Eduvest – Journal of Universal Studies
Volume 5 Number 8, August, 2025
p- ISSN 2775-3735- e-ISSN 2775-3727

IMPLEMENTATION OF ELECTRONIC CUSTOMER RELATION MANAGEMENT (ECRM) PROGRAM IN SHAPING POSITIVE WORD OF MOUTH AT PT MANDIRI UTAMA FINANCE

J.A Wempi[1], Estriastuti Nur Aisyah[2] *, Aas sulistia indriani[3]
[1,2]LSPR Institute of Communication and Business, Indonesia, [3]Indonesia Open University
Email: wempi@lspr.edu, estriastuti.nuraisyah@gmail.com, aas.indriani279@gmail.com

ABSTRACT

PT Mandiri Utama Finance (MUF), as the youngest automotive financing company in Indonesia, has successfully recorded assets exceeding IDR 10 trillion and competes with major players in the industry. However, the company experienced a significant decline in financing volume, not only among new consumers but also within the Additional Order (AO) and Repeat Order (RO) segments, which are vital components of MUF's customer ecosystem. This downturn is also reflected in the declining scores of the Customer Satisfaction Index (CSI) and Net Promoter Score (NPS). This research aims to explore the implementation of the Electronic Customer Relationship Management (E-CRM) program in shaping Positive Word of Mouth (PWOM) among MUF customers. Using a descriptive case study method with a qualitative approach, this research employs data analysis and in-depth interviews with key personnel involved in the E-CRM system. The theoretical framework is based on Lasswell's communication model (Who Says What In Which Channel To Whom With What Effect) to map MUF's communication strategies, and the Stimulus-Response Theory to explain how digital messages influence customer behavior through prior interactions and experiences. The findings reveal that the suboptimal integration of the E-CRM system and the limited consumer engagement initiatives, such as loyalty programs and testimonial-driven campaigns, hinder the spread of PWOM. This research offers practical insights into enhancing customer-centered digital communication strategies.

KEYWORDS *Electronic Customer Relationship Management (E-CRM), Positive Word of Mouth (PWOM), Digital Communication, Lasswell Theory, Customer Engagement*

INTRODUCTION

The term "Society of Network" is highly appropriate for reflecting our current way of life. The social changes occurring today result from an ongoing revolution in information and communication technology. Modern information technology provides unprecedented access, reshaping how individuals and businesses interact. In this rapidly growing digital era, shifts in consumer behavior and market dynamics increasingly require businesses to adopt innovative and modern strategies to remain competitive (Liu et al., 2016). Consumers are considered a key element for the long-term growth of the entire organization, including sales and marketing strategies, resource allocation, product development, and overall profitability (Morgan et al., 2004). CRM essentially represents an integrated approach to managing customer relationships by combining key components such as people, processes, technology, and culture (Alshurideh & Turki, 2023). One approach that addresses these needs is Customer Relationship Management (CRM). CRM is fundamentally an integrated approach to managing customer relationships, combining key components such as people, processes, technology, and corporate culture. The value of CRM has been recognized since the 1920s, when discussions around customer retention, purchasing behavior, and client relationships began to emerge. From a business perspective, CRM is a strategy aimed at acquiring new customers, retaining existing ones, and understanding consumer behavior, which lies at the core of CRM. Globally, businesses of all sizes have widely adopted CRM as a means to achieve their primary goal of fostering strong relationships between organizations and their consumers (Wójcik, 2019).

From a business perspective, CRM is a strategy for acquiring new customers and retaining existing ones, providing business benefits by understanding customer behavior, which is the core of CRM (Budiarjdo, Eko & Aprilovi, Dewi, 2009). CRM has been widely adopted by businesses of all sizes globally as a means to achieve the ultimate goal of developing relationships between organizations and their customers (Kurdi, Barwen, 2013).

CRM is fundamentally about building and maintaining strong customer relationships. In this context, communication plays a crucial role in every stage of the customer journey, from attracting attention to ensuring long-term loyalty. In the digital age, CRM has evolved into Electronic Customer Relationship Management (E-CRM). The adoption of internet and digital technology has expanded CRM functions, utilizing digital platforms for communication and customer interaction. E-CRM integrates corporate management commitment with the use of hardware, software, processes, and customer-related applications. It is implemented by integrating multiple systems and platforms, ensuring that all customer data can be accessed and analyzed comprehensively (Rahimi & Kozak, 2017). The transformation from CRM to E-CRM has indirectly pushed businesses to adapt to modern consumer digital behavior (Raman et al., 2022).

PT Mandiri Utama Finance is a service-oriented company that strengthens its connection with customers through the implementation of E-CRM strategies (Al-Okaily et al., 2022). Known as MUF, the company operates in the financing sector for motor vehicles and multipurpose services, offering both conventional and Sharia-based products such as MUF Mobil, MUF Motor, MUF Dana, MUF Fleet, MUF Millennials, MUF Premium, MUF Syariah, and MUF Trade-in. Since its establishment, PT Mandiri Utama Finance initially had only seven branch offices, but it has now expanded to 316 branch offices and sub-branch offices (MUFNet) spread across Indonesia. The growth of PT Mandiri Utama Finance's financing assets from 2020 to 2024 is as follows:

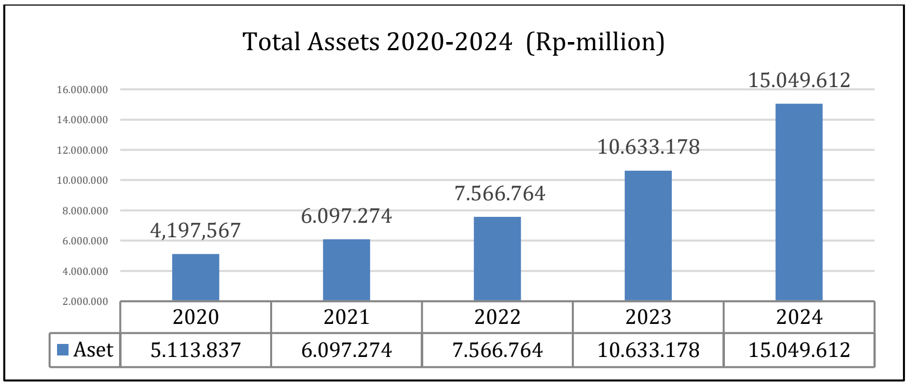

Figure 1. PT Mandiri Utama Finance's Financing Assets
Source: MUF Internal Data, 2024

Based on the company's internal data, PT Mandiri Utama Finance has demonstrated a significant increase in total assets over the five-year period from 2020 to 2024. In 2020, the company recorded total assets of Rp5.11 trillion, which increased to Rp6.09 trillion in 2021, reflecting a growth of approximately 19.2%. This upward trend continued in 2022, with total assets reaching Rp7.57 trillion, representing an increase of around 24.1% from the previous year.

