



Universidad Pontificia Comillas ICADE

# **BANKING AND FINTECH IN THE CUSTOMER EXPERIENCE ERA**

Author: Sara Vazquez Rico  
Tutor: Nicolás Santamaría Vega

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## ABSTRACT

To succeed in this technology-driven era where experience is even more important than the actual product, companies need to master customer experience. This paper aims to navigate customer experience in a company and how to make it experience-centric. It provides a deeper analysis of the banking industry since it has been a traditional industry exposed to massive changes due to technology. The traditional banking industry has now to coexist with fintech. Therefore, we will explore how each performs on the customer experience side. Lastly, this paper will discuss the newest AI, the blockchain technology, and the new internet, also called the metaverse, and how this could impact customer experience.

Keywords: Customer Experience, CX, Experience-centric, Journey Mapping, Fintech Industry, Banking Industry, AI, Metaverse

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# 1. INTRODUCTION

## 1.1 JUSTIFICATION OF THE SUBJECT OF STUDY AND OBJECTIVES

This paper has various objectives beyond the obvious one described by the title. First, it aims to clarify the term customer experience since it is often misunderstood or even confused with the family member term “consumer service” (which we can already state is just part of the customer journey, within a corporation’s customer experience). Second, understand the opportunity and importance of customer experience in the digital age and the characteristics behind a successful strategy. Third, customer experience in the banking and fintech industry will be analyzed, as they are a huge component of the economic dynamics, and drives up development and financial growth. This industry is “timeless” when it comes to analysis. The customer experience opportunities and threats that exist in this industry will be discussed as well, along with an examination of the customer experience management department (CEM or CMX) in this sector. There is a special mention of technologies that affect the future of customer experiences like AI and the new generation of the internet, the metaverse, and how these pressing technologies will potentially affect the future of customer experience.

## 1.2 METHODOLOGY

The paper is divided into three main chapters. The first one is a literature review on customer experience and its importance in the tech-driven world we live in now. This first part is based on various books that can be found in chapter 5 “references”. However, there are two books that had a special impact on this first part of the paper, which is *The Experience-Centric Organization: How to Win Through Customer Experience* (Clatworthy) and *This Is Service Design Doing: Applying Service Design Thinking in the Real World* (Stickdorn et al).

In the second chapter, there is a contextualization of banking and fintech in this moment in time, how they co-exist, and the customer experience in these industries. In order to compare customer experience in these industries, a benchmark analysis is carried out with the main metrics involved. Additionally, the metrics used for the benchmark analysis are examined more in-depth with Gauss Bells. Lastly, aligning the theory explained in chapter one and the benchmark results, steps to improve customer experience in both industries are discussed.

In the last chapter, future opportunities, and threats for banking and fintech regarding customer experience are reviewed and analyzed. This last part is followed by a personal conclusion in which how to succeed in customer experience with a long-term vision is discussed.

## **2. CUSTOMER EXPERIENCE**

### **2.1 WHAT IS CUSTOMER EXPERIENCE AND FACTORS THAT PUSHED ITS IMPORTANCE ON A CORPORATION'S STRATEGY**

In a world in which the supply of products and services is increasing, the competitiveness between the different options is at a high level. The differentiating margin between the various alternatives that we find in the market is becoming smaller. For this reason, more and more companies rely on customer experience (CX) as a way of driving on the market. "The digital revolution has made customers' demand for good experiences even more powerful, where they once were often forced to take what they could get locally or find in the news they now have a huge choice" (Stickdorn et al, 42). People have more information in their hands to make more comparable decisions and more channels for purchase. Someone from Spain might find it easier to buy a product from the other side of the planet than from the store across the street. A hotel's client can leave a bad review of his awful experience on its website (in less than a minute) for hundreds of people to read. In a world where information and options have multiplied, taking care of the customer and their loyalty is on the agenda for many corporations that seek longevity for their business.

Customer experience is the set of interactions that a customer has with a brand and the opinions, perceptions, and feelings that they form after this act. These interactions go from a company's loyalty program to interacting with an employee on the phone, product personalization, or product positioning in a store. Customer experience is always present when someone comes in touch with a brand and generates an impression of it, that is why this interaction includes the anticipated utility, the experienced utility, and the retrospective utility.

Companies are realizing that customer experience is a key component of their success. "In a world where there is competition, customers choose services based on their experience using them" (Clatworthy, 22) This is based on various factors that have made customer experience

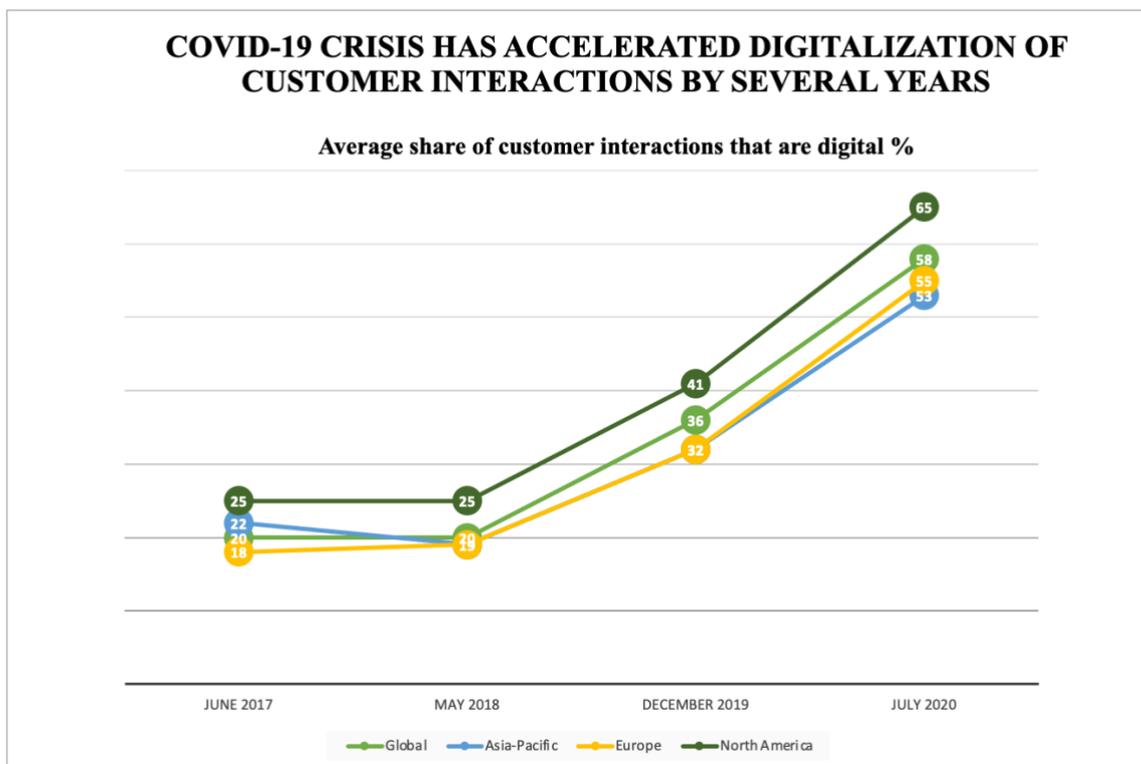
grow to be the differentiator component and sales-driving cause for many businesses. First, there is a market economy factor, the economy has grown, and we live a quality of life that has never been seen before in history. Many of the actions and companies that we interact with do not affect our primary necessities because those are more than covered. People seek greater products and services, easier reach, and overall, more curated experiences that make them feel something. “As customers, it seems that we are less influenced by the core offering than by the layers of experience around it” (Stickdorn et al, 30).

Another important factor that has made customer experience take such an important role in the company dynamics nowadays is the branding and marketing efforts. Even though branding is far from a recent phenomenon, it has developed greatly throughout the years. People promoting products and services can be found way back in history. References of branding practices can be dated back to Roman and Greek times. “Messages would be written informing the public that this man, at this address, could make shoes and that the man who lived over there, at that address, was a scribe.” (Room) From these first stimulations of driving up demand and purchase of products, branding and marketing have taken on a degree of complexity due to the evolution of society. That is why, in the marketing world it is stated that we have gone from marketing 0.1, when products were made to satisfy customer necessities, to marketing 0.3. Marketing 0.3 is based on the idea of transferring the values of the brand to the client, generating a community around the product, and making the customer feel that they belong to a group. The way that customers interact with brands has developed from simply having to cover a necessity to make them feel like part of a selected group and therefore customer experience has stepped as one of the main ways of plotting this path. This journey that the customer takes regarding the use of the product or service and the connotations that they give to it, is called the experiential journey.

Lastly, the third factor that has elevated customer experience to what it is today is technological advances. Interconnected with economic growth and marketing 0.3, technology innovations affect our daily actions at a noteworthy level, which includes the way we navigate through life and how we interact with corporations and brands. These technological advances are the reason behind the adoption of the term constant connectivity. This denomination refers to our ability to be connected from anywhere at any time. Constant connectivity is behind brands being able to reach customers at any time, adding value to their experiences. “The explosive growth of mobile devices means that you can be engaged with your customers whether they are at home,

at work, in your store or anywhere else.” (Wladawsky) The opportunities for brands brought by technological advances along with the constant connectivity that defines our use of them create a key element to keep in mind when designing the process of an experiential journey. For example, due to these advances companies can use data to design a much more personalized customer journey.

This last factor, technological advances, and the digital transformation that we have been living in the twenty-first century were greatly accelerated by the COVID-19 pandemic.



