الجمهورية الجزائرية الديمقراطية الشعبية
République Algérienne Démocratique et Populaire

Ministère de l'Enseignement Supérieur
et de la Recherche Scientifique

Ecole Nationale Supérieure de Management
Koléa

وزارة التعليم العالي و البحث العلمي

المدرسة الوطنية العليا للمناجمنت
القليعة

FINAL YEAR THESIS

A thesis submitted in partial fulfilment of the requirements for the award of Master's degree in

«Marketing Management»

The influence of the customer journey stages and pain points on customer loyalty in the Algerian telecommunications sector — the case of ATM Mobilis

Prepared by:

CHAHBI Dorsaf

Supervised by:

Dr.EL MOKRETAR Lamia

Academic year: 2025/2026

ABSTRACT

Customer loyalty has become a strategic priority in the telecommunications sector, where intensifying competition and rising consumer expectations demand a deeper understanding of the forces that shape long-term retention. This study aims to examine the influence of customer journey stages — Awareness, Consideration, Purchase, and After-Sales service — as well as customer Pain Points, on the loyalty of ATM Mobilis SIM card users in Algeria. A quantitative approach was implemented through a structured questionnaire administered to 150 active Mobilis users, and the data were analyzed using SPSS software through Pearson correlation analysis and multiple linear regression. The results indicate that all five dimensions exert a statistically significant influence on customer loyalty. Purchase and After-Sales service emerged as the strongest direct predictors, explaining the largest shares of variance in loyalty. While Awareness and Consideration demonstrated significant individual effects, they did not retain independent significance within the multiple regression model, suggesting they operate as foundational stages that indirectly support loyalty through their influence on subsequent journey phases rather than as standalone drivers. Pain Points were confirmed as a significant negative influence on loyalty, though their effect is partially mitigated when positive journey experiences are present. These findings underscore the importance of optimizing transactional efficiency, strengthening post-purchase support, and systematically reducing friction across all customer touchpoints in order to build and sustain loyalty in the Algerian telecommunications market.

Keywords: Customer journey, customer loyalty, customer experience, pain points, after-sales service, telecommunications, ATM Mobilis, quantitative research, Algeria.

RÉSUMÉ

La fidélité client est devenue une priorité stratégique dans le secteur des télécommunications, où l'intensification de la concurrence et la hausse des exigences des consommateurs imposent une compréhension approfondie des facteurs déterminant la rétention à long terme. Cette étude vise à examiner l'influence des étapes du parcours client — Notoriété, Considération, Achat et Service Après-Vente — ainsi que des points de friction, sur la fidélité des utilisateurs de la carte SIM ATM Mobilis en Algérie. Une approche quantitative a été mise en œuvre à travers un questionnaire structuré administré à 150 utilisateurs actifs de Mobilis, et les données ont été analysées à l'aide du logiciel SPSS par corrélation de Pearson et régression linéaire multiple. Les résultats indiquent que les cinq dimensions exercent une influence statistiquement significative sur la fidélité client. L'Achat et le Service Après-Vente se révèlent être les prédicteurs directs les plus puissants, expliquant les parts de variance les plus importantes. Si la Notoriété et la Considération présentent des effets individuels significatifs, elles ne conservent pas de signification indépendante dans le modèle de régression multiple, ce qui suggère qu'elles fonctionnent comme des étapes fondatrices soutenant indirectement la fidélité via leur influence sur les phases ultérieures du parcours. Les points de friction confirment leur effet négatif significatif sur la fidélité, bien que cet effet soit partiellement atténué lorsque des expériences positives sont vécues lors d'autres étapes. Ces résultats soulignent l'importance d'optimiser l'efficacité transactionnelle, de renforcer le support après-vente et de réduire systématiquement les frictions pour construire et maintenir la fidélité dans le marché algérien des télécommunications.

Mots-clés : Parcours client, fidélité client, expérience client, points de friction, service après-vente, télécommunications, ATM Mobilis, recherche quantitative, Algérie.

ملخص

أصبح ولاء العملاء أولوية استراتيجية في قطاع الاتصالات، حيث تفرض حدة المنافسة وتصاعد توقعات المستهلكين فهمًا أعمق للعوامل المحددة للاحتفاظ بالعملاء على المدى البعيد. تهدف هذه الدراسة إلى فحص تأثير مراحل مسار العميل — الوعي، والتفكير، والشراء، وخدمة ما بعد البيع — فضلًا عن نقاط الإزعاج، على ولاء مستخدمي شريحة SIM لدى ATM موبيليس في الجزائر. اعتُمد تصميم كمي من خلال استبيان منظّم وُزّع على 150 مستخدمًا نشطًا لموبيليس، وحُلّلت البيانات باستخدام برنامج SPSS عبر تحليل ارتباط بيرسون والانحدار الخطي المتعدد. تُشير النتائج إلى أن الأبعاد الخمسة تمارس تأثيرًا دالًا إحصائيًا على ولاء العملاء. وقد برز الشراء وخدمة ما بعد البيع بوصفهما أقوى المتنبئات المباشرة، إذ يُفسّران الحصص الأكبر من التباين في الولاء. وعلى الرغم من أن الوعي والتفكير يُظهران تأثيرات فردية دالة، فإنهما لا يحتفظان بدلالة مستقلة ضمن نموذج الانحدار المتعدد، مما يدل على أنهما يعملان كمراحل تأسيسية تدعم الولاء بصورة غير مباشرة. كما تأكّد التأثير السلبي الدال لنقاط الإزعاج على الولاء، وإن كان هذا التأثير يتضاءل جزئيًا حين تتوفر تجارب إيجابية في مراحل أخرى. تُؤكد هذه النتائج أهمية تحسين الكفاءة التعاملية، وتعزيز دعم ما بعد الشراء، والحد المنهجي من الاحتكاكات عبر جميع نقاط التواصل، بهدف بناء الولاء والحفاظ عليه في سوق الاتصالات الجزائري.

الكلمات المفتاحية: مسار العميل، ولاء العملاء، تجربة العميل، نقاط الإزعاج، خدمة ما بعد البيع، الاتصالات، ATM موبيليس، البحث الكمي، الجزائر.

ACKNOWLEDGEMENTS

Alhamdulillah, all praise is due to Allah whose mercy and guidance have allowed me to reach this stage.

My deepest appreciation goes to my parents. To my father for his trust and faith in me, and to my mother for her prayers and constant encouragement. Without them, I am nothing.

A very special thanks to my beloved sister in Malaysia Selma, the first to believe in me and to support me in continuing my master's degree. Words cannot express how grateful I am for her constant support.

I would also like to thank my brother Imad and my sisters Naçria and Houria for their love and support; even from a distance, I have always felt their presence.

My sincere thanks go to my grandparents for their love, encouragement, and blessings.

I would like to express my gratitude to Dr. ELMOKRETAR Lamia, and Mr.ZIRROUTI Messaoud for overseeing this work.

Special thanks to my cousin Rosa for her invaluable help and support throughout this journey.

I am also grateful to my dear friends Hayet and Asma, who, despite the distance, have always been there for me and lifted my spirits.

To my friends, my second family, and to all those who love and support me, thank you for the beautiful memories and for always being there for me.

I would like to extend my sincere thanks to Mr. CHETTIBI Abd Elhalim, my internship supervisor at Mobilis, for his guidance and support.

Finally, I would like to thank myself for not giving up and for having the strength to keep going.

Table of contents

LIST TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

AI : Artificial Intelligence
ANOVA : Analysis of Variance
ATM : Algérie Télécom Mobile
B2M : Business to Mobile
B-SMS : Business Short Message Service
CES : Customer Effort Score
CJ : Customer Journey
CL : Customer Loyalty
CSAT : Customer Satisfaction Score
CX : Customer Experience
DZD : Algerian Dinar (Dinar Algérien)
FMEA : Failure Mode and Effects Analysis
MVPN : Mobile Virtual Private Network
NPS : Net Promoter Score
PDG : Président Directeur Général (Chairman and CEO)
SD : Standard Deviation
SIM : Subscriber Identity Module
SMS : Short Message Service
SPA : Société par Actions (Joint Stock Company)
SPSS : Statistical Package for the Social Sciences
VPN : Virtual Private Network

INTRODUCTION

Over the past two decades, the telecommunications sector has undergone profound transformations driven by rapid technological advancements, the widespread adoption of mobile services, and increasing market competition. In Algeria, this evolution has been particularly significant, with the presence of several competing operators — notably ATM Mobilis, Ooredoo, and Djezzy operating in a highly competitive and increasingly saturated market.

In such an environment, customer loyalty has become a major strategic challenge for telecommunications companies. Traditional approaches based on pricing strategies, promotional offers, or network coverage are no longer sufficient to ensure long-term customer retention. Increasingly, research highlights that customer loyalty is shaped by the overall experience customers live throughout their interactions with the company rather than by isolated transactions.

This perspective has led to the emergence of the customer journey as a central concept in marketing. The customer journey refers to the set of interactions and touchpoints that a customer experiences with a company across different stages, namely awareness, consideration, purchase, and post-purchase. Customers evaluate their relationship with a brand holistically, based on the cumulative experience across these stages.

However, these interactions are not always positive. Customers may encounter pain points, defined as moments of friction, dissatisfaction, or difficulty during their interactions with the company. These negative experiences can occur at any stage of the customer journey and tend to have a stronger impact on customer perceptions than positive experiences. As a result, they play a critical role in shaping customer satisfaction and loyalty.

In the Algerian telecommunications sector, and particularly in the case of ATM Mobilis, customers interact with the company through multiple channels, including network services, digital platforms, customer support, and physical agencies. Despite its strong market presence, Mobilis faces ongoing challenges related to service quality perception and customer retention, making it a relevant context for analyzing customer journey dynamics and their impact on loyalty.

The choice of this research theme is motivated by both academic and practical considerations. From an academic standpoint, while the concepts of customer journey and pain points have received growing attention in the marketing literature, their combined

influence on customer loyalty remains underexplored in the context of emerging markets and, more specifically, in the Algerian telecommunications sector. From a managerial perspective, the persistent challenges faced by Mobilis in retaining its customer base, despite its historical market leadership, signal an urgent need to better understand the experiential drivers of loyalty. This research thus seeks to bridge this gap by producing knowledge that is both theoretically grounded and practically actionable for industry stakeholders.

Based on this context, the present research aims to examine how customer experience across the different stages of the customer journey, as well as the presence of pain points, influence customer loyalty in the context of Mobilis. More specifically, the study seeks to answer the following central research question: To How does the quality of customer experience and the pain points encountered at each stage of the customer journey influence customer loyalty toward ATM Mobilis?

To address this objective, the dissertation is structured into four chapters that follow a progressive logic, moving from theoretical grounding to empirical investigation. The first chapter establishes the research framework by defining the research problem, outlining the research questions and objectives, and highlighting the theoretical and managerial relevance of the study. Building on this foundation, the second chapter reviews the literature related to customer journey, customer experience, customer loyalty, and pain points, and culminates in the presentation of a conceptual model along with the research hypotheses. The third chapter then translates this conceptual framework into an operational research design, describing the epistemological posture, the data collection instrument, the sampling strategy, and the methods used for data analysis. Finally, the fourth chapter presents the empirical findings: it begins with an overview of ATM Mobilis and an analysis of its customer journey, then presents the results of hypothesis testing, and closes with a discussion that interprets the findings in light of both the theoretical framework and the managerial context.

CHAPTER I: RESEARCH FRAMEWORK

This chapter present the foundational elements of the research. It began by identifying the research problem and formulating the research questions, followed by a presentation of the study's objectives. It then discussed the relevance of the research from both theoretical and managerial perspectives, and concluded by outlining the study's key contributions to the academic and professional fields.

1. Research Problem

The telecommunications sector was one of the most dynamic and competitive industries worldwide, characterized by rapid technological development, increasing customer expectations, and frequent service innovations. In this context, companies were no longer evaluated solely based on price or technical performance, but increasingly on the overall experience they provided to their customers.

Customer experience (CX) had therefore become a strategic differentiator that directly influenced customer satisfaction and long-term loyalty. The customer journey (CJ), which represented the complete set of interactions between a customer and a company, played a central role in shaping this experience. It included multiple stages such as awareness, consideration, purchase, and post-purchase, each involving different touchpoints that contributed to the customer's perception of the brand.

At each stage of this journey, customers formed opinions based on the quality, clarity, and efficiency of their interactions. These perceptions collectively influenced their overall satisfaction and their willingness to continue using the same service provider. However, despite improvements in service delivery, customers could still encounter difficulties or negative experiences during their journey. These negative experiences, commonly referred to as pain points, could occur at any stage and significantly disrupt the customer experience (CX).

Pain points included issues such as poor communication, service delays, lack of information, or difficulties in accessing support. When such problems were not properly managed, they led to customer frustration, dissatisfaction, and ultimately switching behavior. This made it essential for companies to identify and analyze these critical moments in the customer journey (CJ).

In the context of ATM Mobilis, one of the major telecommunications operators in Algeria, understanding how customer experience (CX) across different stages of the journey

influenced customer loyalty (CL) was particularly important. Given the highly competitive nature of the market, retaining customers had become as important as acquiring new ones. Therefore, analyzing both positive experiences and negative pain points was essential to better understand customer behavior and improve retention strategies.

This study aimed to address this gap by examining the relationship between customer journey (CJ) stages, pain points, and customer loyalty (CL) within the context of ATM Mobilis.

2. Research Questions

Based on the context of this study and the problem identified, the following main research question was formulated:

> ***"How does the quality of customer experience during the different stages of the customer journey influence customer loyalty in the telecommunications sector, specifically in the case of ATM Mobilis?"***

To address this question in a more precise manner, the following sub-questions were developed:

- How did the different stages of the Customer Journey (CJ) contribute to shaping Customer Loyalty (CL)?
- What types of pain points did customers encounter during their interactions with ATM Mobilis?
- How could ATM Mobilis improve its Customer Journey (CJ) in order to enhance Customer Experience (CX) and Customer Loyalty (CL)?

3. Research Objectives

The main objective of this research was to analyze the influence of Customer Experience (CX) across the different stages of the Customer Journey (CJ) on Customer Loyalty (CL) within the telecommunications sector, with a specific focus on ATM Mobilis. In an increasingly competitive environment, where customers were exposed to multiple service providers, understanding how each interaction shaped their overall perception had become essential for companies seeking to maintain long-term relationships with their clients.

More specifically, this study aimed to examine how customers' experiences during the awareness, consideration, purchase, and post-purchase stages influenced their level of loyalty toward the brand. It also sought to understand the role of negative experiences, commonly referred to as pain points, in shaping customer perceptions and behavioral intentions.

Thus, this research focused on identifying the mechanisms through which CX influenced CL, in order to better understand customer behavior and provide actionable insights for improving service quality and customer retention strategies.

More precisely, this study aimed to:

- Measure the impact of Customer Experience (CX) during the awareness stage on Customer Loyalty (CL).
- Evaluate the impact of Customer Experience (CX) during the consideration stage on Customer Loyalty (CL).
- Analyze the impact of Customer Experience (CX) during the purchase stage on Customer Loyalty (CL).
- Assess the impact of Customer Experience (CX) during the post-purchase stage on Customer Loyalty (CL).
- Examine the negative influence of pain points on Customer Loyalty (CL).

4. Study Relevance

The choice of this research topic was not arbitrary. It was motivated by both academic curiosity and practical relevance in the field of marketing. It stemmed from a growing interest in understanding how Customer Experience (CX) influenced consumer behavior and how companies could better manage customer interactions to build stronger and more sustainable relationships.

In the telecommunications sector, where competition was intense and customer switching costs were relatively low, companies had to constantly innovate in order to retain their customers. This made the study of Customer Journey (CJ) and Customer Loyalty (CL) particularly relevant, especially in emerging markets such as Algeria, where customer behavior remained underexplored in academic literature.

This research therefore aimed to provide both theoretical enrichment and managerial insights by analyzing how CX across different CJ stages influenced CL, while also considering the impact of pain points in shaping customer perceptions.

4.1. Theoretical Relevance

From a theoretical perspective, existing literature had extensively studied Customer Experience (CX) and Customer Loyalty (CL) as separate constructs. However, fewer studies had adopted an integrated approach that considered the Customer Journey (CJ) as a structured process composed of multiple stages influencing customer behavior.

Moreover, while previous research had highlighted the importance of CX in shaping customer satisfaction and loyalty, limited attention had been given to the role of negative experiences or pain points within this process, particularly in the telecommunications sector.

This study aimed to address this gap by providing a structured analysis of how CX at different CJ stages, combined with pain points, influenced CL. It contributed to existing literature by offering empirical evidence from the Algerian context, which remained underrepresented in marketing research.

4.2. Managerial Relevance

From a managerial perspective, this research was highly relevant for telecommunications operators such as ATM Mobilis. In a context where customer expectations were constantly evolving, companies had to focus not only on acquiring new customers but also on retaining existing ones.

Understanding Customer Journey (CJ) dynamics allowed managers to identify key touchpoints that shaped Customer Experience (CX). By analyzing these touchpoints, companies were able to detect weaknesses in service delivery and identify areas where customers faced difficulties.

Furthermore, identifying pain points provided managers with valuable insights to improve service quality, optimize communication strategies, and enhance customer satisfaction.

These improvements ultimately contributed to strengthening Customer Loyalty (CL) and increasing customer retention in a highly competitive market.

Therefore, this study offered practical recommendations that supported decision-making processes and helped ATM Mobilis develop more customer-centric strategies.

5. Study Contributions

This research provided both theoretical and managerial contributions by offering a comprehensive understanding of the relationship between Customer Experience (CX), Customer Journey (CJ), and Customer Loyalty (CL).

5.1. Theoretical Contribution

This study contributed to the academic literature by integrating the Customer Journey (CJ) framework with Customer Loyalty (CL) models through the lens of Customer Experience (CX). It extended existing research by examining CX not as a general concept, but as a structured process composed of distinct stages that influenced customer behavior.

Additionally, this research introduced pain points as a critical negative factor affecting Customer Loyalty (CL), providing a more complete understanding of customer behavior dynamics. By focusing on the telecommunications sector in Algeria, this study also filled a geographical gap in the literature, as most existing research was based on developed markets.

5.2. Managerial Contribution

From a managerial standpoint, this study provided actionable insights for ATM Mobilis and other telecommunications operators. It helped managers identify the most influential stages of the Customer Journey (CJ) and understand how each stage contributed to shaping Customer Experience (CX) and Customer Loyalty (CL).

Furthermore, the identification of pain points enabled companies to improve service processes, enhance customer interactions, and design more effective customer experience strategies. These improvements led to higher customer satisfaction, stronger loyalty, and a sustainable competitive advantage in the telecommunications market.

This chapter established the research foundation by defining the problem, formulating the research questions and objectives, and justifying the relevance and contributions of this study. The dissertation is organized into four chapters. Chapter II reviews the existing literature related to the customer journey, customer experience, pain points, and customer loyalty, and presents the conceptual model and research hypotheses. Chapter III describes the research methodology, including the epistemological posture, the research design, the data collection instrument, and the analytical methods. Chapter IV presents the empirical study, the statistical results, hypothesis testing, and a discussion of the findings.

CHAPTER II: LITERATURE REVIEW & CONCEPTUAL FRAMEWORK

This chapter establishes the conceptual, theoretical foundations of the study by examining the key constructs and relationships underlying customer loyalty within the context of the customer journey in the telecommunications sector, with a focus on Mobilis.

In increasingly competitive and digitalized markets, organizations are required to adopt a customer-centric approach in order to better understand how customers interact with brands across multiple channels and stages. In this context, the customer journey has emerged as a critical framework for analyzing customer behavior and improving the overall customer experience, which ultimately influences customer loyalty.

This chapter presents the theoretical and conceptual foundations of the study. It begins by defining the customer journey and its strategic importance, then explores the concepts of customer experience and customer loyalty. It also examines the different stages of the customer journey, analyzes the role of touchpoints and pain points, investigates the relationships between study variables, and reviews previous empirical studies. Based on these insights, a conceptual model is developed and research hypotheses are formulated.

1. Customer Journey: Concept and Definition

Defined as the comprehensive sequence of interactions between a customer and a service provider, the customer journey maps every touchpoint within the service process. A well-structured journey directly enhances the level of customer satisfaction and fosters the development of enduring emotional connections, leading to a deeper sense of trust and customer loyalty (Nuryati et al., 2025). This perspective highlights that the customer journey is not limited to a single interaction but rather represents a holistic process that evolves over time through multiple contact points.

