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OPTIMIZING CUSTOMER RELATIONSHIPS: LEVERAGING THE WEIGHTED SUM MODEL IN CRM STRATEGIES

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Abstract.
Customer Relationship Management (CRM) is Current and potential with customers contacts and to manage relationships businesses use a strategic approach. Customer data to analyze, their needs to understand, products accordingly or services technology to create and processes and improving systems this includes customer centralizing information by, email, phone calls, social media and face-to-face meetings various touch like connect the dots crm to monitor systems enable businesses. This comprehensive view helps in identifying patterns, preferences, and opportunities for personalized engagement. CRM facilitates effective communication, streamlines sales and marketing efforts, and ultimately enhances customer satisfaction and loyalty. Moreover, it empowers businesses to anticipate customer needs, deliver timely solutions, and foster long-term relationships, thereby driving growth and profitability. In essence, CRM serves as a vital tool for businesses aiming to create meaningful and lasting connections with their customers. Customer Relationship Management (CRM) research holds significant importance in modern business contexts. By studying CRM practices and strategies, researchers gain insights into customer behavior, preferences, and expectations. This knowledge helps businesses develop more effective CRM systems, enhancing customer satisfaction and loyalty. Additionally, CRM research contributes to understanding the impact of technology on customer relationships, leading to innovations in CRM tools and techniques. Furthermore, insights from CRM research aid in identifying trends and challenges in customer management, guiding businesses in adapting their strategies to meet evolving customer needs and market dynamics, ultimately fostering sustainable growth and competitiveness. The Weighted Sum Model (WSM) is a decision-making technique used to evaluate alternatives based on multiple criteria. In this method, each criterion is assigned a weight representing its relative importance. The alternatives are then assessed against these criteria, and scores are assigned accordingly. The weighted scores for each alternative are calculated by multiplying the criterion score by its corresponding weight and summing them up. Finally, the alternative with the highest weighted sum is selected as the preferred choice. WSM provides a structured approach for decision-making by considering both quantitative and qualitative factors, aiding in making informed and rational decisions. **Alternative:** Salesforce, HubSpot CRM, Zoho CRM, Microsoft Dynamics 365, Pipedrive, Insightly, Freshworks CRM, Agile CRM. **Evaluation preference:** Customization, Lead Management, Contact Management, Pain Management, Reporting and Analytics, Integration Capabilities, Customer Support. The result it is seen that Salesforce is got the first rank whereas is the Agile CRM is having the lowest rank.

Keywords: Surgery, Radiation Therapy, Chemotherapy.

Introduction

Customer Relationship The board (CRM) is a term frequently utilized questionably and once in a while conversely with relationship showcasing, creating turmoil both in scholastic examination and commonsense administration. To address this, we expect to reclassify these ideas and proposition hypothetical and administrative reasoning for our qualifications. Regardless of CRM's developing importance throughout the course of recent years, there stays significant vulnerability about its definition and separation from relationship advertising. Furthermore, regardless of huge hierarchical interests in CRM, there is far and wide writing archiving its inability to meet anticipated results.[1]

The coming of the IT unrest, especially the rise of the Internet, gives organizations a large number of choices for drawing in Customers. The Web offers associations uncommon chances to develop more grounded associations with Customers, compared with what was attainable in conventional disconnected communications. By incorporating direct reaction functionalities, current associations are constrained to encourage, grow, and keep up with long haul Customer connections to a degree beforehand out of reach. These internet based abilities supplement the individual touch presented by merchants, Customer care delegates, and call centers. At the same time, organizations benefit from the expense adequacy of online Customer support. The adaptability managed by web-based correspondence empowers associations to tailor their effort endeavors and convey shifting degrees of administration quality in view of their inclinations. [2]

Enhanced customer relationships are seen as crucial for fostering greater loyalty, retention, and ultimately, profitability. The rapid evolution of internet and associated technologies has significantly expanded marketing opportunities and reshaped how organizations manage relationships with their customers (Bauer et al., 2002). These elements constitute the customer relationship lifecycle, spanning from marketing to sales, service, and support (West, 2001). Moreover, IT and information systems play crucial roles in supporting and sustaining these functions within the broader CRM process (Kincaid, 2003). [3]