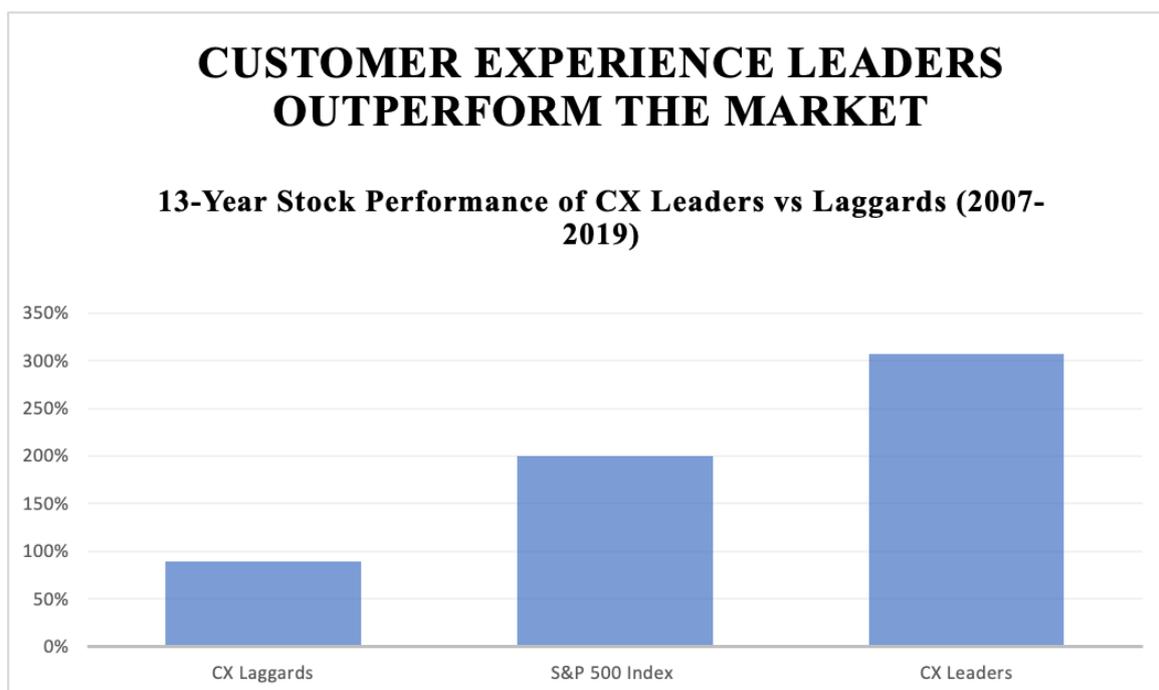
Note. Data are from “How COVID-19 has pushed companies over the technology tipping point” (2020)

**Figure 1. COVID-19 Crisis Has Accelerated Digitalization Of Customer Interactions by Several Years**

This is going to dictate the future trends of customer experience as life on digital platforms becomes the usual place for brands to interact with clients. “According to a new McKinsey Global Survey of executives, their companies have accelerated the digitization of their customer and supply-chain interactions and of their internal operations by three to four years (COVID-19 digital transformation & technology) As COVID-19 accelerated the process of digital adoption by years in a matter of months to generation-less levels, this pushes customer experience weight on a company’s technology strategy.

## 2.2 WHY CORPORATIONS INVEST IN CUSTOMER EXPERIENCE TODAY

All these factors have taken customer experience from being an undeveloped part of a company, and an inexistent term a few decades ago, to being one of the main focuses for executives on top corporations all over the globe. Customer experience is one of the primary elements of a company’s success in this era and that is why “companies that master customer experience outperform the market” (The Customer Experience ROI Study) and experience “greater profits, faster growth, and better marketing results” (How Best-In-Class CX Leaders Use The Customer Experience Value Chain)



Note. Data are from “The Customer Experience ROI Study” (2021)

**Figure 2. Customer Experience Leaders Outperform The Market**

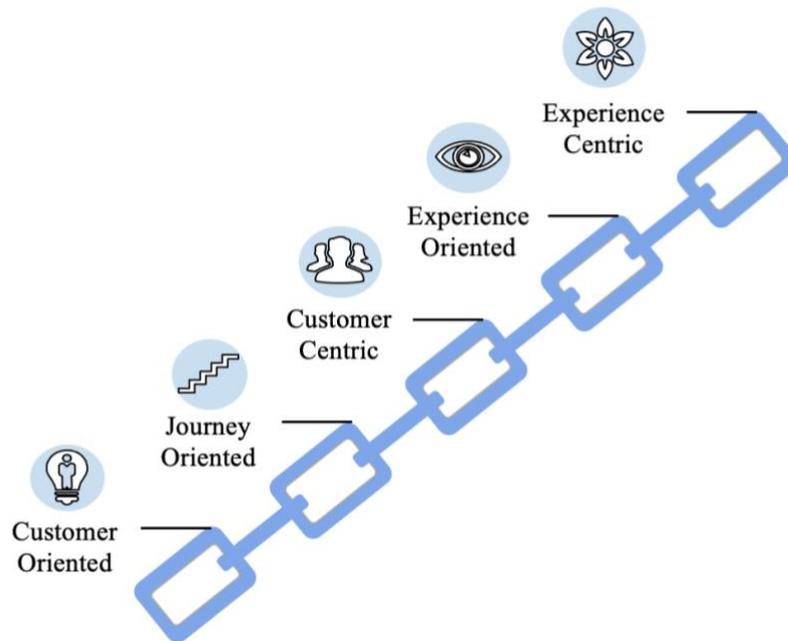
A customer experience leader is a corporation that has the customer and his feelings and expectations as the center of all operations. It follows what is called an experience-centric structure and masters the experience of interacting with the brand. The economic results of doing so are shown in the table above. This data is clear proof that knowing your customers, designing memorable experiences, bringing them to life, and monitoring them, leads to company success. This conversion rate for investing in good customer experience was part of a recent study done by PWC where they found that “customers are willing to pay more for the experience qualities that matter most to them: 43% of consumers would pay more for greater

convenience, 42% would pay more for a friendly, welcoming experience and 65% of U.S. customers find a positive experience with a brand to be more influential than great advertising” (Customer experience is everything).

How customer experience brings better financial results is also proven because when it is missing, money is lost. In 2009, when customer experience was less developed than it is today, it was estimated that “poor customer experiences led to \$83 billion of lost business in the United States alone” (Stickdorn et al, 68). For example, availability and convenience are very important factors in the digital customer journey, and when they are missing, that brings losses to corporations. Apple announced almost a decade ago, “100-millisecond latency increases cost them 1% in sales. In 2017, Akamai found that a 100-millisecond delay in website load time can lower conversion rates by 7%. And, in 2018, Google found that when a page load time increases to three seconds from one second, the bounce probability goes up by more than 30%”. (Kurtic)

### 2.3 THEORY ON CUSTOMER EXPERIENCE

Becoming an experience-centric organization means that you do not only have your customer in mind when designing the customer journey, but you question what does this client wants to feel? This philosophy is not followed by the first-stage customer experience corporations, the ones that are on the “customer-oriented” step. Customer-oriented companies miss not only the philosophy, but the organizational structure, brand orientation, and process approach to customer experience.

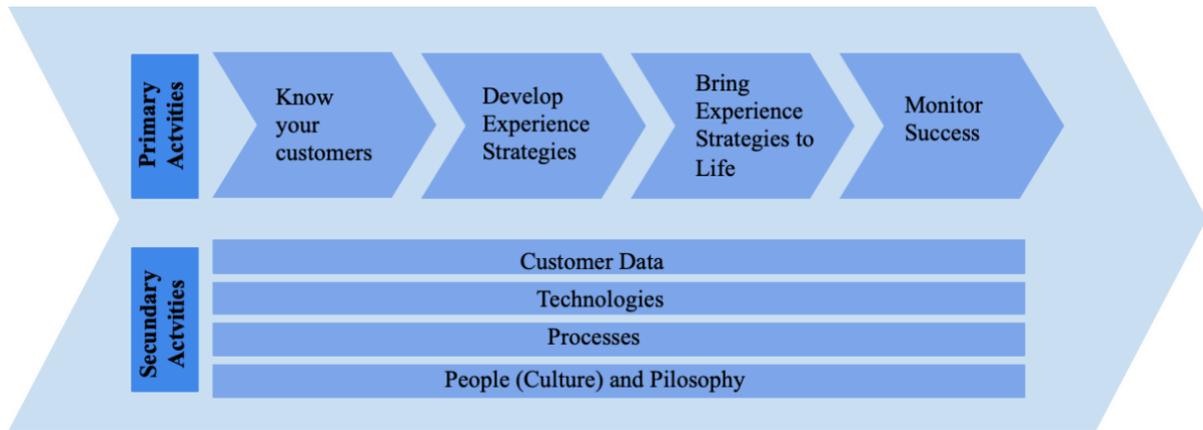


Data. From “The Experience Centric Organization” (2019)

**Figure 3. *Becoming an Experience Centric Organization***

Therefore, we will focus on the last step characteristics, being an experience-centric organization and how to get there. In this step, the corporation makes delivering desirable experiences its focus, and all divisions are aligned with this goal. In addition, they know exactly what type of experience they want to offer their customers. “This organization is stronger because it has a shared vision, and cohesive reason for being, and a clear focus to work toward.” (Clatworthy, 78) Experience-centric organizations take care of the emotional features of interacting with the company and do not restrict them to functional ones.

As it was mentioned before, taking care of customer experience and becoming experience-centric is not something that is solved by an individual and disconnected solution, but a combination of strategies that affect all departments involved in a company structure. This includes its core mission and culture. To get to this position, there are some actions that can be taken by corporations. These can be divided into primary activities and secondary activities. Primary activities are the ones that are needed to be a customer-centric company. However, becoming an experience-centric and master customer experience means including the secondary activities characteristics.



Note. Data are from “How Best-In-Class CX Leaders Use The Customer Experience Value Chain”

**Figure 4. Primary and Secondary activities involved in becoming an Experience Centric Organization**

## PRIMARY ACTIVITIES

First, on the primary activities, the corporation analyzes their customers, understands what they want to feel, and designs an experience that matches it and fits the corporation's structure and values. Each of these steps is explained further in detail hereunder.

- Knowing your customers

This means understanding their needs and wants and where they come from. To do so, corporations use research data, “facts that can be collected, synthesized, interpreted and analyzed to answer research questions, communicate finding or even to help predict future behaviors” (Stickdorn et al, 74). There are other techniques used with the same purpose as research data, which are establishing Voice of the customer programs, “the way a company gathers, analyzes, and acts on customer feedback” (Chung) or building personas, fictional customers that help the corporation understand a client's lifestyle and thinking processes.

- Develop Experience Strategies

“Having a clear understanding of your CX “north star” and making sure it’s aligned with your brand” (*How Best-In-Class CX Leaders Use The Customer Experience Value Chain*) is one of the most important parts of this process. Once you gather all information relevant to your customers, identify a clear objective that is feasible. Assuming the north star goal is identified, the corporation can start journey mapping. Journey mapping is made to understand the experience of a customer over time, and

therefore it reflects all the interactions it has with a brand through a specific process. It can go from the most basic design to a detailed structure that includes “recognizing a need, searching for a specific service, booking and paying for it, using a service, as well as maybe complaining if something goes wrong, or using the service again” (Stickdorn et al, 82).

On the table in figure 5. It portrays the process of a young adult who opens a bank account after receiving his first paycheck in his first big corporation job. It described the steps that John might take to find “X bank” to open an account and afterwise the problems that he might encounter, like losing a card. Every step that he takes is analyzed so that “X bank” can consider the channels that he uses, the feelings that he might experience, or the inconveniences that could be improved.

