The Use of Artificial Intelligence in Customer Relationship Management: A Case Study of Shein

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Abstract

This study aims to shed light on Artificial Intelligence techniques and their role in developing Customer Relationship Management and improving its efficiency. It analyzes how these technologies contribute to collecting and processing large volumes of customer data, understanding their needs, and predicting their purchasing behavior, thereby helping organizations deliver higher-quality services and more personalized experiences.

Shein was selected as a case study, as it is one of the leading global platforms in the field of e-commerce and fast fashion, relying heavily on artificial intelligence technologies in managing its customer relationships.

The study adopts a descriptive-analytical approach by analyzing secondary data derived from reports, academic studies, the company's official website, and reliable online sources, in addition to reviewing customer experiences and opinions published on the internet. It also includes a comparison between Shein and its competitors such as Zara and H&M, aiming to highlight the effectiveness of using artificial intelligence technologies in enhancing customer satisfaction and building long-term relationships.

Key words : Artificial Intelligence, big data , Customer Relationship Management, Customer Service

Jel Codes Classification : M310,M310, O330,M310.

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استخدام الذكاء الاصطناعي في إدارة علاقات العملاء: دراسة حالة شركة shein.

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ملخص:

تهدف هذه الدراسة الى تسليط الضوء على تقنيات الذكاء الاصطناعي و دورها في تطوير إدارة علاقات العملاء و تحسين كفاءتها، من خلال تحليل كيفية مساهمة هذه التقنيات في جمع و معالجة البيانات الضخمة الخاصة بالعملاء، وفهم احتياجاتهم و التنبؤ بسلوكهم الشرائي، بما يساعد المؤسسات على تقديم خدمات اكثر جودة و تجربة اكثر تخصيصا. و قد تم اختيار شركة Shein كحالة دراسية، باعتبارها من ابرز المنصات العالمية في مجال التجارة الالكترونية و الازياء السريعة، حيث تعتمد بشكل كبير على تقنيات الذكاء الاصطناعي في ادارة علاقاتها مع العملاء. اعتمدت الدراسة على المنهج الوصفي التحليلي، من خلال تحليل البيانات الثانوية المستمدة من التقارير، و الدراسات الاكاديمية، و الموقع الرسمي للشركة، و مصادر الكترونية موثوقة، اضافة الى مراجعة تجارب العملاء و آرائهم المنشورة عبر الانترنيت. كما تناولت الدراسة مقارنة بين Shein و منافسيها مثل Zara و HM، بهدف إبراز مدى فاعلية استخدام تقنيات الذكاء الاصطناعي في تعزيز رضا العملاء و بناء علاقات طويلة الأمد معهم.

الكلمات المفتاحية: الذكاء الاصطناعي، إدارة علاقات العملاء، خدمة العملاء.

التصنيف : *M310, O330, M310,M310.*

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Introduction:

In light of the rapid digital transformations the world is witnessing today, Artificial Intelligence has emerged more prominently, becoming one of the most important strategic tools across various fields, particularly in Customer Relationship Management. The latter is considered one of the key pillars upon which organizations rely to ensure success and sustainability in competitive markets. CRM systems aim to collect and analyze customer data, contributing to building long-term relationships, enhancing customer satisfaction, and fostering loyalty. Artificial intelligence also helps automate interactions and predict customer behavior in order to deliver more accurate and personalized services, in addition to analyzing big data, which improves operational efficiency within organizations.

With the rapid expansion of markets and the intensification of competition in the field of e-commerce, organizations increasingly rely on artificial intelligence technologies to develop their strategies and improve customer service. The Shein platform is one of the leading global platforms in e-commerce, heavily relying on AI technologies to study consumer behavior and understand their needs, enabling it to offer customized products that meet customer expectations. The platform also uses intelligent systems such as chatbots to accelerate responses to customer inquiries, as well as data analytics algorithms to track user behavior, including previous purchases and browsing history, enhancing the implementation of highly targeted marketing strategies.

1. Problem Statement:

Based on the above, the main research question can be formulated as follows:
To what extent does the use of artificial intelligence technologies contribute to improving Customer Relationship Management systems? A case study of Shein.

This main question is supported by the following sub-questions:

- What is meant by artificial intelligence and Customer Relationship Management?
- What AI technologies are used by Shein in managing customer relationships?
- How do AI technologies contribute to improving customer experience, understanding purchasing behavior, and increasing satisfaction?
- What challenges arise from the use of artificial intelligence technologies in online shopping applications?

2. Importance of the Study:

The importance of this study lies in the following points:

- It contributes to filling the gap related to highlighting the benefits of using artificial intelligence technologies in Customer Relationship Management within e-commerce, with application to Shein.
- It helps in understanding the extent to which artificial intelligence is used in collecting and analyzing large-scale customer data.
- It highlights the challenges associated with using artificial intelligence in CRM, thereby emphasizing the importance of its adoption.

3. Objectives of the Study:

The study aims to:

- Analyze the importance of using artificial intelligence technologies in Customer Relationship Management by understanding customer behavior and identifying preferences, thereby improving service quality and enhancing satisfaction and loyalty.
- Identify how artificial intelligence technologies are applied within the Shein platform.
- Examine the role of artificial intelligence in improving customer experience, increasing satisfaction, and customer retention.

First: Theoretical Framework of Artificial Intelligence and Customer Relationship Management

I.Fundamentals of Artificial Intelligence:

Technology has impacted various fields such as education, healthcare, industry, and management. Recently, the concept of artificial intelligence has significantly transformed many processes and ideas due to its ability to simulate human intelligence, offering innovative solutions that make operations more efficient and accurate.

I.1. Concept of Artificial Intelligence:

Artificial intelligence is a branch of computer science concerned with the study of machine intelligence. It involves the study of ideas that enable computers to perform tasks that make humans appear intelligent. The core principles of AI include reasoning, knowledge representation, planning, learning, communication, perception, and the ability to manipulate and interact with objects.