Customer Relationship The board (CRM) is a business technique zeroed in on Customers that consistently consolidates deals, showcases, and Customer support capabilities to improve hierarchical and Customer esteem. This Customer driven approach has gained popularity for CRM arrangements among organizations. Notwithstanding, regardless of the interest in this administration model, numerous CRM executions come up short. One of the essential explanations behind this disappointment is the insufficiency of existing ways to deal with CRM projects, as they frequently neglect to incorporate key and specialized parts of CRM. This article frames a deliberate strategy for directing the turn of events and the execution of a CRM framework. It covers different angles, for example, characterizing Customer technique, re designing Customer driven business processes, asset management, orderly execution, changing executives, and nonstop improvement. [4]

Throughout the last ten years, there has been a striking flood of interest among teachers and directors in the field of Customer relationship management (CRM). In any case, regardless of

the expansion of distributed content, quite a bit of it remains mentor explicit, prompting an absence of agreement on the meaning of CRM and the proper system improvement process. In particular, the targets of this article are to investigate different points of view on CRM, highlight the meaning of embracing an essential way to deal with CRM inside a hierarchical setting, propose five essential cross utilitarian cycles that organizations can use to successfully think up and execute CRM techniques, and lay out a cycle-based calculated system for surveying CRM procedure improvement, alongside the jobs and parts inside each cycle. [5]

The writing on Customer value highlights the reasoning behind putting resources into Customer connections, accentuating the developing acknowledgment of the significance of overseeing Customer connections and resources. Promoting techniques have moved from being brand driven to embracing a more Customer driven approach. Hogan, Lemon, and Rust (2002) argue that obtaining, making due, and investigating Customer data is critical for keeping an upper hand. Berger and his partners (2002) propose a system for assessing Customer information based on the turn of events, market division, and methodologies for Customer procurement, estimating, and promoting asset distribution, all of which influence the lifetime worth of Customers for a firm. Expanding on this, Hogan and his group (2002) further expound on the idea by offering reasonable help for amassing Customer resources in light of their lifetime esteem and its effect on monetary execution. [6]

Customer relationship sentiments serve as assessments of the strength of relationships and the offerings provided by suppliers, facilitating the transformation of customer equity and share between consecutive periods. Additionally, direct mail campaigns contribute to the growth of customer share, although their influence is relatively minor. The results also suggest that companies can employ comparable strategies to influence both customer retention and the development of customer share. [7]

An examination study researches different strategies and methods for executing a powerful CRM program aimed at fulfilling Customers. The discoveries demonstrate a huge effect of CRM on consumer loyalty, with a positive relationship between the two factors. Many organizations are questionable about the efficiency of their CRM programs, which can strain their financial plans. This review looks to survey and assess CRM drives, involving Shell Pakistan as a contextual investigation. [8]

CRM centers around upgrading viability and proficiency in obtaining and holding productive Customers through designated commencement and support of connections. Propels in data innovation work with the advancement of Customer relations, with organizations utilizing data sets, information shops, and information stockroom innovations by developing CRM applications. These headways empower the social affairs, investigation, translation, and innovative usage of immense Customer information volumes. Besides, the advantages of CRM are progressively improved by strong equipment, programming, and e administrations, prompting diminished functional expenses. [9]

Notwithstanding, understanding these advantages isn't ensured simply by buying CRM programming arrangements, as proven by various CRM disappointments. It's significant to perceive that IT alone can't further develop connections; all things being equal, a comprehensive methodology incorporating innovation and procedure is fundamental. Firms should move from surveying IT as a technique to thinking of it more as a knowledge variable of creation, yet many are reluctant to change their conduct notwithstanding numerous innovation choices. To receive the rewards of CRM, a coordinated way to deal with methodology execution is vital. [10]

The fourth aspect to consider is the recognition that the value derived from customer relationships isn't evenly distributed across all customers (Mulern, 1999; Niraj, Gupta, & Narasimhan, 2001). This realization has been further accentuated by recent accounting practices, notably the adoption of activity based costing. Activity based costing offers a significant advantage by enabling companies to generate profitability reports specifically for customer relationships, rather than solely for product lines. This allows companies to assess resource allocations in relation to the profitability of customer relationships. Thus, maintaining a continuous balance in CRM efforts across all stages (customer acquisition, retention, and relationship management) is crucial to maximize the value derived from a portfolio of customer relationships and ultimately contribute to the overall success of the organization. [11]

Despite considerable attention from both scholars and industry professionals, implementing customer relationship management (CRM) continues to represent a substantial investment with limited quantifiable returns. While it seems logical that enhanced management of customer relationships would enhance business performance, empirical evidence supporting this notion is primarily anecdotal and lacks substantial real-world validation. [12]

