DIJEMSS:
Dinasti International Journal of Education Management and Social Science
E-ISSN: 2686-6331
P-ISSN: 2686-6358
https://dinastipub.org/DIJEMSS dinasti.info@gmail.com +62 811 7404 455
DINASTI PUBLISHER

DOI: https://doi.org/10.38035/dijemss.v8i1
https://creativecommons.org/licenses/by/4.0/
Received: 10 September 2026 | **Revised:** 29 September 2026 | **Accepted:** 30 October 2026

Predictive Marketing Through Customer Relationship Management in Handling Customer Complaints at Regional Office IV of PDAM Makassar City

Eljihad Akbari Syukriah Mathory[1], Jecinda Chyona Salim[2]
[1]Politeknik STIA LAN Makassar, eljihad.asm@stialanmakassar.ac.id
[2]Politeknik STIA LAN Makassar, jecindaaacs18@gmail.com

Corresponding Author: eljihad.asm@stialanmakassar.ac.id[1]

Abstract: The increasing number of customer complaints at Perumda Air Minum Kota Makassar is a significant challenge in maintaining customer trust, loyalty, and retention. Various problems such as air distribution disruptions, pipe leaks, declining air quality, and air meter accounting discrepancies trigger the need for more effective and customer-oriented communication strategies. This study aims to analyze the application of predictive marketing concepts through a Customer Relationship Management (CRM) approach in improving the quality of customer complaint handling at the Regional Office IV of Perumda Air Minum Kota Makassar. The study uses a qualitative descriptive method with data collection techniques in the form of interviews, observations, documentation, and literature studies. Research informants consist of customer relations officers, public relations, social media managers, technicians, and customers. The results of the study indicate that the use of predictive marketing through promotional educational videos disseminated through social media can provide customers with a better understanding of the complaint process and the causes of water service disruptions. The implementation of CRM through two main processes, namely improving and maintaining, has been proven to strengthen the company's relationship with customers, increase trust, and maintain customer loyalty. The educational video developed received a positive response and reached thousands of viewers, becoming an effective communication tool to address customers' information needs. The research findings confirm that integrating predictive marketing and CRM can be an innovative strategy for managing customer complaints, while also supporting improvements in the quality of public services that are more responsive, transparent, and customer-oriented.

Keywords: Customer Complaints, Customer Relationship Management, Predictive Marketing

INTRODUCTION

Implications for the increasing need for clean water. The Makassar City Regional Drinking Water Company (Perumda Air Minum Kota Makassar) is present as one of the providers of clean water, but also as a provider of information services and guidance related to water issues to the community. However, in its performance, Perumda Air Minum Kota Makassar is not free from criticism from customers who submit dozens of complaints and

grievances every month. This is likely to decrease public trust as customers of Perumda Air Minum Kota Makassar. The complaints received are diverse, such as reduced or even no water supply, leaks in main pipes or installation problems, poor water quality (water pollution) which is usually caused by industrial pollution and environmental pollution, meters not rotating to soaring water bills (Perumda Air Minum Kota Makassar, 2024). The following is data on the number of complaints based on each type of complaint at the Regional Office IV of Perumda Air Minum Kota Makassar in the periods of October 2023, November 2023, December 2023, and January 2024.

Table 1. Data on The Number of Complaints

Type of Complaint	Amount per Period				Total
	October 2023	November 2023	December 2023	January 2023	
Water Not Flowing	15	9	8	17	49
Dirty and Cloudy Water	3	3	4	5	15
Pipe Leak	7	2	2	11	22
Meter Not Turning	4	1	1	3	9
Soaring Bills	1	2	1	1	5
Total Complaints	30	17	16	37	100

This data was obtained from telephone services, direct complaints at the Regional Office IV of the Makassar City Drinking Water Company, and comments on photo or video posts.accountMakassar City Drinking Water Company's Instagram social media. Makassar City Drinking Water Company strives to optimally resolve these various problems. Starting from providing information through posting educational images or videos and guides that can be accessed by the wider community on social media, to handling problems directly through observations in customer areas, however, some of these efforts have not been able to produce optimal results. One reason is because the distribution of information regarding repairs or other related notifications cannot be reached by the public. The presence of social media is expected to be able to channel a series of information regarding the repair and normalization process of water to the public. For example, by publishing videos of the observation process until repairs by the Perumda Drinking Water technician team in each region. Because based on the data on sources of complaints obtained below, it can be seen that the source of most complaints comes from social media (Andarini & Laely, 2019).