It can also be defined as the science and engineering of creating intelligent machines, especially intelligent computer programs (saini, 2023, p. 356) .According to John McCarthy, it is “the computational part of the ability to achieve goals in the world” (خديجة، 2023، صفحة 90).

Artificial intelligence is not confined to one discipline over another; rather, it is a knowledge system intertwined with various sciences, arts, psychological and scientific studies, as well as engineering and computer science. This is solely to provide solutions to problems of all kinds and to address the challenges hindering scientific advancements, which serve as a legitimate support to some extent. We cannot deny that humanity has found in technology a unique tool for managing its affairs, but this does not mean that humanity has not rebelled against these traditional technologies. This rebellion has been fueled by the emergence of unique technological mechanisms and tools that have propelled scientific imagination beyond the physical world, establishing a cybernetic world whose structure resembles human logic. Artificial intelligence is, therefore, "the science of computer science that explores the understanding and application of technology based on computer simulation of human intelligence, enabling machines to perform tasks that fall within the scope of human intelligence" (الهادي، 2000، صفحة 21)
Artificial intelligence possesses a set of characteristics, including the following: (صخراوي و علمي، 2023، الصفحات 04-05)

- **Symbolic Representation:** Artificial intelligence software generally uses non-numeric symbols, which contrasts with the fact that computers rely on the digits 0 and 1. However, this does not prevent them from performing arithmetic operations.

- **Ingenuity:** Artificial intelligence software is characterized by the absence of a specific, predetermined algorithmic solution to the problems it addresses. Therefore, it must strive to choose the most suitable solution methods and be able to change solutions if the first method proves inefficient.

- **Incomplete Information:** Artificial intelligence software is characterized by its ability to find solutions to problems even when information is incomplete, in order to achieve objectives. It also possesses the ability to make decisions in situations of uncertainty.

- **Conflicting Data:** Perhaps the most important characteristic of artificial intelligence software is its ability to handle data that may contradict each other.

- **Learning Ability:** The ability to learn is a hallmark of intelligent behavior. While human learning occurs through observation or by learning from past mistakes, artificial intelligence must rely on machine learning strategies.

I.2.Importance and Objectives of Artificial Intelligence:

I.**2.1.Importance of Artificial Intelligence:** Artificial intelligence is of paramount importance, which can be summarized in the following points: (سباع، يوسفي ، و ملوكي، 2018، صفحة 34)

- Preserving accumulated human expertise by transferring it to machines.
- Enabling humans to use natural language instead of computer programming languages when interacting with machines.
- Intelligent machines help alleviate many risks and psychological pressures on humans by being used to perform difficult, dangerous, and complex tasks that require continuous and rapid mental focus in decision-making.
- Artificial intelligence has become an important player in many fields, such as medicine, education, legal consulting, and security.

I..2.2.Objectives of Artificial Intelligence: The most important objectives of artificial intelligence can be summarized as follows:

- Making machines smarter and more useful.
- Overcoming the problems of wear and tear and forgetting by optimizing the investment in knowledge and practical experience (08 صفحة ،2021 ،محمد غ.).
- Preserving information stored in the knowledge base, and building and creating new information by developing the necessary methods.
- Gaining a deeper understanding of human intelligence through computer programs that can mimic intelligent human behavior and enable machines to solve problems and process information in a way that more closely resembles the way the human mind thinks (اللامي و شكرولي، 2022، صفحة 45) .

I.3.The Role of Artificial Intelligence:

The most important roles of artificial intelligence are (الوليد، 2025، صفحة 545):

- **Customer Interaction**: Many companies use artificial intelligence to interact with customers and provide them with immediate support.
- **E-commerce**: Artificial intelligence is used to analyze consumer behavior and design offers and products that suit their needs and desires.
- **Task Automation**: Artificial intelligence enables the automation of many routine administrative tasks, saving time and reducing the risk of human error.
- **Data Analysis**: Artificial intelligence helps in analyzing massive amounts of data, contributing to more accurate and effective management decisions.
- **Personalization**: This is the ability of intelligent systems to adapt content or products to each customer individually based on their data and interests.
- **Data Analysis:** Artificial intelligence analyzes customer data to extract useful information that helps in decision-making.

I.**4. Artificial Intelligence Techniques:** Artificial intelligence techniques consist of a set of methods and algorithms that enable computers to mimic some human intelligence abilities, such as learning, understanding, prediction, and decision-making. The most important of these techniques are:

I.**4.1.Machine Learning:** This is a technique that enables a system to evolve and learn. When faced with a problem, it will attempt to find a solution, and if it fails, it will search for an alternative to ultimately find a way out. It works by memorizing the model that allowed it to succeed, meaning it has the ability to learn how to do things through experience.

I.**4.2. Deep Learning:** Considered the most powerful technique in artificial intelligence, it consists of using advanced algorithms that mimic the neural network in the brain to learn a specific area with little or no supervision (badiaa, 2021, p. 707).

I.**4.3. Neural Networks:** Neural networks embed the ability to learn in computer programs, making it possible to simulate the human mind. Researchers have concluded that neural networks are a key aspect of artificial intelligence and are of great importance because they essentially enable any device to perform the functions of the human brain.

I.**4.4.Robotics:** Robots can sense and interact with their surrounding environment using multiple sensors such as pressure, light, sound, and chemical sensors, making them appear intelligent (ezenwa, 2021, p. 17).

II. Customer Relationship Management (CRM)

Customer Relationship Management is a modern marketing concept aimed at building strong and sustainable relationships with customers by understanding and fulfilling their needs efficiently.