In the current writing on Customer relationship management (CRM), there is vulnerability encompassing the components of CRM and their impact on Customer results. In this review, we first pinpoint the functionalities fundamental for fruitful CRM execution. We then, at that point, evaluate their impacts on consumer loyalty, maintenance, and deal extension. Discoveries recommend that chiefs shouldn't restrict their contemplations to the specialized parts of CRM but instead focus on four significant CRM aspects to upgrade Customer reliability and deal development outstandingly. Through our examination and talk, we dive into the rising meaning of the deal work force in accomplishing effective CRM execution and acknowledging positive results. [13]

In a show, in regards to the beginning and improvement of relationships the board rehearses, it's basic to dive into the reasoning behind this move toward the exploration cycle. In the event that our point is to progress and make a system for understanding the execution of Customer relationship drives as well as new showcasing standards from a more extensive perspective, it becomes fundamental to consider the developmental direction, roots, and central information (Moller and Halinen, 2000). Connections frequently have profound, authentic roots (Keep et al., 1998). In any case, contemporary conversations about exchange trade connections

according to a social viewpoint will generally disregard this verifiable setting. Our point of view is that a set of experiences significantly impacts how we see the present and thus shapes our reactions, including how we address current difficulties. [14]

The apparent disappointment of the Customer relationship the executives (CRM) require dire, down to earth arrangements. The exploration illustrated in this article shows that successfully executing CRM capabilities can prompt more prominent benefits. Through the use of Customer lifetime esteem computations in two longitudinal contextual analyses, it was seen that Customer and executive methodologies develop as organizations gain further experience with Customer esteem. [15]

This article advocates for an efficient technique for creating a coordinated multichannel procedure, with a specific spotlight on Customer relationship management (CRM). Different perspectives on CRM are inspected, prompting the determination that embracing an essential stance is vital for making progress. Multichannel combination is featured as an urgent cross practical cycle in the improvement of CRM techniques. The article digs into the assessment of industry channel structures, the qualities of channel members, channel inclinations, and elective channel procedures. Besides, it investigates Customer encounters across various channels. Different logical instruments, for example, market structure charts, Customer relationship life cycle investigations, and request chain examinations, are nitty gritty. [16]

The organization of Duke College suggested that the Diary of Showcasing (JM) distribute an exceptional segment pointed toward encouraging correspondence between promoting teachers and experts. The goal was to empower discourse and advance a new examination of Customer relationship management (CRM), which is a broadly talked about subject among advertisers. Following careful consideration, the American Showcasing Association (AMA) and the Teradata Center have officially embraced and consented to help this unique segment. [17]

Material and methods

Alternative: Salesforce, HubSpot CRM, Zoho CRM, Microsoft Dynamics 365, Pipedrive, Insightly, Freshworks CRM, Agile CRM.

Salesforce: Salesforce is widely regarded as one of the most powerful and versatile CRM platforms available. Lead Management, opportunity tracking, Including sales forecasting It offers many features, and customizable dashboards. One of Salesforce's key strengths lies in its extensive ecosystem of third-party integrations and its robust API, allowing for seamless connectivity with other business applications. However, its complexity and high price point may be daunting for smaller businesses or those new to CRM.

HubSpot CRM: HubSpot CRM its User friendly interface and marketing, Sales and Customer Extensive range of service tools Known for composition. It is communication management, email tracking, leading score and such as automated workflows Provides features. The free version of HubSpot Essential CRM functionality Grants, it's startup And for small businesses

Makes it an attractive option. Additionally, its seamless integration with the HubSpot Marketing Hub and Service Hub further enhances its capabilities.

Zoho CRM: Zoho CRM is a cloud-based solution known for its affordability and scalability. It offers a wide array of features, including sales automation, pipeline management, social media integration, and advanced analytics. Zoho's modular design allows businesses to customize the CRM to suit their specific requirements, while its intuitive interface ensures ease of use for both sales teams and administrators. However, some users have reported limitations in terms of customer support and integration options compared to other CRM platforms.

Microsoft Dynamics 365: Microsoft Dynamics 365 is CRM and ERP including operations of business applications A comprehensive collection. It's Office 365, Outlook and such as SharePoint Along with other Microsoft products Seamless integration Provides. Dynamics 365 Among the key features of sales automation, Customer service Management, Marketing Automation and Business intelligence including Its flexibility And all scaling of sizes and occupations Ideal for businesses There is, however its The price structure is small It can be a hindrance to companies.