Of the total complaints received from 2023 to mid-2024, the public can make a total of 65 complaints via social media, while the total number of direct complaints is 24, and the total number of telephone complaints is 21. From the complaint data obtained, the source of the most complaints comes from social media every month. Not only complaints received on social media but also the number of customer responses to each Instagram post perumd air minum kota makassar especially on content such as videos related to information and education. This research refers to predictive marketing, a type of marketing strategy that can be used to see past customer behavior in recommending the best actions for marketing planning purposes.(Setiawan et al., 2023). Customer management as one component of predictive marketing is a concept that looks at customer behavior related to predicting customer loyalty and detecting potential customer loss.(Philip Kotler, Kartajaya Hermawan & Setiawan, 2021). This component serves as the basis for creating a more informed and effective promotional educational video concept. Regarding customer management, this research will be measured

using Customer Relationship Management, which refers to the company's processes, strategies, and technology in managing and analyzing customer interactions.(Dwi Fahira et al., 2020).

In the context of a company, marketing can literally be interpreted as a company's efforts to obtainprofit, consumer satisfaction, or consumer loyalty by providing what consumers want (Andi Wibowo, 2019). The aim of marketing is to inform customers about the products and services offered.and create megabrand products to retain loyal customers (Zulkarnaen, 2022).

Promotion means communication by providing information, persuading, influencing, and as a reminder to customers about the existence of the company, products and services, as well as customer loyalty to the product (Paramida, 2022). Types of promotion include direct promotion, which involves distributing product or service information through brochures. Digital promotion, which involves social media or websites. Physical advertising, such as posters and billboards, and other forms of promotion, such as sponsorship, which involves participating in activities or events, and influencer marketing (Andriana, 2017). Three promotional things (Rabbani, 2023). First, it informs the market about the existence of services and products, and it corrects any misconceptions about a brand. Second, it persuades customers, which is done by changing their perception of the company, enticing them to make a purchase, and thus shifting their choice of a particular brand (Ginting et al., 2020).

Promotional educational videos are useful for providing understanding and educational information to customers about the uses or benefits provided, in this case they are also able to provide awareness to the audience regarding the brand (A'lawiyyah et al., 2021). Promotional videos can not only be broadcast on TV, but also uploaded to various websites and social media, so that the topic of the video can be quickly presented to the public.(Akbari et al., nd)The three core stages in this research video are pre-production, which involves creating the script and concept, prop preparation, and budgeting. The second stage is production, which involves shooting the video, and the third stage is post-production, which involves editing the video (Fajar, 2019). Information and education in the video must be of value and benefit to customers, such as solutions to problems faced, positive experiences with the products and services being promoted (Dea Nur'afiah Ramdani & Siti Nazilah, 2024).

Customer Relationship Management or CRM, this concept is about consumer behavior at all times during every interaction, increasing the strength of the relationship through the treatment of consumers by the company (Zahra et al., 2022).The company's understanding of customer needs will have an impact on customer retention and loyalty due to improved customer and company relationships (Handijono et al., 2021). This research discusses two main processes of Customer Relationship Management, namely Enhancement or improving customer relationships, and Retain or maintaining relationships (Erlangga et al., 2020). Utilizing social media to reach a wider audience for information related to customer relationship management is called social CRM (Putu Agus Eka Pratama, 2020). With social CRM, deeper social interactions are created between companies that satisfy customers (Jakfar, 2022).

Customer data is used to understand customer needs and interests in desired products and services as well as customer responses to marketing content or messages (Degdo Suprayitno, 2023). Predictive marketing is a way to make the right marketing and media usage decisions, great accuracy in predicting customer needs leads to increased loyalty and retention (Danardatu, 2019).

And customer complaints are an opportunity for companies to receive evaluation materials to get new ideas regarding product innovation, marketing, and service (Rokhman et al., 2020). Clarifying the facts and causes of service or product inefficiencies and providing answers to all customer questions is a core part of handling customer complaints (Wirtz, 2023).