Furthermore, the customer journey is considered a strategic tool that enables companies to better understand and improve the customer experience by designing and managing effective touchpoints. By optimizing these interactions, organizations can foster greater trust, satisfaction, and long-term loyalty. Companies develop and refine this journey by adopting the customer’s perspective and adapting service delivery to meet their specific needs and preferences (Gao & Jiang, 2025).

In addition, several scholars emphasize that the customer journey is dynamic and multi-channel in nature. Customers interact with firms through various online and offline channels,

such as websites, social media, physical stores, and customer service platforms. These interactions occur across different stages of the journey and collectively shape the overall customer experience (Lemon & Verhoef, 2016). Therefore, managing the consistency and quality of these interactions is essential for creating a seamless and positive experience.

Moreover, understanding the customer journey allows organizations to identify key moments that significantly influence customer perceptions and decision-making processes. These moments, often referred to as "critical touchpoints," can either strengthen or weaken the relationship between the customer and the company depending on how they are managed. As a result, companies that effectively design and control their customer journey are more likely to achieve higher levels of customer satisfaction, engagement, and loyalty (Rawson et al., 2013).

Overall, the customer journey represents a fundamental concept in modern marketing, as it provides a comprehensive framework for analyzing customer behavior, improving service delivery, and building long-term customer relationships.

2. Customer Experience and Customer Loyalty:

2.1. Customer Experience:

Customer experience (CX) refers to the overall perception formed by customers through all their interactions with a company throughout the entire customer journey. It encompasses every touchpoint, whether direct or indirect, and reflects both the cognitive (rational) and emotional responses of customers during their interactions. According to Lemon and Verhoef (2016), customer experience is a dynamic, multidimensional construct that evolves over time and is influenced by various elements such as service quality, communication, brand image, and the consistency of interactions across channels.

In addition, customer experience is not limited to isolated interactions but is built cumulatively across different stages of the journey, including pre-purchase, purchase, and post-purchase phases. Each interaction contributes to shaping the customer's perception of the brand, meaning that even a single negative experience can influence the overall evaluation. Therefore, organizations must adopt a holistic approach when managing customer experience to ensure consistency and coherence across all touchpoints.

Moreover, customer experience is increasingly influenced by the rise of digital technologies and omnichannel environments, where customers interact with firms through multiple platforms such as websites, mobile applications, social media, and physical stores. This complexity requires companies to integrate their channels effectively in order to provide a seamless and unified experience. A well-managed customer experience enhances not only customer satisfaction but also emotional engagement, trust, and perceived value, all of which are critical for building strong customer relationships.

2.2. Customer Loyalty

Customer loyalty can be defined as the customer's commitment to repurchase a product or continue using a service over time, despite the availability of alternative options offered by competitors. It represents the strength of the relationship between the customer and the company and reflects both behavioral and attitudinal dimensions.

From a behavioral perspective, loyalty is expressed through repeated purchases and continued usage of a product or service. From an attitudinal perspective, it involves emotional attachment, trust, and a positive attitude toward the brand. According to Philip Kotler and Kevin Keller (2016), customer loyalty is a fundamental driver of long-term business success, as loyal customers tend to generate higher lifetime value, are less sensitive to price changes, and are more likely to recommend the brand to others.

Furthermore, customer loyalty contributes to reducing marketing and acquisition costs, as retaining existing customers is generally more cost-effective than attracting new ones. Loyal customers also play an important role in promoting the company through positive word-of-mouth, which can influence the decisions of potential customers and strengthen the company's reputation in the market. Therefore, building and maintaining customer loyalty has become a strategic priority for organizations operating in highly competitive environments.

2.3. Relationship Between Customer Experience and Customer Loyalty

The relationship between customer experience and customer loyalty has been widely examined in the marketing literature, with consistent findings indicating that customer experience is a key determinant of loyalty. A positive and well-managed customer experience leads to higher levels of customer satisfaction, which in turn fosters trust, commitment, and long-term engagement with the brand.

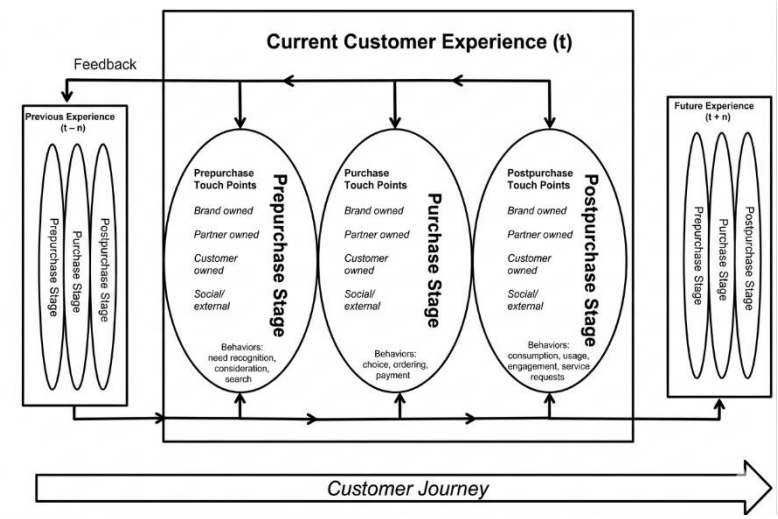
When customers encounter positive interactions across multiple touchpoints, they are more likely to develop favorable perceptions of the company, resulting in increased loyalty and a stronger intention to repurchase. In this sense, customer experience acts as a foundation upon which customer loyalty is built. Studies have confirmed that improving the quality and consistency of customer experience significantly enhances customer loyalty and long-term relationship outcomes (Lemon & Verhoef, 2016; Kumar et al., 2021).

In addition, the emotional dimension of customer experience plays a crucial role in strengthening loyalty. Positive emotions such as satisfaction, pleasure, and trust can reinforce the customer–company relationship, while negative emotions resulting from poor experiences can weaken it. Therefore, companies must focus not only on functional aspects (such as product quality and service efficiency) but also on emotional aspects to create meaningful and memorable experiences.

However, it is important to note that negative experiences or inconsistencies across touchpoints can have a strong adverse effect on customer loyalty. Even a single negative interaction may lead to dissatisfaction, complaints, or switching behavior. This highlights the importance of managing the customer experience in a consistent and integrated manner across all stages of the customer journey.

Overall, customer experience is considered a critical antecedent of customer loyalty, as it directly influences customer perceptions, satisfaction, and behavioral intentions. Organizations that invest in enhancing customer experience are more likely to build strong, lasting relationships with their customers and achieve sustainable competitive advantage.

Figure 1 – Process Model for Customer Journey and Experience



Source (adapted from Lemon & Verhoef, 2016)

3. Stages of the Customer Journey

The customer journey is widely conceptualized as a structured and evolving process composed of multiple stages that reflect the progression of customer interactions with a company over time. These stages represent the different phases through which customers move, from the initial recognition of a need to the development of long-term relationships with a brand. Understanding these stages is essential for analyzing customer behavior, identifying critical interaction points, and designing effective marketing and relationship management strategies.

In the academic literature, two main approaches are commonly used to describe the structure of the customer journey: the three-stage model and the five-stage model. While the first provides a broad and simplified understanding of the journey, the second offers a more detailed and operational perspective that allows for a deeper analysis of customer behavior and decision-making processes.

3.1. The Three-Stage Model of the Customer Journey (Pre-Purchase, Purchase, and Post-Purchase)

Lemon and Verhoef (2016) propose that customer experience is a dynamic process structured around three fundamental stages: pre-purchase, purchase, and post-purchase. This model provides a comprehensive framework for understanding how customer experience is formed and evolves throughout the entire journey, emphasizing the cumulative nature of customer interactions.

The **pre-purchase stage** represents the initial phase of the customer journey and includes all activities that occur before the actual transaction. It begins with the recognition of a need or desire and extends to the search for information and evaluation of available alternatives. During this phase, customers are exposed to various internal and external stimuli, such as personal motivations, advertising messages, online reviews, and social media content. These influences play a critical role in shaping customer expectations, preferences, and attitudes toward different brands. As a result, companies must ensure the availability of relevant, clear, and persuasive information to effectively guide customers during this stage.

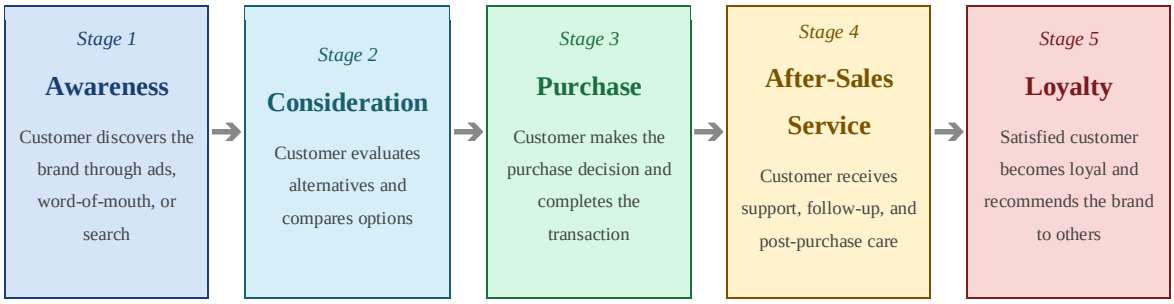
The **purchase stage** corresponds to the moment of transaction and involves all direct interactions between the customer and the company that lead to the acquisition of a product or service. This stage is primarily characterized by decision-making and transactional behaviors, including product selection, ordering, and payment processes. The efficiency, convenience, and perceived reliability of these interactions are crucial determinants of customer satisfaction at this point. A seamless and user-friendly purchasing process can reinforce positive perceptions, whereas difficulties or complications may negatively affect the overall experience.

The **post-purchase stage** focuses on the consumption and evaluation of the product or service after the transaction has taken place. It includes product usage, customer support interactions, and post-purchase engagement activities such as feedback, reviews, and complaint handling. This stage is particularly important because it determines whether customer expectations have been met or exceeded. Positive experiences during this phase can lead to satisfaction, trust, and repeat purchases, while negative experiences may result in dissatisfaction and negative word-of-mouth. Therefore, effective management of post-purchase interactions is essential for building long-term relationships (Lemon & Verhoef, 2016, as cited in Dias et al., 2022).

3.2. The Five-Stage Model of the Customer Journey

While the three-stage model offers a general overview of the customer journey, more detailed frameworks propose a finer segmentation into five distinct stages: awareness, consideration, purchase, after-sales, and loyalty. This extended model provides a more granular understanding of customer behavior and allows companies to identify and manage key moments that influence both short-term decisions and long-term relationships (Court et al., 2009; Chaffey & Ellis-Chadwick, 2019).

Figure 2 – The Five-Stage Customer Journey Model



Source:adapted from Court et al., 2009; Chaffey & Ellis-Chadwick, 2019

The **awareness stage** represents the entry point of the customer journey, where the individual becomes aware of a need, problem, or desire. At this stage, the customer is not yet actively considering a specific product or brand but begins to seek general information. Exposure to marketing stimuli such as advertising campaigns, social media content, influencer recommendations, and online reviews plays a crucial role in shaping initial perceptions. This stage is particularly important for brand visibility and positioning, as it determines whether a company will be included in the customer's set of potential options (Eminence, n.d.).

The **consideration stage** involves a more active and deliberate evaluation process, during which customers compare different alternatives and assess their suitability. At this point, customers engage in deeper information processing by analyzing product features, prices, quality, and brand reputation. They may consult multiple sources, including websites, expert reviews, and peer recommendations, to reduce uncertainty and make informed decisions. Companies must provide accurate, detailed, and persuasive information to support customers in this phase and differentiate their offerings from competitors (Eminence, n.d.).

The **purchase stage**, also known as the decision stage, marks the transition from intention to action, where the customer selects a product or service and completes the transaction. This stage is influenced by various factors, including perceived value, pricing, convenience, trust, and the quality of customer support. The overall experience during this stage must be smooth, efficient, and reassuring to minimize hesitation and ensure conversion. Any friction or difficulty encountered at this point may result in abandonment or switching to competitors (Court et al., 2009; Eminence, n.d.).

The **after-sales stage** refers to the period following the purchase, during which the customer interacts with the product or service and may require additional support from the company. This stage includes product usage, maintenance, customer service interactions, and problem resolution. It is a critical phase for evaluating the actual performance of the product or service in relation to customer expectations. Positive after-sales experiences can reinforce satisfaction and trust, while negative experiences may lead to dissatisfaction, complaints, and negative word-of-mouth (Chaffey & Ellis-Chadwick, 2019; Eminence, n.d.).

Finally, the **loyalty stage** represents the culmination of the customer journey, where a long-term relationship between the customer and the company is established. Customers who are satisfied with their overall experience are more likely to engage in repeat purchases, recommend the brand to others, and develop a strong emotional attachment. At this stage, customers may also become brand advocates, actively promoting the company through word-of-mouth and social media. Maintaining loyalty requires continuous effort from organizations to deliver consistent value and positive experiences across all interactions (Court et al., 2009).

4. Touchpoints and Pain Points in the Customer Journey :

The customer journey represents a dynamic and multidimensional process composed of a series of interactions between the customer and the firm across multiple channels and stages (Lemon & Verhoef, 2016; Verhoef et al., 2009). These interactions occur continuously throughout the pre-purchase, purchase, and post-purchase phases and collectively shape how customers perceive, evaluate, and respond to a company's offerings. As a result, analyzing the customer journey has become essential for understanding customer behavior, identifying critical moments of interaction, and improving overall service performance (Rawson et al., 2013; Lemon & Verhoef, 2016).

Within this framework, two key concepts play a central role in shaping customer experience: touchpoints and pain points. While touchpoints represent all moments of interaction between the customer and the organization, pain points refer to the negative experiences that may arise during these interactions. Understanding both concepts is crucial for designing an effective and seamless customer journey that meets customer expectations and fosters long-term relationships (Becker & Jaakkola, 2020; Lemon & Verhoef, 2016).

4.1 Customer Touchpoints

Customer touchpoints refer to all points of interaction between a customer and a company throughout the entire customer journey. These interactions may occur before, during, or after the purchase and include both direct and indirect forms of contact. Direct touchpoints involve intentional interactions initiated by either the customer or the company, such as communication with employees, visits to physical stores, use of websites or mobile applications, and contact with customer service. Indirect touchpoints, on the other hand, include interactions that are not directly controlled by the company, such as advertising exposure, online reviews, social media content, and word-of-mouth communication (Lemon & Verhoef, 2016; Verhoef et al., 2009).

From a theoretical perspective, touchpoints are considered fundamental components of the customer journey, as they serve as the primary channels through which customers experience a brand. According to Lemon and Verhoef (2016), customer experience is formed through a combination of multiple touchpoints that occur across different stages and channels,

emphasizing the importance of managing these interactions in an integrated and consistent manner.

Furthermore, touchpoints can be categorized based on their nature and level of control. Brand-owned touchpoints include elements directly managed by the company, such as official websites, advertisements, and customer service interactions. Partner-owned touchpoints involve third parties, such as distributors or online platforms, while customer-owned touchpoints refer to interactions initiated by customers themselves, such as independent research or peer discussions (Verhoef et al., 2009). This classification highlights the complexity of managing the customer journey, as not all touchpoints are fully controllable by the organization.

In addition, the effectiveness of touchpoints depends not only on their presence but also on their quality, consistency, and relevance. A well-designed touchpoint should provide value to the customer, meet their expectations, and contribute positively to their overall experience. In contrast, inconsistent or poorly managed touchpoints can create confusion, reduce satisfaction, and weaken the relationship between the customer and the company (Voorhees et al., 2017).

Moreover, in today's digital and omnichannel environment, customers interact with companies through multiple platforms simultaneously, which increases the importance of ensuring a seamless and coherent experience across all channels. Organizations must therefore adopt an integrated approach to touchpoint management in order to deliver a consistent brand message and enhance customer satisfaction (Gao & Jiang, 2025).

4.2. Customer Pain Points

Customer pain points refer to the problems, difficulties, or negative experiences that customers encounter during their interactions with a company throughout the customer journey. These issues can arise at any stage of the journey and may be related to operational inefficiencies, service failures, lack of information, or unmet expectations (Becker & Jaakkola, 2020; Lemon & Verhoef, 2016).

Pain points can take various forms depending on the context of the interaction. Common examples include long waiting times, complicated purchasing processes, technical malfunctions, unclear communication, poor customer service, or discrepancies between

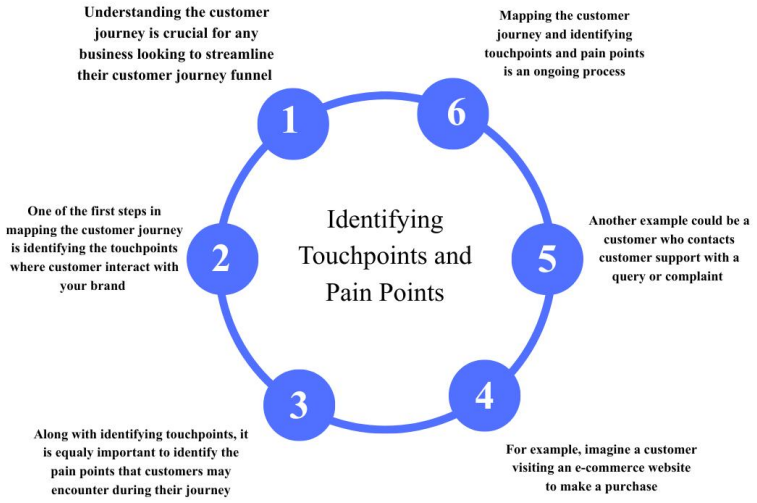
expected and actual service performance. Such issues create friction within the customer journey and negatively affect the overall experience (Rawson et al., 2013).

From a theoretical standpoint, pain points are closely linked to the concept of negative customer experience. According to Becker and Jaakkola (2020), customer experience is shaped by both positive and negative interactions, and the presence of negative experiences can significantly alter customer perceptions and behavioral responses. Even a single negative interaction may outweigh several positive ones, demonstrating the critical importance of identifying and addressing pain points effectively.

Furthermore, pain points not only influence immediate satisfaction but also have long-term consequences for customer behavior. Negative experiences can reduce trust, weaken emotional attachment, and increase the likelihood of customer switching behavior. In addition, dissatisfied customers are more likely to engage in negative word-of-mouth, which can damage the company's reputation and influence the perceptions of potential customers (Keiningham et al., 2017).

It is also important to note that pain points are not always visible to organizations unless they actively collect and analyze customer feedback. Therefore, companies must implement effective monitoring systems, such as customer surveys, reviews, and feedback mechanisms, to identify areas of friction within the customer journey and take corrective actions (Becker & Jaakkola, 2020).

Figure 3 – Identifying touchpoints and pain points across the customer journey



Source:(Author,2026)

4.3. Relationship Between Touchpoints and Pain Points

Touchpoints and pain points are inherently interconnected within the customer journey, as the quality of each touchpoint determines whether the resulting experience is perceived as positive or negative. In other words, pain points often emerge from poorly designed or inadequately managed touchpoints, making touchpoint management a critical factor in minimizing customer dissatisfaction (Lemon & Verhoef, 2016; Voorhees et al., 2017).

When touchpoints are effectively designed and consistently managed, they contribute to a smooth, coherent, and satisfying customer journey. High-quality interactions enhance customer perceptions, build trust, and strengthen the relationship between the customer and the company. Conversely, when touchpoints fail to meet customer expectations, they become sources of friction, leading to the emergence of pain points that disrupt the overall experience (Rawson et al., 2013).