II.**1.Concept of CRM:**

There are many practical definitions of Customer Relationship Management (CRM), including: "The process of enhancing customer value through continuous marketing activity based on close customer knowledge, built through collecting, managing and utilizing customer information and communication records. CRM is centered around improving relationships to maximize customer value over time (zerres, zerres, & baran, 2014, p. 05)"

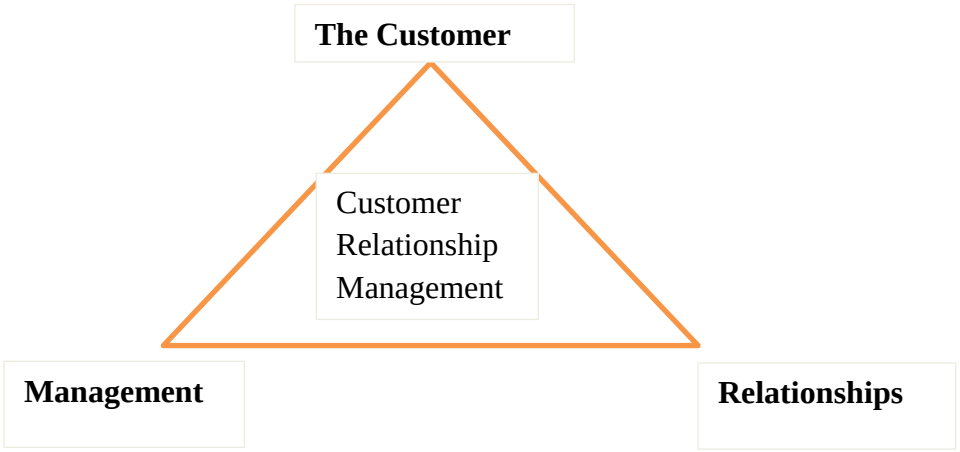
It can also be defined as a technology aimed at creating and maintaining individual relationships with profitable customers through the effective use of information and communication technologies (موسلي، 2022-2023، صفحة 07) .

Kotler and Armstrong defined it as: "A comprehensive process of building good relationships with the customer, achieving the highest possible profitability, and maintaining them on the basis of creating high-value customer satisfaction (فاطيمة، 2019، صفحة 377).

From the above, a comprehensive definition can be given as: "A strategy aimed at establishing and maintaining strong and sustainable relationships with profitable customers using appropriate tools and techniques, with the goal of achieving maximum profitability, customer satisfaction, and value".

An analysis of the concept of Customer Relationship Management reveals that it consists of three basic elements, as follows:

Figure (N°01): Components of the Customer Relationship Management (CRM) concept.



Source: (نسيمة، 2017/2018، صفحة 72)

We can see from the previous figure that the concept of customer relationship management consists of the following elements:

- **The Customer:** The customer is the most important stakeholder and the primary source of profitability and business continuity. The organization strives for a satisfied and loyal customer, but this is difficult and rare due to intense competition.

- **Management**: This is the process of achieving goals efficiently and effectively by utilizing its planning functions across all organizational resources. Customer relationship management is among the core activities of any organization and is not limited to the marketing department. It is an essential part of the organization's culture, emphasizing customer focus as a shared priority across all departments and fostering internal collaboration.

- **Relationships**: These are the connections established between the organization and its customers through two-way interactions. The goal is to meet the needs of all parties involved, enabling the organization to build lasting and sustainable long-term relationships.

II.**2. The Importance of Customer Relationship Management:** The importance of Customer Relationship Management (CRM) is increasing due to the challenging business environment faced by organizations worldwide. It is particularly important in industries experiencing changes in the structure of traditional distribution channels. CRM is a means to address increasing competition, changing economic conditions, and reliance on promotion through the use of in-depth customer knowledge—knowledge gained through relationship development and previous marketing programs. The importance of CRM is further amplified because it focuses on current users, who represent the source of the majority of business revenue and the optimal choice (zerres, baran, & zerres, 2014, p. 05).

II.**3.Customer Relationship Management Theories:** There are five basic theories that influence the understanding of customer relationship management. The first is the industrial marketing school, which was founded in the United States. This school believes that the relationship between the organization and its customers consists of three parts (cierna & sujova, 2022, p. 164) :

- Communication: Technical, financial, and other.
- Resources: Human, financial, and intellectual.
- Human interactions: Communication that leads to mutual trust.

The second school is the Nordic school, pioneered by Grunerus, Jomerson, and Lehtinen. This school focuses on the role of services, specifically human resources, in customer relations. It views both organizations and individuals as customers and emphasizes:

- Customer interaction, which is based on excellent customer service.

- Dialogue, moving from one-sided to two-way and equal communication.

- Value and how it is delivered to the customer.

The third school is the Anglo-Australian school, which views the organization as an entity that builds relationships throughout its environment and focuses on customer satisfaction and loyalty.

