RFM Segmentation Analysis as the Base of The Company Marketing Strategy: Case Study of Medical Device Company PT. Abc

Marc Giulio Richard¹, Jerry Heikal²

^{1,2}Master Of Business Administration Program, Central Queensland University, Jakarta, Indonesia

Marc.Giulio.Richard.Sahuleka@Gmail.Com¹, Jerry.Heikal@Bakrie.Ac.Id²

Article History:

Received: 30 Oktober 2024 Revised: 08 Desember 2024 Accepted: 15 Desember 2024

Keywords: Customer Segmentation, Rfm Analysis, Medical Device, Recency, Frequency, Monetary. Abstract: Medical Device **Companies** Plav Significant Roles As Partners For Healthcare Institutions Such As Hospitals, Clinics. Laboratories. They Are Crucial In Helping And Supporting Healthcare Institutions Improving The Quality Of Life Of The Human Population In Modern Times. In The Field Of Marketing, Medical Device Companies Face Increasing Challenge In Sales Performance And Profits Pressure, As Well As Maintaining Customer Loyalty. Medical Device Customers Usually Decide Purchases Influenced Not Only By The Selling Price, But Also By The Quality Of The Product, The Compatibility With Other Brands, The Ease Of Use, The After Sales Service, And Many Other Factors. Based On These Conditions, Medical Device Purchasing Patterns In Indonesia Become Unpredictable, And It Is Difficult To Increase Sales And Profits. One Effort That Medical Device Business Players Can Make Is To Carry Out Sales Promotions Based On Customer Segmentation. Customer Segmentation In Medical Device Companies Can Be Done Using Customer Segmentation Methods, Such As Recency Frequency Monetary (Rfm) Analysis. This Method Allows Companies To Group Customers Based On Purchasing Patterns Of The Medical Device Products, Thereby Allowing Companies To Prioritize Time, Energy, And Resources Into Each Different Correctly Segment AndStrategically. Segmentation Results Found Eight Customer Segments Of Pt Abc: Vip, Loyal, New Potential, Potential Vip, At Risk Customer, Lost Gold, Dormant Customer, Non-Core. Proposed Strategies Include Personalized Promotions For Different Customer Segments, Such As Promoting Vip & Loyal Customers In Pt Abs's Social Media, Offer Bundled

ISSN: 2828-5271 (online)

Pricing To New Potential And Potential Vip Customers, And Launch a New Economical Product For Dormant Customers, Lost Gold, And At-Risk Customers. These Strategies Aim To Enhance Customer Engagement, Loyalty, And Satisfaction Through Segmented Marketing And Personalized Promotions.

Introduction

The Medical Device Industry Is a Unique And Complex Sector, With Aggressive Competition And Rapid Advancements. Companies Must Navigate An Evolving Landscape Characterized By Frequent Regulatory Updates On Safety And Security. Alongside These Challenges, They Face a Diverse Array Of Competitors Offering Varying Prices, Quality, Technologies, And Promotional Strategies.

In This Increasingly Competitive Environment, The Customer-Focused Relationship Marketing Is Truly Important. Organizations Like Pt Abc Stand To Gain Significantly By Fostering Strong Customer Loyalty. When Customers Feel Valued And Understood, They Are More Likely To Make Repeat Purchases, Which Directly Contributes To Increased Revenue And Overall Financial Growth.

Building Lasting Relationships With Customers Requires a Strategic Approach That Prioritizes Their Needs And Preferences. By Engaging In Meaningful Interactions, Actively Seeking Feedback, And Tailoring Services To Meet Individual Expectations, Companies Can Create a Sense Of Partnership With Their Clients. This Not Only Enhances Customer Satisfaction But Also Encourages Brand Loyalty, Which Is Essential In a Market Where Customers Have Numerous Choices.