A more substantial growth was observed in 2023, when total assets rose sharply to Rp10.63 trillion, marking a 40.5% increase year-over-year. The peak was achieved in 2024, with total assets reaching Rp15.05 trillion, which translates to a 41.5% growth compared to 2023 (Bhatt et al., 2021).

With total assets reaching 15.045 trillion to date, PT Mandiri Utama Finance is dedicated to enhancing its connections with customers by offering more advanced and personalized interactions. The company's vision is to become the most reputable organization in providing innovative financing solutions and facilitating value creation within its ecosystem through digitalization. PT Mandiri Utama Finance is strongly committed to significantly boosting digitalization across all its business operations. Currently, MUF is part of a system that includes a combination of customer acquisition and Enhanced Customer Support. By utilizing E-CRM in the acquisition process, MUF offers various website platforms such as MUF Online Autoshow, BSI OTO, and MUF dana, enabling convenient financing applications through digital channels accessible to everyone at any time. Apart from the website options, submissions can also be completed through the Livin By Mandiri application.

One way to enhance customer support through technology is by implementing MUF Online Assistant, which includes chatbots and live agents to offer immediate assistance to consumers, aiming to strengthen relationships with them. In 2024, PT Mandiri Utama Finance is expected to witness a reduction in the number of financing acquisitions despite the integration of advanced technological features. The company categorizes its consumers into three groups based on their transaction history:

1. New consumers: individuals who are applying for financing with PT Mandiri Utama Finance for the first time.
2. Additional Order (AO): consumers who currently have ongoing financing with PT Mandiri Utama Finance and are seeking additional financing for different vehicles.
3. Repeat Order (RO): consumers who have completed their previous financing/credit term with PT Mandiri Utama Finance but are reapplying for refinancing.

The decrease in bookings is not limited to new customers, but also affects existing AO and RO customers.

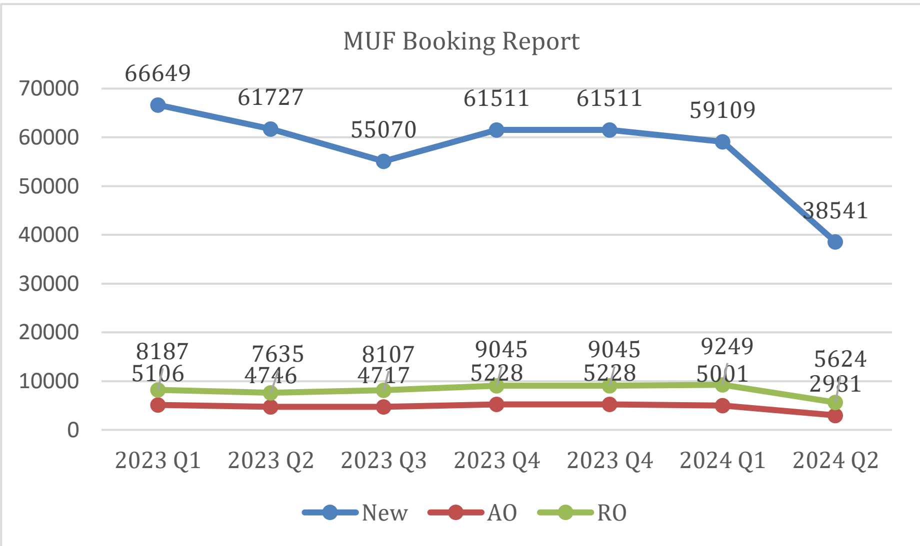

Figure 2. PT Mandiri Utama Finance's Booking Report
Source : MUF Internal Data, 2024

In comparison to the first quarters of 2023 and 2024, there was a 37% decrease in total bookings. The most notable drop was seen in new customer bookings, with a 6% decline in the first quarter and a 23% decrease in the second quarter (Abbasi et al., 2017; Ahmad & Zabri, 2015). The reduction in financing applications could be a sign of various factors such as poor service and product quality, economic instability, fierce market competition, changing market trends, among others (Al-Okaily et al., 2023; Sharma et al., 2022).

MUF has not only seen a decrease in the number of bookings but also a decline in the results of customer satisfaction surveys. The company conducted surveys in both 2022 and 2023 to gauge customer satisfaction levels. The Customer Satisfaction Index (CSI) is a tool used to assess how satisfied customers are with a company's offerings and to gain insights into the overall customer experience. In 2022, MUF achieved a CSI score of 6.36 on a scale of 1 to 7. However, in 2023, this score slightly dropped to 6.35. While still considered satisfactory, this decline highlights the need for a more thorough analysis. A similar downward trend was noticed in the Net Promoter Score (NPS), another important metric for evaluating customer satisfaction. The NPS indicates how likely customers are to recommend a company's products or services to others. Scores on the NPS scale fall into three categories: Promoters, Passives, and Detractors. Promoters are customers who are likely to recommend the company, while Passives and Detractors are less enthusiastic in their recommendations.

Next, MUF's NPS scores for the 2022 and 2023 surveys can be seen in the table below:

Table 1. Net Promoter Score (NPS) of MUF in 2022 and 2023

NPS	Tahun 2022	Tahun 2023
Detractor	6%	11%
Pasif	28%	29%
Promotor	66%	61%

Source: MUF Internal Data, 2024

It is clear that there was a 5% increase in the number of detractors in 2023, indicating a potential decline in customer loyalty towards MUF's services. In the same year, the percentage of promoters decreased to 61%, down from 66% in the previous year. This shift suggests a reduced willingness among MUF customers to recommend the company to others. Conversely, the proportion of passive consumers grew by 1%, implying that while this group may not actively endorse MUF's services, they also do not express negative opinions. Although passive consumers do not actively contribute to the company's promotion, their increasing numbers present an opportunity to improve their satisfaction levels and potentially convert them into promoters. Therefore, it is essential to identify the needs and expectations of this group to develop strategies that can rekindle their loyalty and enhance their overall experience with MUF's services. MUF's E-CRM-integrated services are tailored to offer a comprehensive approach to customer relationship management.