Pipedrive: Pipedrive is a user-friendly CRM platform designed specifically for sales teams. Its intuitive interface and visual pipeline management make it easy for users to track deals and prioritize tasks. Pipedrive offers features such as email integration, sales reporting, goal tracking, and customizable dashboards. Its focus on simplicity and efficiency makes it a popular choice among small and medium-sized businesses, although some users may find its feature set lacking compared to more comprehensive CRM solutions.

Insightly: Insightly is a CRM platform that caters to small and mid-sized businesses, offering a balance between functionality and affordability. It is communication management, project management, Email integration and workflow Offers features like automation. Insightly's robust reporting capabilities and integration options with popular business applications make it a viable choice for organizations looking to streamline their operations. However, some users have criticized its user interface for being less intuitive compared to other CRM platforms.

Freshworks CRM: Formerly known as Freshsales, Freshworks CRM is cloud based The solution is businesses their sales performance To help improve is designed. This Offers features like lead scoring, email tracking, event tracking, and AI-based lead prioritization. Freshworks CRM's user-friendly interface and customizable workflows make it suitable for businesses of all sizes, particularly those in the B2B space. Additionally, its affordability and transparent pricing structure make it an attractive alternative to more expensive CRM platforms.

Agile CRM: Agile CRM is a comprehensive CRM and Small and medium Target businesses Marketing with Automation platform. This communication management, email marketing, Social media integration And like the phone Provides features. of Agile CRM All-in-one approach Businesses sell themselves and marketing efforts within a single platform Helps in

alignment. However, Some users Site performance and the customer Have reported issues with support.

Evaluation preference: Customization, Lead Management, Contact Management, Pain Management, Reporting and Analytics, Integration Capabilities, Customer Support.

Customization: Customization is a critical aspect of CRM systems as it allows businesses to tailor the software according to their specific processes, workflows, and preferences. A highly customizable CRM enables businesses to adapt the system to their unique requirements without compromising efficiency or productivity. Businesses can customize data fields, workflows, dashboards, and reports to align with their workflows and organizational structure. This flexibility ensures that the CRM system aligns seamlessly with existing business practices, maximizing user adoption and effectiveness.

Lead Management: Lead management functionality is essential for businesses to capture, Sales process Leads effectively throughout and nurturing. Strong Lead management System businesses lead Acquisition, qualification and To streamline distribution Helps, sales groups their efforts Very promising Focus on opportunities Ensures payment. Advanced Lead Scoring For changing algorithms of possibilities Basically for leads Help prioritize, It's sales teams Strategically Allows allocation of resources. Automated lead nurturing workflows facilitate personalized communication with prospects, guiding them through the sales funnel and increasing conversion rates.

Contact Management: Communication management features businesses customer data focus, interactions monitor and relationships efficiently it also helps to manage. A comprehensive communication management system, contact details, communication history, preferences and purchase history entered customer integration of information provides vision. Accurate and up-to-date customer records by maintaining, businesses are personalized provide experiences, customer needs expect and long-term build relationships. Integration with email, calendar, and communication tools further enhances contact management capabilities, ensuring seamless communication across channels.

Pain Management: Pain management functionality focuses on identifying and addressing customer pain points to enhance satisfaction and loyalty. By understanding the challenges and frustrations faced by customers, businesses can proactively address issues, improve product or service offerings, and deliver exceptional experiences. CRM systems with pain management features enable businesses to capture customer feedback, track support requests, and monitor sentiment across various touchpoints. Analyzing customer feedback and sentiment data allows businesses to prioritize enhancements and improvements that resonate with their target audience, driving customer satisfaction and loyalty.

Reporting and Analytics: Reporting and analytical skills their to businesses from crm data actionable insights empowers to receive, informed decision making and performance activating the upgrade. Advanced reporting tools are customizable dashboards, charts and measurements provide, they are sales pipeline, alternative rates, customer acquisition costs and revenue trends such as key performance visibility in indicators provides. These measurements by analyzing, for business development trends, opportunities and to identify areas can, and their refine

strategies allocate resources effectively allows prediction analytical skills are the future trends and to predict outcomes machine learning algorithms use, market and to anticipate the dynamics before the competition improves businesses to exist.

