSMA subscription	**38%**
Events	**47%**
Online	**7%**
Offline	**8%**

Tableau 3. Percentage of Marketing expenses made by Calltic (2023)

This table clearly shows a disproportionate marketing strategy and too few investments for the online marketing. In order to reach a higher online customer journey, Calltic needs to review the proportion of each section and overall, the events costs.

6.8.2 GSMA events cost management

As confirmed in the table above, official GSMA events are reaching nearly the half of the current marketing expenses made by the company. These events cost a lot of money to the company due to extra expenses such as flights, taxis, hotels, and daily allowances for the staff attending. The challenge

is that these events are not monitored by Calltic, and the Managers do not have any statistic or specific information proving the worth of the event or what revenues it brought to the business. There is certainly a possibility to reduce these marketing event costs and allocate the savings in online marketing.

A recommendation would be to make a cost analysis of each event and reconsider its value and answer to questions such as the following:

- Will it bring business to Calltic?
- Who will be attending the event?
- Will there be any decision makers in fraud business?
- Would it be enough if only one person attends the event?
- Should we attend the whole week?
- May we limit the travelling expenses (cheaper hotels, flights, etc.)?
- Should we better prepare the event and be as productive as possible?

6.8.3 Higher online marketing budget

After discussions with Calltic Managers, it has been agreed that the budget invested for online marketing (website excluded) needed to grow. It would be around 10.000€ per year, reaching almost thirty percent of the current total marketing expenses (referred to the table above). Based on the second table, the percentage of online marketing budget did not reach 10 percent in 2023. This new budget will give possibilities to invest in the other recommendations explained above such as LinkedIn ad campaigns, a Sales Navigator subscription, SEO investments and a new website branding.

Calltic may face a dilemma with two different options to manage online marketing:

- Hypothesis 1: Calltic chooses to keep this task internal and centralized to save money and someone from the team would start allocating hours in this task or they can hire a dedicated marketing expert (extra budget to consider).
- Hypothesis 2: Calltic hires a digital agency expert in niche markets and capable of growing Calltic online reputation. The budget will vary on the expertise of the agency, the tasks and also on its location.

If Calltic chooses the hypothesis 2, they should carefully investigate the different possibilities and the offers from different Belgian agencies. Moreover, as an international company, Calltic is highly recommended to also take the advantage to request quotes in other markets. Some regions are renowned for their marketing expertise and creativity such as Latin America and may probably offer much better prices. Countries could be Brazil, Peru, Bolivia, Colombia, etc.

7. Conclusion

Exploring the complexities of an online customer journey in the international telecommunications market, particularly within the anti-fraud business in Africa, has been a journey with many opportunities and challenges. Our Belgian-based company Calltic has the goal of establishing its online presence in regions where cultures and expectations diverge significantly. In this paper, we have tried to present an exhaustive analysis that does not only explains the nuances of the telco sector but also emphasizes recommendations to strengthen the online customer journey.

We began with the introduction of Calltic, explaining the complexities of the international environment, and the tasks faced by a Belgian company when doing business in a diverse African market. This led to a deep analysis of the organization's mission, vision, and values. It also pointed out a vital SWOT analysis. This corporate analysis offered a comprehensive insight of Calltic's culture, strengths and weaknesses which is crucial for developing a successful online strategy.

Afterwards, we dove into a strategic marketing analysis, including the Segmentation, Targeting, Positioning (STP) strategy and the Marketing Mix (4Ps). This analytical part enlightened the position of Calltic in this competitive market, highlighting the necessity for strategies that connect with its target audience and align with its mission.

Then, we acknowledged the importance of a deep understanding of African customers and created extensive marketing personas that represent Calltic's main targets. These personas offered an opening into the diverse profiles of Calltic's customers, enabling a client-centric strategy in both online and offline marketing actions.

Our exploration then brought us to the analysis of the entire customer journey, online as well as in the real world. We identified the critical touchpoints on which Calltic should focus its efforts, especially in the awareness stages. Recognizing these touchpoints allowed us to propose a comprehensive roadmap for stronger online customer experience.

Additionally, interviews of real actors in the African market played a crucial role in validating some of our findings and added a practical dimension to our study. These interviews provided insights into the telco industry's difficulties, adding a comprehension between theoretical expertise and real-world application.

As our thesis reached its peak, we moved from analysis to action by suggesting some strategic recommendations. These included the continued use of marketing personas as a guide for customer-centric strategies, establishing a Google presence with SEO, Ads campaigns and the use of Google's power for data-driven decision-making with Trends and Analytics. We underlined the importance to optimize Calltic's website to meet the needs of its audience. This thesis perceived the potential of LinkedIn as a professional networking platform too, expanding Calltic's reach and influence within the industry. Moreover, we highlighted the role of creating marketing content, such as blogs and email campaigns as an effective way to connect and maintain engagement with the audience. We also recommended active participation in industry associations, notably the GSMA, to boost international presence of Calltic. At last, the thesis stressed on an optimized budget management to control and maximize the impact of marketing campaigns.

In conclusion, this journey through Calltic's online customer engagement strategy is not only an academic exercise but also a practical roadmap towards success in a competitive, culturally diverse, and ever-growing telecommunications market. Calltic's position in this sector presents a wide range of options for expansion and innovation. The path ahead may seem complicated, but it is filled with opportunities for greater online customer engagement and brand visibility. We hope that this paper will serve as an excellent guide, illuminating the way for the company's online customer journey in the telco environment. In a world as diverse and interconnected as ours, the ability to understand the

nuances of different cultures and adapt strategies to meet local expectations is a key to favorable outcomes. Calltic's online customer journey serves as a major example of the adaptability and creativity requested by the telecommunications industry. The objective of Calltic is now to grow in such an exciting field of online marketing through the application of the knowledge gathered from this study, which showed that there is a lot of room for growth, innovation, and building strong relationships with customers in this industry.

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