Moreover, a Loyal Customer Base Can Serve As a Powerful Marketing Tool. Satisfied Customers Are More Likely To Recommend Products To Others, Amplifying Brand Visibility And Reputation Through Word-Of-Mouth. In a Field Where Trust And Reliability Are Paramount,

This Organic Promotion Can Significantly Impact a Company's Success.

As The Medical Device Industry Continues To Evolve, Companies Must Embrace Customer Relationship Marketing As An Important Strategy. By Investing In Customer Loyalty, Businesses Like Pt Abc Can Differentiate Themselves In a Crowded Marketplace, Ultimately Leading

To Greater Market Share And Financial Stability.

To Achieve This, It's Essential To Understand The Distinction Between Customer Satisfaction And Customer Loyalty. Satisfaction Is An Emotional Response To a Service Or Product, While Loyalty Manifests As Repeat Behaviour. Therefore, a Company Must Not Only Meet Customer Expectations But Also Create An Engaging Experience That Encourages Ongoing Relationships. There Are Some Strategies That Can Be Implemented By Pt Abc For Enhancing Customer Loyalty In The Medical Device Sector: Providing Exceptional Service Including Responsive Support, Timely Delivery, And Comprehensive Training On Products; Building Direct Relationships Through Regular Communication, Feedback Mechanisms, And Personalized Outreach; Offering Educational Resources, Seminar, Workshops, Or Training Sessions; Actively Seeking And Acting On Customer Feedback To Show That The Pt Abc Values The Customers' Opinions; Implementing Reward Systems For Repeat Purchases To Incentivize Ongoing Business And Demonstrate Appreciation For Customer Loyalty.

By Focusing On These Strategies, Pt Abc Can Enhance Customer Loyalty, Which Is Likely To Lead To Increased Sales And Improved Campaign Effectiveness, Ultimately Supporting

The Company's Financial Growth.

When Customers Perceive That a Company's Services Align With Their Expectations, It Fosters a Sense Of Satisfaction And Loyalty, Essential For Survival In a Crowded Landscape. Therefore, Implementing Effective Methodologies To Assess Customer Loyalty Is Paramount. By Understanding And Categorizing Customers Based On Their Loyalty Levels, Companies Can Tailor Their Marketing Campaigns To Better Meet The Diverse Needs Of Their Clientele.

Customers Often Face Numerous Choices, Which Can Complicate The Relationship Between Them And The Company. Businesses Can Segment Their Customer Base Into Two Primary Categories: Those That Generate Substantial Profits And Those Who Make Specific Requests Or Demands. This Segmentation Allows Companies To Allocate Resources Effectively And Devise Strategies That Cater To Each Group's Unique Needs. For Instance, High-Profit Customers May Require Personalized Services Or Exclusive Offers, While Those With Specific Requests Might Benefit From Improved Customer Support And Product Information.

Two Key Factors Significantly Influence Customer Satisfaction: Service Quality And Pricing. Service Quality Encompasses Various Elements, Including The Expected Level Of Service And The Actual Service Delivered. When a Company Consistently Meets Or Exceeds Customer Expectations, It Creates Positive Associations That Enhance Its Reputation. Conversely,

If Customers Feel That The Service Provided Falls Short Of What They Anticipated, It Can Lead

To Negative Perceptions And Diminish Loyalty.

In The Modern Era, Technology Plays a Vital Role In Enhancing Customer Satisfaction And Fostering Loyalty. Advanced Tools And Platforms Enable Businesses To Analyze Customer Interactions, Preferences, And Behaviors Effectively. One Such Tool Is The Recency, Frequency, And Monetary (Rfm) Model, a Powerful Marketing Strategy Used To Evaluate Customer Activity. Rfm Analyzes Three Key Metrics:

- Recency: How Recently a Customer Made a Purchase.
- Frequency: How Often The Customer Makes Purchases Over a Specified Period.
- Monetary: The Total Amount Of Money The Customer Has Spent.