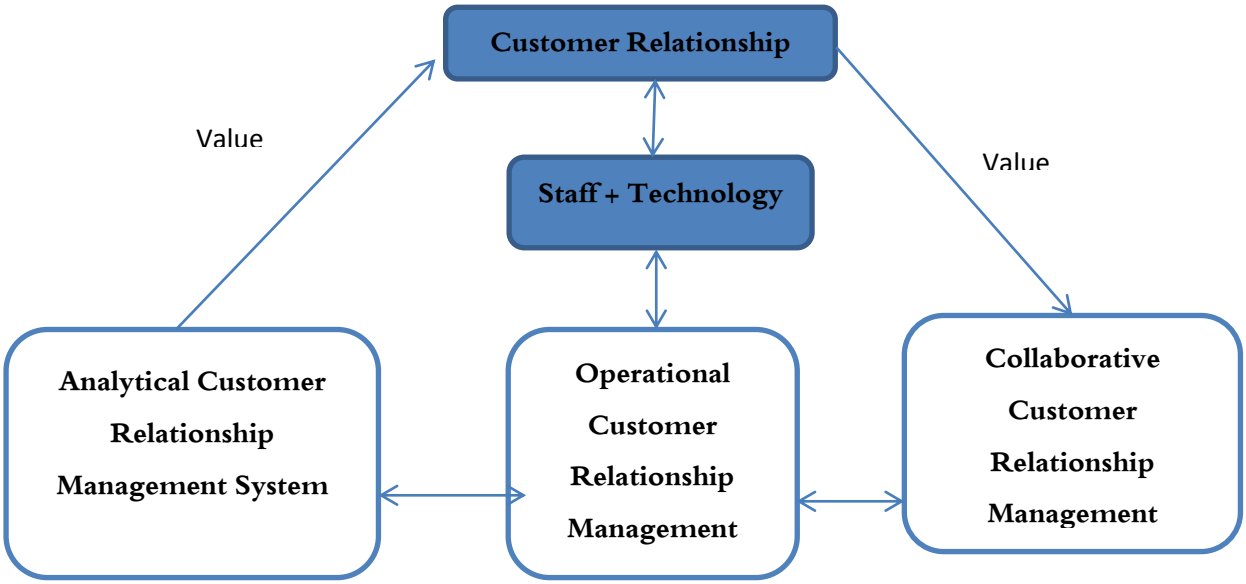
The fourth school is the Asian school, a philosophy prevalent in China and other Asian markets. This school bases organizational relationships on human interaction and the benefits this approach brings.

The fifth school is the North American school, which focuses on establishing long-term relationships with customers. These relationships are built on mutual trust through shared values, selfless behavior, communication, and commitment, which also benefits the organization. North America prioritizes dynamic relationships with customers over static ones, positioning them as partners.

These five theories show that customer relationship management has evolved from focusing on processes and resources within the organization to focusing on human interaction and building long-term relationships based on trust and mutual value with customers.

II.**4. Components of a Customer Relationship Management (CRM) System:** An organization's CRM system consists of three parts: operational, analytical, and collaborative. The first focuses on automating processes that deal directly with customers, such as sales, marketing, and customer service. The second focuses on acquiring customer data, which the organization uses for strategic and tactical purposes. The collaborative system contributes to improving the customer experience and standardizing messaging, and also aims to enhance communication and collaboration between the organization and its customers across multiple channels (cierna & sujova, 2022, p. 165) . Based on the above, a simplified design of the CRM system components was created, as illustrated in the following figure:

Figure (N°02): Components of a Customer Relationship Management System.



Source: (cierna & sujova, 2022, p. 164)

The previous diagram illustrates the components of a Customer Relationship Management (CRM) system and how they interact to achieve added value for both the organization and its customers. The elements of this system can be explained as follows:
- Customer Relationship Management Strategy: Located at the top of the diagram, this strategy is the foundation that guides all CRM activities. It relies on understanding customer needs, identifying the best ways to meet them, and building long-term relationships with them.

- **People and Technology:** This represents the link between strategy and implementation. The success of CRM systems depends on the integration of human and technological elements.

- **The Three CRM Systems:** These were explained previously.

- **Value:** The value is displayed on both sides of the diagram, indicating that the ultimate goal of integrating these components is to achieve mutual value. For the organization, this translates to increased profits, market share, and customer loyalty. For customers, it means improved service quality and fulfillment of their needs and desires.

The diagram illustrates that successful customer relationship management (CRM) depends on a clear strategy supported by staff and technology, and implemented through operational, analytical, and collaborative systems, ultimately creating sustainable value for both the organization and its customers.

Customer relationship management (CRM) is responsible for leveraging available network resources (data, information, and knowledge), as well as the organization's organizational memory, to deliver a diverse yet integrated set of streamlined, value-added, and customer-centric activities. The importance of points of sale (POS) as the direct intermediary between the organization and its customers should not be overlooked. They play a pivotal role in establishing sustainable relationships, maximizing customer value, and identifying the most loyal and profitable customers. A CRM system stores and retrieves information from various sources, such as email, sales, and customer service, and facilitates the acquisition of information about each valued customer (فاطيمة، 2019، صفحة 381).

II..**5.Dimensions of Customer Relationship Management:** The dimensions of Customer Relationship Management consist of a set of basic elements, which are as follows: (محمد أ.، 2017، الصفحات 08-09)

- **Focus on Key Clients**: Organizations must pay special attention to their key clients, given their strategic importance in achieving stability and growth. This involves better satisfying their needs and desires than competitors.
- **Organizing Customer Relationship Management (CRM):** Creating and delivering added value to clients is achieved through the organization of CRM. This includes ensuring employees possess the necessary skills and capabilities to build and maintain relationships, as well as the availability of the necessary infrastructure, organizational, and administrative elements. All of this stems from the organization's adoption of a supportive organizational culture. To ensure the success of this culture, an organizational structure must be in place that aligns with the organization's interactions with its clients, enabling various departments to collaborate towards the desired goal. This also requires providing the necessary resources, time, support, and technology.
- **Customer Knowledge Management (CRM):** This refers to the processes of discovering and analyzing customer information and translating it into useful knowledge that helps the organization provide services that meet customer needs and desires. The organization should always strive to learn from past mistakes and generate new knowledge to leverage in developing its relationships with its customers, especially major clients who represent the largest segment.
- **Technology-Driven Customer Relationship Management (CRM):** Information technology helps strengthen customer relationships by attracting, interacting with, and retaining customers. Information determines the effectiveness of CRM in achieving its objectives, including satisfying the needs of current customers and attracting potential ones. Information technology also helps in serving each customer individually.

Customer relationship management is based on several key integrated dimensions aimed at achieving customer satisfaction and enhancing their loyalty, which supports the competitiveness of the organization.