Some of the critical elements of journey mapping are:

- A. Main actor
- B. Stages
- C. Process
- D. Channels
- E. Emotions involved
- F. Problems
- G. Opportunities



- John  
 - 23 years  
 - Madrid, Spain  
 - Just got his first big corporation job

	AWARE	RESEARCH	1ST COMMUNICATION	USING	SUPPORT	CROSS SELLING	GETTING A LOAN
CLIENT GOALS	ACCOUNT TO PROCESS PAYROLL	CONDITIONS DIFFERENT BANKS OFFER	SETTING UP ACCOUNT	PAY SALARIES ON TIME	LOST CARD	LEARN THE LOAN TERMS	GET A LOAN
PROCESS	John decides to subcontract payroll to a bank	John looks Banks online. He looks for a trustworthy one.	John can set up his account	Checking if he got his salary on time	John wants to block his lost card and get a new one	John receives a text message about the Z Bank's new loan program	John applies and gets the loan
CHANNELS							
EXPERIENCE (The feelings that are involved in the process, it can be in between them)	Interested  Anxiety 	Accomplished  Anticipation 	Serenity  Confusion 	Admiration / Proud 	Calm  Worry 	Hope  Underwhelm 	Excited  Anger 
PROBLEMS	Not knowing how to contact Banks (do you have to call, go to the store...)	Online: Not choosing the website of "X" bank In person: long line, employee with bad communication skills	Online: Getting stuck in the process, not understanding the design of the app In person: leaving with questions, long process, unhelpful employees	Not having a cred card before the first payroll time	Issuing a physical card takes three business days	At the bank John finds out he was expected to bring some documents	John might not get the loan, or worries about how much money he would have left to spend
OPPORTUNITIES	Advertise to let John know that it is very easy to open an account	Google ads, use search engines to appear at the top of searches. Market "X" Bank as a very trustworthy institution for the user decision making	Have an easy way to book a visit on the bank's website or app in case they have trouble setting up their own account. Offering Little clips on money management	Let customers apply for their payroll cards online as soon as they set up their account.	Easy use of Apple pay card, while waiting for physical one Enable urgent card when the account is open for this type of situations	Follow up the appointment call with a message or email containing the list of documents that clients must bring	Offer a new budgeting program after getting a loan.

Note. Data are from "Banking, Finance & Insurance customer journey map templates – UXPressia"

Figure 5. Journey map and process of a persona opening a bank account

Journey mapping can also be done with employees, members that interact in the process of the experience, and stakeholders as main actors, for an optimal experience design (the importance of these figures will be discussed further in detail on secondary activities, people, and culture).

- Bring the strategy to life

This means designing a feasible strategy and bringing it to life. For doing so, the first two steps are essential: having a north star goal for the corporation, knowing what customers are seeking, and the company's opportunities to elevate the experience at every interaction that the customer has. All the changes made to a previous customer strategy need to follow a thinking process like this “We believe (describe the new experience), will solve (customer’s needs and organizations issue/opportunity), enabled by (full solution), resulting in (new attitude/behavior/result)” (How to create a customer experience (CX) strategy). Once the strategy is designed, a good implementation empowers all company members to follow and implement it.

- Monitor your success

The last step of the primary activities is to monitor the implementations done through data and reporting tools. By doing so, the corporation can track the performance of the new customer experience strategy and adjust it if necessary. It will tell if the improvements done on the experience are aligned with the outside perspective.

## SECONDARY ACTIVITIES

In order to be an experience-centric company, integrate the customer experience strategy in a cross-functional way into the organization. That is why the primary activities need to be supported by some secondary activities that can be divided into four aspects: customer data, technologies, processes, and people (culture), and philosophy.

- Customer data

To be able to carry out the primary activities, there needs to be an integrated data management system that allows the corporation to track the most up-to-date data. “You can connect your audiences, systems, and customer information across processes and

channels” (How Best-In-Class CX Leaders Use The Customer Experience Value Chain)

- Technologies

In order to deliver a unified customer experience across all the different devices and platforms, there needs to be an omnichannel customer experience. “Omnichannel customer experience is when a business advertises to, sells, and supports prospects and customers across multiple channels, treating each interaction or touchpoint as part of a single, frictionless whole” (Clark). This approach to a company's use of technology enables a customer to switch from one device to another effortlessly and seamlessly.

- Processes

Great customer experience procedures let you integrate your audiences, systems, and data across processes and channels.

- People (Culture) and Philosophy

One of the most important parts of these secondary activities that truly differentiate corporations into being experience-centric is how aligned is its customer experience strategy with the company's culture and philosophy. Employees drive the experience for customers, therefore, having a good customer experience starts with the company's culture “When your team is educated on company values, goals, and mission, you will have a cohesive approach to customer service, which becomes a powerful part of your brand.” (3 Ways to Up Your Customer Service Game) This will not only help customer experience but build a strong company identity, make customers feel like they are part of something bigger than a corporation, and become a desirable workplace for employees where they can fulfill their affiliation needs and purposes.

### **3. CUSTOMER EXPERIENCE IN THE BANKING AND FINTECH INDUSTRY**

As the powerhouse of the economy's growth, the banking and fintech industries are very present in people's everyday life. This has been a fact for the banking industry for thousands of years

since it was first created. It has been forced to evolve as a means to adapt to enormous client's needs and lifestyle changes over time, which have sped up in the last century. This made the banking industry take on customer experience practices in order to thrive and co-exist with the contemporary technology which fintech brings to the scene. Therefore, how do a traditional industry (banking) and a booming one (fintech) lead with one of the keys to successful customer experience in this current time?

### 3.1 THE BANKING AND FINTECH INDUSTRIES CO-EXISTING

As it happens with the world customer experience, which resounds to many people, but they would not know how to explain it accurately, this occurs with the world of fintech and the characteristics that surround the term. “Fintech” comes from the combination of finance and technology. It is an industry that applies new technologies to investing and financial services. It is known for using machine learning to develop software, data sciences, and blockchain, in order to automate and improve financial services. In the following table, the different kinds of fintech categories are shown, which demonstrates the range of technology, services, applications, and deployment modes involved.

FINTECH MARKETS

TECHNOLOGY	SERVICE	APPLICATION	DEPLOYMENT MODE
Api	Payment	Banking	Cloud
AI (artificial intelligence)	Fund transfer	Insurance	On-premises
Blockchain	Personal finance	Securities	-
Distributed Computing	Loans	Others	-
-	Insurance	-	-
-	Wealth Management	-	-

Note. Data are from “Global Fintech Market Research report”

**Figure 6. Fintech Markets**

As technology dictates the rhythm of our daily actions, the expected growth of the fintech market size and growth is highly significant. “The global financial technology market is

expected to grow gradually and reach a market value of approximately \$324 billion by 2026, growing at a compound annual rate of about 23.41% over the forecast period 2021-2026.”

### 3.2 CUSTOMER EXPERIENCE IN THESE INDUSTRIES

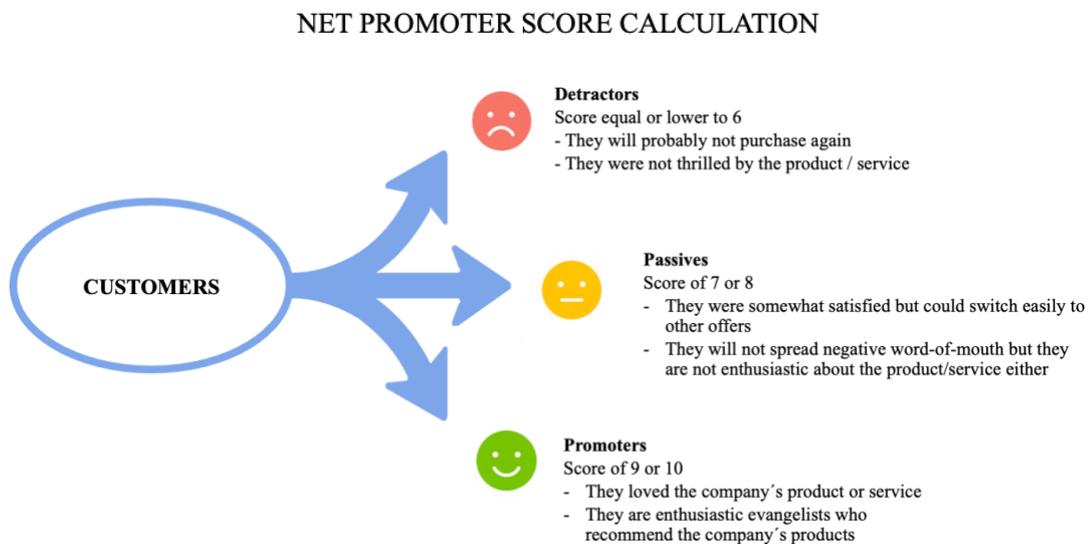
Banking exists side by side with fintech. However, fintech has disrupted the way the traditional industry has done things in four main factors: margins, information, market share, and this paper's focus, customer experience. Even though this can be seen as a huge threat for banks, fintech amounts to a small portion of the whole banking market share. Also, fintech does collaborate with banks in many aspects. As an example, all banks have mobile apps which are many times supported by fintech companies that profit from them. Fintech is certainly the pusher of traditional banking to adapt to newer times. “Fintech is bridging the gap between what traditional banks offer and what the modern consumer has grown to expect” (Fintech vs Traditional Banks: Competition or Collaboration?) This means that traditional banks are endorsing some of the fintech features to stay relevant and offer customers a frictionless experience. These characteristics include mobile payments, online budgeting, paperless lending, and instant peer-to-peer lending. Overall, fintech offers a better and more curated customer experience which is being adopted by traditional banks. This is supported by data found on recent research done by PWC, which found that “Traditional players are still in the early stages of customer-oriented solutions, at least when compared to what FinTechs propose. Only half of the respondents from the banking sector (53%) believe they are consumer-centric, compared with over 80% for FinTech survey participants.” (*Customers in the Spotlight: How FinTech Is Reshaping Banking*, n.d.)

### 3.3 BENCHMARK ANALYSIS

#### 3.3.1 Metrics used

There are two benchmark analyses, one for banking and one for the fintech industry, in order to compare customer experience performance in these two fields. The top ten companies in banking and fintech are included in their respective benchmarks. These companies are evaluated in various metrics related to customer experience on a scale from 0 to 10. Zero is low performance and ten is a high performance on a specific metric. The metrics that will be evaluated are:

- Net promoter Score: Also called the NPS, it measures the willingness of customers to recommend a company's product or services to others. For calculating the NPS customers are divided into three categories, which are detractors, passives, and promoters.