By Leveraging Rfm Analysis, Companies Can Gain Valuable Insights Into Their Customer Base, Allowing For More Targeted Marketing Efforts. For Example, Customers Who Have Made Recent Purchases And Frequently Engage With The Brand May Be Identified As Loyal Advocates, Making Them Ideal Targets For Upselling Or Loyalty Programs. Conversely, Those With Infrequent Purchases May Require Re-Engagement Strategies To Encourage Repeat Business.

Moreover, Technology Facilitates Improved Communication Channels, Enabling Businesses To Interact With Customers Through Various Platforms. This Not Only Enhances The Overall Customer Experience But Also Allows For Real-Time Feedback, Which Is Crucial For Continuous Improvement. By Actively Listening To Customer Input, Companies Can Adapt Their Offerings And Services To Better Meet Evolving Expectations.

The Intersection Of Service Quality, Pricing, And Technology Is Vital For Cultivating Customer Loyalty In a Competitive Market. Companies That Effectively Analyze Customer Behaviors Through Methodologies Like Rfm Analysis Can Tailor Their Marketing Strategies To Build Strong, Lasting Relationships With Their Clients. By Prioritizing Customer Satisfaction And Leveraging Modern Technological Tools, Businesses Can Not Only Meet But Exceed Customer Expectations, Ultimately Driving Growth And Success In Their Respective Industries.

......

The Objective Of This Research Is To Provide Customer Segmentation Analysis Using The Rfm Model And To Give Recommendation On The Personalized Marketing Strategies For Each Segment To Enhance The Revenue Of Pt Abc.

Methods Rfm Analysis

Arthur Huges Was a Pioneer In Introducing The Rfm Model Which Has Been Widely Used In The Manufacturing, Retail, And Service Industries. The Use Of a Crm Model Is Used To Measure The Probability Of Customer Value. According To Kumar And Reinartz (2012), The Rfm Methodology Is Based On Recency, Frequency, And Monetary Value. This Technique Uses 3 Metrics To Evaluate Customer Behaviour And Customer Value. Rfm Techniques Help Organizations Significantly, Not Only In Identifying And Targeting Valuable Customers With Very High Transaction Opportunities, But Also In Campaign Effectiveness For Customers With Lower Transaction Opportunities. The Limitation Of Rfm Is That Rfm Techniques Can Only Be Applied To Customers With Available Historical Data And Not To Lead Data. The Rfm Technique Is Based On Three Customer Attributes Which Include Recency Of Purchase, Frequency Of Purchase, And Monetary Value Of Purchase. Can Be Interpreted As Follows: Recency Is a Measure Of How Long The Last Transaction Occurred In The Customer. Frequency Is a Measure Of How Often Customers Make Certain Transactions At The Company During a Certain Period. Monetary Value Is a Measure Of How Big The Volume Of Customer Transactions Is In a Certain Period. The General Idea Of Rfm Is To Classify Customers Based On Their Rfm Group Resulting From Their Transaction Behaviour. The Concept Of Rfm Consists Of Three-Dimensional Aspects: Recency, Which Is Research Conducted Over The Years With a Statistical Display That Can Show That Customer Transactions That Has Been Carried Out Recently Will Carry Out Transactions Shortly. Frequency, Which Shows That Customers Regularly Make Purchases And Will Make These Purchases At a Later Date. Monetary Value i.e. Customers Distribute Materials (Funds) To Make Purchases Through a Site.

The Recency Frequency Monetary (Rfm) Model Is An Old Method That Has Been Used For a Long Time And Is Very Popular In Its Application To Measure The Relationship Built With Customers By Making Estimates Using a Database. Rfm Is An Internal Model That Can Be Implemented In The Field Of Marketing Because There Is a History Of Purchases And Consumer Browsing. The Implementation Can Be Seen From The Initial Customer Grouping Resulting In 27 Groups That Are Divided Based On Their Rfm Scores. Each Customer Is Assigned a Corresponding Code. Each Customer Has An R, F, And M Value That May Be Higher Or Lower Than The Average R, F, And M Values For All Clients. Customers Are Coded 3 (For High), 2 (For Medium), And 1 (For Low) For Their Rfm, And So On For All Customers. Furthermore, From The Discriminant Analysis Obtained That The Resulting Group Can Be Used To Differentiate Customers. The Purpose Of Using The Rfm Score Is To Predict Customer Behaviours In The Future. Therefore, Medical Device Companies Need To Translate Customer Behaviours Into Numerical Status So That It Can Be Used For Measuring Customer Loyalty.