III.Second: Practical Framework – Case Study of Shein in Artificial Intelligence Technologies and CRM

Artificial intelligence has become one of the most influential technologies transforming Customer Relationship Management. In this context, Shein has emerged as a leading example in leveraging these technologies. This section examines the key AI techniques used by the company, their role in improving customer service efficiency and accuracy, and their contribution to predicting customer trends. It also highlights the main results achieved and the key challenges faced by Shein in this field.

III.1.Overview of Shein.

III.1.1.Definition of Shein:

Shein has revolutionized the fashion industry and has become one of the largest online fashion retailers worldwide, serving millions of consumers globally. It is a Chinese brand founded in 2012 under the name *SheInside* and rebranded as Shein in 2015. Since then, the company has experienced rapid growth, with its valuation exceeding $100 billion in 2022.

The company focuses on making fashion accessible and affordable (Shein statistics and facts, 2025) . Its headquarters are located in Guangzhou, China, and it was founded by Chris Xu, an expert in search engine optimization (SEO). Shein operates under a business-to-consumer (B2C) model, offering primarily women's clothing, along with men's wear, children's clothing, accessories, shoes, and bags.

It has expanded into numerous markets, including North America, Europe, the Middle East, India, Southeast Asia, and South America, operating in more than 200 countries and maintaining a large global customer base (jin & yan, p. 78).

The following table will present the stages of Shein's development.

Table (No 01): The development of Shein Company.

<table>
<tr><td>Key partnerships,</td><td>core activities</td><td>value propositions</td><td>customer relationships</td><td>market segmentation</td></tr>
<tr><td rowspan="4">- Close collaboration with suppliers
- Collaboration with influencers and content creators
- Collaboration with logistics companies
- Strategic brand alliances</td><td>- Supply chain flexibility
- Digital operations management
- Innovative product design
- Global market expansion</td><td rowspan="4">- The ultimate fast fashion experience
- Cost-effectiveness
- Wide product range
- Digital shopping innovation
- Social interaction integration</td><td>-Driven by digital marketing
-Enhancing community engagement
-Automating services</td><td rowspan="4">- Young fashion trendsetters
- Diverse age coverage
- Highlighting women globally
- Social media facilitators</td></tr>
<tr><td>Main resources</td><td rowspan="2">Distribution channels</td></tr>
<tr><td>- Robust, data-</td></tr>
</table>

	driven supply chain system - Global operations planning - Brand and partners		- Collaboration in building the electronic matrix -Expanding the collaboration platform	
Cost structure		**Sources of revenue**		
- Improve supply chain costing - Reduce costs in digital operations - Control logistics costs - Invest in research, development, and design		- Leading in e-commerce sales - Increasing cross-border business revenue - Monetizing platform services - Supporting offline activities		

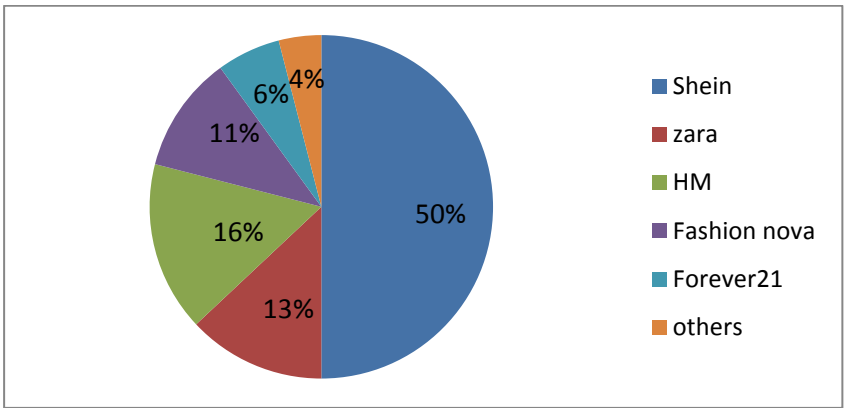
Source: (jin & yan, p. 81)

The table illustrates Shein's business model, which focuses on targeting young people and fashion enthusiasts through digital marketing. They offer a variety of trendy products at low prices and with high speed. The model relies on digital marketing and social media engagement to build strong relationships, using online platforms as the primary sales channel. Their activities are based on managing a flexible supply chain and continuously designing new products in collaboration with suppliers, logistics partners, and influencers. Shein's strength lies in its data and brand, and it constantly strives to reduce costs through process optimization.

In its early days, Shein succeeded in attracting manufacturers thanks to its commitment to on-time payments. In the early 2010s, the Chinese manufacturing sector was suffering from high rates of non-payment, but Shein was able to build a positive reputation thanks to its great care in fulfilling its financial obligations on time (curry, 2026) .

III.1.**2. Shein's Market Share and Competitors:** The chart shows the market share distribution of Shein and several of its competitors, providing a clear understanding of each brand's X market position.

Figure (N°03): Shein's Market Share.



Source: (katariya J. , 2025)

The chart clearly shows the disparity in market share among several brands, with Shein leading by a significant margin, capturing half the market. This indicates clear dominance and a strong ability to attract customers, largely due to its low prices, rapid production speed, C2M program, wide product variety, robust data-driven business model, and use of artificial intelligence to analyze trends and predict demand. Although ZARA and H&M are well-known global brands, their combined market share is only 29%, reflecting a shift in consumer trends towards low-cost online shopping.

III.2.Applying Artificial Intelligence (AI) Technologies in Customer Relationship Management (CRM) at Shein.

Using AI in CRM involves integrating technologies such as Natural Language Processing (NLP), Machine Learning (ML), and Data Analytics within the CRM framework. This has become a crucial factor in helping organizations improve customer experience, increase sales, and enhance loyalty. Some of the key applications of AI in CRM at Shein include:

III.**2.1.Using artificial intelligence to analyze trends**: Shein uses artificial intelligence techniques to analyze daily consumer trends, keep up with the latest trends on social media, and then classify these trends on its website in ways familiar to the customer (jachson).