*Figure 7. Net Promoter Score Calculation*

To calculate the NPS, a company subtracts the detractors from the promoters. This comes to appear on a scale from -100 and 100. If every single customer would answer with a nine or a ten, then the NPS would be a 100. An experience-centric company seeks a 100 and “build experiences that create promoters” (Net Promoter Score). For the scale used in the benchmark, this will be the conversion rates from NPS to our scores (0 to 10)

NPS	-100	-50	0	50	100
Benchmark score	0	2.5	5	7.5	10

*In the table are just shown some examples of NPS converted to benchmark scores*

*Figure 8. Scale used to calculate NPS*

- Revenue  
As it was stated earlier in the paper customer experience is directly related to revenue growth. Better customer experience improves customer retention

loyalty, builds a foundation for the company, and helps differentiate a business from others. It overall improves a company, and therefore this is reflected in the revenue levels. To convert revenue data into benchmark scores, the company with the highest revenue will be a ten. The rest of the companies will have a benchmark score from 0-10 proportional to the highest revenue earner in the group. For example, in Figure 9. an example of a revenue conversion into a benchmark score is portrayed. J.P Morgan Chase is the highest revenue earner in the group of selected companies and therefore will have a 10 on the benchmark score. Bank Of America National Association, will have a benchmark score proportional to the 10 given to J.P Morgan Chase.

Company	Revenues	Benchmark Score
J.P Morgan Chase	121,649,000	10
Bank of America National Association	89,113,000	7.32

*Figure 9. Example of Revenue Data Converted Into A Benchmark Score*

- Profit Margin

“Customer-centric companies are 60% more profitable than companies that don't focus on customers” (Danise & Morgan, 2019). Therefore, on the benchmark, there are two profitability measurements: profit margin and operating margin. Profit margin divides income by revenue, indicating the ability of a company to generate money. It is expressed as a percentage, and therefore it expresses how much profit a company makes on a dollar of sales. In order to convert the percentage number into a Benchmark score, the percentage will be applied to an scale from zero to ten.

Profit Margin	20%	40%	60%	80%	100%
Benchmark Score	2	4	6	8	10

*In the table are just shown some examples of Profit Margin data converted to benchmark scores  
Figure 10. Scale used to calculate Profit Margin*

- Operating margin

The second profitability ratio that is used in the benchmark is the operating margin. This ratio indicates the ability of a company to make money as well, dividing the income by the revenue after paying the variable costs (this last part makes the difference between profit margin and operating margin). Variable costs do that are fallen into when the volume of production is modified. This affects wages, fees, and sales commissions, in the case of a bank or a fintech company. In order to convert the operating margin data into benchmark scores, the same process that happened in profit margin will take place, the percentage will be applied to a scale from zero to ten.

Operating Margin	20%	40%	60%	80%	100%
Benchmark Score	2	4	6	8	10

*In the table are just shown some examples of Operating Margin data converted to benchmark scores  
Figure 11. Scale used to calculate Operating Margin*

### 3.3.2 Companies used

The companies used to do the benchmark are the top ten companies from each industry. Banks are ranked by assets, while fintech is ranked by market valuation. The reason behind ranking them by different metrics relies on the nature of the companies in these industries. The value of fintech depends on future performance because they are not valued, the current business model. On the other hand, banking companies are ranked by assets since their traditional business model is not based on future performance.

#### Banks (Ranked by assets)

Ranked	Bank	Assets US\$ (Millions)	Country
--------	------	------------------------	---------

1	BNP Paribas	3,053,363.00	France
2	J.P Morgan Chase	3,025,285.00	United State
3	Crédit Agricole SA	2,406,211.00	France
4	Bank of America National Association	2,258,832.00	United States
5	Banco Santander SA	1,850,614.00	Spain
6	Société Générale	1,793,806.00	France
7	BPCE	1,774,563.00	France
8	Wells Fargo Bank National Association	1,767,808.00	United States
9	Citibank NA	1,661,507.00	United States
10	Deutsche Bank AG	1,626,085.00	Germany

Data from <https://risk.lexisnexis.com/insights-resources/article/bank-rankings-top-banks-in-the-world>

**Figure 12. Top Ten Banks in Europe and America Ranked By Assets**

Fintech companies (Ranked by market valuation)

Ranked	Company	Market Valuation US\$ (Millions)	Country
1	Visa	472,496.5	United States
2	Mastercard	367,633.7	United States
3	Intuit	149,80.4	United States
4	Paypal	132,950.2	United States
5	Stripe	95,000	Ireland
6	Adyen	65,239.8	Netherlands
7	Fiserv	64,630.1	United States
8	Square	64,155.4	United States
9	Klarna	45,600.0	Sweden
10	Coinbase	42,018.6	United State

Data from <https://courses.cfte.education/ranking-of-largest-fintech-companies/>

**Figure 13. Top Ten Fintech Companies Ranked By Market Valuation**



### 3.3.3 Benchmarks

#### BANKING BENCHMARK

Company	NPS	(0-10)	Profit Margin	(0-10)	Operating Margin	(0-10)	Overall Revenue (In thousands)	(0-10)	BENCHMARK SCORE
<u>BNP Paribas</u>	20	6	22.79%	2.27	29.23%	2.92	56,355,000	4.63	3.95
<u>J.P Morgan Chase</u>	4	5.2	36.92%	3.69	45.83%	4.58	121,649,000	10	5.86
<u>Crédit Agricole SA</u>	10	5.5	27.72%	2.77	35.40%	3.54	18,061,000	1.48	3.32
<u>Bank of America National Association</u>	-24	3.8	34.13%	3.41	36.26%	3.62	89,113,000	7.32	4.53
<u>Banco Santander SA</u>	7	5.35	20.83%	2.08	37.86%	3.78	48,448,000	3.98	3.79
<u>Société Générale</u>	-	-	21.93%	2.19	33.14%	3.31	35,603,000	2.92	2.80
<u>BPCE</u>	40	7	-	-	-	-	-	-	-
<u>Wells Fargo Bank National Association</u>	-2	4.9	25.98%	2.59	35.10%	3.51	72,340,000	5.94	4.23
<u>Citibank NA</u>	-3	4.85	29.27%	2.92	36.63%	3.66	71,887,000	5.91	4.33
<u>Deutsche Bank AG</u>	-8	4.6	9.50%	0.95	14.68%	1.46	23,793,000	1.95	2.24
<b>AVERAGE</b>	4.88	5.24	25.45%	2.54	33.79%	3.37	59694333	4.9	4.01

Data from <https://netpromoterscore.guru> <https://www.globenewswire.com/news-release/2022/02/10/2382395/0/en/CREDIT-AGRICOLE-SA-Q4-21-and-12M-21-RESULTS.html> , <https://www.globenewswire.com/news-release/2022/02/10/2383187/0/en/Bpce-results-for-the-Q4-and-full-year-2021.html#:~:text=The%20digital%20Net%20Promoter%20Score,at%20the%20end%20of%202021>. <https://finance.yahoo.com/>

**Figure 14. Banking Benchmark**

FINTECH INDUSTRY BENCHMARK

Company	NPS	(0-10)	Profit Margin	(0-10)	Operating Margin	(0-10)	Overall Revenue (In thousands)	(0-10)	Average of metrics in 0-10 form
<u>Visa</u>	12	5.6	51.59%	5.15	66.45%	6.64	24,105,000	9.5	<b>6.72</b>
<u>Mastercard</u>	7	5.35	46%	4.6	54.37%	5.43	18,884,000	7.44	<b>5.7</b>
<u>Intuit</u>	44	7.2	19.03%	1.9	23.31%	2.33	9,633,000	3.79	<b>3.8</b>
<u>Paypal</u>	13	5.65	16.43%	1.64	17.01%	1.70	25,371,000	10	<b>4.74</b>
<u>Stripe</u>	31	6.55	-	-	-	-	9,440,000	3.72	<b>5.13</b>
<u>Adyen</u>	40	7	7.84%	0.78	9.92%	0.99	3,641,389	1.43	<b>2.55</b>
<u>Fiserv</u>	-5	4.75	8.22%	0.82	14.19%	1.41	16,226,000	6.39	<b>3.34</b>
<u>Square</u>	49	7.45	-31.78%	-3.17	-30.72%	-3.07	9,497,578	3.74	<b>1.23</b>
<u>Klarna</u>	25	6.25	19.44%	1.94	22.20%	2.22	5,730,000	2.25	<b>3.16</b>
<u>Coinbase</u>	45	7.25	46.24%	4.62	57.04%	5.70	1,277,481	0.5	<b>4.51</b>
<b>AVERAGE</b>	26.1	7	20.33%	2.03	25.97%	2.59	13614218.6	4.87	<b>4.09</b>

Data from <https://customer.guru/net-promoter-score/visa-inc>, <https://www.comparably.com/brands/adyen> <https://finance.yahoo.com/>  
**Figure 15. Fintech Industry Benchmark**

For a better understanding of the comparison between the banking vs fintech industry benchmark scores, in Figure 13. the different metrics involved are compared individually.

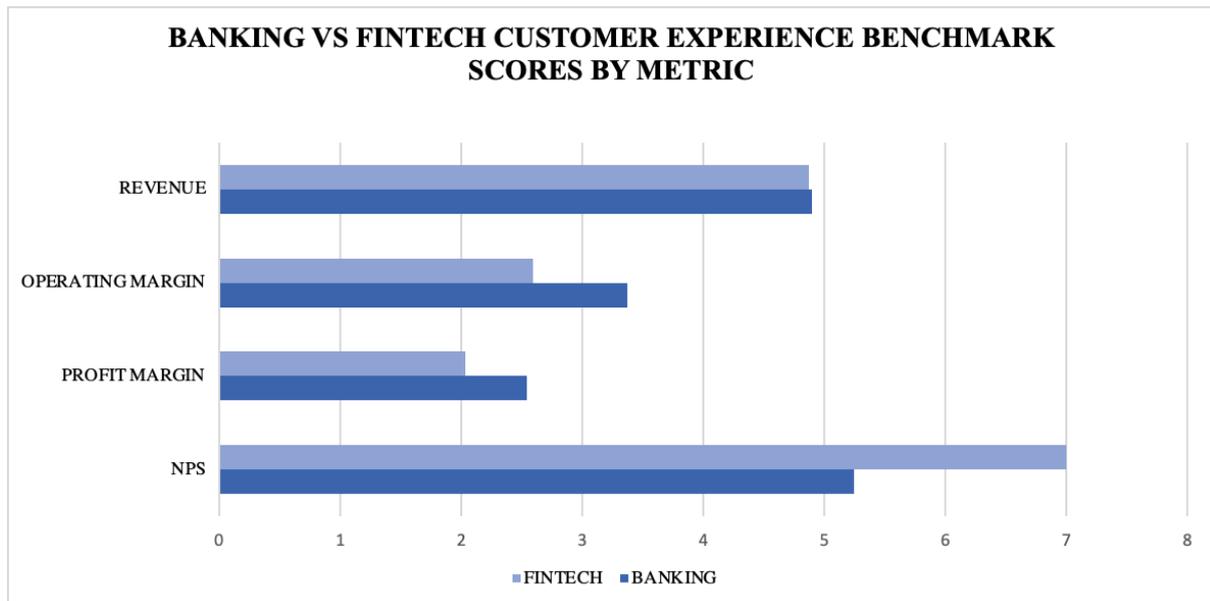


Figure 16. Banking Vs Fintech Customer Experience Benchmark Scores by Metric

### 3.4 BENCHMARK OBSERVATIONS

The benchmark shows the baseline in customer experience in the banking and fintech industries. As a first analysis of the overall benchmark score for banking and fintech, there is a clear similarity regarding the degree of customer experience development in both these industries.