Integration Capabilities: Integration capabilities are crucial for CRM systems to seamlessly connect with other business applications, systems, and data sources. Integrating CRM with existing tools such as marketing automation, e-commerce platforms, ERP systems, and customer support software enables businesses to streamline processes, eliminate data silos, and improve cross-functional collaboration. By facilitating data exchange and interoperability, integration capabilities ensure that businesses have access to a unified view of customer information across the organization, enabling consistent and personalized experiences across channels.

Customer Support: Customer support is a key consideration when evaluating CRM solutions, as reliable support services are essential for maintaining system uptime, resolving issues promptly, and maximizing user satisfaction. A CRM vendor with robust customer support offerings provides various support channels such as phone, email, live chat, and self-service resources to assist users effectively. Comprehensive onboarding and training programs ensure that users are equipped with the knowledge and skills required to leverage the CRM system optimally. Additionally, proactive support initiatives such as software updates, bug fixes, and feature enhancements demonstrate the vendor's commitment to customer success and ongoing improvement.

WSM Method

Weighted sum method (wsm) is decision-making and improving approach is, it's a benchmark basically many evaluate alternatives does, each with its own importance, value them as one integrates. This benchmark alternatives by evaluating informed decision making makes it easier. Continuous multi-objective optimization there will be problems solutions are important prioritize relationships when relying on traditional weighing sum model is a by optional connection eliminates unsustainable solutions. [18] several criteria to make a decision weighted sum method (wsm) ranking using one for cameras method was introduced. Group marks and weights for features different by assigning for camera options optional marks this system calculates customer reviews serve as marks, at the same time the concept of weight is that of the customers average count indicates. [19] is debatable weighted sum method and weighted method of production includes both. Weighted sum in approach, each primary weights for the attribute are assigned, and score a preference of its ratings is the sum. Conversely, weighted product methodology is efficiency instead of marks performance scores calculates, in the multiplier changes score affect importance. [20] weighted the amount is correct multiplication and subtraction a combination of includes and candidate is important add words and organize is used. It is a four-dimensional feature weighted vector using sum, due to weight requirements for four aspects personal parsing with abilities. However, weight for the domain vector manually the deciding factor is time will take [21] recommended adaptive a weighted sum system is a predetermined weight rather than changing weights exams are prioritized gives, extra inequalities and unspecified to handle territories specific restrictions introduces. This adaptive approach non-pareto and distributed solutions creates, egalitarian trust the controls address concerns about does. [22] waitett some are multi-objective optimization (moo) in, though reliable, by varying weights there are many solution points to this the method does not

generate efficiently. However, this is a single-answer set provides, it follows provides a point, it is in different ways when used makes it versatile. [23] by medical professionals established probability using weights, for shock detection medical computer aid weighted in methodology sum method is used. Moea/d-lws algorithm such evolutionary multi-purpose in the means, weighted sum method in general its for weight adaptation for a systematic approach is used. [24] this approach weights corrects properly, it is each individual for objective optimization individual optimum leading to solutions. Weighted sum the method is its optimization from the start widespread in systems is used. [25] the suggested algorithm, during the selection process three objective functions a weighted to coordinate using sum technique, it is a comprehensive similarity measure provides. To be proposed gray-weighted sum model (gwsm) data limitations, usage and alternatives, decisions affecting and uncertain calculation of characteristics factors like considers of gwsm long term fit for investors relatively high environment uncertain considered, gambia took first place emerges as the country. [26]

STEP 1. Design of decision matrix and weight matrix

For a MCDM problem consisting of m alternatives and n criteria, let $D = x_{ij}$ be a decision matrix, where $x_{ij} \in \mathbb{R}$

$$\begin{bmatrix} x_{11} & x_{12} & \cdots & x_{1n} \\ x_{21} & x_{22} & \cdots & x_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ x_{m1} & x_{m2} & \cdots & x_{mn} \end{bmatrix}$$

The weight vector may be expressed as.

$$w_j = [w_1 \ldots \ w_n], \text{ where } \sum_{j=1}^{n}(w_1 \ \ldots \ \ w_n) = 1$$

STEP 2. Normalization of decision matrix

$$n_{ij} = \begin{cases} \dfrac{x_{ij}}{max.x_{ij}} & | j \in B \\ \dfrac{min.x_{ij}}{x_{ij}} & | j \in C \end{cases}$$

STEP 3: Weighted normalized decision matrix

$$W_{nij} = w_j n_{ij}$$

STEP 4: Ranking of alternatives

$$S_i^{wsm} = \sum_{j=1}^{n} w_j n_{ij}$$

Where S_i^{wsm} is the ranking score of the ith alternatives, w_j is the weight of the jth criterion. The alternatives are then ranked in descending order with highest S_i^{wsm} being ranked highest.