Seeing the situation at PDAM Kota Makassar related to the increasing number of customer complaints and the potential for loss of customer trust and loyalty, a marketing concept is needed that pays more attention to customer needs such as providing information related to complaints process questions and causes of water damage, and wanting a responsive

service response. Through this predictive marketing concept theory, it will be the basis of reference for determining a marketing concept that pays more attention to customer needs in order to increase customer loyalty and retention. Customer Relationship Management or CRM will be the theory in measuring the impact of this research which focuses on two main processes, namely enhance to improve relationships with customers and retain to maintain customers and increase customer loyalty (Shi et al., 2024). Through this enhance, it is expected to provide an understanding to customers regarding the orderly flow of customer complaints or detailed information on products and complaint services so that customers can receive and understand this which has an impact on improving good relations between PDAM and customers. In Retain, it is also expected to provide information and answer customer questions regarding the causes of water damage so that it becomes a form of providing responses to customer complaints and customer needs regarding the expected information, this will later increase customer trust in PDAM Kota Makassar which can retain customers. The purpose of this study is to obtain the concept of predictive marketing in customer handling relationships and to find out the concept of educational videos in an effort to retain customers and maintain customer loyalty at PDAM Makassar City.

METHODS

Research Type

This type of research uses descriptive qualitative to create descriptions of the problems to be solved in promotional strategies and produce descriptive data in the form of written or spoken words of people and observable behavior. The data sources for this research are divided into two: primary data sources in the form of data from interviews with informants and observations at the research location, and secondary data sources in the form of books, documentation studies, and documents related to the research object.

Data Collection Instrument

The data collection instrument in this study was carried out in the first way, interviews with informants, namely customer relations staff (hula), public relations, social media creative, head of public relations, head of technicians, and customers of the Regional Office IV of Perumda Air Minum Kota Makassar. Second, observation by observing the environment of the research object including office facilities, staff services, and customer behavior. Third, document studies were used to review officially written data, such as books, journals, websites, and so on related to the research. Finally, documentation was carried out by reviewing personal document data and official documents, both visual and written with the aim of visualizing this research activity as evidence that the data was actually taken at the research location and related to the research problem in the form of predictive marketing using promotional educational videos in customer complaint services at the Regional Office IV of Perumda Air Minum Kota Makassar.

Data Analysis

Data analysis was conducted through qualitative data processing, grouping data based on information obtained through data reduction. Qualitative analysis combined literature reviews, data from informants' experiences, and the reality at the research site. Conclusions and verification of the data collected and valid evidence were possible while the researcher was at the research site.

RESULTS AND DISCUSSION

In determining the idea and concept of promotional educational videos, discussions were conducted based on the results of interviews conducted with all informants regarding customer complaints, predictive marketing concepts, promotional educational videos, and

Customer Relationship Management in this study to suit the company and customer needs. This video concept will later contain educational information related to customer water problems every time they make a complaint and how the company receives and resolves these complaints to maintain customer relationships and loyalty. Concept determination is continued by creating a storyboard and shooting script that will be a reference for the production process of shooting and the content of the educational video. This promotional educational video was published on Instagram, in this case, in collaboration with the official account of the Makassar City Water Company (Perumda Air Minum Kota Makassar), the official account of the Makassar City Water Company (PDAM Kita Makassar). The educational video was viewed and played approximately 9,362 times on the social media accounts of PDAM Kita Makassar.

After publishing the educational video and conducting research to measure the impact on customers, the researcher interviewed five customers who had been interviewed prior to the work. The purpose of this interview was to measure the impact of the educational video on customer understanding of the information and to improve the good relationship between Perumda Air Minum Kota Makassar and customers as well as customer retention and loyalty during their subscription with Perumda Air Minum. The impact (outcome) in this study is that this video can provide education to customers regarding the causes of customer water problems, as well as the customer complaint process. By providing understanding to customers, this educational video can demonstrate Perumda Air Minum Kota Makassar's efforts in responding and answering questions about the causes of water damage, handling complaints, and making improvements to customer water problems, thereby creating a good relationship between customers and the company, and customer retention and loyalty (Boulding et al., 2025).

The outcome of this research is Customer Relationship Management, which focuses on two main CRM processes: Enhance and Retain. According to I Putu Agus Eka Pratama in his book entitled Customer Relationship Management (CRM), CRM consists of two main processes that are interrelated. These two processes relate to the stages a company goes through through CRM, as well as the relationship between the company and its customers. Enhance is the process by which a company strives to maintain good relationships with its customers. Second, retain involves retaining customers through quality human resource management, supported by the use of information technology (such as social media, CRM systems and applications) (Hasan et al., 2023). Companies can learn to continuously pay attention to their customers' desires, listen to their complaints, and respond to or provide solutions to these complaints. This will ensure customer loyalty to the company is maintained (Rithmaya et al., 2023).