In The Rfm Analysis Process, The First Step Is To Collect Customer Transaction Data, Including Transaction Timestamps, Purchase Frequency, And Transaction Values. For Each Customer, Recency, Frequency, And Monetary Values Are Then Calculated Based On This Data.

These Values Provide a Comprehensive Overview Of How Active And Valuable Each Customer Is To The Business.

The Clustering Process Results In Customer Segments Exhibiting Similar Purchasing Patterns. For Instance, a Cluster Of Customers With High Recency, Low Frequency, And Low Monetary Values Might Indicate Recently Engaged But Infrequent And Low-Spending Customers. Understanding The Characteristics Of Each Customer Segment Enables Businesses To Take Specific Actions To Meet The Needs And Preferences Of Each Group. This Allows Companies To Design More Targeted Marketing Strategies, Create More Relevant Offers, And Enhance Customer Retention By Providing Personalized And Meaningful Experiences. Therefore, The Combination Of Rfm Analysis And Clustering Provides a Holistic And Structured Approach To Understanding And Responding To The Unique Behaviours Of Customers. It Enables Companies To More Effectively Allocate Their Marketing Resources And Improve Overall Customer Value.

Research Workflow

The Research Process Is Methodically Structured, Commencing With Data Preparation. This Step Involves Filtering 759 Transactions From 85 Institutions, Covering The Period From January 1st, 2023, To September 30th, 2024. Following This Is The Data Pre-Processing Phase, During Which The Data Is Initialized And Entered Into The System.

Next, The Data Processing Stage Incorporates Recency, Frequency, And Monetary (Rfm) Analysis To Study The Data. This Rigorous Analysis Leads To The Segmentation Phase, Where The Data Is Categorized Into Eight Distinct Segments.

These Segmentation Results Are Then Methodically Examined, Enabling The Formulation Of Targeted Marketing Strategies For Each Segment. The Process Wraps Up With a Final Evaluation And Recommendation Phase, Effectively Concluding The Analysis.

This Methodical Approach Ensures a Comprehensive And Thorough Analysis, Providing Clear Insights And Actionable Strategies Based On The Categorized Data Segments.

Results

This Research Employs Rfm Analysis, Utilizing Data From 759 Transactions Involving One Specific Consumable Product Across 85 Institutions From January 1, 2023, To September 30, 2024, At Pt Abc. The Dataset Includes Both Customer Profile Information And Transaction Types Sourced From Pt Abc's Sales And Accounting System.

Through The Rfm Analysis, We Can Determine The Final Segmentation Of Customers According To Three Key Metrics: Recency, Frequency, And Monetary Value Of Their Transactions. Each Customer's Information Is Analysed To Classify Them Into Distinct Groups, Allowing For a More Comprehensive Understanding Of Customer Engagement And Purchasing Patterns. The Results Of This Analysis Are Presented In Table 1 Below, Which Outlines The Segmentation Outcomes.