BANKING SCORE	FINTECH SCORE
4.01	4.09

Figure 17. Banking Vs Fintech Overall Benchmark Score

Even though on a scale of zero to ten, four is closer to zero than ten, this does not necessarily mean that the benchmark score is bad since it could be considered a low number. Having over 40% profitability (since profitability was one of the metrics valued from 0-10) is a great statistic for a company. This number just portrays how these industries perform. Regarding the clear similarity between them, some observations concerning each metric need to be considered for a better understanding of the benchmark scores.

In respect of the NPS score, banking has a 5.24 score and fintech has a 7 score. For the banking industry, this score means that the average client is a detractor of their product or service. They were not thrilled by their services, will probably not purchase again, and neither recommend it to a friend or family member. In the fintech case, a score of 7 means that the average client is passive. The customer was somewhat satisfied with their experience but could switch easily. Overall, the fintech score is much higher than the banking one, meaning that client interactions with fintech are, on average, more satisfactory than with banking companies.

When analyzing closer profitability data (profit margin and operating margin) on the fintech benchmark, the profitability of many of the companies is lower compared to banking. Several of the companies on the list, such as Stripe, Square, Klarna, or Coinbase, have existed for less than two decades. Compared to the banking ones, the youth of these companies affect their profitability ratios, making the overall benchmark score fall. Also, in the case of Square, its profitability is currently negative, and Klarna just went under a round of funding this past 2021 when it “raised \$639 million in June from investors” (Nair et al., 2022). Fintech companies are expanding at an incredible rate, which makes a lot of boards seek funding and acquire debt to continue this growth path. This brings their profitability ratios down but with the long-term goal of becoming stronger companies in the near future. Therefore, even though profitability is higher in traditional banking, the short life of fin tech companies should be taken into consideration, as a factor that penalizes its results.

Overall, fintech has a slightly higher performance in customer experience than banking does. However, this gap might be increased in the future if fintech improves its profitability ratios since its NPS score is much higher than the banking one.

### 3.5 GAUSSIAN BELL CURVES

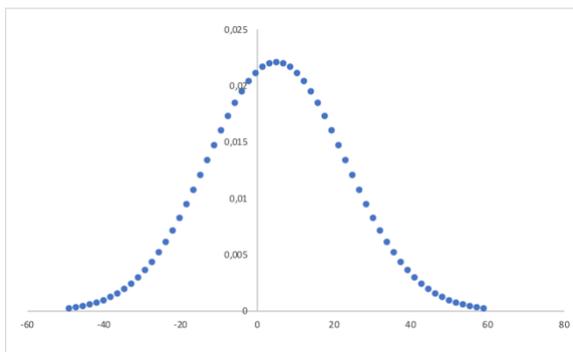
Another way of analyzing the metrics involved in customer experience is through gaussian bells. This will give the numerical analysis an additional and different perspective, allowing a deeper examination of customer experience in these two industries. The gaussian bell is a representation of the normal distribution of a set of data, in this case, NPS, profit margin, operating margin, and revenues. In the Gaussian bell, there is a middle zone, which is concave

and with the mean value of the function in its center. On the two extremes, which are convex and with a tendency to approach the X-axis.

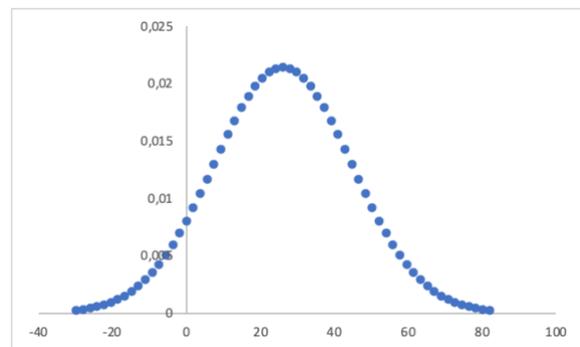
### 3.5.1 Data

The data used to calculate the Gaussian Bell Curves will be the NPS, profit margin (%), operating margin (%) and revenues. Unlike in the benchmark analysis, where the data was modified to fit the benchmark scoring model, it will be used as it naturally comes for every metric used in the gaussian bell curves.

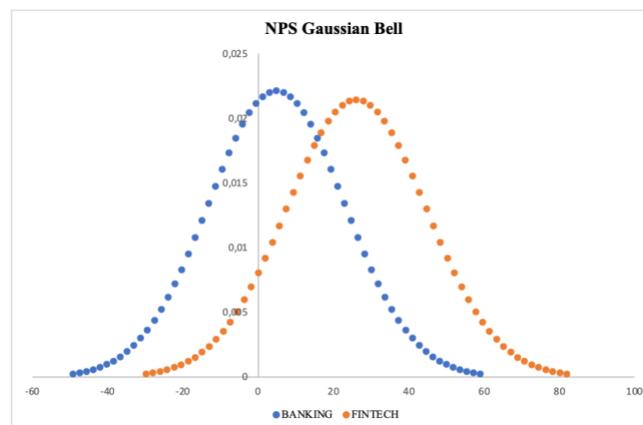
### 3.5.2 NPS Gaussian Bell Curves



*Figure 18. NPS Gaussian Bell Banking*

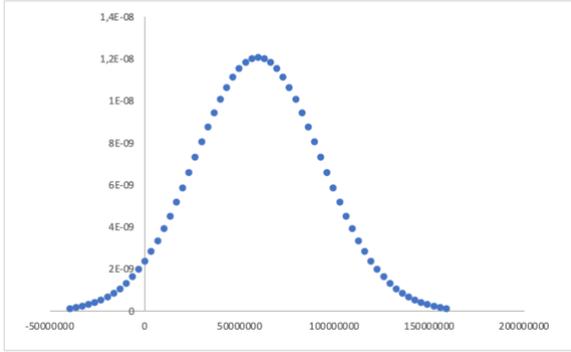


*Figure 19. NPS Gaussian Bell Fintech*

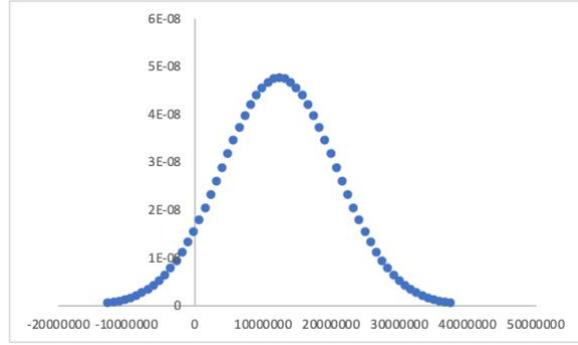


*Figure 20. NPS Gaussian Bell Banking Vs Fintech*

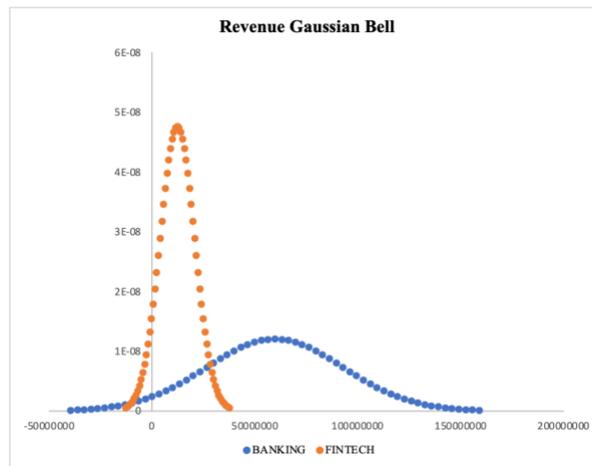
### 3.5.3 Revenue Gaussian Bell Curve



*Figure 21. Revenue Gaussian Bell Banking*

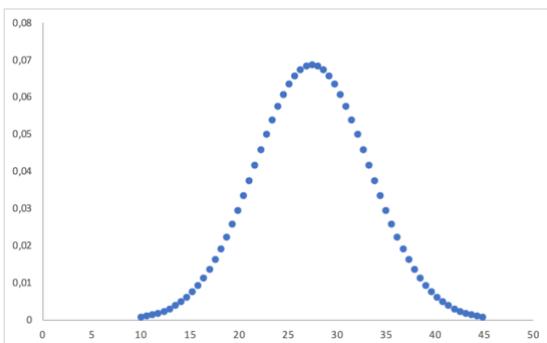


*Figure 22. Revenue Gaussian Bell Fintech*

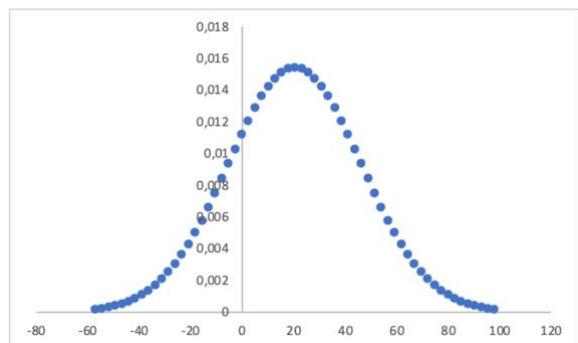


*Figure 23. Revenue Gaussian Bell Banking Vs Fintech*

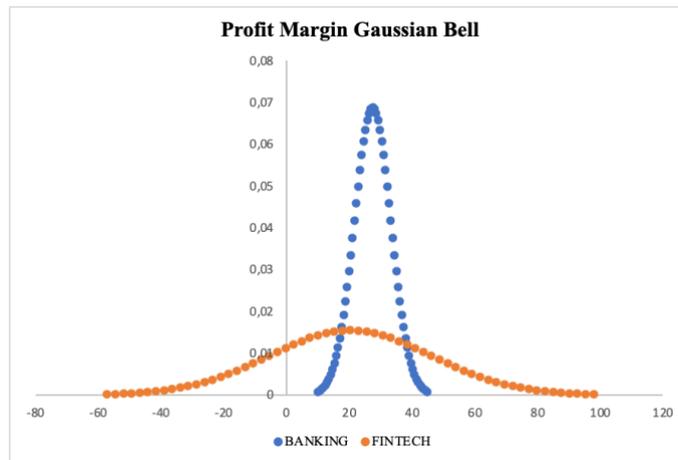
### 3.5.4 Profit Margin Gaussian Bell Curve