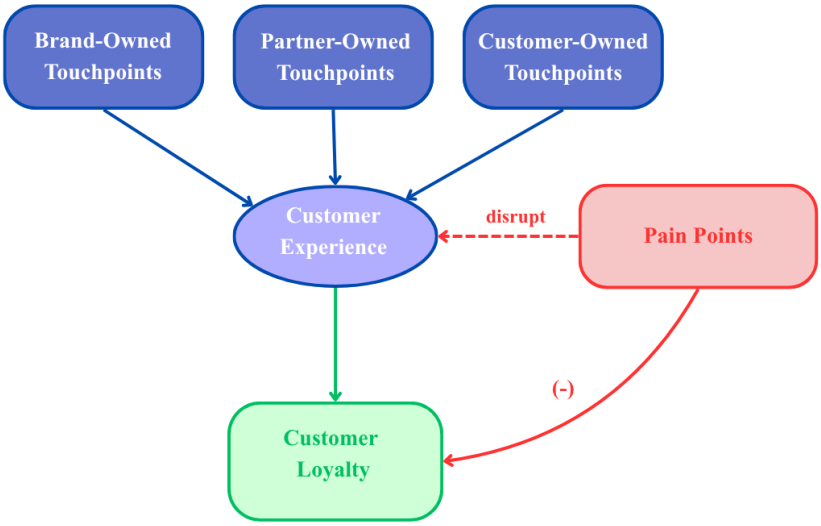
Moreover, the cumulative effect of multiple touchpoints plays a significant role in shaping the overall customer experience. A single negative touchpoint can have a disproportionate impact on the customer's perception, particularly if it occurs at a critical stage of the journey,

such as during the purchase or after-sales phase. This highlights the importance of managing not only individual interactions but also the consistency of the entire journey (Lemon & Verhoef, 2016).

In addition, the relationship between touchpoints and pain points emphasizes the need for a proactive approach to customer journey management. Organizations must continuously evaluate and optimize their touchpoints to ensure that they align with customer expectations and minimize potential sources of dissatisfaction. This includes improving service processes, enhancing communication, and leveraging technology to provide more efficient and personalized interactions (Gao & Jiang, 2025).

Ultimately, optimizing touchpoints and reducing pain points are essential for delivering a high-quality customer experience. By ensuring that each interaction contributes positively to the overall journey, companies can enhance customer satisfaction, strengthen loyalty, and achieve sustainable competitive advantage (Keiningham et al., 2017).

Figure 4 – Touchpoints, Pain Points, and Customer Experience



Source: (adapted from Lemon & Verhoef, 2016; Becker & Jaakkola, 2020)

5. Relationship between variables:

Having examined how touchpoints and pain points shaped the customer experience at the interaction level, it was essential to move to a higher analytical level and investigate how these elements connected to the broader question of customer loyalty. The following section therefore explored the theoretical relationships between the main variables of this study, focusing specifically on how each stage of the customer journey and the presence of pain points influenced loyalty formation.

This study investigates the relationship between customer journey stages (awareness, consideration, purchase, and after-sale), pain points, and customer loyalty. The customer journey is understood as a dynamic and holistic process composed of multiple interactions between customers and firms across different touchpoints, which collectively shape the overall customer experience (Lemon & Verhoef, 2016; Verhoef et al., 2009; Becker & Jaakkola, 2020). In this perspective, customer loyalty is not an isolated outcome but the result of accumulated experiences formed throughout the entire journey.

From a theoretical standpoint, customer journey theory suggests that customer evaluations are formed over time through sequential and interconnected stages rather than single interactions. Each stage contributes differently to cognitive, emotional, and behavioral responses, which ultimately influence loyalty formation (Lemon & Verhoef, 2016; Rawson et al., 2013). Therefore, understanding the role of each stage is essential for explaining how loyalty is developed and maintained.

5.1. Customer Journey Stages and Customer Loyalty

Each stage of the customer journey contributes to the development of customer loyalty through the accumulation and integration of customer experiences over time.

The **awareness stage** represents the first contact between the customer and the brand, where individuals become aware of a need or problem and are exposed to marketing stimuli. At this stage, firms aim to attract attention and build initial brand recognition through communication channels such as advertising, social media, and word-of-mouth. Research indicates that early brand exposure plays a significant role in shaping initial perceptions, which later influence engagement and decision-making processes (Lemon & Verhoef, 2016;

Verhoef et al., 2009). Positive first impressions at this stage are important because they form the foundation for subsequent interactions in the journey.

The **consideration stage** is characterized by active information search and evaluation of alternatives. Customers compare different products or services based on perceived value, quality, and benefits. During this stage, cognitive processing becomes more intensive, as customers rely on available information, reviews, and recommendations to reduce uncertainty and risk. Studies show that the quality and clarity of information provided during this stage significantly influence trust formation and purchase intention, which are key antecedents of loyalty development (Court et al., 2009; Kotler & Keller, 2016). A well-managed consideration stage helps strengthen the customer's confidence in the brand.

The **purchase stage** represents the moment of transaction, where the customer makes a final decision and interacts directly with the company. This stage includes activities such as ordering, payment, and service execution. The quality of this interaction is critical, as it strongly influences immediate customer satisfaction. Research demonstrates that seamless, efficient, and convenient purchasing experiences significantly enhance satisfaction levels, which in turn positively affect customer loyalty intentions (Kumar et al., 2013; Manyanga et al., 2022). In contrast, any friction during this stage may lead to dissatisfaction and weaken future behavioral intentions.

The **after-sale stage** extends the customer journey beyond the purchase and focuses on product usage, post-purchase evaluation, and customer support. This stage is particularly important because it determines whether initial satisfaction is maintained or declines over time. Positive after-sale experiences, such as effective customer service, product reliability, and ongoing engagement, reinforce trust and encourage repeat purchases. According to Lemon and Verhoef (2016), post-purchase experiences play a crucial role in shaping long-term customer relationships and are strongly linked to loyalty formation. Additionally, Becker and Jaakkola (2020) emphasize that post-purchase evaluations significantly influence emotional attachment and behavioral intentions.

Overall, these four stages work together in a cumulative manner, where positive experiences at each step contribute to stronger customer loyalty.

5.2. Pain Points and Customer Loyalty

In contrast to positive experiences, pain points represent negative disruptions within the customer journey that negatively affect customer perceptions and behavioral outcomes. Pain points refer to moments of frustration, inefficiency, or unmet expectations that occur during any stage of the journey, often resulting from service failures, poor communication, or operational issues.

From a theoretical perspective, pain points are considered critical determinants of negative customer experience. Becker and Jaakkola (2020) argue that customer experience is inherently dual in nature, meaning that both positive and negative interactions shape overall evaluation. Negative experiences are often more influential than positive ones due to their stronger emotional impact and higher memorability.

Empirical studies support the negative relationship between pain points and customer loyalty. Kumar et al. (2013) demonstrate that service failures and negative experiences significantly reduce customer satisfaction and weaken long-term loyalty intentions. Similarly, Keiningham et al. (2017) highlight that dissatisfaction resulting from negative experiences leads to lower trust, reduced commitment, and increased likelihood of switching behavior.

Pain points can also accumulate over time, especially when customers repeatedly encounter friction at different stages of the journey. This accumulation effect intensifies dissatisfaction and accelerates customer disengagement. In addition, negative experiences are often shared more widely through word-of-mouth and online reviews, amplifying their impact on brand reputation and potential customer acquisition.

Therefore, minimizing pain points is essential not only for maintaining satisfaction but also for protecting long-term customer relationships.

5.3. Overall Relationship Between Variables

Overall, customer loyalty is the result of a cumulative evaluation process formed through continuous interactions across all stages of the customer journey. Loyalty develops when customers experience consistent value, satisfaction, and positive emotional responses throughout the awareness, consideration, purchase, and after-sale stages (Lemon & Verhoef, 2016; Rawson et al., 2013).

However, this relationship is not purely linear, as negative experiences (pain points) can disrupt the formation of loyalty even when previous stages were positive. This highlights the asymmetric nature of customer experience, where negative events often have a stronger influence than positive ones. As a result, the presence of pain points can weaken or even override the positive effects of well-managed journey stages.

Consequently, the development of customer loyalty depends on two key factors: first, the optimization of each stage of the customer journey to ensure consistent positive experiences; and second, the systematic identification and elimination of pain points that may create friction or dissatisfaction.

From a managerial perspective, this implies that firms must adopt a holistic customer journey approach rather than focusing on isolated interactions. By integrating all stages of the journey and continuously improving service quality, companies can enhance customer satisfaction, strengthen emotional engagement, and ultimately achieve sustainable customer loyalty (Becker & Jaakkola, 2020; Verhoef et al., 2009; Keiningham et al., 2017).

6. Review of Previous Studies

This section presents a comprehensive and critical review of prior theoretical and empirical studies related to the customer journey, customer experience, service encounters, pain points, and customer loyalty. The objective is to establish a strong theoretical foundation for the proposed research model and to identify existing gaps in the literature. Overall, the reviewed studies highlight that customer loyalty is not a direct or isolated outcome but rather the result of a complex, dynamic, and cumulative process shaped by multiple interactions, emotions, and evaluations occurring across the entire customer journey.

6.1. Customer Journey and Customer Experience

Lemon and Verhoef (2016) provide one of the most comprehensive and widely cited frameworks in customer experience research. Their work conceptualizes customer experience as a dynamic and evolving process that unfolds throughout the entire customer journey rather than being limited to isolated service encounters. The main objective of their

study is to integrate fragmented perspectives in the literature and propose a unified understanding of how customer experience is formed, developed, and influenced over time.

The authors emphasize that customer experience is inherently holistic and is constructed through a continuous sequence of interactions between the customer and the firm. These interactions, referred to as touchpoints, occur across multiple channels and stages of the customer journey. Importantly, touchpoints include both direct interactions**,** such as employee contact, service usage, and website interaction, and indirect interactions, such as advertising exposure, online reviews, social influence, and word-of-mouth communication. This highlights the fact that customer experience is not fully controlled by the firm but is also shaped by external and environmental factors.

A key contribution of their framework is the division of the customer journey into three fundamental phases**:** pre-purchase, purchase, and post-purchase. Each phase contributes differently to the formation of perceptions, emotions, and behavioral intentions. The pre-purchase phase focuses on need recognition and information search, the purchase phase involves transactional interactions and decision-making, while the post-purchase phase includes consumption experience and post-consumption evaluation.

The authors further argue that consistency across these stages is critical in ensuring a coherent and positive customer experience. Any inconsistency or breakdown in one stage can negatively influence the overall perception of the brand, even if other stages are satisfactory.

In addition, Lemon and Verhoef (2016) highlight that customer experience is influenced by contextual and situational factors such as social environment, prior experiences, and personal expectations. This reinforces the idea that customer experience is a multidimensional construct shaped by both controllable and uncontrollable factors.

However, despite its strong theoretical contribution, the study remains largely conceptual and does not empirically examine the individual impact of each customer journey stage on customer loyalty. Furthermore, it does not integrate negative experiences such as pain points into its analytical model. This limitation suggests the need for empirical research that decomposes the journey into specific stages and incorporates both positive and negative dimensions of experience.

6.2. The Impact of Customer Experience on Customer Loyalty

Keiningham et al. (2017) examine the relationship between customer experience and customer loyalty by analyzing how different dimensions of customer interactions influence both behavioral and attitudinal outcomes. Their study positions customer experience as a central construct in modern marketing and customer management literature, emphasizing that it represents a holistic evaluation formed through the accumulation of multiple interactions between the customer and the firm over time.

The authors conceptualize customer experience as a multidimensional construct that integrates cognitive, emotional, sensory, and behavioral responses. These responses are generated throughout the entire customer journey and are influenced by all forms of interactions, including direct service encounters, digital interactions, and indirect exposures such as advertising or peer communication. This perspective highlights that customer experience is not static but continuously evolves as customers interact with different touchpoints across different stages of their relationship with a brand.

A key contribution of the study is the identification of the psychological mechanisms through which customer experience influences loyalty. The authors demonstrate that positive customer experiences significantly enhance essential psychological outcomes, particularly customer satisfaction, trust, and emotional attachment. These factors play a mediating role in converting experiential evaluations into long-term behavioral intentions. In this sense, loyalty is not a direct outcome of experience but rather the result of a psychological transformation process that occurs after repeated positive interactions.

More specifically, satisfaction reflects the customer's overall evaluation of whether their expectations have been met or exceeded throughout the journey. Trust develops gradually through consistent and reliable interactions with the firm, while emotional attachment reflects a deeper relational bond that goes beyond functional evaluation. Together, these constructs strengthen customer commitment and reduce the likelihood of switching behavior, even in competitive markets.

Furthermore, Keiningham et al. (2017) emphasize that firms that systematically manage customer experience across all touchpoints are more likely to achieve sustainable competitive advantage. This is because consistent and high-quality experiences increase

customer retention, reduce churn rates, and enhance customer lifetime value. In addition, satisfied customers are more likely to engage in positive word-of-mouth behavior, which contributes to brand reputation and attracts new customers at lower acquisition costs.

The study also highlights that customer experience management extends beyond improving individual service encounters. It requires organizational alignment across multiple functions, including marketing, operations, customer service, and digital platforms. This integrated approach ensures that customers receive a coherent and seamless experience regardless of the channel or stage of interaction. In today's omnichannel environment, such consistency is considered a key driver of customer loyalty and long-term relationship strength.

Despite its strong theoretical and managerial contributions, this study treats customer experience as a unified and aggregated construct. As a result, it does not decompose customer experience into specific customer journey stages such as awareness, consideration, purchase, or after-sale phases. Consequently, it does not provide insights into which stage has the most significant influence on the formation of customer loyalty.

In addition, the study primarily focuses on positive experiential outcomes and does not explicitly integrate negative experiences, such as friction points or service failures, into its conceptual framework. This represents an important limitation, as recent literature suggests that negative experiences often have a stronger impact on customer evaluation than positive ones.

Therefore, the present study addresses these gaps by decomposing customer experience into distinct customer journey stages and analyzing their individual effects on customer loyalty. Furthermore, it incorporates pain points as a negative explanatory variable in order to provide a more balanced and realistic understanding of how customer loyalty is formed in contemporary service environments.

6.3. The Role of Customer Journey in Shaping Customer Loyalty

Rawson, Duncan, and Jones (2013) argue that many organizations fail to recognize a fundamental shift in how customers evaluate firms. Rather than assessing individual interactions in isolation, customers tend to form their judgments based on the entire customer journey. This means that loyalty is not primarily driven by single service encounters but by the overall sequence and coherence of experiences that customers undergo across different

stages of interaction with a company. As a result, the authors emphasize the importance of adopting a customer journey perspective instead of relying on traditional functional or departmental approaches to customer experience management.

The study highlights that customer loyalty is significantly influenced by the cumulative effect of interactions across multiple touchpoints and stages. Each interaction contributes incrementally to the overall perception of the brand, and these perceptions are continuously updated as customers progress through their journey. A well-structured and effectively managed customer journey ensures consistency across all touchpoints, which leads to a smoother and more integrated experience. This continuity strengthens emotional engagement, reinforces trust, and increases the likelihood of long-term loyalty and repeat purchasing behavior.

In contrast, the authors stress that even a single negative experience at a critical moment in the journey can have a disproportionately strong effect on overall customer perception. This is explained by behavioral and psychological principles suggesting that negative experiences are often more salient and memorable than positive ones. Consequently, a failure at a key touchpoint—particularly during high-involvement stages such as purchase or after-sales service—can significantly damage the overall evaluation of the firm, even if previous interactions were positive.

Furthermore, Rawson et al. (2013) argue that organizations that redesign their internal processes around the customer journey rather than internal functional silos achieve superior outcomes. This journey-centric approach enables better coordination between departments, reduces operational inefficiencies, and ensures that customer needs are addressed more effectively across all stages. As a result, firms that adopt this approach are more likely to deliver consistent service quality, respond more effectively to customer expectations, and ultimately enhance both customer satisfaction and loyalty.

The study also suggests that journey-based management contributes not only to improved customer outcomes but also to internal organizational performance. By aligning business processes with the customer journey, companies can eliminate fragmentation in service delivery, reduce duplication of efforts, and create a more integrated value delivery system. This holistic approach is particularly relevant in modern competitive markets where

customers interact with firms across multiple channels and expect seamless transitions between them.

However, despite its strong conceptual and managerial contributions, the study does not provide empirical validation through quantitative analysis. It primarily focuses on conceptual arguments and managerial implications without testing the proposed relationships using statistical modeling. In addition, it does not explicitly integrate negative experiences such as pain points into its framework, even though these have been shown in later research to significantly influence customer evaluations and loyalty outcomes.

The current study addresses these limitations by empirically examining the effects of structured customer journey stages on customer loyalty. It also extends the literature by incorporating pain points as a negative predictive variable, allowing for a more comprehensive and realistic understanding of how loyalty is formed in complex service environments.

6.4. Service Encounters and Customer Experience

Voorhees et al. (2017) focus on service encounters as fundamental building blocks in the formation of customer experience. They define service encounters as individual moments of interaction between customers and organizations, which can occur across multiple channels, including human interaction (e.g., employees or customer service agents), digital platforms (e.g., websites and mobile applications), and physical environments (e.g., retail stores or service locations). This definition highlights the multi-channel nature of modern customer interactions and reflects the increasing complexity of service delivery in contemporary markets.

The authors emphasize that customer experience is cumulative in nature and is constructed progressively through repeated exposure to multiple service encounters over time. Each encounter contributes incrementally to shaping the customer's overall perception of the brand, meaning that experience is not formed instantaneously but rather evolves through continuous interaction. In this sense, every service encounter represents a critical "moment of truth" that can either strengthen or weaken the customer–firm relationship depending on its quality.

However, the study also highlights that inconsistencies in service quality across different encounters can lead to fragmented customer experiences. When customers perceive variations in service delivery—such as differences in responsiveness, reliability, or communication quality—their overall evaluation of the firm becomes less stable. Such inconsistencies often result in reduced satisfaction, weakened trust, and lower levels of loyalty. This underscores the importance of delivering a standardized yet flexible service experience across all interaction points.

In addition, Voorhees et al. (2017) highlight the increasing influence of digital transformation on service encounters. The rapid development of technologies such as mobile applications, artificial intelligence, self-service systems, and online platforms has significantly expanded the number of possible interaction points between customers and firms. While these technological advancements provide several benefits—including greater convenience, faster service delivery, improved accessibility, and enhanced personalization—they also introduce new operational and experiential challenges.

For instance, system failures, technical errors, lack of human support, and poorly designed automated processes can negatively affect customer perceptions. In some cases, customers may feel frustrated due to reduced human interaction or limited ability to resolve complex issues through automated systems. As a result, although digital transformation enhances efficiency, it simultaneously increases the risk of service failure if not properly managed.

The authors further argue that the quality of service encounters plays a central role in shaping long-term customer outcomes. Positive and consistent encounters contribute to stronger emotional engagement and reinforce customer trust, while negative or inconsistent encounters can significantly damage the overall customer–firm relationship. Over time, these experiences accumulate and directly influence customer satisfaction and loyalty formation.

Despite these important contributions, the study does not integrate service encounters into a comprehensive customer journey framework. Instead, it treats them as individual interaction points without fully connecting them to the broader sequence of customer stages (such as awareness, consideration, purchase, and post-purchase). Moreover, the study does not explicitly examine the role of emotional dissatisfaction or structured negative experiences, such as pain points, within service encounters.

The present research addresses these limitations by positioning service encounters within a structured customer journey model. It further links these interactions directly to customer loyalty outcomes and integrates both positive and negative experiential dimensions, allowing for a more holistic understanding of how loyalty is developed in modern service environments.

6.5. The Effect of Pain Points on Customer Loyalty

Becker and Jaakkola (2020) introduce a dynamic and integrative perspective on customer experience by emphasizing that customer evaluations are shaped by both positive and negative experiences occurring throughout the customer journey. In their view, customer experience is not a purely positive construct but rather a balanced accumulation of interactions, where negative experiences play a critical and often underestimated role in shaping overall perceptions and behavioral outcomes. Within this context, they define pain points as moments of friction, dissatisfaction, or emotional discomfort that occur during interactions between the customer and the firm.

The authors further explain that pain points can originate from a wide range of sources across different stages of the customer journey. These include operational issues such as service delays, system failures, or inefficient processes; informational problems such as lack of clarity, incomplete communication, or misleading information; and relational issues such as poor employee responsiveness or inadequate customer support. In digital environments, additional pain points may arise from interface complexity, navigation difficulties, or technical disruptions that hinder the customer's ability to complete tasks smoothly.

A key contribution of their work is the argument that negative experiences tend to have a disproportionately strong psychological impact compared to positive experiences. This means that even relatively minor incidents of dissatisfaction can significantly influence overall customer judgment. This phenomenon is consistent with established behavioral theories suggesting that negative events are more salient, emotionally intense, and more easily remembered than positive ones. As a result, a single pain point may outweigh multiple positive interactions in shaping overall customer evaluation.

The study also demonstrates that pain points have direct and indirect effects on customer loyalty. Directly, they reduce customer satisfaction by disrupting the expected service flow

and creating frustration. Indirectly, they weaken trust and emotional attachment toward the brand, both of which are critical determinants of long-term loyalty. When customers repeatedly encounter pain points, their level of frustration increases over time, which may lead to negative behavioral outcomes such as reduced engagement, lower repurchase intention, and switching behavior.