Customers Have Been Categorized Into Eight Unique Groups Based On The Above-Mentioned Parameters. This Segmentation Provides Valuable Insights Into Customer Behaviour, Helping Pt Abc Identify Which Segments Are Most Engaged, Which Are At Risk Of Churning, And Which May Need Additional Nurturing To Enhance Loyalty. By Understanding These Dynamics, Pt Abc Can Tailor Its Marketing Strategies And Operational Approaches To Better Meet The Needs Of Each Segment. This Targeted Approach Not Only Enhances Customer Satisfaction But Also Drives Sustainable Growth By Fostering Deeper Relationships With

J-CEKI : Jurnal Cendekia Ilmiah Vol.4. No.1. Desember 2024

Customers Across Various Segments. Overall, The Rfm Analysis Serves As a Foundational Tool For Strategic Decision-Making, Enabling Pt Abc To Optimize Its Marketing Efforts And Improve Overall Business Performance.

| Recency Score | | | Monetary Score | | | Total |
|---------------|--------------------|---|----------------|----|----|-------|
| | | | 1 | 2 | 3 | |
| 1 | Frequency Score | 1 | 4 | 5 | 5 | 14 |
| | | 2 | 1 | 2 | 2 | 5 |
| | | 3 | 3 | 3 | 3 | 9 |
| | Total | | 8 | 10 | 10 | 28 |
| 2 | Frequency Score | 1 | 4 | 5 | 4 | 13 |
| | | 2 | 2 | 3 | 2 | 7 |
| | | 3 | 3 | 3 | 3 | 9 |
| | Total | | 9 | 11 | 9 | 29 |
| 3 | Frequency Score | 1 | 3 | 3 | 3 | 9 |
| | | 2 | 3 | 3 | 3 | 9 |
| | | 3 | 3 | 4 | 3 | 10 |
| | Total | | 9 | 10 | 9 | 28 |

| | 1 | |
|------------------|-----|-------|
| Group Name | Qty | % |
| Lost Gold | 13 | 15,3% |
| Dormant Customer | 10 | 12% |
| Non-Core | 5 | 6% |
| | | |
| Potential Vip | 15 | 18% |
| At-Risk Customer | 14 | 16% |
| | | |
| | | |
| Vip | 13 | 15% |
| Loyal | 6 | 7% |
| New Potential | 9 | 11% |
| | | |

Table 1. Rfm Segmentation Results

The Customer Segmentation Based Rfm Analysis Is Indeed a Vital Part Of The Strategy For Pt Abc To Enhance Its Marketing Efforts And Improve Customer Satisfaction. By Leveraging The Insights Gained From This Segmentation Model, Pt Abc Can Develop Targeted Marketing Campaigns, Optimize Its Coverage Area, And Create a More Personalized Promotion For Its Customers. Based On The Rfm Analysis Results, The Detailed Information About Each Segment Are As Follows:

- 1. Vip (Rfm Score: 333, 332, 331, 323) & Loyal (Rfm Score: 331, 322)
 In These Segments, Most Of The Customers Are Long-Term Customers Which Buy Various Products From Pt Abc. They Are Comfortable With The Relationship Throughout The Years With Pt Abc.
- 2. New Potential (Rfm Score: 321, 312, 311), Potential Vip (Rfm Score: 233, 232, 231, 223, 213)
 - Some Customers In These Segments Are New Buyers With High Chance Of Bringing Good Business, But Some Of Them Are Long-Term Customers Has Good Relationship With Pt Abc, But Just Recently Buy The Observed Product.
- 3. At-Risk Customers (Rfm Score: 222, 221, 212, 211), Lost Gold (Rfm Score: 133, 132, 123, 113) And Dormant Customer (Rfm Score: 131, 122, 121)

 These Three Segments Are a Bit Similar To Some Extent. Some Customers Are Actually Long-Term Customers, But Due To Price Pressure Now Buy Cheaper Products From

Competitors. Other Customers On This Segment Routinely Buy Competitor's Product, But If Competitor's Stock Is Not Enough, They Buy From Pt Abc.

4. Non-Core Customers (Rfm Score: 121, 111)
These Customers Are Just One-Time Buyer And With Little Business Opportunity.