Previous research highlights the significance of E-CRM in enhancing customer engagement and loyalty. For instance, Alshurideh and Turki (2023) emphasized that E-CRM integrates people, processes, and technology to foster strong customer relationships, while Sima Magatef et al. (2023) demonstrated its effectiveness in improving customer satisfaction through personalized digital interactions. However, these studies primarily focused on general industries, leaving a gap in understanding E-CRM's role in specialized sectors like automotive financing, particularly in shaping Positive Word of Mouth (PWOM). This research addresses this gap by examining the implementation of E-CRM at PT Mandiri Utama Finance (MUF), a leading automotive financing company in Indonesia. While prior studies, such as those by Mehrbakhsh Nilash et al. (2023), explored E-CRM's impact on customer loyalty, they did not investigate its potential to generate PWOM in a highly competitive and service-driven industry. By leveraging Lasswell's communication model and the Stimulus-Response Theory, this study provides a nuanced analysis of how MUF's E-CRM strategies influence customer behavior and PWOM. The findings aim to offer practical insights for enhancing digital communication strategies, ultimately contributing to improved customer satisfaction and brand advocacy in the automotive financing sector.

This research aims to analyze the implementation of the E-CRM program in forming PWOM at PT Mandiri Utama Finance, focusing on system integration, consumer involvement, and digital communication strategies. The research benefits include practical recommendations to improve E-CRM-based services, strengthen customer loyalty, as well as make theoretical contributions in understanding the role of E-CRM in the automotive finance sector.

METHOD

The research employed a qualitative methodology with a descriptive approach, specifically using a case study method. Data collection included primary and secondary sources such as interviews, internal company statistics, documents, and follow-up observations. Semi-structured interviews were conducted with key decision-makers and policymakers, including marketing directors and heads of marketing communication and digital communication. The interviews used prepared but flexible questions, allowing participants to respond freely while staying focused on the research topic. Internal statistical data provided valuable insights into relationships between variables, and company documents supported analysis and hypothesis development. Follow-up observations involved directly observing the implementation of E-CRM within the company.

Data analysis followed Miles and Huberman’s interactive model, comprising three stages: (1) data reduction, where data was selected, simplified, and organized to emphasize relevant aspects; (2) data display, presenting information in narrative and tabular forms to identify key patterns and relationships; and (3) conclusion drawing and verification, involving interpretation, continuous testing, and refinement until findings were credible. Triangulation was employed by comparing interview results, company documents, and observations to ensure the validity and reliability of the research findings.

RESULT AND DISCUSSION

This research positions PT Mandiri Utama Finance (MUF) as the communicator in its interactions with consumers, who act as the recipients, through media and messages delivered using Electronic Customer Relationship Management (E-CRM). As a vehicle financing company, MUF offers various financing services, both conventional and Islamic, for new and used vehicles, as well as cash financing. The implementation of E-CRM at MUF is expected to enhance customer engagement and efficiently manage customer interactions, ultimately aiming to create positive word-of-mouth among its consumers.

Since its implementation, the E-CRM system is expected to provide comprehensive insights into customer behavior and preferences, support data-driven services, and enhance customer satisfaction and loyalty. However, recent declines in some satisfaction indicators have raised questions about the effectiveness of E-CRM at MUF and the obstacles faced.

Business Processes The business processes of PT Mandiri Utama Finance (MUF) are divided into three main stages: pre-acquisition, acquisition & realization, and post-acquisition. These three stages involve communication with consumers, regulators, and business partners. The stages are illustrated in the diagram below:

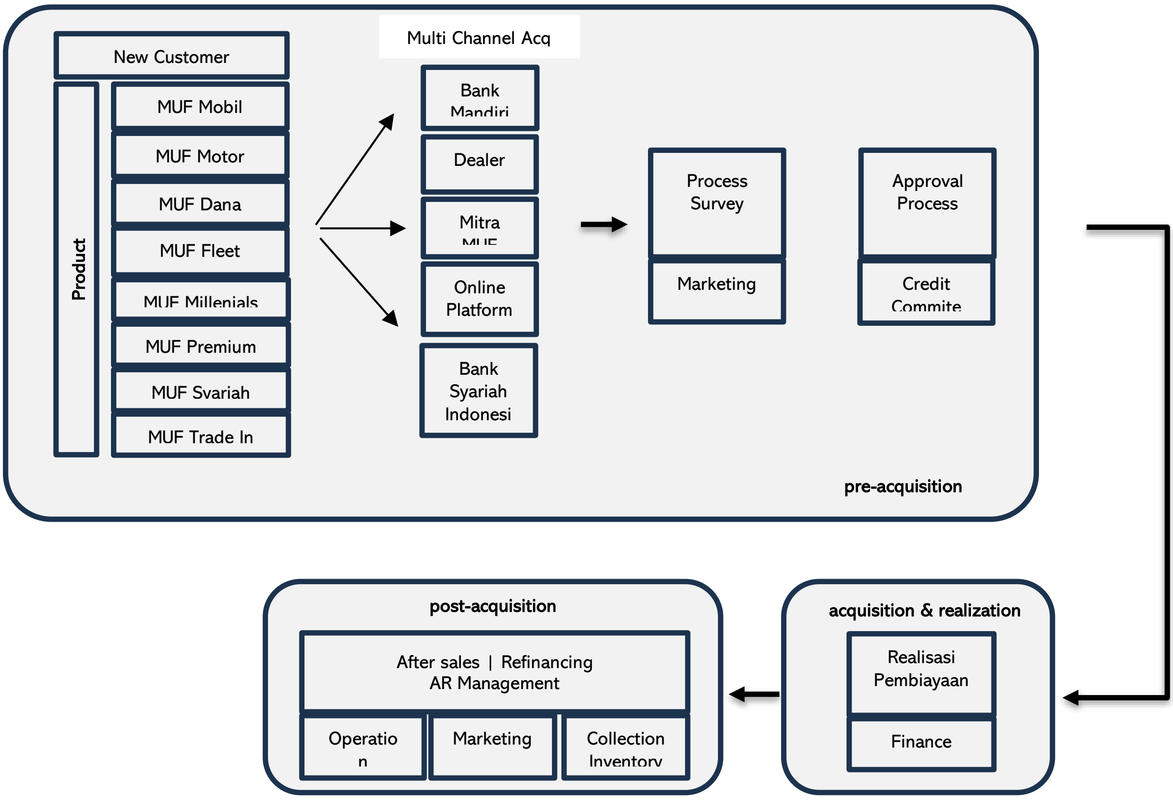

Figure 4. Mandiri Utama Finance's Digital Ecosystem: From Multi-Channel Acquisition to Post-Financing Process