Furthermore, Becker and Jaakkola (2020) highlight that pain points are not isolated events but can accumulate throughout the customer journey. This accumulation effect intensifies negative perceptions and significantly increases the risk of customer churn. Consequently, identifying, analyzing, and addressing pain points becomes essential for organizations aiming to maintain strong customer relationships and ensure long-term retention.

In addition, the authors emphasize the importance of understanding pain points within different contextual conditions. Customer expectations, service complexity, and channel characteristics all influence how pain points are perceived and how strongly they affect satisfaction and loyalty outcomes. This reinforces the idea that pain points must be managed proactively rather than reactively, particularly in complex and digitalized service environments.

Despite these valuable contributions, the study does not explicitly integrate pain points into a structured customer journey framework. It examines negative experiences in a general manner but does not analyze how pain points interact with specific journey stages such as awareness, consideration, purchase, and post-purchase. Furthermore, it does not model pain points alongside positive experiential factors within a unified analytical framework.

The present study addresses these limitations by incorporating pain points as a central negative variable alongside customer journey stages. This allows for a more comprehensive analysis of customer loyalty formation by capturing both positive and negative dimensions of customer experience across the entire journey.

7. Contribution of This Study

Based on the gaps identified in the existing literature, this study develops an integrated and structured conceptual framework that examines the effects of the customer journey stages (awareness, consideration, purchase, and after-sale), together with pain points, on customer loyalty. The model is grounded in the idea that customer loyalty is not the result of a single

interaction, but rather the outcome of a cumulative process shaped by multiple experiences occurring across different stages and touchpoints of the customer journey.

Unlike previous research that either conceptualizes customer experience as a holistic and unified construct or focuses exclusively on positive experiential dimensions, this study adopts a more comprehensive and balanced approach. It integrates both positive journey stages and negative experiential factors (pain points) within a single analytical model. This dual perspective allows for a more realistic and nuanced understanding of customer behavior, as it reflects the actual complexity of modern customer interactions in omnichannel and service-based environments.

In addition, while much of the existing literature tends to emphasize either customer journey management or customer experience outcomes separately, this study bridges these perspectives by explicitly linking structured journey stages with behavioral outcomes, particularly customer loyalty. In doing so, it contributes to a clearer understanding of how each stage of the journey individually and collectively influences loyalty formation, as well as how negative experiences can disrupt this process.

Furthermore, this research extends current theoretical frameworks by positioning pain points not as secondary or contextual factors, but as a central explanatory variable that directly influences customer loyalty alongside positive journey stages. This is particularly important, as recent literature suggests that negative experiences often exert a stronger impact on customer perceptions than positive ones, yet they remain underexplored in integrated journey-based models.

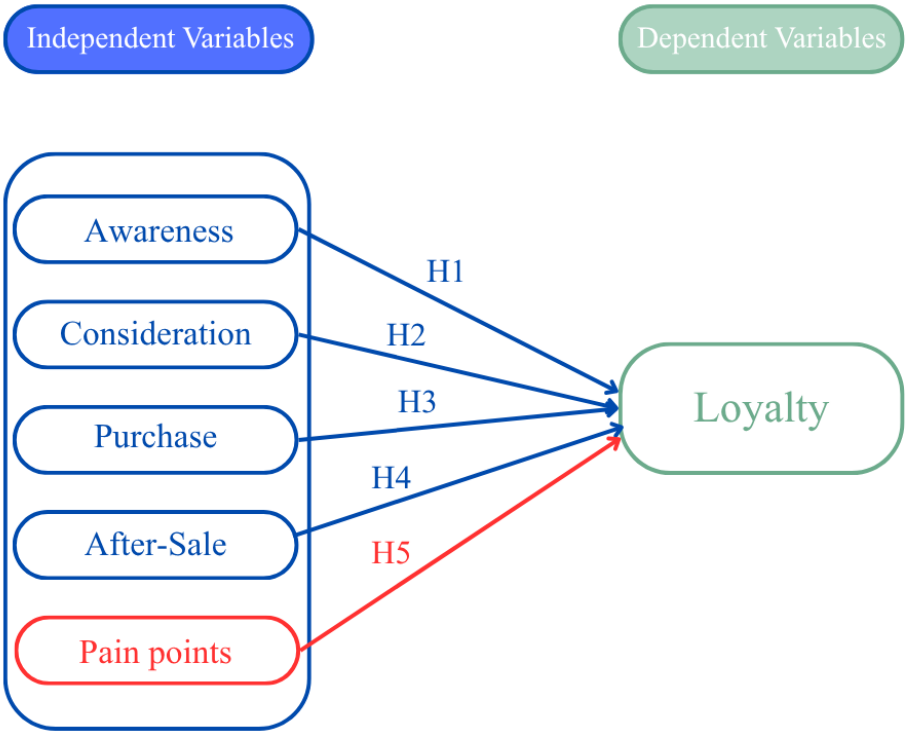
Another key contribution of this study is its empirical orientation. While previous studies have largely provided conceptual or managerial insights, this research proposes an empirically testable model that can be validated using quantitative methods. This enhances the practical relevance of the study and allows for measurable evaluation of the relationships between variables.

Ultimately, this research contributes to the literature by offering a more complete and realistic representation of the customer journey, capturing both its positive and negative dimensions. It also provides practical implications for organizations by highlighting the importance of managing each stage of the customer journey effectively while simultaneously

identifying and reducing pain points. This integrated approach supports firms in improving customer satisfaction, strengthening relationships, and ultimately enhancing long-term customer loyalty.

8. Conceptual model and Hypotheses Development

Figure 5 – Conceptual Model of the Study



Source: Author 2026

8.1. Conceptual Model

The conceptual model of this study provides a structured framework for understanding how customer experience, shaped through different stages of the customer journey, influences customer loyalty. It is based on the idea that customer loyalty is not the result of a single interaction, but rather the outcome of cumulative experiences formed across multiple touchpoints and stages of interaction between the customer and the firm.

Previous studies highlight that customer experience is built through a sequence of interactions throughout the customer journey. Lemon and Verhoef (2016) emphasize that these interactions occur across different stages and channels, while Rawson et al. (2013) argue that customers evaluate firms based on the entire journey rather than isolated encounters. This reinforces the importance of adopting a holistic view of customer behavior.

In this study, the customer journey is divided into four stages: awareness, consideration, purchase, and after-sale. Each stage contributes differently to customer loyalty formation, with early stages influencing initial perceptions and later stages reinforcing satisfaction, trust, and long-term relationship continuity.

In addition to these positive stages, the literature also highlights the role of negative experiences. Voorhees et al. (2017) and Becker and Jaakkola (2020) show that service failures and friction points, referred to as pain points, can significantly reduce satisfaction and weaken loyalty, often having a stronger impact than positive experiences.

Based on these insights, this study integrated both customer journey stages and pain points into a single analytical framework. This dual approach allowed for a more complete and realistic understanding of loyalty formation in complex service environments.

Therefore, the following hypotheses were formulated to empirically test the relationships between customer journey stages, pain points, and customer loyalty in the context of ATM Mobilis. The conceptual model is represented in Figure 1 below. It positions the four customer journey stages—awareness, consideration, purchase, and after-sale—as independent variables with a positive hypothesized effect on customer loyalty. Pain points are positioned as a fifth independent variable with a hypothesized negative effect on loyalty. Customer loyalty constitutes the single dependent variable of the model. The arrows in the figure illustrate the direction of each hypothesized relationship, with positive signs (+) for journey stages and a negative sign (−) for pain points.

8.2. Hypotheses

H1: The quality of customer experience during the awareness stage positively influences customer loyalty.

The awareness stage represents the first contact between the customer and the brand through various communication channels such as advertising, social media content, search results,

and word-of-mouth. At this early stage, customers are not yet committed to a purchase decision, but they begin forming initial perceptions and cognitive associations about the brand. According to Lemon and Verhoef (2016), these early interactions played a fundamental role in shaping the overall customer journey, as they influenced how customers perceived the brand's credibility and relevance. More recently, Reitsamer et al. (2024) confirmed empirically that effective customer journey design, starting from initial brand exposure, drove brand loyalty through the development of a meaningful brand relationship. A positive awareness experience enhanced brand recognition, created a favorable first impression, and increased initial trust, which laid the foundation for long-term customer loyalty.

H2: The quality of customer experience during the consideration stage positively influences customer loyalty.

During the consideration stage, customers actively search for information, compare alternatives, and evaluate different brands based on perceived value, quality, and benefits. This stage is characterized by high cognitive engagement, where customers rely heavily on available information, reviews, and recommendations to reduce uncertainty and risk. Rawson et al. (2013) demonstrated that organizations managing the full customer journey, including this evaluative phase, achieved significantly higher satisfaction and lower churn. Holz et al. (2024) further showed that addressing experience pain points during pre-core service encounters, which corresponded to the consideration stage, enhanced the overall customer experience and commitment. A structured and informative consideration experience helped customers feel more confident in their choices, reduced perceived risk, and increased emotional attachment to the brand, thereby strengthening loyalty intentions.

H3: The quality of customer experience during the purchase stage positively influences customer loyalty.

The purchase stage represents a decisive moment in the customer journey where intention is converted into actual behavior through a transaction. This stage is highly sensitive because customers evaluate the efficiency, convenience, and reliability of the purchasing process. Any difficulty or friction at this stage can directly affect satisfaction and future behavioral intentions. Voorhees et al. (2017) highlighted the core service encounter as a key determinant of customers' overall quality judgments and willingness to continue the relationship. Roosta et al. (2025) confirmed using large-scale omnichannel data that a smooth and well-integrated

purchase experience significantly contributed to customer loyalty. A smooth, fast, and user-friendly purchase process reduced frustration, increased perceived value, and enhanced satisfaction, which in turn encouraged repeat purchases and strengthened loyalty

H4: The quality of after-sales service positively influences customer loyalty.

The after-sales stage occurs after the purchase and includes product or service usage, customer support, complaint handling, and ongoing communication with the firm. This stage is critical because it determines whether the customer's expectations are confirmed or disconfirmed after consumption. Lemon and Verhoef (2016) identified post-purchase interactions as an integral component of the overall customer experience, with a direct impact on retention. Fitri et al. (2024) confirmed empirically that positive post-purchase experiences, mediated by experiential value, significantly strengthened brand loyalty. Effective after-sales service built trust, reinforced satisfaction, and signaled that the company valued long-term relationships rather than short-term transactions. As a result, strong after-sales experience increased customer retention, encouraged repeat purchases, and strengthened loyalty behavior.

H5: Pain points negatively influence customer loyalty.

Pain points refer to negative experiences or friction moments that occur during the customer journey, including service delays, technical problems, unclear communication, system errors, or inadequate customer support. These negative interactions can arise at any stage and significantly disrupt the overall customer experience. Voorhees et al. (2017) showed that negative service interactions at any stage affected customers' overall evaluations and their willingness to maintain the relationship. In addition, Becker and Jaakkola (2020) emphasized that pain points often had a stronger psychological impact than positive experiences, meaning that even minor issues could disproportionately influence customer judgment. Padigar et al. (2025) provided conceptual and empirical evidence that friction in the customer journey directly eroded satisfaction and weakened long-term loyalty intentions, confirming that unresolved pain points accelerate customer disengagement and increase the likelihood of switching behavior. Consequently, pain points reduce satisfaction, weaken trust, and damage emotional attachment, leading to lower levels of customer loyalty and higher switching intention.

CHAPTER III: RESEARCH METHODOLOGY

1. Epistemological Approach

This study was grounded in a positivist epistemological posture, which assumes that social phenomena can be observed, measured, and analyzed objectively. This perspective was rooted in the work of Durkheim (1895), who argued that social facts should be treated as objective realities, independent of individual interpretations. Similarly, Comte (1830) emphasized that scientific knowledge should rely on empirical observation and aim to explain and predict phenomena.

In line with this perspective, the present research adopte6d a hypothetico-deductive approach, which consisted of formulating hypotheses based on existing theories and testing them through empirical data (Popper, 1959). This approach enabled the identification of relationships between variables through statistical analysis (Thiétart, 2014).

Within this study, customer journey stages (awareness, consideration, purchase, and after-sales), pain points, and customer loyalty were treated as measurable constructs. These variables were operationalized through observable indicators collected via a questionnaire. Therefore, the positivist posture and hypothetico-deductive approach were particularly appropriate for analyzing the relationships between these variables in a rigorous and objective manner.

2. Methodological Approach and Research Design

This study adopted a quantitative methodological approach, based on a survey design. Quantitative research focuses on the collection and analysis of numerical data to test hypotheses and examine relationships between variables (Creswell, 2014).

The research design was both descriptive and explanatory. The descriptive aspect aimed to identify and describe the different stages of the customer journey and the associated pain points experienced by customers of Mobilis. The explanatory aspect sought to analyze the influence of these variables on customer loyalty.

This study was also cross-sectional, as data were collected at a single point in time. This design allowed capturing customers' perceptions and experiences as they existed at the time of data collection.

3. Data Collection Methods and Instruments

To test the research hypotheses, a survey method was used. Data were collected through an online questionnaire designed to gather information about customer experiences across the different stages of the customer journey, as well as the pain points encountered.

The questionnaire was developed based on the theoretical framework and the research hypotheses. Particular attention was given to clarity, simplicity, and logical structure to ensure that respondents could easily understand and answer the questions.

3.1. Measurement Instrument

The main data collection instrument used in this study was a structured questionnaire (see Appendix A). It was designed to measure the key variables of the research model, namely customer journey stages, pain points, and customer loyalty.

3.1.1. Questionnaire Structure

The questionnaire was organized into several sections:

- Eligibility (Screening Question): This section ensured that only respondents who had previously used Mobilis services participated in the study.
- Customer Journey Stages: This section evaluated customer experience across the different stages of the journey:
  - awareness (exposure to communication and advertising),
  - consideration (evaluation and comparison of offers),
  - purchase (service acquisition),
  - and after-sales (post-purchase support and service).
- Pain Points: This section identified the difficulties and negative experiences encountered by customers during their interactions with Mobilis.
- Customer Loyalty: This section measured loyalty through indicators derived from three widely used instruments: the Net Promoter Score (NPS), the Customer Satisfaction Score (CSAT), and the Customer Effort Score (CES).
- Demographic Profile: This section collected socio-demographic data such as age, gender, education level, and professional status.

3.1.2. Measurement Scales

The measurement scales used in this study were adapted from established instruments in the marketing and consumer behavior literature. Customer journey stage items were adapted from Lemon and Verhoef (2016), who provided a validated framework for measuring pre-purchase, purchase, and post-purchase experiences. Pain point items were developed based on the framework proposed by Becker and Jaakkola (2020), which identified negative customer experience dimensions.

Customer loyalty was measured using items derived from three widely validated industry metrics: the Net Promoter Score (NPS), which captured the customer's willingness to recommend the service to others (Reichheld, 2003); the Customer Satisfaction Score (CSAT), which measured overall satisfaction with the service experience (Parasuraman et al., 1988); and the Customer Effort Score (CES), which assessed the ease of interaction with the company across different touchpoints (Dixon et al., 2010). Together, these three instruments provided a comprehensive and multidimensional measurement of customer loyalty, covering its attitudinal, evaluative, and behavioral dimensions. All scales were adapted to the specific context of telecommunications services in Algeria.

All items were measured using a five-point Likert scale, ranging from 1 = "Strongly disagree" to 5 = "Strongly agree". This scale allowed respondents to express their level of agreement with each statement in a consistent and measurable way.

4. Sampling

The target population of this study consisted of customers of Mobilis in Algeria.

4.1. Determination of the Required Sample Size

To determine the required sample size, the Cochran (1977) formula was applied, as it is particularly suitable when the target population is large or undefined. The formula is as follows:

$$n = (t^2 \times p \times (1-p)) / e^2$$

Where:

- t represents the critical value corresponding to the desired confidence level (1.96 for 95%),

- p is the estimated proportion of population variability (set at 0.5 to maximize sample size),
- e is the desired margin of error (0.05 for 5% precision).

Applying this formula yielded a minimum required sample of 384 respondents. Adjusting for a 10% non-response rate, the recommended target became approximately 423 respondents, calculated as follows: $n = 384 + (0.1 \times 384) = 422.4 \approx 423$.

4.2. Sampling Method and Justification

Due to time and accessibility constraints inherent to an academic research context, a non-probability sampling method, specifically convenience sampling, was adopted. Respondents were selected based on their availability and willingness to participate. As noted by Rogelberg and Stanton (2007), achieving theoretically ideal sample sizes is frequently constrained in applied research by practical limitations such as time, budget, and access to the population. Similarly, Baruch and Holtom (2008) argued that in student and academic research, lower response rates are a recognized and acceptable reality, provided that the analytical objectives of the study remain achievable. In this study, the focus was on testing structural relationships between variables rather than producing population-level generalizations, which made the obtained sample analytically sufficient (Creswell, 2014).

The questionnaire was distributed online through social media platforms and personal networks, allowing access to a diverse group of participants. The sample included individuals with different demographic characteristics, ensuring a certain level of diversity.

4.3. Final Sample Size

A total of 163 responses were collected. After screening for eligibility and removing incomplete or invalid responses, 150 valid responses were retained for analysis. This sample size was considered adequate for the statistical analyses performed in this study, including correlation and multiple regression analysis (Hair et al., 2010).

5. Data Collection Procedure

The data collection process was carried out in several stages.

First, the questionnaire was designed based on the literature review and the research hypotheses. It was then pre-tested with a small group of individuals to ensure clarity and relevance of the items.

After validation, the questionnaire was distributed online using Google Forms and shared via digital platforms and personal networks, including social media. Data collection was conducted over a period of four days, from April 28 to May 2, 2025.

Finally, the data were reviewed, cleaned, and prepared for statistical analysis.

6. Data Analysis Methods

The collected data were analyzed using statistical techniques in order to test the research hypotheses. The analysis was conducted using SPSS software, which allowed efficient data processing and statistical testing.

The following analyses were performed:

- Descriptive analysis: to summarize the characteristics of the sample and describe the distribution of responses across all variables.
- Reliability analysis (Cronbach's Alpha): to assess the internal consistency of the measurement scales. A threshold of $\alpha \geq 0.70$ was used as the minimum acceptable level of reliability (Nunnally, 1978).
- Correlation analysis: to examine the nature and strength of bivariate relationships between the independent variables (customer journey stages and pain points) and the dependent variable (customer loyalty).
- Multiple regression analysis: to test the simultaneous impact of customer journey stages and pain points on customer loyalty, and to determine the relative contribution of each predictor variable.

These methods allowed for the validation of the conceptual model and the identification of the strength and direction of relationships between variables.

7. Research Limitations

Despite the efforts made, this study presented several limitations.

First, the use of convenience sampling limited the generalizability of the results to the broader population of Mobilis customers. Second, the online data collection method may have excluded individuals who were not active on digital platforms, potentially introducing a self-selection bias. Third, the study relied on self-reported data, which may have been influenced by subjective perceptions and social desirability bias. Fourth, the gap between the targeted sample size of 423 respondents, as calculated using the Cochran formula, and the final sample of 150 was primarily attributable to time constraints and limited access to the population, consistent with the acknowledged limitations of convenience sampling in academic research (Rogelberg & Stanton, 2007). Finally, the cross-sectional nature of the study captured customer perceptions at a single point in time, which did not allow for the observation of changes in loyalty over time.

8. Ethical Considerations

Ethical standards were respected throughout the research process.

Participation in the survey was voluntary, and respondents were informed about the purpose of the study. Informed consent was obtained prior to participation.

The questionnaire was anonymous, and no personal data were collected. All responses were treated confidentially and used strictly for academic purposes.

This chapter has provided a comprehensive and structured foundation for understanding the formation of customer loyalty within the framework of the customer journey, while also presenting the methodological approach adopted to empirically examine these relationships in the context of Mobilis.

From a theoretical perspective, the chapter demonstrated that customer loyalty is not a static outcome, but rather the result of a dynamic and cumulative process shaped by multiple interactions across different stages of the customer journey. The analysis of key concepts, including customer journey, customer experience, and customer loyalty, highlighted their interdependent nature and their central role in influencing customer perceptions and

behaviors. It was shown that customer experience evolves over time through continuous interactions with the firm, ultimately affecting satisfaction, trust, and long-term loyalty.