By Leveraging Insights From Each Customer Segment, Pt Abc Can Develop Customized Marketing Strategies That Effectively Engage Each Group. These Strategies Are Designed To Nurture Potential Customers, Facilitating Their Progression Through The Sales Funnel. For Existing Customers, The Focus Shifts Toward Retention, Ensuring They Remain Satisfied And Connected With The Brand. Another Key Goal Is To Enhance Customer Loyalty, Deepening Relationships To Encourage Repeat Purchases. By Addressing The Distinct Needs And Preferences Of Each Segment, Pt Abc Can Craft More Personalized And Impactful Marketing Campaigns. This Approach Not Only Nurtures Potential Leads But Also Reinforces Connections With Current Customers, Ultimately Driving Increased Purchases And Promoting Sustainable Growth.

By Prioritizing These Tailored Strategies, Pt Abc Positions Itself To Better Meet Customer Expectations And Adapt To Market Demands, Creating a Cycle Of Engagement That Benefits Both The Company And Its Customer. The Suggested Strategies For Each Group Are As Follows:

- 1. Vip (Rfm Score: 333, 332, 331, 323) & Loyal (Rfm Score: 331, 322)
 - Show Appreciation By Awarding Title Like "Platinum Customer" Annually For Selected Category
 - Promoting The Hospital/Clinic And Its Healthcare Service In Pt Abc's Social Media
 - Arrange a Clinical Education Event Or Seminar In The Selected Vip Hospitals And Invite Nearby Hospitals To Attend The Seminar
 - Request Chosen Customers To Provide a Testimonial Or Demonstration About Usage Of The Product
- 2. New Potential (Rfm Score: 321, 312, 311), Potential Vip (Rfm Score: 233, 232, 231, 223, 213)
 - Up-Sell By Offering The Higher-Priced Types, And Cross-Sell By Offering Other Pt Abc's Products
 - Keep In Touch With The Customers By Email Or Whatsapp Message To Closely Monitor If The Customers Still Have Enough Stock
 - Offer Package/Bundled Pricing To Attract Customer To Buy In Big Quantity
- 3. At-Risk Customers (Rfm Score: 222, 221, 212, 211), Lost Gold (Rfm Score: 133, 132, 123, 113) And Dormant Customer (Rfm Score: 131, 122, 121)
 - a. Regain Customers' Trust By Visiting And Meeting Them To Show Attention And To Make Them Feel That Pt Abc Care About Them
 - b. Launch a New Product Which Is More Economical To Attract The Customers
 - c. Routinely Gather Feedback About The Product Quality, Product Price, And The Overall Service From Pt Abc
- 4. Non-Core Customers (Rfm Score 121, 111)
 - a. No Marketing Activities Needed.

This Detailed Marketing Strategy Is Designed To Boost Customer Satisfaction, Retain At-Risk Customers, And Reactivate Those Who Have Become Dormant. The Emphasis Is On Fostering Long-Term Customer Loyalty, Which Is Essential For Achieving Sustainable Growth,

J-CEKI : Jurnal Cendekia Ilmiah Vol.4, No.1, Desember 2024

Particularly In Competitive Industries Such As The Medical Device Sector. By Targeting These Three Critical Customer Segments—Long-Term, At-Risk, And Dormant—Pt Abc Can Enhance Its Market Presence, Generate Steady Revenue, And Ensure Continued Success In a Changing Industry Landscape. This Approach Not Only Aims To Meet Immediate Needs But Also To Build Lasting Relationships That Contribute To Ongoing Business Stability. In Doing So, Pt Abc Positions Itself To Navigate Challenges Effectively And Capitalize On Opportunities For Expansion. Overall, The Strategy Underscores The Importance Of Understanding Customer Dynamics And Tailoring Efforts To Engage With Each Segment, Ultimately Creating a More Resilient And Successful Business Model.

Conclusion

Generally, This Study Successfully Applied Rfm (Recency, Frequency, And Monetary) Analysis To Determine The Behaviour Of Pt Abc's Customers. From The Rfm Analysis Results, The Author Identified Eight Customer Groups: Vip, Loyal, New Potential, Potential Vip, At-Risk Customer, Lost Gold, Dormant Customer, And Non-Core. Based On These Eight Groups, The Author Recommends a Personalized Marketing Promotion Strategy For Each Segment.