The main process of Customer Relationship Management in this study is Enhance. According to Kalakota and Rabinson (2019), Enhance is a process to improve relationships with customers by providing various additional features that meet customer needs, such as service. The first process in this Enhance study is providing information about products and complaint services. This has been proven through the results of interviews with informants 6, 7, 8, 9, and 10, who agreed that educational information provided to customers can provide an understanding of the causes of some water damage and the complaint process for customers. Customers' understanding of the causes of water problems can reduce customer questions every time they make a complaint when damage occurs. Customers who already feel they have water damage will immediately file a complaint for repairs without asking further about the cause of the damage. Customers' understanding of the flow and process of complaints has given customers a sense of the very organized complaint process and, according to customers, it is not a short process (Fitriany & Star, 2025). Customers who are able to accept and understand this have an impact on improving the good relationship between Perumda Air Minum and customers through product information and complaint services

(Muhammad et al., 2022). This demonstrates the interaction between the Makassar City Drinking Water Company (Perumda Air Minum Kota Makassar) and customers, answering their questions when they file a complaint. Providing this information also generates feedback from customers, fostering mutual interaction. This interaction also leads to improved relations between the two parties. Customers' understanding of the complaint process and the workmanship fosters trust in the Makassar City Drinking Water Company, which in turn impacts the relationship between the customers and the company.

In line with previous research by Hasan (2023) on building CRM in one of Batam City's MSMEs, CRM enhancement in this study includes providing various additional features to address customer needs. Accepting customer input and suggestions by providing customer testimonials and comments, and maintaining communication by continuously providing sales information have successfully provided customers with a pleasant experience, thus improving relationships with existing customers and attracting new ones.

The second process in this research is Retain. According to Katakola and Robinson (2019), retain is the process of adapting the service provided by customers. This stage requires a thorough understanding of customer needs. In this research, retain is a concept of an educational video created by listening to customer complaints, providing responses, answers, and explanations to customers, which was published through the social media of Perumda Air Minum Kota Makassar and has been watched and played approximately 9,362 times by the public and customers. By showing attention to customer needs and being responsive like this, Perumda Air Minum Kota Makassar can build a deeper level of trust and increase customer loyalty. Presenting information related to the complaint process and the causes of customer water damage can provide customers with an understanding of complaints, thereby retaining Perumda Air Minum Kota Makassar customers. This can be proven through interviews conducted with six research informants who have expressed the opinion that after watching this educational video, customers can see Perumda Air Minum Kota Makassar's efforts to prioritize its customers, namely by maintaining product quality and complaint services and water repairs. With this, on the basis of increasing customer trust, customers can be sure that Perumda Air Minum will be quicker in resolving customer water problems (Nwabekee et al., 2021).

This retention process has been proven by previous research by Amalia (2023) on designing and designing CallTenant Customer Relationship Management. This is done by providing a points and rewards feature. Points that reach the target through transactions can be exchanged for rewards. This can increase customer loyalty by encouraging continued transactions due to the feature's appeal. This increased customer loyalty can retain existing customers and acquire new ones.

According to Philip Kotler (2019), customer complaint handling is an effort to handle customer complaints carefully and provide a fast and appropriate, effective response to customer complaints so as to increase customer loyalty and strengthen the brand. According to Fred Reichheld (2020), customer complaint handling is an opportunity to improve relationships with customers and turn them into loyal brand advocates. From the above opinion, it can be concluded that complaint handling is the process of responding to and resolving complaints or problems submitted by customers or other parties related to products, services, or customer experiences with a company or organization. Perumda Air Minum Kota Makassar has made many efforts to respond to and resolve customer complaints properly. All customer complaints received are always processed for improvement, but the process often does not go according to customer wishes. This causes customer complaint service at Perumda Air Minum Kota Makassar is often considered unsatisfactory.