Source: MUF Internal Data, 2024

The diagram illustrates the integrated digital ecosystem of PT Mandiri Utama Finance (MUF), which encompasses the end-to-end journey of customer financing, from the pre-acquisition stage through to acquisition, realization, and post-acquisition services. During the pre-acquisition stage of the business process, potential customers can access MUF financing services through various channels. These include Bank Mandiri Tbk, Bank Syariah Indonesia, 17,725 affiliated vehicle dealers, registered MUF partners (institutions, groups, or individuals), and the official MUF website. Customers who have identified their needs - whether for consumption, business, or vehicles - can directly apply for financing through these channels. The identification and verification process of potential customers are under the responsibility of the Marketing Directorate. Once the application and complete documents are received, the MUF marketing team will verify and provide further consultation to tailor the financing to the customer's needs. Once a customer submits an application through any of the available channels, the internal process begins with the Marketing team, which is responsible for conducting a process survey to gather relevant information. The application then proceeds to the Approval Process, which is managed by the Credit & Risk Directorate, where financial and credit analysis is conducted to assess the eligibility of potential customers. Finally, the application is reviewed by the Credit Committee, which performs the final evaluation and plays a crucial role in identifying the customer's profile and making the credit approval decision.

In the Acquisition & Realization Phase, once the application has been approved, the process moves forward to the Finance Directorate, which is responsible for managing the fund disbursement or loan realization. This phase involves the actual disbursement of financing, where payments are made directly to the designated dealers or MUF partners in accordance with the approved terms.

In the Post-Acquisition Phase, after the loan or financing has been successfully realized, customers are supported through After-Sales and Refinancing Services to maintain satisfaction and long-term engagement. Accounts Receivable (AR) Management plays a critical role in handling customers with poor payment performance and is also responsible for securing financed vehicles to minimize potential company losses. Within this phase, the Operation Department provides various services, including the release of vehicle ownership documents (BPKB), installment payment services, issuance of financing clearance letters, and adjustments to payment methods. Meanwhile, the Marketing Department focuses on generating additional sales to increase Additional Orders, contributing to revenue growth and enhanced customer retention.

Based on PT Mandiri Utama Finance's business processes, both pre-acquisition, acquisition & realization to post-acquisition, there is communication with consumers, regulators, and suppliers as business partners. As Harold D. Lasswell's communication model suggests, every communication process involves understanding the role of the communicator, the message, the medium, the audience, and the effect of the message. (Lasswell, H. D. ,1948). In addition, PT Mandiri Utama Finance must ensure that the messages conveyed are consistent and transparent in accordance with the company's identity, as well as ensure openness in decision-making and the provision of relevant information. Responsiveness to questions, complaints, and suggestions demonstrates a company's commitment to consumer satisfaction and stakeholder engagement. Regular evaluations of communication effectiveness are necessary to ensure the right communication strategy, including looking at engagement rates, number of followers, and audience feedback. PT Mandiri Utama Finance has a business process development project in 2024 to encourage internal improvements in the company.

The most messages are directly conveyed by communicators to consumers through the intermediary of PT Mandiri Utama Finance's branch offices and sub-branch offices (MUFNet). In the branch office and MUFNet, there are all parts of the business process as mentioned earlier. So based on the form of the message, the type of application of E-CRM, as well as the PIC in message delivery can be concluded as follows:

Table 2. Messaging Functions and Forms in PT MUF's Business Processes

Implementing PIC	Business processes	Messaging function (E-CRM)	Message Form

Marketing Directorate	Program & promo marketing	Marketing	Persuasive
			Informative
Marketing Directorate	Verification & consultation of promo programs	Sales	Persuasive
Directorate of Operation	Customer Care	Service User	Informative
	Complaint handling		Coercive
Directorate Collection & Inventory	Billing		Coercive

Source: MUF Internal Data, 2024

From the mapping above, it can be observed that each unit within the organization carries distinct communication roles aligned with their respective business functions, while remaining integrated within the company's overall communication system. The delivery of messages by each PIC (Person in Charge) reflects not only the organizational structure but also the practical application of Lasswell's communication model within PT MUF's business context.

The messages conveyed serve not only as informative tools but also as a means of interaction and engagement with consumers, encompassing essential elements such as service provision, education, and complaint handling. The diversity in message forms — ranging from direct verbal communication to digital media — illustrates PT MUF's adoption of a multichannel communication approach to effectively reach and engage with its target audiences.

By clearly identifying who communicates, what is communicated, through which channel, and to whom, the company is better positioned to evaluate the effectiveness of its communication strategies. This evaluation is critical to ensuring alignment between the company's identity, the informational needs of consumers, and the continuous improvement of service quality.

E-CRM Implementation in the Perspective of Lasswell's Communication Model

Electronic Customer Relationship Management (E-CRM), as previously discussed, is a digital customer relationship management system designed to effectively manage a company's interactions with its consumers—from the identification of potential customers to after-sales service. At PT Mandiri Utama Finance (MUF), the implementation of E-CRM is classified into two main functions: E-CRM analytical and E-CRM operational.