*Figure 24. Profit Margin Gaussian Bell Banking*

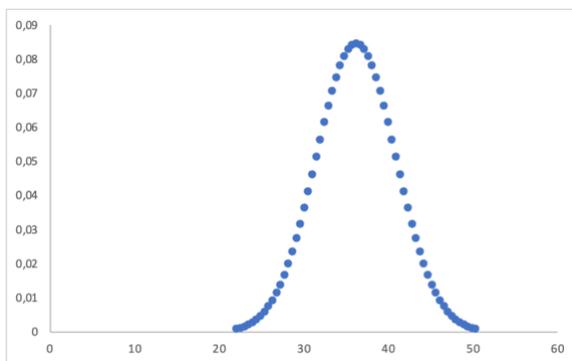


*Figure 25. Profit Margin Gaussian Bell Fintech*

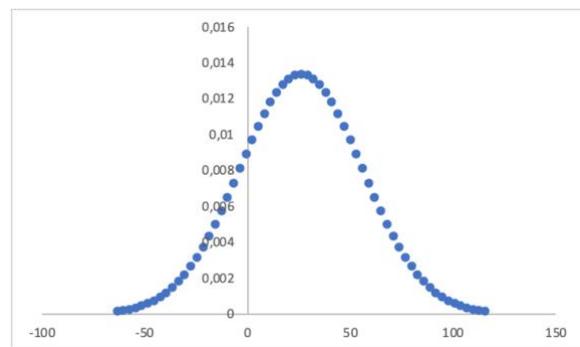


**Figure 26. Profit Margin Gaussian Bell Banking Vs Fintech**

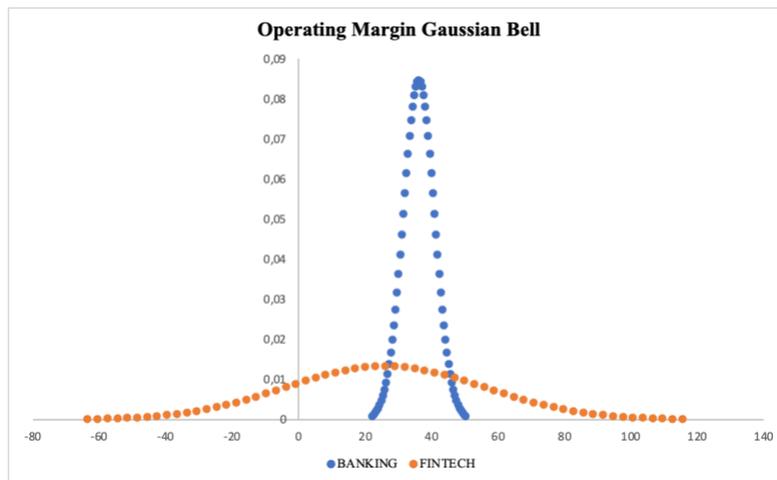
### 3.5.5 Operating Margin Gaussian Bell Curve



**Figure 27. Operating Margin Gaussian Bell Banking**



**Figure 28. Operating Margin Gaussian Bell Fintech**



*Figure 29. Operating Margin Gaussian Bell Fintech*

### 3.6 GAUSSIAN BELL CURVE OBSERVATIONS

The gaussian bell curves in the figures 18-29 picture the mean, mode and median in the peak of the curve, as well as the spread in the results. In figures 20,23,26 and 29 these metrics are compared among the two industries.

On “Figure 20. NPS Gaussian Bell Banking Vs Fintech ”, the advantage that the fintech industry has over the banking industry can clearly be identified. Regarding the spread, NPS scores have a very similar spread across the industries. On “Figure 23. Revenue Gaussian Bell Banking Vs Fintech ” it is a picture of the big differences between normal distribution of revenue in these industries. The revenue spread on the fintech curve is much smaller than the one in the banking curve. This means that there are bigger differences between revenues in the banking industry. The figure also points out that the mean, mode, and median of revenue are much bigger in the banking industry. The mean, mode, and median of the fintech revenue curve are not only much smaller, but a large part of it is in the negative part of the X-axis. On the figures regarding profitability curves “Figure 26. Profit Margin Gaussian Bell Banking Vs Fintech” and “Figure 29. Operating Margin Gaussian Bell Fintech ”, fintech has a lower mean, mode and median than banking and a much bigger spread. This shows how even though revenues are very different across the banking data, profitability ratios are very similar. This undercover the longevity of the industry where profitability ratios are more standardized. On the other hand, even though revenues are more similar in the fintech profitability ratios have a large spread. Fintech is a “young-ish” industry, and therefore its profitability ratios have big differences from those companies that are more established, to others that are still in earlier

phases. These results obtained in the gaussian bell curves, show very similar data and diagnosis that the one obtained in the benchmark analysis. This ratifies the conclusions made in chapter 3.5 Benchmark Observations.

### 3.7 HOW TO GET TO THE EXPERIENCE CENTRIC LEVEL IN BANKING AND FINTECH

There is room for improvement in customer experience in the banking and fintech industries. There are steps to take toward an experience-centric company, where a shared vision creates an experience that matches what the client wants to feel and obtain. In the numerical analysis, carried out in previous parts of the paper, the data involved on the overall customer experience was NPS scores, revenue, and profitability. Improving customer experience brings up these metrics and, in this chapter, some actionable steps to improve experience centric CX for fintech and banking companies will be discussed.

It is important to take into consideration that these two industries do not start out from the same jumping-off point since fintech has a more developed customer experience. This advantage, which was found to be relying on the NPS score, is one of the main improving areas for banking. The NPS score directly relates to customer satisfaction and loyalty, boosting these areas can take some steps for corporations to improve.

#### 3.7.1. EVERYTHING STARTS WITH PURPOSE

What do you want to make your customer feel? The experience you want to offer needs to be tied to your company's purpose. An alignment on vision and purpose gives life to an experience-centric organization, where the customer and its interaction with the company are always the connecting points.

KLARNA'S VISION STATEMENT

“  
...We're all about smooth shopping, online and in-store. We make shopping smooth with  
the aim to become the world's favorite way to shop”

*(About Klarna - Benefits, Mission Statement, & Photos, n.d.)*

**Figure 30. Klarna's Vision Statement**

For example, in the case of Klarna, they express clearly in their vision statement the type of experience that they want to offer their clients. As the vision statement articulates what an organization wants to achieve.

SOCIÉTÉ GÉNÉRALE VISION STATEMENT

“  
Building together, with our clients, a better and sustainable future through responsible  
and innovative financial solutions”

*(Our Purpose - Société Générale, n.d.)*

**Figure 31. Société Générale Vision Statement**

In the case of Société Générale, their vision statement does not reflect an experience-centric organizational perspective. This happens with many other banking companies on the list, which have a more traditional approach to their vision and lack including the customer experience on it.

### 3.7.2. ADOPT A TOP-DOWN APPROACH

The best customer experience companies start with a clear vision of what experience they want to offer to their clients. Once there is a clear vision of going on an experience-centric path, this idea needs to be inculcated into the organizational culture. To be an established practice and vision for the company, there needs to be strong leadership that works for it to be that way. “This position will be tasked with creating a shared understanding of your experimental DNA within the leadership such that you have consensus and authorization to continue with the

transformation” (Clatworthy, 2019, 80). Leadership skills will be crucial for mastering an experience-centric organization because this change starts with company leaders. If company leaders do not have the clear vision, leadership, and desire to change the organizational culture, it will never get to the last employees. “Starting from the top, values and behaviors need to be consistently adopted and acted on at every level of the organization, from C-suite to shop floor.” (*How to Improve Customer Experience (CX)*, n.d.)

Leaders must formalize this organizational structure by taking an active role in spreading the experience that they want to offer their clients and how they want their interactions with the organization to be. Organization leaders are the ones in control of developing a strategy centered on experience or not. Therefore, this means that banking and fintech CEOs and top managers need to actively seek an experience-centric organizational model for this vision to get to the last customer service worker or bank cashier.

### 3.7.3. EMPOWER YOUR EMPLOYEES

Employees are the bridge between a company and its clients. Transmitting the company values and offering an extraordinary experience is in their hands.

- Value your employees

It is very significant for companies to make their employees feel valued for the company and transmit the idea that they are an essential piece of the organization. If employees truly feel part of the company, they will perform with a sense of belonging. Happy customers start with happy employees. Making employees have great experiences (while working for a company) will make customers have memorable experiences.

There are many ways to make employees feel valued. Here are some of the moves that banking and fintech companies can make, for their employees to feel more valued:

1. Reasonable compensation: The most obvious one, offer good salaries to your employees. This means compensating your employees with a fair base pay that can be paired with bonuses and incentives for annual turnover performance. Good compensations can also include transportation reimbursement, retirement contributions or vacation payments.

2. Employee recognition program: These programs are initiatives that aim to reward employees for milestones, achievements, or behaviors. These types of programs for employees are directly correlated with customer satisfaction. “Therefore, appreciating your employees for good work has a direct impact on customer satisfaction. In fact, according to WorkHuman, 41% of companies that use peer-to-peer recognition have seen positive increases in customer satisfaction.” (Martic, 2019). Employee recognition programs would not only help with customer satisfaction but also productivity, individual performance, and trust with supervisors. Research on recognition programs found that “50% of employees believe being thanked by managers not only improved their relationship but also built trust with their higher-ups” (Son, 2016). Through these types of programs, banking and fintech companies can reinforce behaviors regarding creating memorable experiences for clients. Companies can create clear goals and expectations for employees to improve on the customer experience field. For example, they can identify and reward those who implement company culture (experience-centric) in their daily actions and work environment.

Programs can be monetary, such as merit pay, commissions, gift cards, free meals, or training opportunities. Non-monetary programs include job promotions, more responsibilities, new office space, parking spaces, job security, or verbal and written appreciation.

3. Prioritize a work-life balance: By offering wellness days, promoting healthy habits, or allowing remote options, companies can create a culture in which the employee is taken care of. If the company takes care of their employees, they are expected to do the same with customers. It creates a considerate company culture. In this sense, the baking industry has been known for long working times, many extra hours and night time working hours. Working in financial services has been a synonym of late nights and early mornings. In fact, a survey conducted in 2019 to 1500 workers in the financial services field, found out that “93% from the Banking sector answered that they either always, mostly or sometimes work beyond their contracted hours” (*Comparing Working Hours and Flexibility Across Sectors*, 2019) and regarding how many hours “20% working 10 or more extra hours every week” (*Comparing Working Hours and Flexibility Across Sectors*, 2019). This overtime culture negatively affects a healthy

work-life balance. In addition, technological advances, mobile phones, and constant connectivity make it even harder to have a clear division between working hours and personal time. In some cases, these phone devices are provided by the company, who pays for them in exchange for a worker being contactable at any moment. All of these stigmas create a working environment in which those that do not work long periods of time are perceived negatively and with fewer chances of career progression. This unhealthy working environment can be stopped by the leadership of employers. Some other things that can be done to improve and encourage a work/life balance are “flexible work schedules, mandatory vacations and elective sabbaticals” (Boyle, n.d.). Even though these worker benefits involve additional costs for a company, it compensates companies in the long term since return is much higher. It improves commitment from employees, retention rates and absenteeism.