One way to handle customer complaints is through predictive marketing (Suprayitno, 2023). Predictive marketing uses customer data, such as purchasing behavior and their responses to marketing content and messages, to help understand customer interests and

needs. The use of predictive marketing has greater accuracy in predicting customer needs, leading to increased customer retention rates and customer loyalty. In this case, predictive marketing is carried out in the form of an educational promotional video (Lasrado & Nirmala, 2024). This educational promotional video provides information to customers about the complaint process and flow at the Makassar City Drinking Water Company and the causes of each type of customer water problem. This video also serves as a form of marketing and promotion for the Makassar City Drinking Water Company, by explaining to customers about customer complaint service efforts that are often considered not resolved properly by customers (Abdelhady & Mohamed, 2025).

Regarding predictive marketing conducted in the form of educational promotional videos derived from customer behavior and customer responses to previous marketing content and messages to increase customer loyalty and retention, this study was measured using Customer Relationship Management. According to Rabinson (2021), there are key processes in CRM that are interconnected. In this case, the main CRM process becomes the target and benchmark for companies in implementing Customer Relationship Management. By maintaining good relationships with customers, listening to all criticism, suggestions, and questions and using them as material for evaluation for further action is a way to improve the good relationship between customers and Perumda Air Minum Kota Makassar. By retaining customers, both old and new, paying attention to customer desires, understanding customer needs for information and services, listening to complaints and providing solutions, Perumda Air Minum Kota Makassar customers can be retained and customer loyalty can be maintained through increased trust and customer loyalty.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

This study aims to elicit predictive marketing concepts for handling customer complaints and identify educational video concepts as a means of retaining customers and increasing customer loyalty at the Makassar City Drinking Water Company (Perumda Air Minum Kota Makassar). The results indicate that an effective predictive marketing concept in handling customer complaints is implemented through the utilization of information on customer needs and behavior, which is then translated into a communication medium in the form of promotional educational videos. This approach can provide customers with a better understanding of the complaint flow, the causes of water service disruptions, and the company's efforts to resolve them.

This study also found that educational videos developed based on Customer Relationship Management (CRM) principles contribute to improving the relationship between the company and its customers through two main processes: enhancing and retaining. In the enhancing dimension, educational videos help improve customer understanding of the service and complaint handling process, thus fostering a better relationship between customers and the company. In the retaining dimension, providing information responsive to customer needs can increase trust, retain existing customers, and strengthen customer loyalty to the Makassar City Drinking Water Company (Perumda Air Minum Kota Makassar).

Theoretically, this study contributes to the development of CRM and predictive marketing literature by demonstrating that predictive marketing can be used not only for sales and customer acquisition purposes but also as a public service communication strategy in managing customer complaints. Furthermore, this study expands the application of the CRM concept through the integration of digital educational media as a means to build customer relationships, increase retention, and strengthen customer loyalty in the regional drinking water service sector.

Practically, the results of this study provide recommendations for Perumda Air Minum Kota Makassar to increase the use of social media as a means of two-way communication with customers by disseminating educational content, providing information on service disruptions,

and responding more quickly to customer complaints. This strategy can strengthen the company's relationship with customers while increasing public trust in the services provided.

For future research, it is recommended to test the effectiveness of predictive marketing and CRM using a quantitative or mixed methods approach involving a larger number of respondents so that the relationship between predictive marketing, complaint handling quality, customer satisfaction, customer retention, and customer loyalty can be measured more objectively. Future research could also develop a conceptual model that integrates the use of social media, CRM, and customer data analytics to explain the mechanisms for increasing customer loyalty in the public service sector.

Author Contributions

Eljihad Akbari Syukriah Mathiry: Designing and designing the analysis, collecting data, contributing data or analysis tools, performing the analysis, interpreting the results, writing the paper. Jecinda Chyona Salim: Designing and designing analyses, contributing data or analysis tools, performing analyses, interpreting results, writing papers, correspondence.

REFERENCES

A'lawiyyah, I., Wibisono, N., & Hardiyanto, N. (2021). Proyek Perancangan Video Promosi sebagai Upaya untuk Meningkatkan Brand Awareness Kreuz Bike Indonesia di Instagram. *Prosiding Industrial Research Workshop and National Seminar*, *12*, 1316–1320.

Abdelhady, M. G., & Mohamed, K. A. (2025). Leveraging artificial intelligence for predictive customer churn modeling in telecommunications: a framework for enhanced customer relationship management. *Administration Madina Higher Institute of Administration and Technology*, *1*(2), 1–9.

Akbari, E., Mathory, S., & Mutia, F. (n.d.). *Promosi Program Cicilan Pemasangan Meteran Baru di Kanwil Pelayanan IV PDAM Kota Makassar Promotion of New Meter Installation Program at PDAM Makassar City Regional Service IV Office*. 238–245.