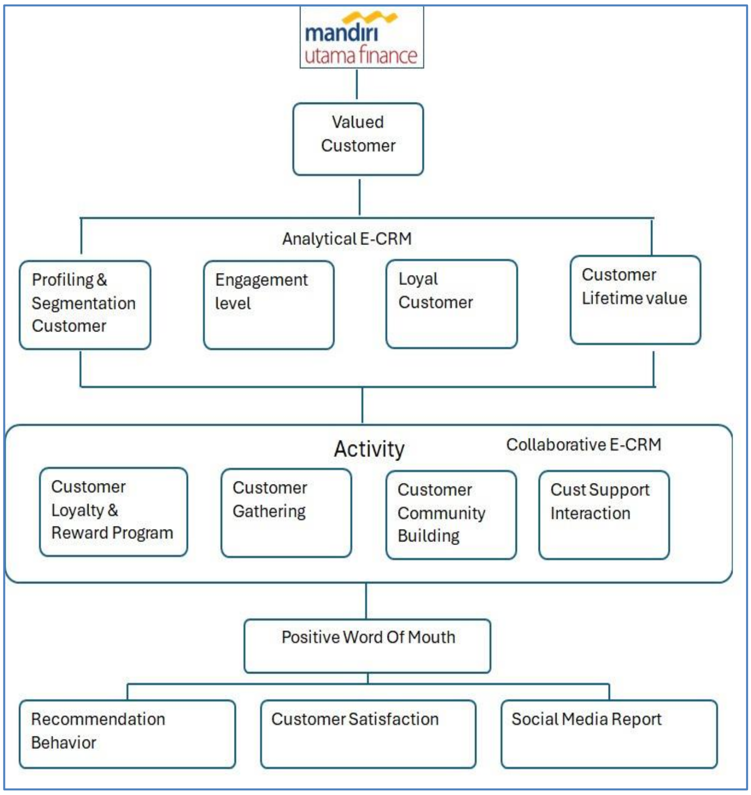

Figure 5. E-CRM Implementation in MUF
Source: MUF Internal Data, 2024

The analytical function of E-CRM includes trend forecasting, customer segmentation, profiling, and loyalty programs. Monthly and annual sales data sourced from both conventional and digital channels are consolidated and can be easily accessed via the MUF Online Business Intelligence (MOBI) platform. However, there are still limitations in data integration, particularly in the operational aspects, as acquisition data from platforms such as MOAS, BSI OTO, MUF Dana, and the Lead Management System have not yet been integrated into a single unified system. According to the Head of Risk Division, Mr. Rois Muaddib, the data is still presented separately and made available upon request. Nevertheless, full data integration has been included in the MOBI development roadmap for the second quarter of 2025.

Segmentation and profiling within E-CRM are strategies used to categorize consumers based on their characteristics and behavior, enabling the company to deliver more targeted messaging and relevant services. At MUF, segmentation is performed using demographic data such as age, gender, place of residence, and income. Other criteria include financing type, vehicle type, payment method, and customer classification. After consumers are segmented, analysis is conducted to identify patterns and trends within each group. While the profiling process is still under development, MUF has already implemented several targeted programs, including the Holistic Premium Car Experience for premium clients, Electric Vehicle (EV) programs for electric car financing, and MUF Millennials for the younger generation.

On the other hand, the E-CRM operational function of E-CRM focuses on business activities directly related to the company's sustainability through the development of the MUF Integrated Ecosystem. One of the digital platforms used is the MUF Online Autoshow (MOAS), which provides services for both prospective and current customers, such as vehicle information, virtual showrooms, credit simulations, and real-time product and promotion updates. Other platforms like MUF Dana and BSI OTO support E-CRM with product-specific features and consumer testimonials that generate positive word-of-mouth. MUF's collaboration with PT Bank Mandiri through the Livin' by Mandiri application also enables consumers to apply for financing digitally, further demonstrating MUF's commitment to digitalization and its efforts to expand customer acquisition. To illustrate the digital touchpoints that support E-CRM operational efforts, the following figures present the interfaces and features of several platforms developed and utilized by PT Mandiri Utama Finance, such as MOAS (MUF Online Autoshow), MUF Dana, and BSI OTO. These visualizations highlight how MUF leverages its platforms to communicate information, interact with customers, and facilitate service access in a user-friendly and visually appealing manner.

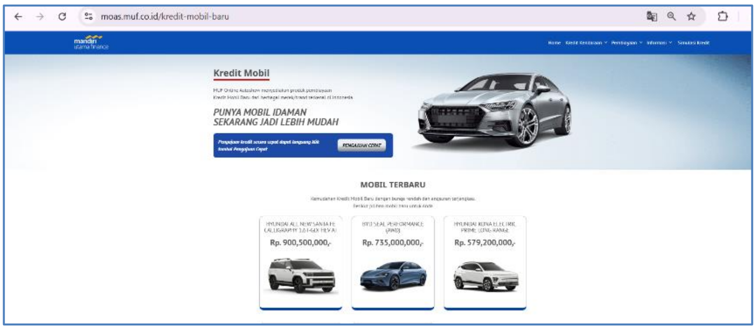

Figure 6. MUF Online Autoshow Website
Source : moas.muf.co.id

Figure 7. BSI OTO Website
Source : bsioto.muf.co.id

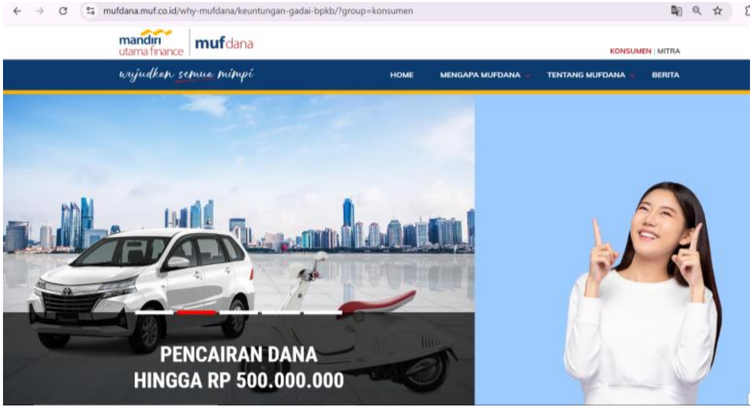

Figure 8. MUF Dana Website
Source : mufdana.muf.co.id

Beyond its analytical and operational roles, the E-CRM implementation at PT Mandiri Utama Finance (MUF) has significantly impacted digital marketing by fostering positive word of mouth (WOM), as reflected in consumer testimonials, social media reviews, and personal recommendations across platforms like MOAS, MUF Dana, and BSI OTO.

This positive WOM aligns with the "with what effect" component in Lasswell's Communication Model, emphasizing the outcome of a communication process. When consumers are satisfied with their digital experience, including ease of access to information, fast financing applications, and reliable post-sale services. They are more likely to recommend the service to others voluntarily. Within MUF's E-CRM ecosystem, this WOM effect is further enhanced by testimonial features embedded in several digital platforms, as well as strong integration with the company's official social media channels.