4. Hire internally: Making the effort to look for a person for the vacancy internally is another way of making the employee feel valued. “Looking at internal candidates first shows you value the current team, want to see them successfully reach their personal career goals and enjoy investing in the growth of your employees” (Martic, 2019). In addition, there are many synergies between hiring internally. For example, the employee already knows about the experience-centric culture of the company. Other benefits of hiring internally are increasing employee engagement, faster incorporations, and increased employee retention rates.
5. Host company events: Hosting events strengthen team relationships, helps with employee satisfaction, and improves retention rates. These are team-building experiences that build on company culture. In addition, these types of events increase team productivity since employees will give time to socialize and space out while out of work and not during work hours.
6. Have surveys for employees: This is an excellent way of getting employees feedback on how valued they feel working for that company. It is a very insightful way of improving how well you value your employees and can give the company new ideas on how to improve employees' experiences. Employees will feel heard and notice that their ideas do not go unseen.

- Align your employees with your vision

Your company's story needs to resonate with your employees. “In large, distributed organizations, a distinctive customer experience depends on a collective sense of conviction and purpose to serve the customer’s true needs” (*The CEO Guide to Customer Experience*, 2016). All the actionable things that were mentioned in the previous point to make the employees feel valued will also help create a culture of thoughtfulness that will be transmitted to the customer.

Other ways to align your employees with your vision can be made directly in the hiring process, looking for specific aspirations, characteristics, and customer-driven profiles among your candidates. Experience-centric company vision can be taught through informative workshops and training programs for already company employees. In these activities, companies can introduce to employees the bigger picture of an experience-centric company and work towards this common goal.

#### 3.7.4. CREATING MEMORABLE EXPERIENCES

Given that money is what all these companies work with, we expect that humans act like rational economic beings. Nonetheless, in our decision-making, many irrational components affect our company of choice. Emotions and feelings come into play when we go through the process of choosing a brand, or also call experience. “Experiences are central in our lives. They are the basis of our existence. We don’t crave products or services, we crave the experiences they give us. In this way, we all experience” (Clatworthy, 2019, 204).

In order to leave a remarkable and noteworthy experience, companies need to improve their client's expectations. This is because, as humans we experience hundreds of interactions on any given day. However, many of them do not stay in our memory for a long time. They are just transactions that do not lead to any kind of notable impression. This lack of significance is because they match our expectations. If a client's expectations were improved by the actual experience this would make it memorable.

The real question is, how do we improve client's expectations? What might come to mind at first makes experiences more entertaining, but this is not always true. This misconception,

which is very common, is not accurate for many businesses and certainly not true for banking and fintech. For banking and fintech services to be valuable and have a memorable component they do not need entertainment-based characteristics.

In order to improve clients' expectations companies, need to innovate with their experiences, create concepts that have not been seen before and differentiate themselves. Design thinking is a key part of this process. Design thinking is a process that has five steps:

1. First empathize with your users, in order to find out how to improve your experiences.
2. Find what your user's needs are, this means looking for their main problems when using a product (E.g. credit card) or with a service (E.g. using a banking app). Needs are changing quickly, as technology evolves, faster and more accurate services are demanded.
3. Ideate how you can meet your users' needs by implementing changes to your products and services This is done by "challenging assumptions and creating ideas for innovative solutions" (Friis & Yu, 2020)
4. The fourth step is prototyping the possible solution.
5. The final step is testing the solution. This means getting user feedback on the performance of the new features or solutions implemented. This will let the company know how valuable these changes are for the user, and if they truly improve the experiences.



*Figure 32. Design Thinking Process*

This process is very non-linear. When following the steps there can be a lot of setbacks that bring the designer to the beginning steps, the easiest example is when step five, testing is not the correct way and the feedback from users is not good.

Mobile apps are expected to be the main connecting point between banks and customers, something that obviously already happens in the fintech industry. Most users' needs using mobile apps relate to high levels of speed, top-notch personalization, and frictionless designs.

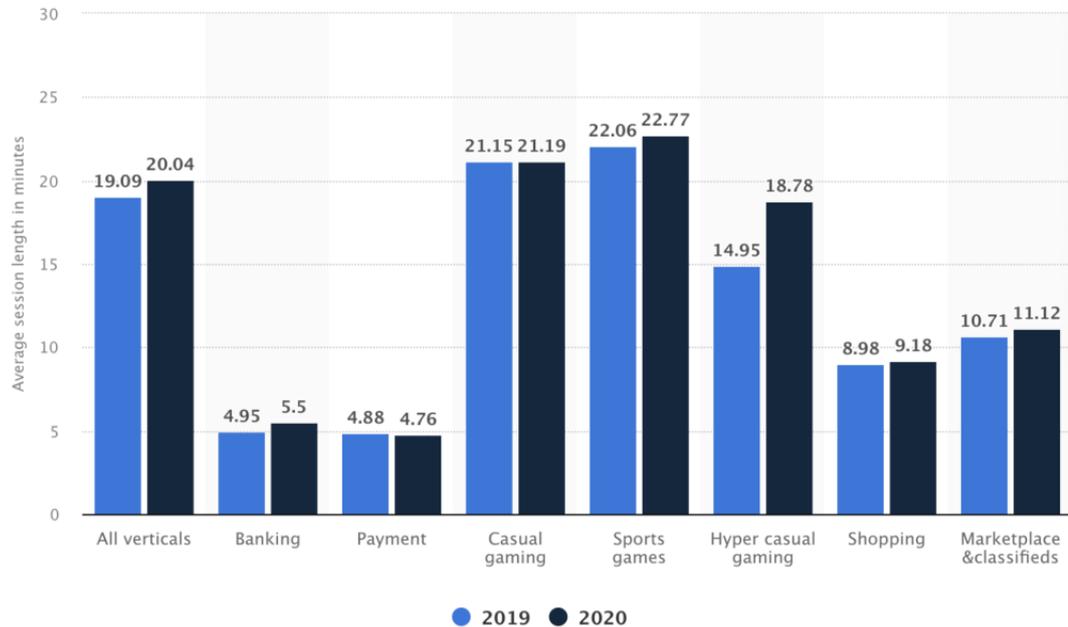
For these demanding needs, mobile apps are slowly implementing features that aim to cover them implementing the newest technology.

- **Biometric Sign-in:** Security is the most important thing relating to the special features that a banking app has in comparison to others. In order to provide security for users, biometric sign-ins are the fastest and best strategies for user identification. The traditional way of identification, a password, can be forgotten by the user and is more vulnerable to theft or hacker attacks. On the other hand, user's faces are always available and have almost zero probability of being under a hacking attack. The sophistication of biometric sign-ins has improved quickly and for example "iPhone's Face ID technology has an error rate of roughly 0.000001%." (Vujevic & Strizic, 2022)
- **Voice-assisted banking:** As it happens with Apple's command voice assistant, Siri or Google's Alexa, voice assisted banking is a solution to faster and more convenient mobile payments. Barclays bank and HSBC have already implemented solutions that allow users to make payments through Siri. Other banks like Bank of America, just created their own digital assistant called Erica. It started as an AI chatbot in 2018, and later on implemented a voice assistant feature.

This voice-assisted solution solves some of the most frequently asked questions and payment operations that do not need an actual person to be solved. "Similar to talking with a banker, the chatbot asks questions to understand the customer's specific situation to provide the most relevant guidance. Best of all, an AI-driven solution can rapidly access multiple virtual libraries to ensure each customer is given the latest, most accurate information and recommendations, all with a documented audit trail for compliance." (*AI in Banking: Can Banks Meet the Challenge?*, 2020). It provides faster search than any other solution. Ankit Bhatt, Senior Vice President for U.S Bank said "I believe voice is a more effective medium than touch. It's certainly faster. People can type 40 words per minute, but they can speak at about 130 words per minute" (Stephens, 2021). In addition, this solution increases accessibility since it is hands-free access, is the most human-like option and contributes to creating an omnichannel experience.

- **User-first navigation:** Trying to reduce the number of steps that an user's needs to do to get an operation done. Unlike the majority of the apps, which aim to have user's spend

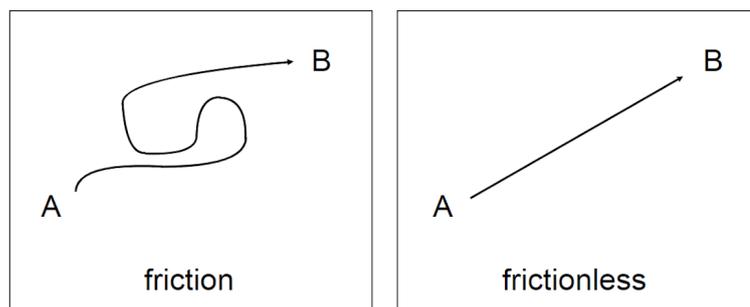
the largest amount of time possible on their app, banking apps need to aim for the shortest user time on their app. As seen on figure 33 “Time spent in Banking and Payment apps vs other categories”, users spent much less time on banking and payment apps.



Data from Soryly

**Figure 33. Time spent in Banking and Payment apps vs other categories.**

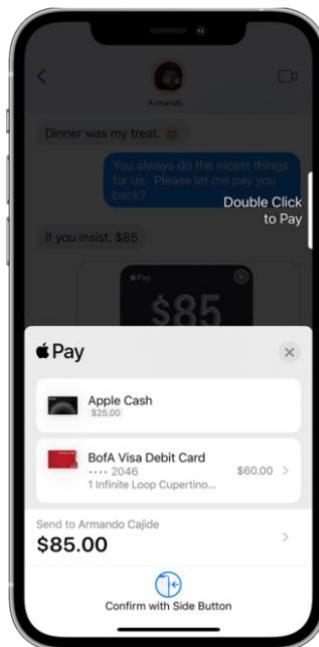
To improve this timing, banking and fintech apps need to consider reducing the information they ask to users and find the optimal way of asking for necessary regulatory and legal information, and the least number of clicks to get an operation done. This is what UX design oversees, eliminating unnecessary steps and creating the best frictionless user flow. In figure 34 Shopify described in a simple way how frictionless payments are:



*Data from Shopify*

**Figure 34. Frictionless payments**

For example, when you are going to send or expend money, most fintech and banking apps require an extra confirmatory step whenever you send money. This extra step is done by a biometric authorization in Apple pay, where you only have to double press the side button to accept the payment.