Andarini, M., & Laely, N. (2019). Pengaruh Customer Relationship Management Terhadap Keunggulan Bersaing Dalam Meningkatkan Kinerja Pemasaran Usaha Kecil Industri Makanan Di Bakorwil II Jawa Timur. *Jurnal Ilmu-Ilmu Ekonom*, *12*(2), 24–41.

Andi Wibowo, R. (2019). *Manajemen Pemasaran* (R. Andi Wibowo (ed.); 1st ed.). Andi Wibowo, Radna.

Andriana, A. D. (2017). Penentuan Jenis Promosi Menggunakan Pendekatan Customer Relationship Management (Crm). *Majalah Ilmiah UNIKOM*, *15*(2), 239–246. https://doi.org/10.34010/miu.v15i2.563

Boulding, W., Staelin, R., Ehret, M., Johnston, W. J., Berry, L., Deighton, J., Ehret, M., Grönroos, C., Gupta, S., Kamakura, W., Johnston, W., Lehmann, D. R., Mason, C., Mela, C., & Neslin, S. (2025). A Customer Relationship Management Roadmap: What Is Known, Potential Pitfalls, and Where to Go. *Journal of Marketing*, *69*(10), 155–166.

Danardatu, A. H. (2019). Pengenalan Customer Relationship Management (CRM). *Jurnal Ilmiah Teknologi Informasi Asia*, 1–5.

Dea Nur'afiah Ramdani, & Siti Nazilah. (2024). Pembuatan Video Promosi Fakultas Teknik Universitas Suryakancana. *IKRA-ITH Informatika : Jurnal Komputer Dan Informatika*, *8*(1), 79–90. https://doi.org/10.37817/ikraith-informatika.v8i1.3095

Degdo Suprayitno, N. D. I. (2023). *Manajemen Pemasaran: Teori dan Strategi* (S. Sepriano (ed.); 1st ed.). PT. Green Pustaka Indonesia.

Dwi Fahira, H., Furqani, H., & Evriyenni, E. (2020). Pengaruh Customer Relationship Management Terhadap Loyalitas Nasabah Bni Syariah Banda Aceh. *Jurnal Ilmiah Mahasiswa Ekonomi Dan Bisnis Islam*, *1*(2), 21–31. https://doi.org/10.22373/jimebis.v1i2.128

Erlangga, E., P, T. H., & Umbara, F. R. (2020). Pembangunan Customer Relationship Management (CRM) Pada Bale Seni Barli Kota Baru Parahyangan. *Seminar Nasional Teknologi Komputer & Sains (SAINTEKS)*, 104–107.

Fajar, I. (2019). Perancangan Video Promosi Ombewok. 42–40, *549*, מים והשקייה.

Fitriany, & Star, Y. (2025). Implementasi Customer Relationship Management (CRM) dalam Strategi Pemasaran UMKM Berbasis Digital. *MAMEN (Jurnal Manajemen)*, *4*(4), 805–817. https://doi.org/10.55123/mamen.v4i4.6490

Ginting, A. P., Giantari, I. G. A. K., & Sudiksa, I. B. (2020). Peran Keunggulan Bersaing Dalam Memediasi Customer Relationship Management Terhadap Kinerja Pemasaran. *E-Jurnal Manajemen*, *9*(2), 508–527.

Handijono, A., Gunarto, R. I., & Marpitasa, S. (2021). Menjaga Loyalitas Pelanggan Dengan Strategi Crm Pada Pt. Desalite, Pamulang. *RESWARA: Jurnal Pengabdian Kepada Masyarakat*, *2*(1), 64–71. https://doi.org/10.46576/rjpkm.v2i1.912

Hasan, G., Si, M., Lim, J., Fernandes, N., & Eddison, T. (2023). Dampak Customer Relationship Management (CRM) Terhadap Kinerja Perusahaan di Tiga Segmen (Keuangan , Pemasaran dan Operasional). *Jurnal Minfo Polgan*, *12*(2), 453–460.

Jakfar, A. (2022). Traditional CRM vs Social CRM: Mengapa Harus Social CRM? *Http://Utidi.Com/Downloads/Ahmad_Jakfar_Traditional_CRM_vs_Social_CRM.Pdf*.