To enrich the analysis, this phenomenon can also be explained through the Stimulus-Response Theory (Hull, 1943), which posits that a stimulus from an organization can trigger a particular response from its audience. In this case, the digital experiences provided by MUF, such as personalized services, accessible interfaces, and informative content act as stimuli that trigger a favorable response: consumer satisfaction followed by advocacy behavior. The journey from experience to endorsement reflects the strategic success of digital communication in shaping consumer perception and action.

Moreover, the relationship between MUF and its consumers has evolved beyond transactional boundaries into a social interaction, further amplified by social media platforms such as Instagram, TikTok, X (formerly Twitter), and Facebook. These platforms serve as extended communication channels, enabling the organic and authentic spread of WOM. MUF's ability to leverage E-CRM in creating these peer-to-peer communication loops demonstrates how digital strategies can effectively nurture loyalty and community.

Thus, the diagram above clearly illustrates how the integration of analytical, operational, and social media elements within MUF's E-CRM system creates a positive feedback loop that strengthens the company's relationship with its customers. Ultimately, this is not merely about digital tools, but about meaningful communication that is relevant, personalized, and responsive communication that turns satisfied consumers into brand advocates.

Impact of E-CRM on Digital Financing

With the implementation of E-CRM at PT Mandiri Utama Finance, it has an effect on the achievement of financing distribution sourced from digital products by 166% compared to 2022, with the following data.

Produk Digital	2022			2023			2024		
	Target (Rp)	Realisasi (Rp)	Ach (%)	Target (Rp)	Realiasi (Rp)	Ach (%)	Target (Rp)	Realisasi (Rp)	Ach (%)
MUF Online Auto Show (MOAS)	65.700.000.000	22.718.339.670	35	29.085.504.828	33.258.910.901	114%	35,493,227,528.00	47,340,562,929.00	75%
BSI OTO	121.440.000.000	86.192.700.793	71	102.828.193.452	169.058.997.829	164%	175,050,000,000.00	157,989,387,837.00	111%
MUF Dana	314.550.000.000	495.880.663.028	158	570.308.000.000	962.855.992.879	169%	1,225,938,991,011.00	1,040,233,987,428.00	118%

Based on the digital performance data of PT Mandiri Utama Finance (MUF) in 2023, the implementation of Electronic Customer Relationship Management (E-CRM) has shown a significant positive impact on the achievement of digital financing performance. The table above illustrates a considerable increase in transaction volume and the contribution of each digital channel to the total financing portfolio.

The MUF Online Autoshow (MOAS) platform recorded financing contributions amounting to IDR 33.26 billion, achieving 114% of the set target. This marks a significant improvement compared to the previous year's performance, which only reached 35% of the target. Meanwhile, BSI OTO reached 164% of its target, with a total realization of IDR 169.06 billion. This reflects the success of product integration strategies between MUF and Islamic banking services.

The most notable performance was demonstrated by MUFDana, which recorded a realization of IDR 962.86 billion or 169% of the target. This achievement highlights the effectiveness of E-CRM in improving consumer loyalty and retention through precise information delivery, responsive digital services, and easy access across multiple digital platforms.

Overall, the total realization of financing through digital channels reached IDR 1.165 trillion or 166% of the total target of IDR 702.2 billion. This reflects the success of E-CRM implementation not only in expanding market reach but also in enhancing consumer experience through efficient and strategic communication.

When analyzed through Lasswell's communication model, these achievements demonstrate the effectiveness of the "with what effect" element, resulting from the digital communication processes employed by PT MUF toward its consumers ("who says what in which channel to whom"). The selection of appropriate digital channels, the delivery of relevant messages, and the two-way interactions enabled by the E-CRM system have played a key role in these outcomes.

Digital Engagement Analysis: Social Media Insights and Chatbot Performance

E-CRM can build a positive word of mouth (WOM) for PT Mandiri Utama Finance with various strategies. First, companies can focus on testimonials or positive reviews from consumers who have used their products and services. These testimonials can be told through media such as the BSI OTO and MUF Dana websites. However, the MUF Online Autoshow (MOAS) platform still needs to be equipped with positive reviews to increase the number of users. Second, PT Mandiri Utama Finance can encourage consumers to share their experiences on website and social media platforms. This step has not been fully implemented, but it is recognized as a potential that needs to be improved. Third, companies can build a strong consumer community through online forums, social media groups, or offline community events. The customer gathering that has been held is an example of efforts to strengthen connections between consumers.

In addition, providing incentives for recommendations can be an effective way to form a positive WOM. Although it has not been done directly, PT Mandiri Utama Finance has provided incentives for cash portfolios. Companies also need to prioritize the quality of customer service by developing digital services such as virtual account payments, digital signs, and online documents. Collaboration with influencers or content creators is also an important strategy that has been carried out to increase positive WOM. Influencers with many followers can be strong messengers for the PT Mandiri Utama Finance brand. Cooperation with high-following Instagram accounts in cities where exhibitions are held has also been carried out to achieve this goal.

Based on the efforts in the implementation of E-CRM as well as efforts in forming a positive word of mouth, we can further analyze the performance of PT Mandiri Utama Finance's social media compared to other similar companies, as competitors. Some important points that must be considered include Followers & Engagement Rate. Engagement rate is a metric used to measure the level of engagement or interaction of an audience with certain content or activities in the context of social media. The engagement rate calculation is as follows:

$$Engagement\ Rate = \left(\frac{Total\ Interaksi}{Total\ Jumlah\ Pengikut\ atau\ Audiens}\right) \times 100$$

While followers are other social media accounts, in this case Instagram that follows or subscribes. Followers will receive updates on content and posts shared in their feeds and stories on Instagram. For 3 months, the following is the growth of followers on Instagram and also Facebook of PT Mandiri Utama Finance:

Table 2. Followers & Engagement Rate MUF's Social Media

Period	**Followers**	**Engagement Rate**	**Followers**	**Engagement Rate**
	Instagram		***Facebook***	
January 1, 2024	124.541	2.3%	75.881	2.1%
January 31, 2024	124.561		77.749	
February 1, 2024	124.675	2.0%	77.749	2.2%
February 31, 2024	124.780		77.821	
March 1, 2024	124.891	2.4%	77.821	2.1%
March 31, 2024	127.876		79.453	
1 April 2024	127.876	2.0%	79.453	5.3%
30 April 2024	133.937		81.742	

Source : MUF Internal Data, 2024

Based on Table 2, there is a consistent growth in the number of followers and engagement rates on PT Mandiri Utama Finance's (MUF) Instagram and Facebook accounts from January to April 2024. On Instagram, the number of followers increased from 124,541 on January 1, 2024, to 133,937 by April 30, 2024. This reflects a growth of approximately 7.5% over three months. The engagement rate on Instagram fluctuated slightly, ranging from 2.0%

to 2.4%, indicating that the audience remained actively engaged with the content shared on the platform.