III.**2.2.Customer service via chatbot:** Support is provided in English as it is a global language, where customers can submit their inquiries at any time via the chat service available on the company's website around the clock (she).

III.**2.3.Customer Data Analysis:** This is done as follows:

- Artificial intelligence is used at Shein to analyze big customer data to discover patterns and trends and test small batches. These batches are usually SKUs produced in quantities ranging between 100 and 200 units, and then the company expands its production to include only promising designs (katariya j. , 2025).

-It helps to know and understand customer behavior and predict their future needs and desires by monitoring browsing behavior, search patterns and social signals. The aim of this is to design and launch new products in just 3 to 7 days, instead of forecasting in advance. This approach helps to reduce risks and waste (katariya j. , 2025).

III.2.4.Personalization:

- Offers quick deals and daily discounts, an interactive shopping experience, and personalized products for each customer based on their preferences (katariya j. , 2025).

- Uses systems to suggest products or services. In 2021, Shein launched the "Shein X 100K" challenge, which encourages participants to create individual designs with a promise of $100,000. The challenge is live-streamed with real-time interaction. It also allows users to vote for their favorite designs, fostering a sense of ownership and participation, which increases brand awareness and customer loyalty (zhang, 2024, p. 262) .

- Improving the user experience and increasing purchasing opportunities, for example through fast shipping of products. Shein is distinguished by its fast global shipping. Although its headquarters are in China, it has developed its global logistics network, which includes local warehouses in key markets and partnerships with regional shipping companies for faster delivery to each customer's destination. All of this is related to understanding demand through the C2M model (katariya j. , 2025) .

III.2.5.Predicting Customer Behavior:

-Shein is often cited for its use of artificial intelligence to accelerate the conversion of demand signals into products. Its consumer-to-factory (C2M) model relies on customer behavior data (browsing, interaction, preferences) to identify trends early and guide the design and production process. Public reports indicate the launch of 6,000 products daily and the availability of over 600,000 items online at any given time, supported by a vast network of suppliers (twarogal & puczyk) .

- Shein can predict customer churn based on site usage time, purchase frequency, login frequency, and customer reviews. The company allows customers to leave product comments that are publicly visible, and also tracks the number of complaints.

- Shein identifies its most valuable customers, those who contribute significantly to the company's revenue and profits. This is done through repeat purchases, product recommendations via app reviews or through influencers and brand promoters, high spenders, and by analyzing browsing behavior and site interaction.

III.2.6. Automating Marketing Processes:

- Segmenting customers based on their interests and behavior, such as those seeking low prices, high-value customers, inactive customers, fashion enthusiasts, and other segments. Shein then sends notifications about special offers to each segment and targets them with digital advertising. It monitors interests on social media platforms like TikTok and Instagram. One example is the Shein Exchange platform, launched in 2022 for reselling secondhand clothing. Shein has focused on this customer segment and cultivated loyalty. This platform increases opportunities for interaction as customers browse, buy, and sell products. This interaction has enabled Shein to achieve a clear competitive advantage, leading to longer app usage and increased customer loyalty (zhang, 2024, p. 261) .

- Determining the best time to engage with customers by analyzing historical data to identify peak customer activity times, such as when they click on notifications, browse the app or website, and complete purchases. Shein is developing automation services by offering advanced automated marketing tools that allow for the automatic sending of personalized product recommendations and notifications based on customers' browsing behavior on the platform, purchase history, and other data (jin & yan, p. 81) .

-Automating email and marketing campaigns, as Shein's business model relies on real-time data, flexible supply chains, and influencer marketing to outperform traditional retailers. The model made its first leap during the COVID-19 pandemic, with its revenues increasing from $2.5 billion in 2019 to $8.4 billion in 2020. In the first 15 weeks of 2025, the number of downloads of the Shein app reached 42.6 million times, and its net sales reached $54.4 billion (katariya j. , 2025) .

III.2.7. Sentiment Analysis:

- Shein analyzes customer feedback on social media, its website, and support messages.

- It understands customer satisfaction with products through several indicators, including repeat purchases, frequent website visits, and recommendations.

- It identifies problems early and addresses them as quickly as possible.

III.2.8. **Customer Evaluation and Priority Management:** Shein evaluates customers and manages priorities using a suite of advanced digital systems based on big data analytics

and artificial intelligence. This aims to enhance the shopping experience, increase sales, and boost customer loyalty. Evaluation is conducted through various methods, such as purchase frequency, purchase history, customer comments, and photo attachments. Priority management includes prioritizing shipping and services, sending personalized notifications and recommendations via the app or email, and managing inventory based on demand. Shein can now monitor all orders and inventory in real time through its Manufacturing Process Management (MES) system, effectively integrating digital management alongside production. For example, Shein uses artificial intelligence to accurately analyze customer data, enabling it to efficiently manage its logistics operations and optimize its supply chain structure (fu, 2025, p. 340).

III.2.9. Enhancing the Multi-Channel Customer Experience:

Shein utilizes artificial intelligence and big data analytics to continuously monitor fashion trends through search behavior on its app, website, and social media platforms (katariya j. , 2025) . It employs an influencer marketing strategy that enables it to generate a wealth of content, helping it stay closely connected with its customers, especially Generation Z. Its model relies on partnerships with influencers and internet celebrities on platforms like TikTok, Instagram, and YouTube to boost daily engagement through purchases, sharing photos and videos of their outfits, challenges, creator content, live product streams, and new product experiences. It also organizes interactive sessions such as fashion design competitions with customer participation, aiming to create an active community for the brand (jin & yan, p. 81).