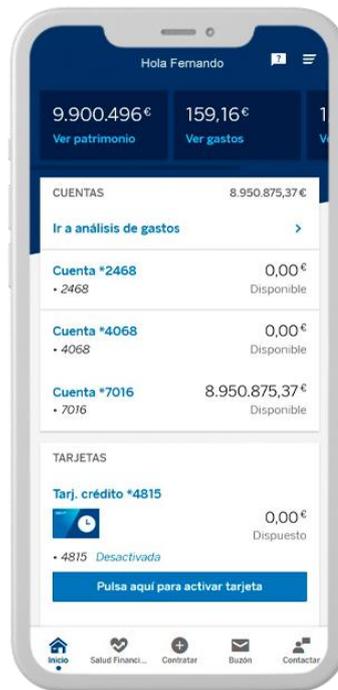


*Data from Apple*

**Figure 35. Apple Pay**

Another special trait that fintech and banks must take into account when designing the best app flow is that there are numerous people that are far from familiar with financial terms. Therefore, to create the easiest experience for users, financial apps need to “make sure that anyone, even first-time users of financial services, knows exactly what’s going on in the app”. (Strizic, 2021) There is a need to go an extra step and simplify complex financial concepts. Improving flow also is accomplished by creating an attractive user interface. UI oversees user interface design. Their goal is to mix the complex functionality and user-first navigation, with an enjoyable and beautiful design. Creating a beautiful interface is all based on design principles and visuals, which are tied to colors, proportions, and placement. For example, colors evoke different emotions,

BBVA uses a blue color, which was found by researchers to have a trustworthy and calming effect on the viewer:



Data from BBVA

**Figure 36. BBVA app interface**

- High level of personalization: Consumers expect a high level of customized digital experiences. This is due to many industries implementing their recommendations or suggested in-app options to the highest levels. This mostly happens in content apps like YouTube, Instagram, or Netflix. However, these advances bring expectations for other apps to similar levels of personalization. Personalization on banking and fintech apps looks like a customized analysis of spending habits and provides valuable insights on budgeting and how to improve users' money health. For example, Metro Bank, “analyzes customer spending patterns and makes predictions about whether a customer is likely to exceed their credit limit before their next paycheck or whether an unexpected expense could push them into the red” (Marr, 2022). In fact, customer intelligence is predicted to be one of the major predictors on revenue growth, in a recent survey carried by PWC.

## 4. CHALLENGES AND OPPORTUNITIES FOR CUSTOMER EXPERIENCE

Technology is giving life to amazing technological improvements that determine the way humans interact with companies. As the sophistication of this technology improves, these advances dictate how improvement in customer experience can be done. AI and blockchain technology drive the main improvements that can be applied to the interactions between a company and their clients.

### 4.1 AI

AI has revolutionized customer experience and is behind the best tools to speed up transactions, personalize processes, make tailored recommendations, and help customers. It helps increase efficiency in many situations since it can process much more extensive data than human beings. We are now at the point where competitive advantage will be based on the ability to capture, analyze, and utilize personalized customer data at scale and on how a company uses AI to understand, shape, customize, and optimize the customer journey. (Edelman & Abraham, 2022)

In banking applied AI, it's behind some of the best customer experience processes like “facial recognition, natural language processing, voice recognition, anomaly detection, and improved authentication processes and security, Artificial Intelligence is the foundation on which digital financial capabilities are built” (Kalderon, 2021). To stay relevant, banks and fintech companies need AI to offer competitive services to remain significant, however there has come a point where these current AI tools are not even enough to differentiate a company from their competitors. Therefore, what is the next thing in AI that empowers the ability of banking and fintech to offer the ultimate customer experience? Intelligent experience engines seem to be the next-generation AI that will be capable of offering even better customer data to improve services. The main improvements that these new AI-empowered engines offer is “guiding users through any necessary follow-up and that proactively lead customers toward achieving their goals, they also combine human enablers (cross-functional, agile teams) with data and technology that allow for rapid self-learning and optimization.” (Edelman & Abraham, 2022). The goal of this AI is to give a 360-degree view of the customer and fully personalize experiences. This will be an AI that will do an exercise of journey mapping from the data collected to develop a flow for the customer and present a fully intelligent engine from end to

end. There is no company, as for 2022 that has been able to develop an end-to-end personalization.

## 4.2 BLOCKCHAIN

A blockchain is a database that is shared among a large computer network, it stores information electronically in a system that is decentralized. This decentralization is characterized by the fact that there is no third party involved in transactions. Blockchain is known for being the technology behind cryptocurrencies. Banks adopting cryptocurrencies has been a question that has been around for quite some time now. However, there are many factors that surround cryptocurrency markets that make it very hard for them to be part of bank services. Some of these factors are the high volatility of these markets and the decentralized factor that makes it very hard to track movements. On the other hand, fintech companies that were included in the benchmark operate in the cryptocurrency markets. It is in fact Coinbase's main business, they offer "a trusted and easy-to-use platform for accessing the broader crypto-economy" (*About Coinbase*, n.d.)

Cryptocurrencies not fitting the banking system does not mean that blockchain technology cannot be added to the company's business structures. In fact, there are three ways in which blockchain can be included into banking companies and improve customer experience, these are in payments, added security and infrastructure.

On payments, blockchain could be used to lower down expenses on international payments and improve overall payment speed for clients. For the banks itself it could make funds be able to be received outside of banking hours for the European Central Bank in Europe and for the Federal Reserve's in the US.

Blockchain has a high potential to give added security to banking transactions and systems. It is an added way to ensure security and prevent failure or attacks. This can be done through the various ways that blockchain technology offers, like making transactions much more streamlined or using pre-set conditions to manage data and make interdependency transactions more secure.

Lastly, when it comes to banking infrastructures, currently most banks have siloed systems. The problem with siloed systems is that they often need to have some features that need to be

processed manually. “Blockchain technology can enhance the connection between different critical infrastructures and eliminate the manual process in which large amounts of data are exchanged” (Sorrentino, 2021). This is just the beginning, because as momentum increases, banks keep exploring the different ways they can engage in this type of technology and offer a faster, more secure experience for their clients.

#### 4.3 METAVERSE

The internet has provided a 180-degree change in the way people live and how they approach the most basic tasks. Since the term metaverse was coined back in 1992 with the development of 3D, virtual spaces have significantly developed. On October 28, 2021, Facebook changed its name to Meta, trying to lead the new way of connecting with people, the metaverse (also called the new internet). This act has speeded up, introducing an unstoppable internet revolution to those who did not know the metaverse yet. The metaverse is a virtual reality world, where you can create your own life and INTERACT with people as you would in real life. You can own assets and properties in this virtual world. “In the real world, many people purchase real estate by getting a mortgage. This is becoming an option for the metaverse, as well” (Shevlin, 2022). Being able to get a mortgage in this world portrays the level of similarity that it will have and already has, to the offline world.

This significant disruption has a great potential to remodel the fintech and banking industry and the customer experience companies offer. A seamless experience means having a multi-channel option, and therefore this includes virtual reality platforms. Virtual experiences dictate most of a company's customer experience as of right now. Therefore, there is little doubt that companies will have to develop strategies to connect with the client in this virtual world and have an experience-driven approach on this platform.

There are plenty of aspects that are still unknown about how this new high-tech virtual reality world will fit in our daily activities. Some of these are regulations, perks regarding internet use such as privacy and security, ESG related and ultimately the role of banking and fintech on this platform. Nevertheless, once this virtual world is more established, it will be another platform where banks and fintech companies will have to take care of their customer experience.

## 5. FINAL CONCLUSION

Over time, customer experience has gained strength in being part of the mix for success in the business world. The digital revolution that we live on, which has been greatly speeded up by COVID-19, makes customers crave even finer experiences. Today, the world's leading companies prioritize, customer experience to build a loyal clientele and a memorable experience. To do so, companies need to create experience-centric organizations, where customer experience is part of the culture, and all decisions are being made having the client's interaction flow in mind. This means focusing on building curated experiences, through the first and second types of activities that shape the organizational culture and therefore the experience offered.

Traditional industries such as banking must adapt to these structural changes to meet customer expectations. In this sense, fintech companies offer a better customer experience than traditional banking, partly because of their natural characteristics of being digital platforms with fast services and high convenience. As we have been able to verify in the benchmark, evaluating a matrix of NPS, revenue, profit margin, and operating margin, to estimate the level of the customer experience offered by companies, fintech surpasses banking. The data indicates that the difference is not overwhelming, however, it is important to highlight that many of the fintech companies are very young, and this gives them a disadvantage in ratios such as profit margin or operating margin. Therefore, even though the research done in this paper proves there is little difference between banking and fintech customer experience, in which fintech leads the way, in the future this difference might become much greater as fintech companies mature. This difference will have to be studied again more down the line when fintech companies are in more grown faces.

On the other hand, the benchmark indicates that there is a great deal of improvement in customer experience for both industries. This can be done through empowering, educating and creating a good employee experience. This tactic might sound far removed from affecting the client's experience, however, employees are the main drivers of customer experience. Therefore, it is critical that a company's vision is shared by all its employees, which can be done through first having a clear purpose as a company, adopting a top-down approach to spread that vision, and lastly making your employees feel value. Another key way and a more obvious one is to improve the experience they give to customers. Design thinking is the process

that needs to take place to improve it, and some new technologies can enhance better designs and faster experiences through biometric sign-ins, voice-assisted banking, user-first navigations, or a high level of personalization. Most of these are empowered by AI, which is constantly improving and providing more sophisticated business applications. AI will dictate the way customer experience and client interaction will evolve, and companies must stay updated. Other field that has a huge potential to shape customer experience in the future is the blockchain, with faster and safer systems. Lastly, the metaverse, also called the new internet, will host a virtual parallel reality for people. It aims to offer all the experiences that someone can have in real life, but virtually. That is why, this virtual reality might be another way for companies to connect with their clients, and therefore they will have to offer curated experiences here as well. This parallel world is still under big development and therefore time and progress need to happen to analyze customer experience in this type of platform. Even though customer experience in the metaverse is still something that needs time to evolve, what is necessary is that companies anticipate customer needs, have experience centric structures and company cultures, and ultimately apply new technologies in order to offer the most memorable experiences to their clients.

The following steps in this research would be related to the evolution of AI, blockchain, and the metaverse in the banks and fintech companies' customer experience, and try to anticipate how these culture-changing technologies will shape customers' way of interacting with companies.

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