On Facebook, the follower count also increased significantly, from 75,881 to 81,742 over the same period. A notable spike occurred in April 2024, when the engagement rate rose sharply to 5.3%, after remaining between 2.1% and 2.2% in the previous months. This surge likely reflects the success of a particular content campaign or digital activity that effectively captured audience interest and interaction. Overall, the data reflects MUF's effective digital engagement strategy through social media, showing not only a growing digital presence but also improved audience interaction and two-way communication.

In addition to measuring engagement rates, the social media report also includes a comparative analysis with the social media accounts of other companies within the financing industry. This comparison aims to provide a clearer picture of PT Mandiri Utama Finance's (MUF) digital positioning within the competitive landscape. The number of followers for each company from January to April 2024 is presented as follows:

Table 3. Table of Follower Count Comparison

Period	**Followers**				
	Mandiri Utama Finance (MUF)	***Adira Finance***	***Mandiri Tunas Finance (MTF)***	***FIF Finance***	***BAF Indonesia***
January 2024	124 K	78.8K	27.1K	244K	96K
February 2024	124 K	79.7K	27.3K	244K	96.5K
March 2024	127 K	79.7K	27.3K	246K	96.6K
April 2024	133 K	80.9K	27.6K	242K	96.9K

Source : MUF Internal Data, 2024

Table 3 presents a comparative overview of Instagram follower growth for five financing companies, Mandiri Utama Finance (MUF), Adira Finance, Mandiri Tunas Finance (MTF), FIF Finance, and BAF Indonesia—from January to April 2024. The data indicates that MUF consistently holds the second-highest number of followers, following FIF Finance, with its follower count increasing from 124K in January to 133K in April 2024.

This upward trend reflects the growing digital presence and engagement level of MUF on social media platforms, particularly Instagram. In the context of E-CRM implementation, these figures are crucial, as they demonstrate the strategic role of digital channels in fostering digital positive word of mouth (WOM). A larger follower base enhances the potential for wider reach and greater influence of consumer-generated content, such as testimonials, reviews, and recommendations. Through the integration of E-CRM and active management of social media, MUF is able to strengthen customer engagement, maintain ongoing interactions, and deliver personalized experiences. This, in turn, contributes to an improved brand image and increased consumer loyalty—key components of effective digital marketing and customer relationship strategies.

In line with MUF's growing digital engagement, one of the key innovations supporting its E-CRM strategy is the implementation of the MUF Online Assistant (MONA)—an AI-powered chatbot designed to enhance customer service responsiveness. MONA serves as a digital frontline that enables real-time communication with consumers, providing quick answers to frequently asked questions, assisting users through financing procedures, and offering personalized product recommendations.

Some of MONA's core services include real-time chat, broadcast messaging, automated information delivery, financing simulations, and the ability to send credit documents directly to consumers. These features greatly enhance convenience, speed, and user experience. MONA is also available across several integrated digital channels, including MUF Online Autoshow (MUF DA), MUF Dana, BSI OTO, PT Mandiri Utama Finance's official Facebook page, and the company's corporate website.

The presence of MONA across these platforms exemplifies MUF's commitment to an omnichannel communication strategy, combining both conventional and digital touchpoints. This integration not only streamlines operations but also fosters stronger engagement by meeting consumers on the platforms they are most familiar with.

Importantly, the adoption of MONA has significantly impacted consumer behavior. Prior to MONA's introduction, customer interactions were dominated by physical branch visits or the use of MUFNet, accounting for approximately 99% of total customer handling. With the current deployment of MONA, the interaction ratio has shifted to 60:40, indicating that 40% of consumer engagements are now managed through digital channels. This transition reflects a broader trend toward digital self-service preferences and underlines the role of MONA in shaping more efficient, accessible, and relationship-oriented customer experiences, ultimately contributing to the formation of positive digital word of mouth.

CONCLUSION

Research on the implementation of the *Electronic Customer Relationship Management (E-CRM)* program at PT Mandiri Utama Finance demonstrates that E-CRM significantly contributes to generating positive word of mouth among consumers. Enhancements in both operational and analytical aspects of E-CRM—such as personalized communication via MONA, improved customer service responsiveness, and integration of advanced technologies like ChatGPT—enhance customer interactions and loyalty. Efficient data management through MOBI enables targeted promotional programs based on consumer segmentation. The study also reveals that positive word of mouth depends not only on E-CRM but also on information dissemination through social and digital media, highlighting the need for marketing programs, especially those targeting millennials, to incorporate shareable testimonials. Consistent, responsive communication through E-CRM fosters strong customer relationships, improving brand image, reach, and loyalty. Therefore, PT Mandiri Utama Finance should continue investing in and enhancing E-CRM technologies as part of its marketing strategy. Future research could explore the impact of emerging AI technologies on further personalizing customer interactions within E-CRM systems and their influence on word-of-mouth dynamics across diverse consumer segments.

REFERENCES

Abbasi, M., Mohammadi, M., & Hosseini, H. (2017). The impact of customer relationship management on organizational productivity, customer trust and satisfaction using structural equation model. BMC Health Services Research, 17, 365. https://doi.org/10.1186/s12913-017-2298-5

Ahmad, K., & Zabri, S. M. (2015). Effect of customer relationship management on customer satisfaction. Procedia Economics and Finance, 23, 563–567. https://doi.org/10.1016/S2212-5671(15)00513-4

Al-Okaily, M., Al-Khatib, A. W., Mardini, G. H., & Al-Khasawneh, M. (2023). The impact of electronic customer relationship management strategies on customer loyalty: A mediated model. Journal of Open Innovation: Technology, Market, and Complexity, 9(2), 100171. https://doi.org/10.1016/j.joitmc.2023.100171

Al-Okaily, M., Alqudah, H., Al-Okaily, A., & Shiyyab, F. (2022). Evaluating electronic customer relationship management system success: The mediating role of customer satisfaction. Sustainability, 14(19), 12310. https://doi.org/10.3390/su141912310

Baltzer, P., et al. (2010). Diffusion-weighted MR imaging of the breast: A pooled analysis. Journal of Magnetic Resonance Imaging, 31(1), 49–63.