The examination of customer journey stages provided a structured understanding of how customer experience develops from initial awareness to post-purchase engagement. In addition, the role of touchpoints was emphasized as critical channels of interaction, whose quality and consistency significantly shape the overall experience. At the same time, the concept of pain points was introduced to capture negative experiences that may disrupt the journey. These friction points were found to reduce satisfaction, weaken trust, and negatively affect customer loyalty, often exerting a stronger impact than positive experiences.

The review of previous studies confirmed the importance of managing customer experience across the entire journey. However, it also revealed a gap in the literature, particularly the limited integration of both positive journey stages and negative experiences within a single analytical framework. In response, this study proposed a conceptual model that integrates customer journey stages and pain points as key determinants of customer loyalty, and formulated research hypotheses to be tested empirically.

The next chapter presents the empirical results of the study, including descriptive analysis, hypothesis testing, and a discussion of the findings..

CHAPTER IV: EMPIRICAL STUDY AND DISCUSSION

I. ORGANIZATIONAL FRAMEWORK

1. Overview of ATM Mobilis

1.1. Company Background

ATM Mobilis (Société par Actions – SPA) is Algeria's first and leading mobile telephone operator. The company was established following the restructuring of the telecommunications sector under Law 2000-03, which opened the Algerian mobile market to competition and paved the way for a new era of connectivity across the country.

On March 28, 2018, ATM Mobilis ceased to be a subsidiary of the Algérie Télécom group and became an independent company operating within a holding group comprising: Algérie Télécom, Algérie Télécom Satellite, ATM Mobilis, ATE, COMMINTAL, and SATICOM. This strategic transformation allowed Mobilis to operate with greater agility and market responsiveness.

Since its founding, ATM Mobilis has maintained core strategic objectives: customer satisfaction, customer loyalty, continuous innovation, and technological progress — objectives that have allowed it to generate sustained profits and acquire nearly 23 million subscribers as of 2022. The company positions itself as an operator close to its partners and customers, reinforced by its institutional tagline: "Together we build the future" — a promise of attentiveness and commitment to sustainable development.

1.2. Market Position

ATM Mobilis occupies a dominant position in Algeria's telecommunications market. With a market share of 44% and a subscriber market share of 43.5%, the company stands as the sector leader. As of December 31, 2022, the following key figures illustrate Mobilis's scale and reach:

Table 1: Key Figures of ATM Mobilis (as of December 31, 2022

Indicator	Value
Share Capital	100,000,000,000 DZD
Annual Revenue	+150 billion DZD
Market Share	44%
Subscriber Base	+23 million
Subscriber Market Share	43.5%
Mobilis Agencies	+160
Indirect Sales Points	+77,000
Workforce	+5,000 employees

Source: Company Document

The company operates through 8 Regional Directorates located in Algiers, Constantine, Chlef, Sétif, Béchar, Annaba, Oran, and Ouargla, ensuring nationwide coverage and proximity to its diverse customer base.

1.3. Mission, Values and Objectives

ATM Mobilis's primary mission is to provide high-quality, simple, effective, and widely accessible mobile telephone services across the entire national territory. This mission is grounded in four core values:

Transparency: ATM Mobilis strives to be clear about its products and to align its words with its actions, building solid, lasting, trust-based relationships with its partners and customers.

Performance Excellence: Teams are expected to perform at a high level and consistently deliver value, with rigor in execution and high standards of quality driven by teamwork and cohesion.

Commitment: Mobilis commits to a relationship of trust with its partners for a healthy and lasting partnership, and assumes social and civic responsibility by engaging with shared societal concerns.

Agility: Convinced that technological advancements are a source of enrichment, Mobilis works to adapt internally through employee skill development, and externally through continuous improvement of offerings and network quality.

The company's strategic objectives include becoming the undisputed leader of the Algerian mobile market, continuously growing revenue, achieving unmatched brand awareness, ensuring customer satisfaction through product availability, and continuously improving the technical network through deployment, modernization, and equipment densification.

1.4. Services and Offers

ATM Mobilis offers a wide range of products and services designed to meet the needs of both individual and corporate customers. Its retail range, known as the 'Révolution' range, provides tailored mobile and data packages. Its business offers include specialized telecommunications solutions such as VPN, MVPN, B2M connectivity, and B-SMS, specifically designed to meet corporate telecommunications needs.

Additional digital services include Mobilis@afe, MeetMob, MyCloud, Roaming Plans, Data Roaming Passes, and various value-added services such as Arsselli, Mobsound, Selekni, Racidi, and Naghmati. These offerings reflect the company's commitment to innovation and digital transformation.

1.5. Digital Presence and Customer Interaction

ATM Mobilis maintains an active digital presence through its official website, mobile application, social media pages (Facebook, Instagram), and a dedicated customer service call center. Customers interact with Mobilis through a variety of touchpoints including physical agencies, indirect sales points, online self-service portals, and social media channels. These multiple interaction points form the backbone of the Mobilis customer journey, and their quality significantly determines customer satisfaction and loyalty outcomes.

1.6. Organizational Structure

ATM Mobilis is organized according to global management standards. The company is led by a Chairman and CEO (Président Directeur Général – PDG), supported by a team of specialized Advisors and a Board of Directors composed of members from diverse professional backgrounds. The Board validates strategic choices and oversees the achievement of resulting objectives.

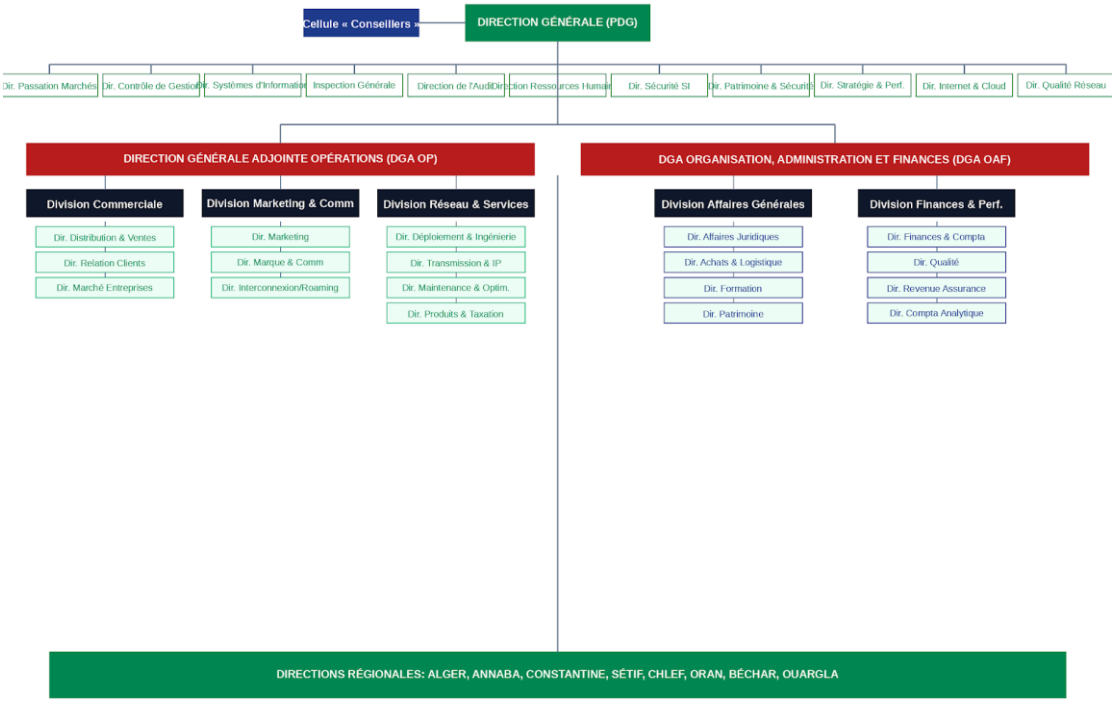
The organizational structure is built around two Deputy General Directorates, from which five main divisions are derived:

1. **Deputy General Directorate – Organization, Administration & Finance:**
    - General Affairs Division
    - Finance & Performance Division
2. **Deputy General Directorate – Operations:**
    - Commercial Division
    - Communication & Marketing Division
    - Network and Services Division

Several directorates report directly to the CEO, including: Strategy, Programming & Performance; Information Systems; Asset Protection & Security; Human Resources; IT Security; Internet & Cloud Hosting Services; Network Quality & Customer Perception; Audit; and General Inspection. A cell of specialized advisors covering technical, human resources, finance, legal, and general affairs also operates under the CEO's direct authority.

The organizational principles adopted by ATM Mobilis rest on a clear separation between operational activities — managed by the Deputy Operations Directorate — and functional activities — managed by the Deputy Directorate for Organization, Administration and Finance — at the central level, with operational activities implemented at the regional level through 8 Regional Directorates located in: Algiers, Constantine, Chlef, Sétif, Béchar, Annaba, Oran, and Ouargla.

Figure 6 – Simplified Organizational Chart of ATM Mobilis



Source: Author 2026

2. The Customer Journey at ATM Mobilis

The customer journey at ATM Mobilis encompasses all stages of interaction between the customer and the company, from the initial moment of awareness to post-purchase service and loyalty. Understanding each stage is essential for identifying opportunities to enhance customer experience and strengthen loyalty. Based on the theoretical framework developed in Chapter 2 and operationalized through the survey instrument, the Mobilis customer journey is mapped across five key stages as described below.

2.1. Awareness Stage

The awareness stage represents the customer's first point of contact with the Mobilis brand. At this stage, potential customers become exposed to Mobilis through multiple touchpoints including television and radio advertising, social media campaigns (particularly on Facebook and Instagram), Mobilis store signage, word-of-mouth from friends and family, and promotional events. The quality of communication at this stage shapes the initial brand image and significantly influences whether a prospect will consider Mobilis as a viable

option. In the Algerian market, social media and recommendations from friends and family emerged as the most influential awareness channels, underscoring the importance of both digital marketing and service quality on organic brand reputation.

2.2. Consideration Stage

During the consideration stage, potential customers evaluate Mobilis's offerings against competitors (Djezzy and Ooredoo) and seek information about prices, network quality, and available offers. Key touchpoints at this stage include the Mobilis website, physical agencies, social media pages, and peer recommendations. The quality of information provided — its clarity, accessibility, and completeness — plays a decisive role in guiding the customer's decision-making process. A smooth and informative experience at this stage facilitates decision-making and strengthens the customer's relationship with the brand, even before any commercial transaction takes place.

2.3. Purchase Stage

The purchase stage is the critical moment where the customer directly transacts with Mobilis, whether by subscribing to a plan, purchasing a SIM card, activating a data package, or renewing a contract. This stage involves interactions with Mobilis agency staff, self-service kiosks, or digital channels. The quality of service delivery — staff professionalism, waiting times, transaction smoothness, and clarity of explanations — directly shapes the customer's perception of Mobilis and sets the foundation for long-term loyalty. According to Voorhees et al. (2017), service encounters at this stage significantly influence customer experience outcomes, making it a pivotal moment in the overall journey.

2.4. Post-Purchase (After-Sales) Stage

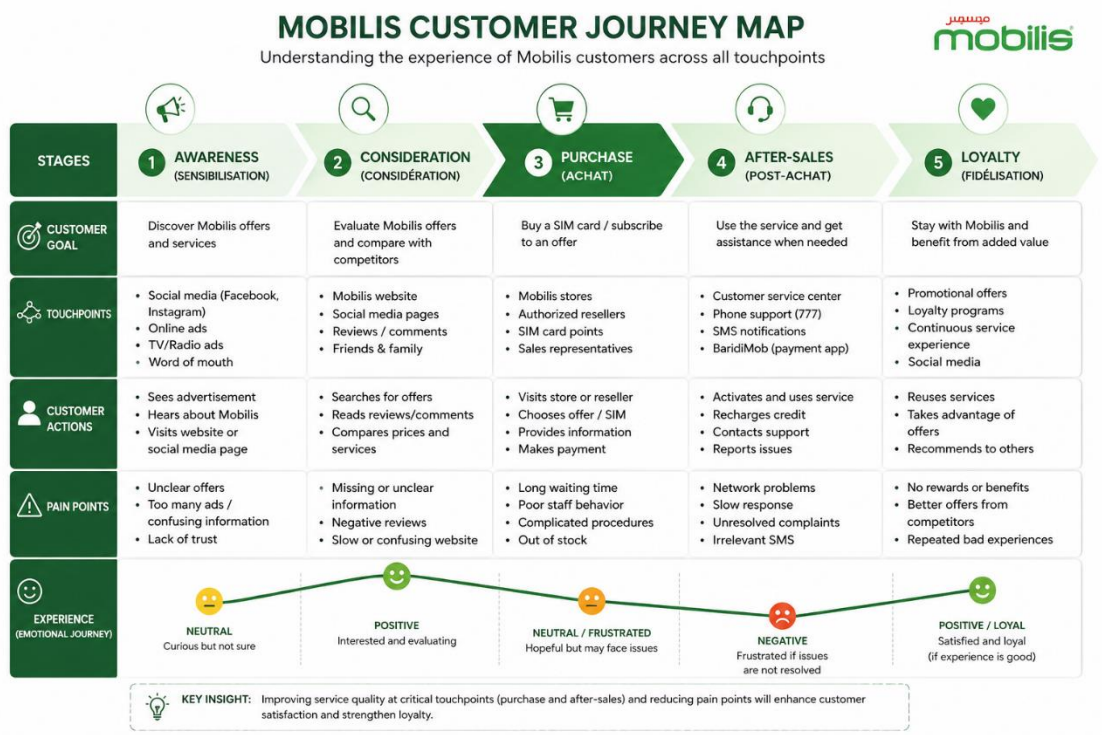
The post-purchase stage encompasses all interactions that occur after the initial transaction, including customer support, complaint resolution, technical assistance, billing inquiries, and ongoing service management. Mobilis offers after-sales support through its call center (3666), physical agencies, social media pages, and the MyMobilis application. This stage is particularly critical as it determines whether a satisfied customer becomes a loyal one — or whether an unresolved issue leads to churn. Lemon and Verhoef (2016) emphasize that post-purchase experiences are essential in shaping overall customer perceptions and loyalty outcomes. In the Algerian telecommunications context, the quality of after-sales service is widely cited as a key differentiator among operators.

2.5. Pain Points Identification

Pain points refer to the negative experiences and friction points that customers encounter throughout their journey with Mobilis. Based on the survey data and Pareto analysis conducted in this study, key pain points were identified across all touchpoints and stages of the journey. These include slow service in physical agencies, unresolved technical issues, long call center waiting times, unclear information about offers and conditions, website navigation difficulties, and insufficient staff professionalism.

These pain points represent critical failure moments that undermine the overall quality of the customer journey. Their identification and prioritization — through the Pareto tool — allow management to focus remedial efforts on the issues that generate the greatest negative impact on customer satisfaction and loyalty.

Figure 7 – Mobilis Customer Journey Map



Source: Author2026

II. RESULTS AND DISCUSSION

1. Presentation of Results

1.1. Descriptive Analysis of the Sample

The profile of respondents presented in the table below shows the distribution of the 150 active Mobilis SIM card users across key demographic variables including gender, age group, occupational status, and duration of use.

Table 2: Profile of Respondents

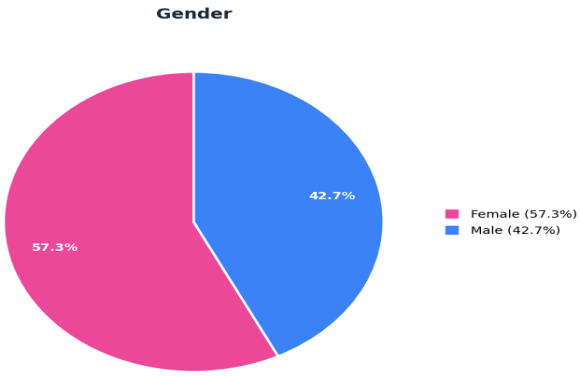
Variables	Categories	Frequency	Percentage (%)
Gender	Male	64	42.7%
	Female	86	57.3%
Age	18 – 24 years	72	48.0%
	25 – 34 years	37	24.7%
	35 – 44 years	24	16.0%
	+45 years	17	11.3%
Occupation	Student	66	44.0%
	Employed	62	41.3%
	Self-employed	14	9.3%
	Unemployed	8	5.3%
Duration of Use	Less than 3 months	5	3.3%
	Less than 1 year	8	5.3%
	1 – 3 years	21	14.0%

	More than 3 years	116	77.3%

Source: Elaborated by the author from SPSS output

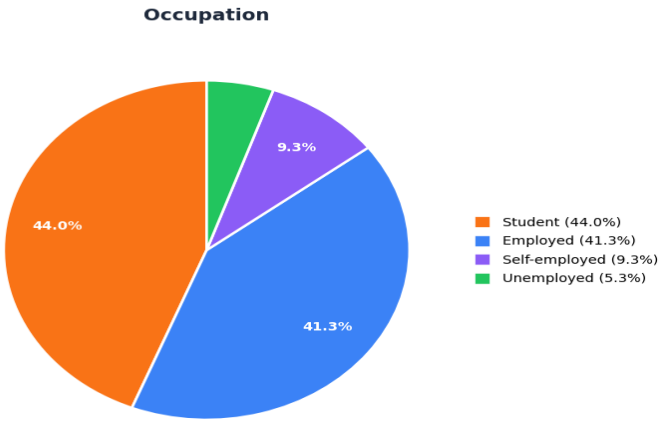
The sample shows a slight female majority (57.3% vs. 42.7% male). In terms of age, nearly half of respondents (48.0%) belong to the 18–24 age group, followed by the 25–34 bracket (24.7%), consistent with a young digitally active user base. Students (44.0%) and employed individuals (41.3%) together represent 85.3% of the sample. Notably, 77.3% of respondents have been using Mobilis for more than 3 years, indicating a predominantly experienced user base whose evaluations of the customer journey are well-grounded.

Figure 8– Gender percentage



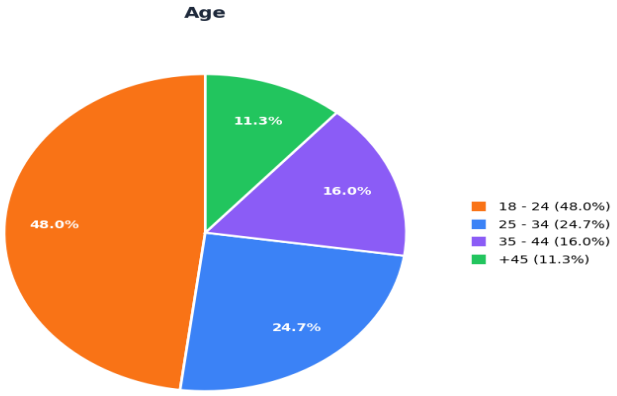
Source: Author2026

Figure 9 –Occupation percentage



Source: Author 32026

Figure 10 –Age percentage



Source: Author 2026

2. Univariate Descriptive Analysis

The following section presents an item-by-item descriptive analysis of each construct. For each customer journey dimension, the mean and standard deviation of every individual item are reported and interpreted. Responses were collected on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

2.1. Awareness Stage

The Awareness dimension was measured using five items assessing respondents' exposure to Mobilis services, clarity of information, first contact impression, ability to compare with competitors, and sufficiency of available information.