III.**2.10.Decision Support:** Shein makes decisions by optimizing its digital models with the help of big data analytics and artificial intelligence algorithms to deeply explore customer behavior data. By analyzing multidimensional data, such as customer browsing history, time spent on the platform, purchase frequency, and reasons for returns and exchanges, Shein paints an accurate picture of customer demand. A machine learning model is used to predict fashion trends and product demand, and the prediction results are transformed into specific product design criteria and production instructions, achieving a seamless connection from demand understanding to production. If the model analysis shows that customers in a particular region pay more attention to dresses with specific styles, and that the conversion rate of purchases after browsing is high, Shein can immediately convey the relevant design elements and style requirements to the supplier, arrange for small-batch production, and then quickly adjust the subsequent production plan based on market feedback. This ensures an accurate response to customer demand within the C2M model, enhances product marketing, and reduces inventory risks (2025, p. 341) .

III.**3. Shein Statistics from 2016 to 2023:** Shein generated revenues of $32.5 billion in 2023, a 43% increase from $22.7 billion in 2022. It boasts approximately 88.8 million active users. The Shein app was downloaded 238 million times in 2023, making it the most downloaded fashion app that year. The company was recently valued at $68 billion ahead of its potential IPO in 2024.

III.3.1.Shein's Revenue from 2016 to 2023.

The revenue can be illustrated in the following table:

Table (N°02): Shein's Revenue from 2016 to 2023 (US$ billion).

Year	Revenue (billion US dollars)
2016	0.61

2017	1.55
2018	1.99
2019	3.15
2020	9.81
2021	15.7
2022	22.7
2023	32.5

Source: (curry, 2026)

The table illustrates the evolution of Shein's revenue between 2016 and 2023, showing rapid growth. From 2016 to 2018, growth was relatively slow, then it accelerated significantly in 2019. After 2020, the company entered a phase of explosive growth, reaching $32.5 billion. This growth reflects the company's reliance on artificial intelligence technologies based on data analysis, trend prediction, algorithm optimization, and flexible production management, as well as the global growth of e-commerce. Additionally, the company's use of customer relationship management (CRM) to personalize customer experiences and enhance interaction through targeted offers directly contributed to this substantial revenue growth.

III.3.2.Shein's Net Income from 2021 to 2023.

Table (N°03): Shein's Net Income from 2021 to 2023.

Year	Net income
2021	1100
2022	700
2023	2000

Source: (curry, 2026)

The table shows Shein's net income from 2021 to 2023, a key indicator reflecting actual profits. In 2021, the company achieved strong profits of $1.1 billion, following the e-commerce boom during the COVID-19 pandemic. However, in 2022, net income saw a significant decrease of $700 million due to increased marketing and advertising costs, expansion into new markets, and higher shipping expenses. In 2023, net income surged to $2 billion, a 185% increase over the previous year. This growth was attributed to improved data and AI technology for demand forecasting, leading to reduced overproduction through a C2M model, and enhanced customer relationship management strategies that fostered greater customer loyalty.

III.3.3.Number of Shein users from 2017 to 2023.

The following table shows the number of Shein users.

Table (N°04): Number of Shein users from 2017 to 2023 (millions).

Year	Number of users (millions(
2017	2.8
2018	4.8
2019	5.6
2020	15.5
2021	43.7
2022	74.7
2023	88.8

Source: (curry, 2026)

Shein operates in over 200 countries worldwide. While its early growth was primarily driven by India and Saudi Arabia, in the last two years Brazil, Mexico, and the United States have become its largest markets (curry, 2026). Shein's users are largely Generation Z, who seek fast fashion at affordable prices. The table shows a significant increase in users from 2017 to 2020, with a particularly substantial rise in the last three years. This growth is attributed to the e-commerce boom following the COVID-19 pandemic, a strong focus on young people and app-based shopping, and a heavy reliance on artificial intelligence to understand customer behavior and offer products tailored to their trends and interests in terms of price and variety.

According to Shein Group statistics, 71% of consumers buy fewer than 30 clothing items annually, and approximately 36%-41% wear the same clothes more than 50 times.

III.3.4.Number of downloads of the Shein app from 2018 to 2023.

As shown in the following table:

Table (N°05): Downloads of the Shein app from 2018 to 2023 (million).

Year	Downloads
2018	48.4
2019	57.2
2020	103.1
2021	157.1
2022	200
2023	238

Source: (curry, 2026).

The table clearly shows a significant increase in downloads from 2018 to 2023, representing a nearly fivefold increase in just five years. According to Statista, Brazil, Mexico, and the United States had the highest number of app downloads. By 2024, it had become one of the most downloaded fashion apps in the world. This growth can be attributed to the rise of online shopping, particularly following the COVID-19 pandemic, coupled with the increased reliance on social media, influencers, and ongoing promotions. The app's low prices and rapid product launches, made possible by artificial intelligence that could predict customer trends, also contributed to this growth.

III.4. Challenges facing Shein: Shein faces a number of complex challenges, especially with its rapid global expansion. The most important of these challenges can be summarized as follows:

- One of the biggest criticisms leveled against Shein concerns working conditions, where hours can exceed 12 hours a day, and low wages compared to the company's

profits. This is attributed to its reliance on rapid production and offering products at low prices.

- The company has also been accused of copying designs from other brands.

- There are reports of declining quality and the presence of harmful chemicals in some products.

- Excessive automation can reduce customer satisfaction and undermine the concept of customer service. Relying solely on algorithms to handle returns while neglecting manual intervention can lead to customer loss. Therefore, key processes should be humanized.

- Shein has accelerated its small order and quick response model, but this has also led to serious imbalances in quality control. In order to reduce costs and meet tight deadlines, the production department often resorts to cutting corners and simplifying procedures, resulting in inconsistent product quality and a high rate of customer complaints. When orders are urgently modified, there are delays in transmitting information from headquarters to third-tier suppliers, and responses are not always synchronized, leading to delivery delays. In addition, the lack of a unified digital management platform makes it difficult to share inventory data and production progress in real time, thus delaying order preparation. This is particularly evident when economic policy fluctuations lead to drastic changes in demand, directly weakening the organization's competitiveness in the market (fu, 2025, p. 339).