Lasrado, J., & Nirmala, C. (2024). A Study on Use of Predictive Analytics in Customer Relationship Management in Insurance Sector. *International Conference on New Age Marketing*, 1–6.

Muhammad, F., Fitri, I., & Nuraini, R. (2022). Implementasi Customer Relationship Management (CRM) pada Sistem Informasi Pemasaran dengan Menggunakan Framework React.JS Berbasis Website. *Jurnal JTIK (Jurnal Teknologi Informasi Dan Komunikasi)*, *6*(1), 93–101.

Nehme, A. A. (2026). Predictive Marketing: From Data Analytics to Reading Customer Intentions Before They Think : (An Analytical Study of Kkalci Mobile Manufacturing Company). *Indonesian Journal of Public Policy Review*, *27*(1), 50–65. https://doi.org/10.21070/ijppr.v27i1.1470

Nwabekee, U. S., Aniebonam, E. E., Elumilade, O. O., & Ogunsola, O. Y. (2021). Predictive Model for Enhancing Long-Term Customer Relationships and Profitability in Retail and Service-Based. *International Journal of Multidisciplinary Research and Growth Evaluation*, *2*(1), 860–870.

Paramida, T. P. (2022). Analisis Strategi Promosi Dalam Meningkatkan Penjualan Spam. *Study Kasus Pada Perumda Air Minum Way Rilau Kota Bandar Lampung*, *2*(8.5.2017), 2003–2005.

Philip Kotler, Kartajaya Hermawan & Setiawan, I. (2021). *Kemanusiaan), Marketing 5.0 (Teknologi untuk*.

Putu Agus Eka Pratama, I. (2020). *Customer Relationship Management (CRM) Teori dan Praktek Berbasis Open Source* (1st ed.). BI-Obses.

Rabbani, D. (2023). *Komunikasi Pemasaran* (D. D. M. S. M (ed.); 1st ed.). Debi Eka Putri, S.E., M.M.

Rithmaya, C. L., Kholid, I., & Tianto, R. (2023). Customer Relationship Management melalui Orientasi Pasar dan Inovasi Organisasi untuk Meningkatkan Kinerja Pemasaran Bisnis Online. *Jurnal Samudra Ekonomi Dan Bisnis*, *14*(28), 88–99. https://doi.org/10.33059/jseb.

Rokhman, O., Ningsih, A. N., Augia, T., Dahlan, H., Rosyada, Amrina, Putri, Dini Arista, Fajar, N. A., Yuniarti, E., Vinnata, N. N., Pujiwidodo, D., Ju, J., Wei, S. J., Savira, F., Suharsono, Y., Aragão, R., Linsi, L., Editor, B., Reeger, U., Sievers, W., Michalopoulou, C., Mimis, A., … Devita, M. (2020). Responsivitas Pelayanan Publik

Dalam Menangani Keluhan Pelanggan Di Perusahaan Daerah Air Minum (Pdam) Kabupaten Nganjuk. *Jurnal Berkala Epidemiologi*, *5*(1), 90–96.

Setiawan, Z., Erwin, E., Purwoko, P., Amaral, M. A. L., & Sari, A. (2023). Manajemen Pemasaran. In *Sonpedia Publishing Indonesia*.

Shi, X., Zhang, Y., Yu, M., & Zhang, L. (2024). Revolutionizing market surveillance : customer relationship management with machine learning. *PeerJ Computer Science*, *2*(3), 1–34. https://doi.org/10.7717/peerj-cs.2583

Suprayitno, N. D. (2023). *Manajemen Pemasaran: Teori dan Strategi* (S. Sepriano (ed.); 1st ed.). PT. Green Pustaka Indonesia.

Wirtz, J. & lovelock. (2023). *Services Marketing* (8th ed.).

Zahra, F., Sukoco, I., Auliana, L., & Barkah, C. (2022). Komunikasi Efektif Dalam Membangun Strategi Customer Relationship Management. *GANDIWA Jurnal Komunikasi*, *2*(1), 41–49. https://doi.org/10.30998/g.v2i1.1074

Zulkarnaen, F. (2022). Analisis Kualitas Produk Terhadap Kepuasaan Pelanggan Pdam Tirta Patriot Bekasi (Studi Kasus Pada Perumahan Villa Indah Permai Wilayah Bekasi Utara). *Jurnal FEB UNPAK*, *5*(24).