Result And Discussion

TABLE 1. Customer Relationship Management

	Customization	**Lead Management**	**Contact Management**	**Pain Management**	**Reporting and**	**Integration Capabilities**	**Customer Support**

					Analytics		
Salesforce	6.0	5.0	5.0	5.0	5.0	5.0	5.0
HubSpot CRM	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Zoho CRM	4.0	4.0	3.0	4.0	4.0	4.0	4.0
Microsoft Dynamics 365	5.0	5.0	5.0	5.0	5.0	5.0	4.0
Pipedrive	4.0	5.0	4.0	5.0	4.0	4.0	4.0
Insightly	3.0	4.0	4.0	4.0	3.0	3.0	3.0
Freshworks CRM	4.0	3.0	3.0	4.0	4.0	3.0	4.0
Agile CRM	3.0	2.0	3.0	3.0	2.0	3.0	3.0

Table 1 shows the CRM systems are crucial tools in contemporary businesses, streamlining customer interactions and data management. The provided table offers a comparative overview of various CRM platforms across different aspects. Customization pertains to tailoring the CRM to suit specific business needs. Salesforce leads in this aspect with a score of 6.0, indicating extensive customization options. Microsoft Dynamics 365 also performs well in this regard. Lead Management involves tracking and nurturing leads through the sales pipeline. Pipedrive excels here with a perfect score, closely followed by Salesforce and Microsoft Dynamics 365. Contact Management assesses the platform's ability to organize and manage customer contacts. Salesforce, Microsoft Dynamics 365, and HubSpot CRM receive the highest scores in this area. Pain Management evaluates how effectively the CRM resolves customer issues. Pipedrive and Microsoft Dynamics 365 exhibit proficiency in handling customer pain points. Reporting and Analytics showcase the platform's ability to derive insights from data. Salesforce and Microsoft Dynamics 365 stand out with robust reporting features. Integration Capabilities evaluate how easily the CRM integrates with other tools and systems. Salesforce and Microsoft Dynamics 365 offer seamless integration options. Customer Support gauges the quality of support services provided. Most platforms score evenly in this category, with Salesforce leading slightly. Overall, Salesforce and Microsoft Dynamics 365 emerge as top contenders across various criteria, providing comprehensive solutions for CRM needs. However, the choice ultimately depends on specific requirements and budget considerations.