Based On The Customer Segmentation Drawn From The Rfm (Recency, Frequency, And Monetary) Analysis, This Study Suggests Several Strategic Steps For Pt Abc To Develop a More Effective Digital Marketing Strategy. These Strategic Recommendations Require Efforts To Embrace Potential Customers, Retain Those At Risk Of Leaving, And Enhance Loyalty To Increase Purchases. The Suggestions Emphasize The Importance Of Focusing On Customer Segmentation, Personalized Digital Promotions, Targeted Interaction And Communication, As Well As Continuous Efforts To Strengthen Customer Loyalty Through Ongoing Evaluation And Adjustment Of Strategies. It Is Expected That These Initiatives Will Assist Pt Abc In Enhancing Customer Retention, Expanding Market Share, And Boosting Revenue Through More Targeted Marketing Strategies.

References

- Heikal, J., Rialialie, V., Rivelino, D., Supriyono, I.A. (2022). *Hybrid Model Of Structural Equation Modeling Pls And Rfm (Recency, Frequency And Monetary) Model To Improve Bank Average Balance*. Aptisi Transactions On Technopreneurship (Att), 4(1), 1-8.
- Aldyah, T., Sugiono, A., Muzakkar, M., Heikal, J. (2024). *Rfm Segmentation Analysis For Determine Online Marketing Strategy: The Soul Coffee Mate Case Study*. Budgeting: Journal Of Business, Management, And Accounting, 5(2), 797-807.
- Passalaras, R. A., Daulay, R. Y., Heikal, J. (2024). Segmentation Strategy Of Consumer Interest In Contemporary Coffee Shop Using Rfm Model. Budgeting: Journal Of Business, Management, And Accounting, 5(2), 741-756.
- Pradina, D. A., Kurniawati, Y., Afwan, A. S., Heikal, J. (2024). *Rfm Segmentation And K–Means Clustering Of Skincare Product (Case Study Scarlett)*. Jurnal Sains Dan Teknologi, 6(2), 213-216.
- Azwar, A., Azwar T., Heikal, J. (2024). Customer Loyalty Segmentation With Rfm Model At "Abc" Mart. Jurnal Ekonomika Dan Bisnis (Jebs), 4(1), 43-45.
- Nisa, K., Heikal, J. (2022). Strategi Segmentasi Pelanggan Manja Beauty Skincare Dengan Menggunakan Analisa Rfm Model. Jurnal Mahasiswa Teknik Informatika, 6(1), 348-351.
- Wulansari, S. Heikal, J. (2024). Analysis Of Customer Segmentation In The Top Three Most Visited E-Commerce Platforms In Indonesia In 2023 Using Rfm Model And Clustering Techniques. Jurnal Scientia, 13(3), 1164-1174.

- Devi, R. F., Siswanto, F. H., Azkia, N., Heikal, J. (2024). Customer Segmentation Based On Rfm Analysis As The Basis Of Marketing Strategy Case Study Of Pt Pertiwi Agung Pharmaceutical Industry (Landson). Budgeting: Journal Of Business, Management, And Accounting, 5(2), 766-774.
- Arthanugraha, A., Azzuhri, M. B., Ramadhan, Y. W., Heikal, J. (2024). Customer Segmentation Of Pabuaran Store On Shopee E-Commerce Using Rfm Model Analysis (Case Study Of H&M Brand Sales Products). Budgeting: Journal Of Business, Management, And Accounting: Journal Of Business, Management, And Accounting, 5(2), 829-834.
- Nugroho, A. S., Saputro, A., Suhardi, F. A., Heikal, J. (2024). *Digital Marketing Analysis Of Mie Gacoan Customer At Jakarta Using Rfm And K-Means Clustering Methode*. Dinamika Kreatif Manajemen Strategis, 6(1), 223-240.

......