Table 3: Descriptive Statistics – Awareness Items

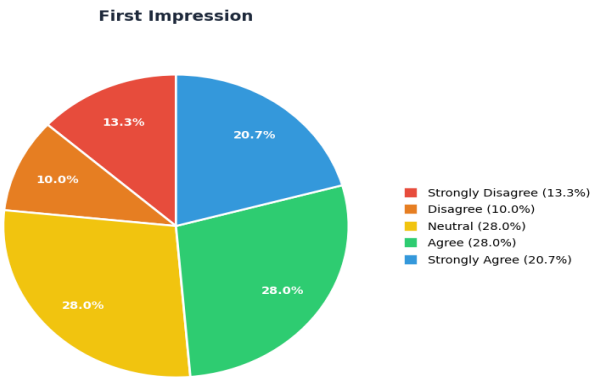
Item	Mean	Std. Dev.
Aware of service (Awe1)	3.41	1.264
Information are clear (Awe2)	3.55	1.308
First Contact Impression (Awe3)	3.33	1.282

Comparison with others (Awe4)	3.27	1.519
Sufficient information (Awe5)	3.27	1.267

Source: Elaborated by the author from SPSS output

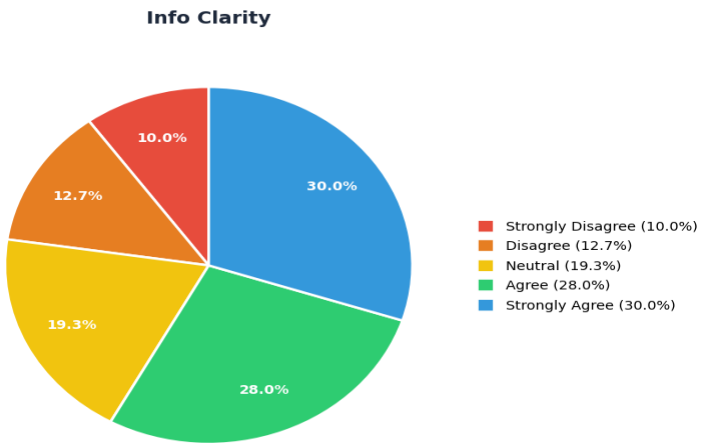
The means for Awareness items range from 3.27 to 3.55, all above the midpoint (3.00), indicating moderately positive awareness. "Information are clear" records the highest mean (M = 3.55, SD = 1.308), suggesting respondents find Mobilis's communication relatively clear. However, "Comparison with others" and "Sufficient information" both yield M = 3.27 with higher standard deviations, reflecting greater variability in how users perceive Mobilis's competitive positioning and informational completeness.

Figure 11 –First Impression statistics



Source: Author 2026

Figure 12 –Age Information clarity statistics



Source : Author 2026

2.2. Consideration Stage

The Consideration dimension captures how well Mobilis's services encourage users to choose the offering and feel that it matches their needs.

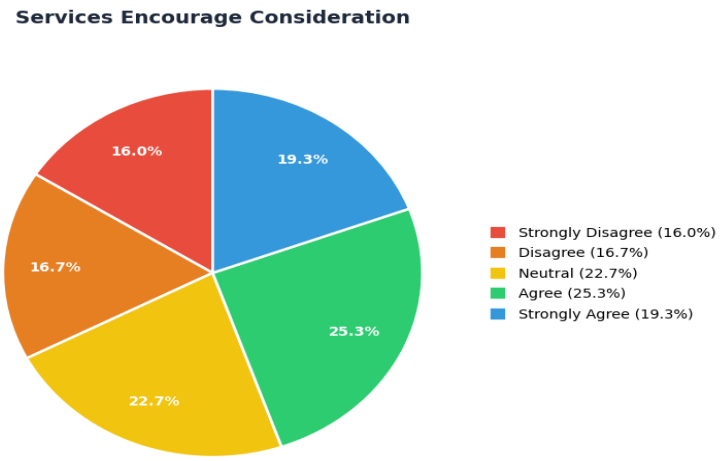
Table 4: Descriptive Statistics – Consideration Items

Item	Mean	Std. Dev.
Service encourages consideration (Cons1)	3.15	1.350
Suitable for my needs (Cons2)	3.15	1.399
Sufficient information before deciding (Cons3)	3.27	1.267

Source: Elaborated by the author from SPSS output

Consideration items record means between 3.15 and 3.27, just above the neutral midpoint. "Suitable for my needs" (M = 3.15, SD = 1.399) shows the widest dispersion, reflecting mixed perceptions of how well Mobilis's offers align with individual requirements. These moderate scores indicate that while Mobilis is considered a viable option, the consideration stage does not generate a strongly positive impression.

Figure 13 –Service Encourage Consideration statistics



Source: Author2026

2.3. Purchase Stage

The Purchase dimension evaluates users' experience during the actual acquisition process, including transaction quality, process smoothness, and emotional experience during use.

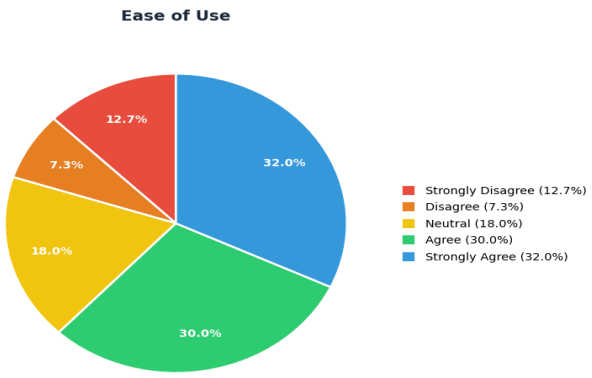
Table 5: Descriptive Statistics – Purchase Items

Item	Mean	Std. Dev.
Transactions quality (Pur2)	3.09	1.131
The process quality (Pur3)	3.61	1.340
Feeling while using (Pur4)	3.22	1.300

Source: Elaborated by the author from SPSS output

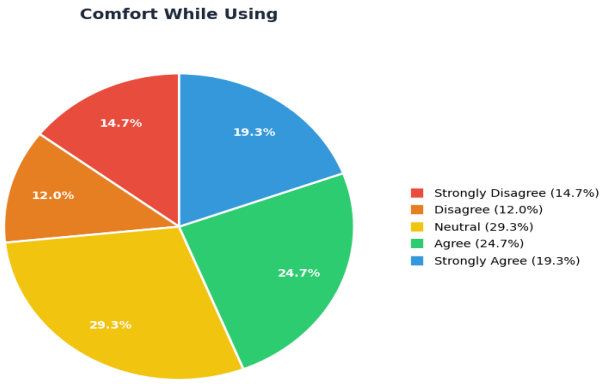
Purchase items show notable variation. "The process quality" records the highest mean (M = 3.61, SD = 1.340), with 62% of respondents agreeing or strongly agreeing. In contrast, "Transactions quality" yields M = 3.09 with a high neutral response (34.0%), indicating many users remain undecided about the transaction experience. "Feeling while using" (M = 3.22) reflects a moderately positive affective experience during service use.

Figure 14 –Quality of usage statistics



Source: Author 2026

Figure 15 –Comfort statistics



Source: Author 2026

2.4. After-Sales Stage

The After-Sales dimension assesses the quality of post-purchase support, including responsiveness, problem resolution speed, and overall satisfaction after use.

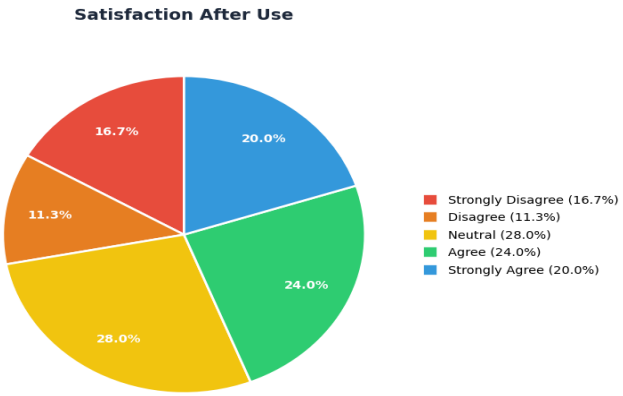
Table 6: Descriptive Statistics – After-Sales Items

Item	Mean	Std. Dev.
Customer support quality (AftS1)	3.11	1.162
Problems are resolved quickly (AftS2)	3.05	1.195
Satisfaction after use (AftS3)	3.19	1.340

Source: Elaborated by the author from SPSS output

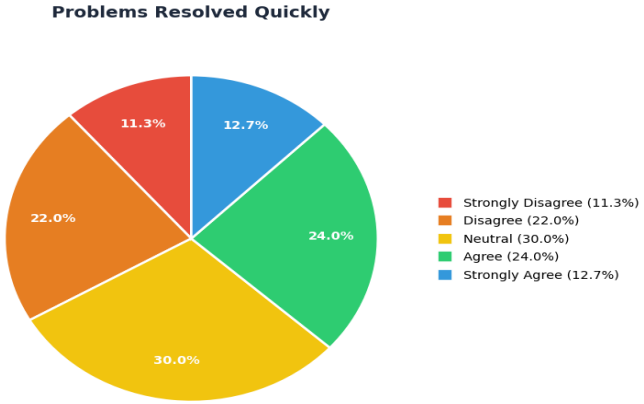
After-Sales items record the lowest means among all positive journey dimensions (3.05–3.19). "Problems are resolved quickly" yields the lowest score (M = 3.05, SD = 1.195), with 33.3% disagreeing or strongly disagreeing, signalling a notable weakness in Mobilis's issue resolution capabilities. These results highlight After-Sales as an area requiring significant improvement, consistent with the regression findings where it emerged as the strongest predictor of loyalty.

Figure 16 –Satisfaction statistics



Source: Author 2026

Figure 17 –Customer service statistics



Source: Author 2026

2.5. Pain Points

Pain Points items are negatively framed — higher scores indicate greater friction. The five items assess clarity of information, perceived value relative to competitors, frequency of problems, difficulty in obtaining help, and level of frustration.

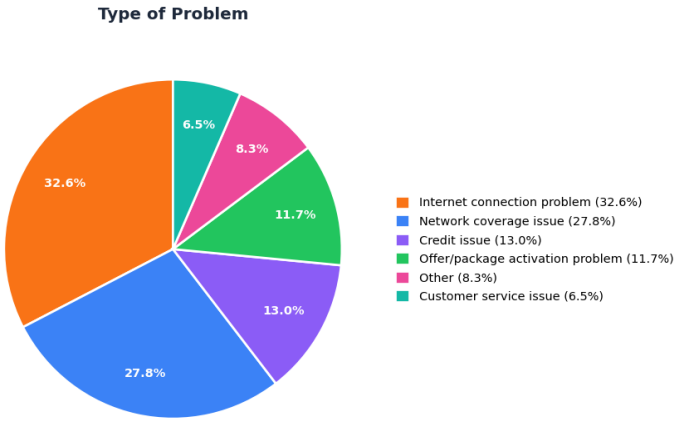
Table 7: Descriptive Statistics – Pain Points Items

Item	Mean	Std. Dev.
Information not clear (PaiP4)	2.64	1.172
Offers comparison unfavourable (PaiP5)	2.74	1.167
Face problems (PaiP6)	2.49	1.252
Difficult to get help (PaiP7)	2.38	1.191
Level of frustration (PaiP8)	2.43	1.348

Source: Elaborated by the author from SPSS output

All Pain Points items record means below the midpoint (2.38–2.74), indicating generally low levels of perceived friction. "Difficult to get help" records the lowest mean (M = 2.38), with 54.7% disagreeing or strongly disagreeing. However, "Offers comparison" (M = 2.74) and "Information not clear" (M = 2.64) suggest some users perceive information clarity and competitive positioning as sources of friction, consistent with the Pareto findings.

Figure 18 –Types of Problems



Source: Author 2026)

2.6. Customer Loyalty

The Loyalty dimension is measured through CSAT (Customer Satisfaction Score), NPS (Net Promoter Score), CES (Customer Effort Score), and a direct loyalty intention item.

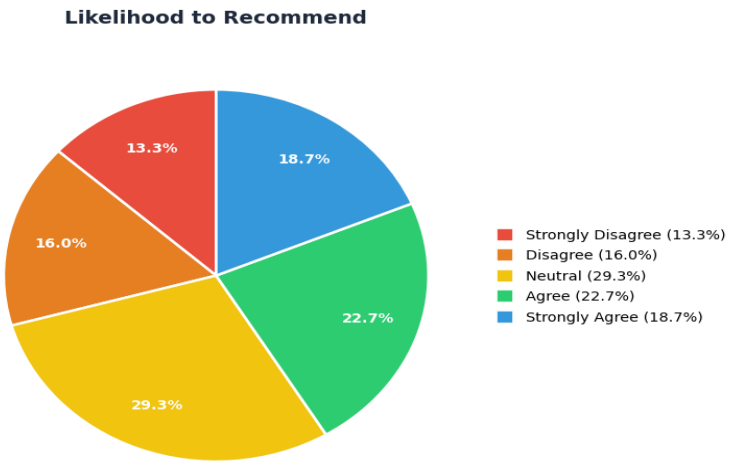
Table 8: Descriptive Statistics – Loyalty Items

Item	Mean	Std. Dev.
CSAT – Overall satisfaction (Loy1)	3.19	1.195
NPS – Likelihood to recommend (Loy2)	3.17	1.284
CES – Ease of interaction (Loy3)	3.35	1.177
Overall loyalty intention (Loy4)	3.43	1.462

Source: Elaborated by the author from SPSS output

Loyalty items show means ranging from 3.17 to 3.43. The overall loyalty intention item records the highest mean (M = 3.43, SD = 1.462), with 54.0% agreeing or strongly agreeing with staying loyal to Mobilis. CSAT (M = 3.19) and NPS (M = 3.17) point to moderate satisfaction and recommendation intention. Notably, 29.3% of NPS respondents remain neutral, indicating that the brand has not yet achieved strong advocacy.

Figure 19–Recommendation Percentage



(Author 2026)

3. Preliminary Tests

Before proceeding with the main analysis, several preliminary tests were conducted to ensure the quality and validity of the data. These include verification of missing values, tests of normality, reliability testing of the measurement scales, and descriptive statistics of the composite indicators.

3.1. Missing Values

A preliminary examination of the dataset revealed no missing values across any of the 150 observations. This can be attributed to the online questionnaire format, which required respondents to complete all questions before submission. The absence of missing data eliminates the need for any imputation techniques and guarantees the integrity of the subsequent analyses.

3.2. Reliability of the Measurement Scales

To assess the internal consistency of the measurement scales used in this study, Cronbach's Alpha coefficient was computed for each construct. This coefficient evaluates whether the items within a given scale measure the same underlying concept (Tavakol & Dennick, 2011). According to George and Mallery (2003), the following thresholds apply: $\alpha \geq 0.9$ = excellent, $\alpha \geq 0.8$ = good, $\alpha \geq 0.7$ = acceptable, $\alpha \geq 0.6$ = questionable, $\alpha \geq 0.5$ = poor, $\alpha < 0.5$ = unacceptable.

Several iterations of reliability testing were performed in order to reach acceptable Cronbach's Alpha values by removing poorly performing items. The final retained items and their corresponding reliability statistics are summarized in the table below.

Table 9: Reliability Statistics of the Measurement Scales –

Construct	Items Retained	Cronbach's Alpha	Interpretation
Awareness (IND_Awe)	Awe2, Awe3, Awe4	0.822	Good
Consideration (IND_Cons)	Cons1, Cons2, Cons3	0.853	Good
Purchase (IND_Pur)	Pur2, Pur3, Pur4	0.803	Good
After-Sales (IND_Aft_Sal)	AftS1, AftS2, AftS3	0.815	Good
Pain Points (IND_P_Point)	PaiP4, PaiP6, PaiP7, PaiP8	0.661	Questionable
Loyalty (D_Loy)	Loy1, Loy2, Loy3, Loy4	0.874	Good

Source: SPSS Output

The results show that the Awareness, Consideration, Purchase, After-Sales, and Loyalty scales all achieve good internal consistency, with Cronbach's Alpha values ranging from 0.803 to 0.874. The Pain Points dimension, composed of four retained items (PaiP4, PaiP6, PaiP7, PaiP8), yields a Cronbach's Alpha of 0.661, which falls in the questionable range but remains acceptable given the exploratory nature of this construct and the difficulty of measuring subjective friction experiences.

It is important to note that the initial Pain Points scale with 5 items ($\alpha = 0.595$) was below the acceptable threshold. Several combinations were tested, and the final four-item version (PaiP4, PaiP6, PaiP7, PaiP8) was retained as it provided the best reliability. These items capture the dimensions of unclear information, difficulty getting help, frustration, and unfavorable comparison with alternatives.

3.3. Descriptive Statistics of Composite Indicators

Following the reliability tests, composite indicators were constructed by computing the arithmetic mean of the items belonging to each dimension. The descriptive statistics for these six composite variables are presented below.

Table 10: Descriptive Statistics of the Composite Indicators

Variable	N	Min	Max	Mean	Std. Deviation
IND_Awe (Awareness)	150	1.00	5.00	3.4289	1.10341
IND_Cons (Consideration)	150	1.00	5.00	3.1911	1.17731
IND_Pur (Purchase)	150	1.00	5.00	3.3089	1.06752
IND_Aft_Sal (After-Sales)	150	1.00	5.00	3.1178	1.05490
IND_P_Point (Pain Points)	150	1.00	5.00	2.4833	0.87502
D_Loy (Loyalty)	150	1.00	5.00	3.2850	1.09415

Source: SPSS Output

The results reveal that the Awareness dimension records the highest mean (M = 3.43, SD = 1.10), indicating that consumers have a moderate-to-favorable perception of Mobilis during the initial stage of the journey. Consideration (M = 3.19), Purchase (M = 3.31), After-Sales service (M = 3.12), and Loyalty (M = 3.29) all cluster around the midpoint of the scale, suggesting moderate levels of satisfaction and engagement.

Notably, the Pain Points dimension records the lowest mean (M = 2.48, SD = 0.88), indicating that consumers report relatively low levels of friction and frustration during their experience with Mobilis. Since this variable is negatively framed, a lower score suggests a

more positive overall experience in terms of ease and accessibility. All variables span the full range of the scale (1.00 to 5.00), confirming sufficient variability for regression analysis.

3.4. Tests of Normality

Normality of the main variables was assessed using both the Kolmogorov-Smirnov test (with Lilliefors correction) and the Shapiro-Wilk test. The results of both tests indicate that the distributions of all variables deviate significantly from normality ($p < 0.05$ for all variables).

However, as argued by Kline (2011) and Byrne (2010), strict normality is not indispensable for multivariate analyses, especially when sample sizes are moderately large and when the data present a near-normal distribution. The normality plots (Q-Q plots) for all variables, as well as the examination of skewness and kurtosis statistics, confirm this quasi-normality assumption, as detailed below.

Table 11: Skewness and Kurtosis Statistics

Variable	Skewness	Kurtosis	Assessment
IND_Awe (Awareness)	-0.523	-0.453	Quasi-normal
IND_Cons (Consideration)	-0.183	-0.998	Quasi-normal
IND_Pur (Purchase)	-0.438	-0.418	Quasi-normal
IND_P_Point (Pain Points)	0.227	-0.290	Quasi-normal
D_Loy (Loyalty)	-0.296	-0.722	Quasi-normal

Source: SPSS Output

The skewness values for all variables fall between -1 and +1, and the kurtosis values remain within the [-1.5; +1.5] range, confirming a quasi-normal distribution. Based on these findings, the use of parametric tests — particularly simple and multiple linear regression — is methodologically justified.

In addition, the diagnostic of the studentized residuals from the multiple regression model (SRE_1) shows a mean of approximately 0.00 and a standard deviation close to 1.00, which further supports the assumption of normality of residuals.

4. Pearson Correlation Analysis

Prior to testing the research hypotheses, a Pearson correlation analysis was conducted to explore the linear relationships between all variables. This step is essential to verify the existence of significant associations between the independent variables (the customer journey stages: Awareness, Consideration, Purchase, After-Sales, and Pain Points) and the dependent variable (Consumer Loyalty).

Table 12: Pearson Correlation Matrix

	IND_Awe	IND_Cons	IND_Pur	IND_Aft_Sal	IND_P_Point	D_Loy
IND_Awe	1	.536**	.596**	.531**	-.187*	.474**
IND_Cons	.536**	1	.683**	.739**	-.347**	.591**
IND_Pur	.596**	.683**	1	.690**	-.357**	.655**
IND_Aft_Sal	.531**	.739**	.690**	1	-.401**	.678**
IND_P_Point	-.187*	-.347**	-.357**	-.401**	1	-.382**
D_Loy	.474**	.591**	.655**	.678**	-.382**	1

Source: SPSS

The correlation matrix reveals several noteworthy findings. All customer journey dimensions are significantly and positively correlated with Consumer Loyalty. After-Sales service records the strongest correlation with Loyalty ($r = .678$, $p < .01$), followed by Purchase ($r = .655$), Consideration ($r = .591$), and Awareness ($r = .474$). Pain Points, being a negatively framed variable, is negatively correlated with Loyalty ($r = -.382$, $p < .01$), confirming that greater friction in the consumer experience is associated with lower loyalty.

The independent variables also correlate significantly with one another, with particularly strong associations between Consideration and After-Sales ($r = .739$), Purchase and After-Sales ($r = .690$), and Purchase and Consideration ($r = .683$). This multicollinearity between predictors was anticipated, as the stages of a customer journey are inherently interrelated. The Pain Points variable correlates negatively and significantly with all positive journey

stages, indicating that consumers who experience more friction tend to rate all other stages less favorably.