Conclusion:

In conclusion, this study demonstrates that Shein's use of artificial intelligence in customer relationship management has helped the company understand customer behavior, predict their needs, and respond to them instantly. It has enabled Shein to provide personalized and responsive experiences, analyze massive amounts of data, and make more accurate and effective decisions, thus contributing to increased customer satisfaction and loyalty. AI is no longer just an option; it has become a fundamental pillar for achieving excellence in a rapidly changing competitive environment.

Conversely, this transformation is accompanied by significant challenges, particularly concerning ethical dimensions, privacy protection, and ensuring transparency in the use of algorithms, especially given the criticisms associated with the fast-paced business model. Shein's experience serves as a prime example of the importance of artificial intelligence in developing customer relationship management (CRM) by enhancing customer service through chatbots that provide rapid, round-the-clock responses, in addition to supporting smart marketing efforts. All of this fosters customer loyalty and has contributed to Shein's rapid growth. However, the need for the conscious use of these technologies is paramount to building long-term customer trust. Over-reliance on automation could diminish the human element in customer interactions.

References:

1/Fu.S. (2025). research on comprison and development trend of supply chain models: taking JD.com and Shein as an example. engineering management, information technology and intelligence, (p. 340).

2/badiaa, a. (2021). intelligence artificielle information comptable et traitement des piéces comptables: quelle faisabilité pour les entreprises algeérienns. AI bachar economic jornal, 07(03), p. 707.

3/cierna, H., & sujova, e. (2022). differtiated customer relationship management; a tool for increasing enterprise competitiveness-management systems in production engineering *30*(02), p. 164.

4/curry, D. (2026). Shein revenue and usage statistics . www.bussinessofapps.

5/ezenwa, E. (2021). the impact of artificial intelligence on acountning profession. journal of accounting and financial management, 07(02), p. 17.

6/jachson, E. (s.d.). Artificial intelligence's contribution to sustainability in fation: both good and bad. moritzlaw.osu.edu.

7/shein.com.

8/https://www.statista.com . (2025).

9/jin, H., & yan, l. research on the innovation path of SHEIN supply chain business model empowered by digital technology-p78. https://ebooks.iospress.nl.

10/katariya, j. (2025). Shein business model:how shein makes money . https://moontechnolabs.com.

11/saini, N. (2023). artificial intelligence and its applications. international journal for research and innovation, 08(04), p. 356.

12/twarogal, p., & puczyk, a. (s.d.). AI fashion retail industry: why break free from old habits. www.neontri.com.

13/zerres, C., baran, r., & zerres, m. customer relationship management-1st edition. (2014). london.

14/zhang, S. (2024). exploring the digital marketing ecosystem: a case study of shein's innovative stategies. financial technology and business analysis,. united states. (p. 262).

15/أحمد الصالح سباع، محمد يوسفي ، و عمر ملوكي. (2018). تطبيق استراتيجيات الذكاء الاصطناعي على المستوى الدولي. *الميادين الاقتصادية، 01*(01)، صفحة 34.

16/أمنة أبو النجا محمد. (2017). إدارة علاقة العملاء و أثرها على جودة العلاقة و الاحتفاظ بالعميل . *المجلة المصرية للدراسات التجارية*. تم الاسترداد من https://alat.journals.ekb.eg/article_209636_6bcb8ff2340e7bbe08675534007eef6e.pdf

17/حوة فاطيمة. (2019).إدارة العلاقة الالكترونية مع الزبائن.المجلة الجزائرية للدراسات الانسانية *01*(02)، صفحة 377.

18/أمحكوح نسيمة (2017 -2018) .أثر التسويق بالعلاقات في تنمية علاقة المؤسسة بزبائنها دراسة حالة وكالة زمزم للسياحة و السفر .أطروحة دكتوراه منشورة .جامعة الجزائر3-كلية العلوم الاقتصادية و التجارية و علوم التسيير . صفحة .72.

19/ربيع خديجة. (2023). فلسفة الذكاء الاصطناعي. *مجلة متون، 16*(03)، صفحة 90.

20/زين عبد الهادي. (2000). *الذكاء الاصطناعي و النظم الخبيرة في المكتبات* (الإصدار 01). القاهرة، مصر: المكتبة الاكاديمية. صفحة .21.

21/طيب موسلي. (2022–2023). *أثر إدارة علاقات الزبائن على جودة الخدمة دراسة حالة متعاملي الهاتف النقال بالجزائر*. أطروحة دكتوراه، كلية العلوم الاقتصادية و التجارية و علوم التسيير، بسكرة. ص.07.

22/غازي محمد. (2021). *أثر الذكاء الاصطناعي في خصائص المعلومات المحاسبية: الدور المعدل في كفاءة الانظمة المحاسبية في البنوك التجارية الاردنية*. أطروحة دكتوراه، العلوم الاسلامية العالمية، الاردن. صفحة 08.

23/غسان قاسم داود اللامي، و أميرة البياتي شكرولي. (2022). *تكنولوجيا المعلومات في منظمات الاعمال–الاستخدامات و التطبيق* (المجلد 01). دار الوراق. صفحة 45.

24/كوثر صخراوي، و حسيبة علمي. (2023). الحماية القانونية لتطبيقات الذكاء الاصطناعي في نظم المحاسبة و الابلاغ المالي. *الذكاء الاصطناعي و تطبيقاته في المحاسبة و التدقيق* .جامعة باجي مختار.عنابة . (الصفحات 04-05).

25/نهار خالد بن الوليد. (2025). دور الذكاء الاصطناعي في تطوير إدارة العلاقة مع الزبون. *مجلة إدارة الاعمال و الدراسات الاقتصادية، 11*(02)، صفحة 545.