Bhatt, A., Patel, N., Sharma, D., & Trivedi, B. (2021). A social CRM analytic framework for improving customer retention, acquisition, and conversion. Technological Forecasting and Social Change, 171, 121517. https://doi.org/10.1016/j.techfore.2021.121517

Bufi, E., Belli, P., Costantini, M., Cipriani, A., Di Matteo, M., Bonatesta, A., et al. (2015). Role of the apparent diffusion coefficient in the prediction of response to neoadjuvant chemotherapy in patients with locally advanced breast cancer. Clinical Breast Cancer, 15(5), 370–380.

Costantini, M., Belli, P., Rinaldi, P., Franceschini, G., Mulè, A., Bufi, E., et al. (2010). Diffusion-weighted imaging in breast cancer: Relationship between apparent diffusion coefficient and tumour aggressiveness. Clinical Radiology, 65(12), 1005–1012.

Dorrius, M. D., et al. (2014). Effect of b value and pre-admission of contrast on diagnostic accuracy of 1.5 T breast DWI: A systematic review and meta-analysis. European Radiology, 24(11), 2835–2847.

Guyatt, G., Rennie, D., Meade, M. O., & Cook, D. J. (2011). Users' guides to the medical literature: A manual for evidence-based clinical practice (2nd ed.). McGraw-Hill.

Ikeda, D. M., et al. (2010). Breast imaging reporting and data system. In ACR BI-RADS Atlas (5th ed.). American College of Radiology.

Kim, E. J., Kim, S. H., Kang, B. J., et al. (2014). Diagnostic value of breast MRI for predicting metastatic axillary lymph nodes in breast cancer patients: Diffusion-weighted MRI and conventional MRI. Magnetic Resonance Imaging, 32, 1230–1236. https://doi.org/10.1016/j.mri.2014.07.001

Kim, J. Y., Kim, J. J., Hwangbo, L., Kang, T., & Park, H. (2019). Diffusion-weighted imaging of invasive breast cancer: Relationship to distant metastasis–free survival. Radiology, 00(0), 1–8.

Liu, Y., Zhou, C. F., & Chen, Y. W. (2006). Determinants of E-CRM in influencing customer satisfaction. In Q. Yang & G. Webb (Eds.), PRICAI 2006: Trends in artificial intelligence (pp. 773–783). Springer. https://doi.org/10.1007/978-3-540-36668-3_81

Łukasiewicz, S., Czeczelewski, M., Forma, A., Baj, J., Sitarz, R., & Stanisławek, A. (2021). Breast cancer epidemiology, risk factors, classification, prognostic markers, and current treatment strategies—An updated review. Cancers, 13(4287), 1–30.

Matsubayashi, R., et al. (2013). Comparison of cytological and histological evaluation in molecular subtypes of breast cancer: Correlation with ADC values on DWI. Journal of Magnetic Resonance Imaging, 37(5), 1434–1440.

Nilsen, L., Fangberget, A., Geier, O., Olsen, D. R., & Seierstad, T. (2010). Diffusion-weighted magnetic resonance imaging for pretreatment prediction and monitoring of treatment response of patients with locally advanced breast cancer undergoing neoadjuvant chemotherapy. Acta Oncologica, 49(3), 354–360.

Panzeri, M. M., Losio, C., Della Corte, A., Venturini, E., Ambrosi, A., Elia, S., et al. (2018). Prediction of chemoresistance in women undergoing neo-adjuvant chemotherapy for locally advanced breast cancer: Volumetric analysis of first-order textural features extracted from multiparametric MRI. Contrast Media & Molecular Imaging, 2018, 1–7.

Rahimi, R., & Kozak, M. (2017). Electronic customer relationship management, customer satisfaction, and customer loyalty: A comprehensive review study. Journal of Global Information Management, 25(3), 1–24. https://doi.org/10.4018/JGIM.2017070101

Raman, A., Bharati, M., Sharma, A., & Kumar, S. (2022). Electronic customer relationship management (E-CRM), customer experience and customer satisfaction: Evidence from the banking industry. International Journal of Bank Marketing, 40(4), 765–789. https://doi.org/10.1108/IJBM-10-2021-0234

Sharma, R., Kumar, P., & Singh, A. (2022). Electronic customer relationship management (E-CRM) and customer loyalty: The mediating role of customer satisfaction in the banking industry. International Journal of Customer Relationship Marketing and Management, 13(2), 45–67.

Sung, H., Ferlay, J., Siegel, R. L., Laversanne, M., Soerjomataram, I., & Jemal, A. (2021). Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA: A Cancer Journal for Clinicians, 71(3), 209–249.

Surov, A., et al. (2019). Can apparent diffusion coefficient (ADC) distinguish breast cancer from benign breast findings? A meta-analysis based on 13,847 lesions. BMC Cancer, 19, 955. https://doi.org/10.1186/s12885-019-6201-4

Tamura, T., et al. (2012). Comparisons of multi b-value DWI signal analysis with pathological specimen of breast cancer. Magnetic Resonance in Medicine, 68(3), 890–897.

Virostko, J., Hainline, A., Kang, H., Arlinghaus, L. R., Abramson, R. G., Barnes, S. L., et al. (2017). Dynamic contrast-enhanced magnetic resonance imaging and diffusion-weighted magnetic resonance imaging for predicting the response of locally advanced breast cancer to neoadjuvant therapy: A meta-analysis. Journal of Medical Imaging, 5(1).

Wójcik, P. (2019). Customer relationship management: Digital transformation and sustainable business model innovation. Economic Research-Ekonomska Istraživanja, 32(1), 2400–2419. https://doi.org/10.1080/1331677X.2019.1676283

Wu, L.-A., Chang, R.-F., Huang, C.-S., Lu, Y.-S., Chen, H.-H., Chen, J.-Y., et al. (2015). Evaluation of the treatment response to neoadjuvant chemotherapy in locally advanced breast cancer using combined magnetic resonance vascular maps and apparent diffusion coefficient. Journal of Magnetic Resonance Imaging, 42(6), 1407–1420.