These results confirm the existence of linear relationships between the variables, thereby justifying the use of linear regression analyses to test the research hypotheses.

5. Testing of Research Hypotheses

To test the research hypotheses, both simple and multiple linear regression analyses were conducted. Simple regressions allow examination of the individual effect of each customer journey stage on Loyalty, while the multiple regression model simultaneously accounts for all predictors, providing a more complete and robust picture of their combined explanatory power.

The criterion for statistical significance is set at $p < 0.05$. The F-value from the ANOVA table assesses the overall significance of the model, the R^2 coefficient measures the explanatory power of the model, and the unstandardized coefficient B indicates the direction and magnitude of each predictor's effect.

5.1. Multiple Linear Regression

A multiple linear regression was performed with Consumer Loyalty (D_Loy) as the dependent variable and all five customer journey dimensions (Awareness, Consideration, Purchase, After-Sales, and Pain Points) as independent variables. The results are summarized below.

Table 13: Multiple Regression – Model Summary –

Model	R	R^2	Adjusted R^2	F	Sig.
1	0.733	0.538	0.522	33.527	0.000

Source: SPSS Output

The model yields a multiple correlation coefficient of $R = 0.733$, indicating a strong linear association between the set of predictors and Consumer Loyalty. The R^2 value of 0.538 indicates that 53.8% of the variance in Consumer Loyalty is explained by the five customer journey dimensions taken together. The Adjusted R^2 of 0.522 confirms the robustness of this explanatory power when accounting for the number of predictors. The ANOVA test confirms that the overall model is statistically significant ($F = 33.527$, $p < 0.001$).

Table 14: Multiple Regression – Coefficients

Predictor	B	Std. Error	Beta (β)	T	Sig.	Decision
(Constant)	1.065	0.362	—	2.942	0.004	—
IND_Awe (Awareness)	0.056	0.072	0.056	0.772	0.441	Not Significant
IND_Cons (Consideration)	0.053	0.084	0.057	0.627	0.532	Not Significant
IND_Pur (Purchase)	0.306	0.091	0.298	3.358	0.001	Significant
IND_Aft_Sal (After-Sales)	0.373	0.096	0.359	3.861	0.000	Significant
IND_P_Point (Pain Points)	-0.127	0.078	-0.101	-1.617	0.108	Not Significant

Source: SPSS Output

The coefficients table reveals that, when all predictors are considered simultaneously, two customer journey stages emerge as statistically significant predictors of Consumer Loyalty:

• Purchase (IND_Pur): B = 0.306, β = 0.298, t = 3.358, p = 0.001. A one-unit increase in the Purchase experience is associated with an average increase of 0.306 units in Consumer Loyalty.

• After-Sales Service (IND_Aft_Sal): B = 0.373, β = 0.359, t = 3.861, p < 0.001. This is the strongest and most significant predictor in the model. A one-unit improvement in After-Sales experience leads to an average increase of 0.373 units in Loyalty.

On the other hand, Awareness (p = 0.441), Consideration (p = 0.532), and Pain Points (p = 0.108) do not reach statistical significance in the multiple regression model. This does not mean these variables are irrelevant — indeed, the simple regression results below show they are individually significant — but rather that their effect is partially absorbed by the other predictors in the model, likely due to the high intercorrelations observed.

5.2. Simple Linear Regressions

To examine the individual contribution of each customer journey stage to Consumer Loyalty, five separate simple linear regressions were conducted. These allow testing of each sub-hypothesis independently.

H1: Awareness has a positive and significant impact on Consumer Loyalty.

To test H1, a simple linear regression was performed between Awareness (IND_Awe) as the independent variable and Consumer Loyalty (D_Loy) as the dependent variable.

Table 15: Simple Regression – Awareness → Loyalty

R	R^2	F	B	T	Sig.
0.474	0.225	42.973	0.470	6.555	0.000

Source: SPSS Output

- R = 0.474: This indicates a moderate positive linear relationship between Awareness and Consumer Loyalty.
- R^2 = 0.225: Awareness explains 22.5% of the variance in Consumer Loyalty.
- F = 42.973, Sig. = 0.000: The model is globally significant. The relationship between the two variables is not due to chance.
- B = 0.470: Each one-unit increase in Awareness is associated with an average increase of 0.470 units in Consumer Loyalty.
- t = 6.555: The t-test confirms that the coefficient is highly significant.

In summary, the analysis shows that Awareness has a positive and significant impact on Consumer Loyalty (B = 0.470; t = 6.555; $p < 0.001$). The model explains 22.5% of the variance in Loyalty. These results allow us to validate H1.

H2: Consideration has a positive and significant impact on Consumer Loyalty.

To test H2, a simple linear regression was performed between Consideration (IND_Cons) and Consumer Loyalty (D_Loy).

Table 16: Simple Regression – Consideration → Loyalty

R	R^2	F	B	T	Sig.

0.591	0.350	79.577	0.550	8.921	0.000

Source: SPSS Output

• R = 0.591: A moderate-to-strong positive relationship between Consideration and Consumer Loyalty.

• R^2 = 0.350: Consideration alone explains 35.0% of the variance in Consumer Loyalty, the second-highest among individual predictors.

• F = 79.577, Sig. = 0.000: The model is highly significant overall.

• B = 0.550: Each one-unit improvement in the Consideration stage increases Consumer Loyalty by an average of 0.550 units.

• t = 8.921: The coefficient is highly significant.

In summary, Consideration has a strong and highly significant positive impact on Consumer Loyalty (B = 0.550; t = 8.921; p < 0.001). The model explains 35.0% of the variance. H2 is therefore validated.

H3: Purchase experience has a positive and significant impact on Consumer Loyalty.

To test H3, a simple linear regression was performed between Purchase (IND_Pur) and Consumer Loyalty (D_Loy).

Table 17: Simple Regression – Purchase → Loyalty

R	R^2	F	B	T	Sig.
0.655	0.429	111.096	0.671	10.540	0.000

Source: SPSS Output

• R = 0.655: A strong positive linear relationship between Purchase and Consumer Loyalty.

• R^2 = 0.429: Purchase experience alone explains 42.9% of the variance in Consumer Loyalty.

• F = 111.096, Sig. = 0.000: The model is highly and robustly significant.

• B = 0.671: Each one-unit improvement in the Purchase experience leads to an average increase of 0.671 units in Consumer Loyalty — the largest B coefficient among all simple regressions.

• t = 10.540: The t-test confirms the coefficient is highly significant.

In summary, Purchase experience has the strongest individual explanatory power for Consumer Loyalty (B = 0.671; t = 10.540; p < 0.001), explaining 42.9% of its variance. H3 is therefore validated.

H4: After-Sales service has a positive and significant impact on Consumer Loyalty.

To test H4, a simple linear regression was performed between After-Sales (IND_Aft_Sal) and Consumer Loyalty (D_Loy).

Table 18: Simple Regression – After-Sales → Loyalty

R	R^2	F	B	T	Sig.
0.678	0.459	125.701	0.703	11.212	0.000

Source: SPSS Output

• R = 0.678: A strong positive linear relationship between After-Sales service quality and Consumer Loyalty.

• R^2 = 0.459: After-Sales service explains 45.9% of the variance in Consumer Loyalty — the highest explanatory power among all individual predictors.

• F = 125.701, Sig. = 0.000: The model is highly significant.

• B = 0.703: Each one-unit improvement in After-Sales quality is associated with an average increase of 0.703 units in Consumer Loyalty.

• t = 11.212: The coefficient is highly significant.

In summary, After-Sales service is the single most powerful predictor of Consumer Loyalty in this study (B = 0.703; t = 11.212; p < 0.001), explaining nearly 46% of the variance. H4 is therefore validated.

H5: Pain Points have a negative and significant impact on Consumer Loyalty.

To test H5, a simple linear regression was performed between Pain Points (IND_P_Point) and Consumer Loyalty (D_Loy). Given the negative framing of this construct — higher scores indicate greater friction — a negative regression coefficient is expected.

Table 19: Simple Regression – Pain Points → Loyalty

R	R^2	F	B	T	Sig.
0.382	0.146	25.334	-0.478	-5.033	0.000

Source: SPSS Output

• R = 0.382: A moderate negative linear relationship between Pain Points and Consumer Loyalty.

• R^2 = 0.146: Pain Points explain 14.6% of the variance in Consumer Loyalty.

• F = 25.334, Sig. = 0.000: The model is globally significant.

• B = -0.478: Each one-unit increase in experienced Pain Points is associated with an average decrease of 0.478 units in Consumer Loyalty. The negative sign confirms the expected inverse relationship.

• t = -5.033: The t-test confirms the significance of the negative coefficient.

In summary, Pain Points have a significant negative impact on Consumer Loyalty (B = -0.478; t = -5.033; $p < 0.001$), explaining 14.6% of its variance. H5 is therefore validated.

5.3. Summary of Hypothesis Testing Results

Table 20: Summary of Hypothesis Testing Results

Hypothesis	Relationship	R^2	B	Sig.	Decision
H1	Awareness → Loyalty	0.225	0.470	0.000	Validated
H2	Consideration → Loyalty	0.350	0.550	0.000	Validated
H3	Purchase → Loyalty	0.429	0.671	0.000	Validated
H4	After-Sales → Loyalty	0.459	0.703	0.000	Validated
H5	Pain Points → Loyalty	0.146	-0.478	0.000	Validated
Multiple Model	All → Loyalty	0.538	—	0.000	Significant

Source: SPSS Output

6. Discussion of Results

The results of this study confirm that all five dimensions of the customer journey have a statistically significant impact on Consumer Loyalty to Mobilis, either positively (Awareness, Consideration, Purchase, After-Sales) or negatively (Pain Points). Taken together, these dimensions explain 53.8% of the variance in Consumer Loyalty, which represents a strong and meaningful model for this type of research.

6.1. The Predominant Role of After-Sales Service

After-Sales service emerges as the most powerful predictor of Consumer Loyalty in both simple ($R^2 = 0.459$, $B = 0.703$) and multiple regression analyses ($\beta = 0.359$, $p < 0.001$). This finding aligns with established literature on service quality and customer retention, which consistently demonstrates that post-purchase interactions — particularly complaint handling, technical support, and accessibility of customer care — are critical determinants of long-term loyalty (Zeithaml et al., 1996; Parasuraman et al., 1988).

In the context of the Algerian telecom sector, where consumers frequently report challenges in reaching support services, this result carries strong managerial implications. Mobilis should prioritize investments in accessible, responsive, and high-quality After-Sales service as a primary lever for building and sustaining consumer loyalty.

6.2. The Critical Importance of the Purchase Stage

The Purchase dimension records the highest unstandardized regression coefficient in the simple regression analysis (B = 0.671, R^2 = 0.429), indicating that the quality and ease of the purchase experience has the largest individual effect on Consumer Loyalty among all positive journey stages. This underscores the idea that the moment of service acquisition — the simplicity of subscribing, the clarity of pricing, the competence of sales staff — creates a decisive first impression that shapes the consumer relationship.

These findings are consistent with the concept of the "moment of truth" in service marketing (Carlzon, 1987), where the initial service encounter establishes expectations and emotional engagement that influence all subsequent interactions.

6.3. The Moderating Role of Pain Points

Pain Points exhibit a significant negative effect on Consumer Loyalty (B = -0.478, R^2 = 0.146). Although this variable explains a smaller share of the variance compared to other predictors, its directional influence is clear: every unit increase in perceived friction — whether related to unclear information, difficulty obtaining help, or unfavorable comparisons with competitors — leads to a measurable decrease in loyalty. Interestingly, the Pain Points variable does not reach significance in the multiple regression model (p = 0.108), suggesting that its negative effect is partially counterbalanced when consumers also benefit from positive journey experiences.

This finding supports the negativity bias theory (Baumeister et al., 2001), which suggests that negative experiences tend to have a more powerful impact on judgment than equivalent positive experiences, but that positive touchpoints can mitigate this effect under certain conditions.

6.4. Awareness and Consideration as Foundational Stages

While Awareness (R^2 = 0.225) and Consideration (R^2 = 0.350) are both individually significant predictors of Loyalty, they do not reach statistical significance in the multiple

regression model. This is likely due to their strong intercorrelations with other journey stages — particularly between Consideration and After-Sales (r = .739) and between Purchase and Consideration (r = .683) — which causes their individual effects to be diluted in the presence of the other predictors.

This does not diminish their importance; rather, it suggests that Awareness and Consideration function as foundational stages that indirectly contribute to loyalty through their effects on subsequent journey stages. Consumers who are effectively reached and engaged at the Awareness and Consideration phases are more likely to have positive Purchase and After-Sales experiences, which in turn drive loyalty. This pathway is consistent with the funnel model of the customer journey.

7. Pareto Analysis

7.1. Methodology

This study combines FMEA (Failure Mode and Effects Analysis) with Pareto analysis to rank customer journey dysfunctions by risk impact. Each dysfunction is scored along three dimensions — Gravity (G), Probability (P), and Detectability (D) — yielding an FMEA score (G × P × D) ranging from 1 to 1,000. The 46 dysfunctions are then sorted by descending score, and cumulative percentages are computed to apply the 80/20 Pareto rule.

Table 21: FMEA Scoring Components

Component	Description
Gravity (G)	Severity of impact on the customer — Scale: 1 (minor) to 10 (customer loss)
Probability (P)	Frequency of occurrence — Scale: 1 (very rare) to 10 (almost certain)
Detectability (D)	Difficulty of detection before customer impact — Scale: 1 (easily detected) to 10 (invisible)
FMEA Score	G × P × D — Range: 1 to 1,000 — Higher score = higher risk priority

Source: Author (2026)

Three priority zones are defined based on cumulative percentage:

Critical Zone	Major Zone	Minor Zone
Cumulative ≤ 50%	50% < Cumulative ≤ 80%	Cumulative > 80%
Immediate action required	*Address after Critical*	*Monitor & routine control*

7.2. Ranked Dysfunctions

Table 22: Ranked FMEA Dysfunctions

#	Touchpoint	Dysfunction	G	P	D	Score	Zone
1	Mobilis stores	Slow service	9	8	7	**504**	**Critical**
2	Mobilis stores	Issues not solved quickly	9	7	8	**504**	**Critical**
3	Mobilis stores	Not enough staff	8	8	7	**448**	**Critical**
4	Mobilis stores	Customer asked to come back later	8	7	8	**448**	**Critical**
5	Authorized resellers	Sellers not trained	8	7	8	**448**	**Critical**
6	Authorized resellers	Cannot solve technical problems	8	7	8	**448**	**Critical**
7	Customer service	Long time before answering	8	8	7	**448**	**Critical**
8	Customer service	Put on hold too long	8	8	7	**448**	**Critical**
9	Online ads	Hidden conditions	9	6	8	**432**	**Critical**
10	Social media	Public complaints visible	8	7	7	**392**	**Critical**
11	SMS notifications	Cannot stop receiving SMS	7	7	8	**392**	**Critical**
12	Mobilis stores	Lack of professionalism	8	7	7	**392**	**Critical**
13	Authorized resellers	Wrong explanation of offers	8	7	7	**392**	**Critical**
14	Customer service	Queues inside store	8	7	7	**392**	**Critical**
15	Social media	Messages unanswered	8	8	6	**384**	**Critical**
16	BaridiMob	Transaction failure	9	7	6	**378**	**Critical**
17	Social media	Bad reviews in comments	7	7	7	**343**	**Critical**
18	Authorized resellers	No customer orientation	7	7	7	**343**	**Critical**
— MAJOR ZONE (selected items) — 50% < Cumulative ≤ 80% —							

19	Authorized resellers	Customer redirect elsewhere	7	7	7	**343**	**Major**
20	Mobilis website	Offers not well explained	7	8	6	**336**	**Major**
25	Online ads	Ads promise different reality	8	6	7	**336**	**Major**
26	Mobilis stores	Bad attitude	8	6	7	**336**	**Major**
28	BaridiMob	Recharge errors	8	7	6	**336**	**Major**
29	BaridiMob	App crashes	8	6	7	**336**	**Major**
30	Customer service	Agent doesn't explain clearly	8	6	7	**336**	**Major**
MINOR ZONE — items 33–46 (Score: 120–294) — Slow website load, repetitive SMS, unprofessional design, etc.							

Source: Author 2026

Table 23: Zone Summary – Distribution of Dysfunctions by Risk Zone

Zone	Items (n)	% of Items	Score Sum	% of Total Risk
Critical Zone (Cum. ≤ 50%)	18	39%	7,536	48.6%
Major Zone (50% < Cum. ≤ 80%)	14	30%	4,627	29.8%
Minor Zone (Cum. > 80%)	14	30%	3,352	21.6%

Source :Author 2026

7.3. Aggregated FMEA Score by Touchpoint

Table 24: Aggregated FMEA Score by Touchpoint– Source: Author (2026)

Rank	Touchpoint	Total Score	% Total	Cum. %	Zone
1	Authorized resellers	**3,138**	20.2%	20.2%	**Critical**
2	Mobilis website	**3,046**	19.6%	39.9%	**Critical**
3	Mobilis stores	**2,632**	17.0%	56.8%	**Major**
4	Customer service	**1,876**	12.1%	68.9%	**Major**
5	Social media	**1,749**	11.3%	80.2%	**Minor**
6	BaridiMob	**1,302**	8.4%	88.6%	**Minor**
7	SMS notifications	**1,004**	6.5%	95.0%	**Minor**
8	Online ads	**768**	5.0%	100.0%	**Minor**

7.4. Results and Discussion (Pareto)

7.4.1. Critical Zone

18 dysfunctions (39% of items) account for 48.6% of total risk. Mobilis physical stores dominate this zone — slow service, unresolved issues, and understaffing each score 448–504. High Gravity scores (G = 9) signal severe customer dissatisfaction, while high Probability and Detectability values confirm both their frequency and difficulty to control. These findings directly align with the SPSS regression results, where After-Sales service ($\beta = 0.359$, $p < 0.001$) and Purchase experience ($\beta = 0.298$, $p = 0.001$) are the two significant predictors of customer loyalty.

7.4.2. Major Zone

14 dysfunctions (30% of items) represent 29.8% of risk. Noteworthy items include hidden conditions in online ads (Score: 432, G = 9) — a trust deficit at the very first touchpoint — and BaridiMob transaction failures (Score: 378, G = 9). These should be addressed immediately after critical-zone items are resolved.

7.4.3. Minor Zone

The remaining 14 dysfunctions (30% of items) represent only 21.6% of total risk. Items such as slow website loading, repetitive SMS, and unprofessional design can be managed through routine maintenance without urgent escalation.

7.4.4. Touchpoint-Level Findings

Authorized resellers (3,138 pts), Mobilis website (3,046 pts), and Mobilis stores (2,632 pts) together carry the majority of aggregated risk. Physical and human-interaction channels are the primary sources of customer dissatisfaction. The BaridiMob app also contributes significantly, underscoring the importance of reliable digital self-service as the sector shifts online.

7.4.5. Integration with SPSS Findings

The Pareto analysis operationalises the regression model ($R^2 = 0.538$, $F = 33.527$, $p < 0.001$). While regression identifies which journey stages predict loyalty, Pareto pinpoints the specific dysfunctions within those stages that carry the greatest operational risk — enabling decision-makers to translate statistical significance into concrete corrective priorities.

8. Priority Recommendations

Table 25: Priority Action Plan for Resolving FMEA Dysfunctions

Priority	Timeline	Recommended Action
Priority 1	*Immediate*	Resolve critical-zone dysfunctions at Mobilis stores: deploy additional staff, implement queue management, train agents on first-call resolution, and set service-time KPIs.
Priority 2	*Short-term*	Address BaridiMob stability (transaction and recharge errors) and online ad transparency (hidden conditions). Both carry G = 9, indicating severe customer impact.
Priority 3	*Medium-term*	Improve social media responsiveness and authorized reseller training programs — key channels for consideration and post-purchase stages.
Priority 4	*Ongoing*	Monitor minor-zone items through quarterly FMEA reviews. Re-evaluate G/P/D scores as corrective actions are implemented to track risk reduction.

Source: Author (2026)

FMEA scores should be re-evaluated quarterly to track the effectiveness of corrective actions and update risk rankings accordingly.