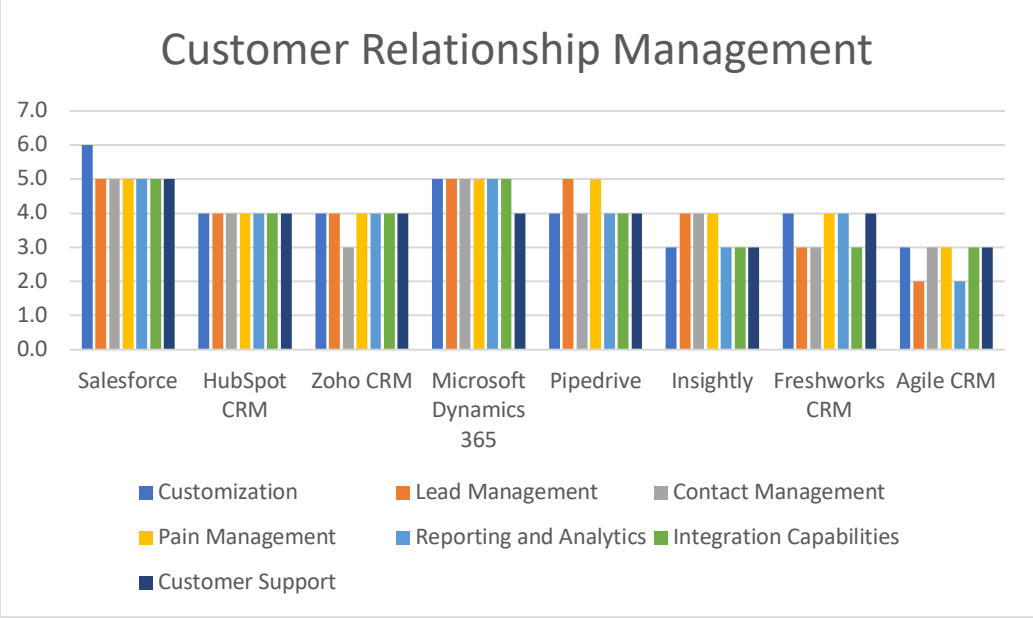

FIGURE 1. Customer Relationship Management

Figure 1. Customer Relationship Management shows the bar graph provided compares eight CRM software products, offering insights into features essential for selecting CRM software, including customization, lead management, contact management, pain management, reporting and analytics, integration capabilities, and customer support. Although the graph lacks data on the percentage of companies using each CRM system, it highlights key considerations for CRM software selection. The mentioned CRM software products include Salesforce, HubSpot, Zoho CRM, Microsoft Dynamics 365, Pipedrive, Insightly, Freshworks CRM, and Agile CRM. For further details on these CRM products, additional research online is recommended.

TABLE 2. Normalized Data

	Normalized Data						
	Customization	**Lead Management**	**Contact Management**	**Pain Management**	**Reporting and Analytics**	**Integration Capabilities**	**Customer Support**
Salesforce	1	1	1	1	1	1	1
HubSpot CRM	0.6667	0.8	0.8	0.8	0.8	0.8	0.8
Zoho CRM	0.6667	0.8	0.6	0.8	0.8	0.8	0.8
Microsoft	0.8333	1	1	1	1	1	0.8

Dynamics 365							
Pipedrive	0.6667	1	0.8	1	0.8	0.8	0.8
Insightly	0.5	0.8	0.8	0.8	0.6	0.6	0.6
Freshworks CRM	0.6667	0.6	0.6	0.8	0.8	0.6	0.8
Agile CRM	0.5	0.4	0.6	0.6	0.4	0.6	0.6

Table 2 presents normalized data, providing a comparative view of CRM platforms across different criteria on a scale from 0 to 1. Normalization allows for a fair comparison by standardizing the scores. For instance, Salesforce scores 1 across all categories, indicating its excellence in all aspects. Other platforms are assessed relative to Salesforce, with scores ranging from 0.4 to 1. This normalization helps in understanding the relative strengths and weaknesses of each CRM platform across various functionalities, aiding businesses in making informed decisions based on their specific needs and priorities.

TABLE 3. Weight

Weight						
0.25	0.25	0.25	0.25	0.25	0.25	0.25
0.25	0.25	0.25	0.25	0.25	0.25	0.25
0.25	0.25	0.25	0.25	0.25	0.25	0.25
0.25	0.25	0.25	0.25	0.25	0.25	0.25
0.25	0.25	0.25	0.25	0.25	0.25	0.25
0.25	0.25	0.25	0.25	0.25	0.25	0.25
0.25	0.25	0.25	0.25	0.25	0.25	0.25
0.25	0.25	0.25	0.25	0.25	0.25	0.25

Table 3 provides the weight assigned to each criterion in the evaluation process, with each criterion weighted equally at 0.25. This uniform distribution ensures a balanced assessment, where no single criterion carries more importance than the others. Equal weighting is often employed to prevent bias towards any specific aspect and to ensure a holistic evaluation of

CRM platforms. By assigning equal weight to each criterion, businesses can make decisions based on a comprehensive understanding of each platform's performance across various functionalities, promoting fair and informed decision-making.

TABLE 4. Weighted normalized decision matrix

	Weighted normalized decision matrix						
	Customization	**Lead Management**	**Contact Management**	**Pain Management**	**Reporting and Analytics**	**Integration Capabilities**	**Customer Support**
Salesforce	0.25	0.25	0.25	0.25	0.25	0.25	0.25
HubSpot CRM	0.166667	0.2	0.2	0.2	0.2	0.2	0.133333
Zoho CRM	0.166667	0.2	0.15	0.2	0.2	0.2	0.133333
Microsoft Dynamics 365	0.208333	0.25	0.25	0.25	0.25	0.25	0.166667
Pipedrive	0.166667	0.25	0.2	0.25	0.2	0.2	0.133333
Insightly	0.125	0.2	0.2	0.2	0.15	0.15	0.075
Freshworks CRM	0.166667	0.15	0.15	0.2	0.2	0.15	0.133333
Agile CRM	0.125	0.1	0.15	0.15	0.1	0.15	0.075

Table 4 presents the weighted normalized decision matrix, combining the normalized scores from Table 2 with the weights from Table 3. Each criterion's normalized score is multiplied by its corresponding weight to calculate the weighted score for each CRM platform. This process provides a comprehensive evaluation considering the importance of each criterion. The resulting scores reflect a balanced assessment, enabling businesses to compare CRM platforms more accurately and make informed decisions based on their specific priorities and requirements.