GENERAL CONCLUSION

The strategic preservation of customer loyalty within a hyper-competitive, increasingly digitalized, and saturated telecommunications sector remains a critical pillar for market leadership. This research investigated the operational dynamics of customer experience across distinct customer journey stages (Awareness, Consideration, Purchase, and After-Sales Service) and weighed their combined effects alongside systemic customer Pain Points on the loyalty metrics of ATM Mobilis SIM card users in Algeria. By analysing empirical quantitative data gathered from 150 active telecommunication consumers via SPSS software, this study dismantled the assumption that all touchpoints carry equal empirical weight in driving customer retention. Instead, it highlighted that transactional efficiency and post-purchase care form the true structural core of customer-centric strategies.

1. Summary Findings

weight in driving loyalty. After-Sales service emerged as the strongest predictor, confirming that long-term retention is primarily shaped by how well Mobilis handles support and problem resolution after service activation. The Purchase stage followed closely, highlighting that the quality of the transactional experience — from branch interactions to payment processes — plays a decisive role in loyalty formation.

Awareness and Consideration, while individually significant, did not retain independent predictive power in the full model, suggesting they function as foundational stages that indirectly support loyalty rather than drive it directly. Finally, Pain Points were confirmed as a significant negative force — friction across touchpoints measurably erodes customer attachment, though positive experiences at later stages can partially offset this effect

2. Managerial Implication

The findings suggest that Mobilis should shift from isolated promotional campaigns toward a fully integrated customer journey management strategy. Priority should be given to optimizing the purchase experience through better queue management, clearer onboarding processes, and expanded digital self-service options. Equally critical is the reinforcement of After-Sales support, which requires investing in staff training, reducing response times, and improving digital assistance tools. Technical stability across mobile platforms must also be addressed, as app failures and transaction errors represent high-risk friction points. Finally,

greater transparency in communication during the awareness and consideration phases would help align customer expectations with actual service delivery.

3. Theoretical Contributions

This research contributes to the existing literature by modeling customer experience as a structured, multi-stage process rather than a single-dimension construct, offering a more nuanced understanding of how loyalty is formed across the customer journey. By integrating both positive journey stages and negative friction elements within a single quantitative framework, the study provides a more balanced and realistic picture of consumer behavior dynamics. It also offers empirical support for Negativity Bias Theory in a telecommunications context, demonstrating that positive touchpoints can partially neutralize the damaging effects of friction. Finally, by focusing on the Algerian market, this research addresses a notable geographical gap in the customer journey literature, contributing evidence from an underrepresented developing economy.

4. Future Research Perspectives

Several avenues remain open for future investigation. First, expanding the sample size through probability-based random sampling across wider geographic areas would strengthen the generalizability of these findings beyond the convenience sample used in this study. Second, a comparative study including Mobilis's direct competitors, Djezzy and Ooredoo, would provide valuable industry-wide benchmarks for customer journey performance in Algeria. Third, longitudinal research designs would allow tracking of how customer loyalty evolves over time as digital infrastructure and service quality improve. Finally, investigating the moderating role of demographic variables such as age, income level, and geographic location could reveal more targeted insights for customer journey optimization.

BIBLIOGRAPHIE

Bibliographie

Abd-Elrahman, A.-H. (2022). Telecommunications service quality, customer satisfaction and customer loyalty in pandemic times. *Management Research Review, 46*(8). doi:10.1108/MRR-08-2021-0595

Abdullah, N., Prabhu, M., & Othman, M. (2022). Analysing driving factors of customer satisfaction among telecommunication service providers in Kurdistan region. *SAGE Open, 12*(3). doi:10.1177/18479790221111436

Awuku, E., Agyei, P., & Gonu, E. (2023). Service innovation practices and customer loyalty in the telecommunication industry. *PLOS ONE, 18*(3), p. e0282588. doi:10.1371/journal.pone.0282588

Baruch, Y., & Holtom, B. (2008). Survey response rate levels and trends in organizational research. *Human Relations, 61*(8), pp. 1139–1160. doi:10.1177/0018726708094863

Baumeister, R., Bratslavsky, E., Finkenauer, C., & Vohs, K. (2001). Bad is stronger than good. *Review of General Psychology, 5*(4), pp. 323–370. doi:10.1037/1089-2680.5.4.323

Becker, L., & Jaakkola, E. (2020). Customer experience: Fundamental premises and implications for research. *Journal of the Academy of Marketing Science, 48*(4), pp. 630–648. doi:10.1007/s11747-019-00718-x

Byrne, B. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming* (éd. 2nd ed.). Routledge.

Carlzon, J. (1987). *Moments of truth.* Ballinger Publishing.

Chaffey, D., & Ellis-Chadwick, F. (2019). *Digital marketing: Strategy, implementation and practice* (éd. 7th ed.). Pearson.

Cochran, W. (1977). *Sampling techniques* (éd. 3rd ed.). John Wiley & Sons.

Comte, A. (1830). *Cours de philosophie positive.* Paris: Bachelier.

Court, D., Elzinga, D., Mulder, S., & Vetvik, O. (2009). The consumer decision journey. Récupéré sur https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/the-consumer-decision-journey

Creswell, J. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (éd. 4th ed.). SAGE Publications.

Dalla Pozza, I. (2024). The relevance of mapping the customer journey: Every touchpoint can be a moment of truth. *Review of Marketing Science, 12*(1), pp. 1–8. doi:10.15640/jmm.v12n1a1

Dias, P., Gonçalves, H., & Melo, F. (2022). Mapping the customer journey in retail: The role of touchpoints on customer satisfaction and loyalty. *Journal of Retailing and Consumer Services, 68*, p. 103038. doi:10.1016/j.jretconser.2022.103038

Dixon, M., Freeman, K., & Toman, N. (2010). Stop trying to delight your customers. *Harvard Business Review, 88*(7–8), pp. 116–122.

Durkheim, É. (1895). *Les règles de la méthode sociologique.* Paris: Félix Alcan.

Eminence. (s.d.). The five stages of the customer journey. Récupéré sur https://www.eminence.ch

Fitri, H., Yuliati, L., & Najib, M. (2024). Post-purchase experience, experiential value, and brand loyalty: Empirical evidence from the telecommunications sector. *Journal of Consumer Behaviour, 23*(2), pp. 412–428.

Gao, W., & Jiang, N. (2025). Customer journey management and omnichannel experience: A strategic framework for service firms. *Journal of Service Management, 36*(1), pp. 45–68.

George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference* (éd. 4th ed.). Allyn & Bacon.

Hair, J., Black, W., Babin, B., & Anderson, R. (2010). *Multivariate data analysis* (éd. 7th ed.). Pearson Prentice Hall.

Holz, R., Blut, M., & Brock, C. (2024). Eliminating customer experience pain points in complex customer journeys through smart service solutions. *Psychology & Marketing, 41*(3), pp. 592–609. doi:10.1002/mar.21938

Holz, R., Blut, M., & Brock, C. (2024). Managing experience pain points across service encounter stages: Effects on customer commitment and loyalty. *Journal of Service Research, 27*(1), pp. 78–96. doi:10.1177/10946705231185242

Hossain, M. (2023). Service quality and customer satisfaction in two telecommunication service providers in Qatar. *International Journal of Business and Social Science Studies, 16*, pp. 145–162.

Keiningham, T., Aksoy, L., Bruce, H., Cadet, F., Clennell, N., Hodgkinson, I., & Kearney, T. (2017). Customer experience driven business model innovation. *Journal of Business Research, 116*, pp. 431–440. doi:10.1016/j.jbusres.2017.11.039

Kline, R. (2011). *Principles and practice of structural equation modeling* (éd. 3rd ed.). Guilford Press.

Kotler, P., & Keller, K. (2016). *Marketing management* (éd. 15th ed.). Pearson.

Kranzbühler, A.-M., Kleijnen, M., Morgan, R., & Teerling, M. (2018). The multilevel nature of customer experience research: An integrative review and research agenda. *International Journal of Management Reviews, 20*(2), pp. 433–456. doi:10.1111/ijmr.12140

Kumar, V., Aksoy, L., Donkers, B., Venkatesan, R., Wiesel, T., & Tillmanns, S. (2013). Undervalued or overvalued customers: Capturing total customer engagement value. *Journal of Service Research, 13*(3), pp. 297–310. doi:10.1177/1094670510375602

Kumar, V., Rajan, B., Gupta, S., & Dalla Pozza, I. (2021). Customer engagement in service. *Journal of the Academy of Marketing Science, 47*(1), pp. 138–160. doi:10.1007/s11747-017-0565-2

Lemon, K., & Verhoef, P. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing, 80*(6), pp. 69–96. doi:10.1509/jm.15.0420

Manyanga, W., Makanyeza, C., & Muranda, Z. (2022). The effect of customer experience, customer satisfaction and word of mouth intention on customer loyalty: The moderating role of consumer demographics. *Cogent Business & Management, 9*(1), p. 2082015. doi:10.1080/23311975.2022.2082015

Nunnally, J. (1978). *Psychometric theory* (éd. 2nd ed.). McGraw-Hill.

Nuryati, N., Suhartono, S., & Wahyudi, I. (2025). Customer journey optimization and its impact on customer loyalty: A meta-analytic review. *International Journal of Consumer Studies, 49*(1), p. e12875.

Padigar, M., Meents, S., & Verhagen, T. (2025). Friction in the customer journey: Conceptualization, measurement, and effects on customer outcomes. *Journal of Marketing, 89*(2), pp. 55–74. doi:10.1177/00222429241258329

Parasuraman, A., Zeithaml, V., & Berry, L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing, 64*(1), pp. 12–40.

Popper, K. (1959). *The logic of scientific discovery.* Hutchinson.

Rahman, M. (2022). Aftersales service factors affecting customer satisfaction of mobile phones. *Journal of Business, 7*(1), pp. 25–36.

Rawson, A., Duncan, E., & Jones, C. (2013). The truth about customer experience. *Harvard Business Review, 91*(9), pp. 90–98.

Reichheld, F. (2003). The one number you need to grow. *Harvard Business Review, 81*(12), pp. 46–54.

Reitsamer, B., & Becker, L. (2024). Customer journey partitioning: A customer-centric conceptualization beyond stages and touchpoints. *Journal of Business Research, 181*, p. 114745. doi:10.1016/j.jbusres.2024.114745

Reitsamer, B., Brunner-Sperdin, A., & Stokburger-Sauer, N. (2024). Customer journey design and brand loyalty: The mediating role of brand relationship quality. *Journal of Business Research, 171*, p. 114373. doi:10.1016/j.jbusres.2023.114373

Ribeiro, H., Barbosa, B., Moreira, A., & Rodrigues, R. (2024). Customer experience, loyalty, and churn in bundled telecommunications services. *SAGE Open, 14*(2). doi:10.1177/21582440241245191

Rogelberg, S., & Stanton, J. (2007). Introduction: Understanding and dealing with organizational survey nonresponse. *Organizational Research Methods, 10*(2), pp. 195–209. doi:10.1177/1094428106294693

Roosta, M., Hosseini, S., & Nili, M. (2025). Omnichannel purchase experience and customer loyalty: Large-scale empirical evidence. *Journal of Retailing, 101*(1), pp. 88–104.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education, 2*, pp. 53–55. doi:10.5116/ijme.4dfb.8dfd

Thiétart, R.-A. (Éd.). (2014). *Méthodes de recherche en management* (éd. 4th ed.). Dunod.

Van Nguyen, T. (2024). Omni-channel customer segmentation: A personalized customer journey perspective. *Journal of Consumer Behaviour, 23*(6), pp. 2781–2797. doi:10.1002/cb.2401

Verhoef, P., Lemon, K., Parasuraman, A., Roggeveen, A., Tsiros, M., & Schlesinger, L. (2009). Customer experience creation: Determinants, dynamics and management strategies. *Journal of Retailing, 85*(1), pp. 31–41. doi:10.1016/j.jretail.2008.11.001

Voorhees, C., Fombelle, P., Gregoire, Y., Bone, S., Gustafsson, A., Sousa, R., & Walkowiak, T. (2017). Service encounters, experiences and the customer journey: Defining the field and a call to expand our lens. *Journal of Business Research, 79*, pp. 269–280. doi:10.1016/j.jbusres.2017.04.014

Zeithaml, V., Berry, L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing, 60*(2), pp. 31–46. doi:10.1177/002224299606000203

Zha, D., Marvi, R., & Foroudi, P. (2023). Synthesizing the customer experience concept: A multimodularity approach. *Journal of Business Research, 167*, p. 114173. doi:10.1016/j.jbusres.2023.114173

Zheng, L., & Li, Y. (2024). Customer journey design in omnichannel retailing: Examining the effect of autonomy-competence-relatedness in brand relationship building. *Journal of Retailing and Consumer Services, 78*, p. 103776. doi:10.1016/j.jretconser.2024.103776

APPENDIX A: QUESTONNAIRE

Section 1:

Customer Journey and Customer Loyalty – ATM Mobilis

This questionnaire is part of an academic study that aims to examine the impact of customer journey stages and pain points on customer loyalty in the context of ATM Mobilis. Your responses are anonymous and will be used only for research purposes. Please answer honestly based on your experience. Thank you.

Have you ever used Mobilis SIM card?

- Yes
- No

Section 2: Brand Awareness and Initial Perception

Scale: 1 = Strongly Disagree | 2 = Disagree | 3 = Neutral | 4 = Agree | 5 = Strongly Agree

How did you first become aware of Mobilis services / offers?

- ADS
- Social media
- Friends and family
- Mobilis store
- Website
- Other

I am aware of the services offered by ATM Mobilis

The information I receive about ATM Mobilis is clear and understandable

My first contact with Mobilis gave me a good impression

I compare Mobilis with other alternatives before making decision

Section 3: Evaluation and Consideration of Services

Mobilis provides sufficient information about its services / offers to pass to purchase

The services / offers proposed by Mobilis encourage me to consider it among my options.

Mobilis services / offers seem suitable for my needs

Section 4: Service Usage Experience

What first attracted your attention to Mobilis?

- Price
- Services and Offers
- Promotion
- Availability

Transactions are fast and efficient and it meets my expectations during use

The process of using Mobilis services / offers is simple

I feel comfortable when using Mobilis

Section 5: Post-Usage Evaluation and Support

Mobilis provides effective customer support

My problems are resolved quickly

I am satisfied with the service after using it

Section 6: Service Issues and Pain Points

Have you ever experienced a problem while using Mobilis services / offers?

- Yes
- No

If Yes, what type of problem did you encounter?

- Network coverage issue
- Internet connection problem
- Credit issue
- Offers or package activation problem
- Customer service issue

- Other

Through which channel did you contact Mobilis to resolve the problem?

- Customer service or Call center
- Mobilis agency
- Social media
- SMS
- I did not contact support
- Other

Information about Mobilis services is sometimes unclear or insufficient.

It is difficult to compare Mobilis offers when evaluating alternatives.

I often experience problems when using Mobilis

It is difficult to get help when needed

I feel frustrated when using ATM Mobilis

Section 7: Customer Loyalty and Behavioral Intention

Overall, how satisfied are you with Mobilis services?

How likely are you to recommend Mobilis to others?

It is easy for me to interact with Mobilis and obtain the service or support I need

I consider myself loyal to ATM Mobilis

What improvements would you suggest for Mobilis?

Section 8: Respondent Profile

Gender

- Male
- Female

Age

- Under 18
- 18 - 24
- 25 - 34
- 35 - 44
- 45+

Occupation

- Student
- Employed
- Self-employed
- Unemployed

How long have you been using Mobilis SIM card?

- Less than 3 months
- Less than 1 year
- 1 - 3 years
- More than 3 years

Section 9: Thank you!

Thank you for your time and attention, we really appreciate it.

APPENDIX B: TABLE OF NORMALITY & QUASI-NORMALITY

Table 19: Table of Normality

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
IND_Awe	.125	150	<.001	.944	150	<.001
IND_Cons	.114	150	<.001	.952	150	<.001
IND_Pur	.118	150	<.001	.955	150	<.001
IND_Aft_Sal	.105	150	<.001	.967	150	.001
IND_P_Point	.076	150	.034	.975	150	.008
D_Loy	.097	150	.002	.962	150	<.001

a. Lilliefors Significance Correction

Source: SPSS Output

Table 20: Descriptive Statistics

Descriptive Statistics

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
IND_Awe	150	-.523	.198	-.453	.394
IND_Cons	150	-.183	.198	-.998	.394
IND_Pur	150	-.438	.198	-.418	.394
IND_Aft_Sal	150	-.162	.198	-.805	.394
IND_P_Point	150	.227	.198	-.290	.394
D_Loy	150	-.296	.198	-.722	.394
Valid N (listwise)	150				

Source: SPSS Output

APPENDIX C: CORRELATION AND REGRESSION TABLES

Table 21: Correlation table – Source: SPSS Output

Correlations

		IND_P_Point	D_Loy
IND_Awe	Pearson Correlation	-.187*	.474**
	Sig. (2-tailed)	.022	.000

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	95.954	5	19.191	33.527	<.001[b]
	Residual	82.425	144	.572		
	Total	178.379	149			

a. Dependent Variable: D_Loy

b. Predictors: (Constant), IND_P_Point, IND_Awe, IND_Cons, IND_Pur, IND_Aft_Sal

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.065	.362		2.942	.004
	IND_Awe	.056	.072	.056	.772	.441
	IND_Cons	.053	.084	.057	.627	.532
	IND_Pur	.306	.091	.298	3.358	.001
	IND_Aft_Sal	.373	.096	.359	3.861	<.001
	IND_P_Point	-.127	.078	-.101	-1.617	.108

a. Dependent Variable: D_Loy

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	F Change	df1	df2	Sig. F Change
1	.733[a]	.538	.522	.75657	.538	33.527	5	144	<.001

a. Predictors: (Constant), IND_P_Point, IND_Awe, IND_Cons, IND_Pur, IND_Aft_Sal

Table 22: Multiple Regression – Source: SPSS Output

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.474[a]	.225	.220	.96646	.225	42.973	1	148	<.001

a. Predictors: (Constant), IND_Awe

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	40.139	1	40.139	42.973	<.001[b]
	Residual	138.240	148	.934		
	Total	178.379	149			

a. Dependent Variable: D_Loy

b. Predictors: (Constant), IND_Awe

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.672	.258		6.471	<.001
	IND_Awe	.470	.072	.474	6.555	<.001

a. Dependent Variable: D_Loy

Table 23: Simple Regression-Awerness-Loyalty– Source: SPSS Output

Table 24: Simple Regression-Purc

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.655[a]	.429	.425	.82974	.429	111.096	1	148	<.001

a. Predictors: (Constant), IND_Pur

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	76.486	1	76.486	111.096	<.001[b]
	Residual	101.893	148	.688		
	Total	178.379	149			

a. Dependent Variable: D_Loy

b. Predictors: (Constant), IND_Pur

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.064	.221		4.809	<.001
	IND_Pur	.671	.064	.655	10.540	<.001

a. Dependent Variable: D_Loy

hase-Loyalty– Source: SPSS Output

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.591[a]	.350	.345	.88534	.350	79.577	1	148	<.001

a. Predictors: (Constant), IND_Cons

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	62.374	1	62.374	79.577	<.001[b]
	Residual	116.005	148	.784		
	Total	178.379	149			

a. Dependent Variable: D_Loy

b. Predictors: (Constant), IND_Cons

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.531	.209		7.311	<.001
	IND_Cons	.550	.062	.591	8.921	<.001

a. Dependent Variable: D_Loy

Table 25: Simple Regression-Consideration-Loyalty– Source: SPSS Output

Table 24: Simple Regression-AfterSale-Loyalty– Source: SPSS Output

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	81.923	1	81.923	125.701	<.001[b]
	Residual	96.456	148	.652		
	Total	178.379	149			

a. Dependent Variable: D_Loy

b. Predictors: (Constant), IND_Aft_Sal

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.093	.206		5.301	<.001
	IND_Aft_Sal	.703	.063	.678	11.212	<.001

a. Dependent Variable: D_Loy

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.382[a]	.146	.140	1.01445	.146	25.334	1	148	<.001

a. Predictors: (Constant), IND_P_Point

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.072	1	26.072	25.334	<.001[b]
	Residual	152.307	148	1.029		
	Total	178.379	149			

a. Dependent Variable: D_Loy

b. Predictors: (Constant), IND_P_Point

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.472	.250		17.890	<.001
	IND_P_Point	-.478	.095	-.382	-5.033	<.001

a. Dependent Variable: D_Loy

Table 24: Simple Regression-PainPoint-Loyalty– Source: SPSS Output