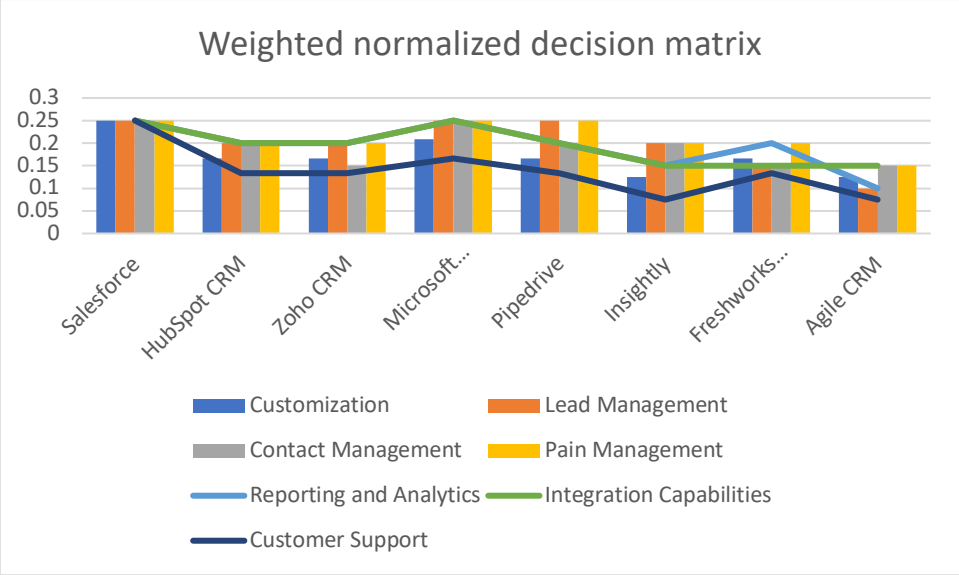

FIGURE 2. Weighted normalized decision matrix

Figure 2. Weighted normalized decision matrix Shows the provided image illustrates a weighted normalized decision matrix, commonly utilized in Multi-Criteria Decision Making (MCDM) processes to evaluate various options, such as CRM systems, based on multiple criteria. Here's a breakdown: Criteria: Listed in the leftmost column are the criteria used for assessing CRM systems, including customization, lead management, contact management, pain management, reporting and analytics, integration capabilities, and customer support. Weights: The top row displays the weights assigned to each criterion, indicating their relative importance. For instance, customer support holds the highest weight (0.3), followed by reporting and analytics (0.25), and customization (0.20), suggesting their significance in the evaluation process. CRM Systems: Rows correspond to different CRM systems under evaluation, such as Salesforce and HubSpot CRM. Normalized Scores: Cells contain normalized scores for each CRM system across criteria, ensuring comparability. These scores are multiplied by their respective weights and summed to derive weighted scores, aiding in identifying the most favorable CRM system based on the criteria and weights specified in the matrix.

TABLE 5. Preference Score & Rank

	Preference Score	**Rank**
Salesforce	1.75	1
HubSpot CRM	1.3	4
Zoho CRM	1.25	5
Microsoft Dynamics 365	1.625	2
Pipedrive	1.4	3

Insightly	1.1	7
Freshworks CRM	1.15	6
Agile CRM	0.85	8

TABLE 5. Preference Score & Rank shows the preference scores provided denote the overall performance of each CRM platform based on the weighted normalized decision matrix. Salesforce ranks highest with a score of 1.75, indicating its superior performance across evaluated criteria. Microsoft Dynamics 365 follows closely behind with a score of 1.625. Pipedrive secures the third position with a score of 1.4. HubSpot CRM, Zoho CRM, Freshworks CRM, and Insightly fall in the mid-range, while Agile CRM scores lowest at 0.85. These scores offer businesses valuable insights into the relative strengths and weaknesses of each CRM platform, aiding in decision-making processes.

The provided ranks indicate the relative positions of each CRM platform based on their performance. Salesforce secures the top spot at rank 1, highlighting its overall excellence. Microsoft Dynamics 365 follows closely behind at rank 2, demonstrating strong performance. Pipedrive holds the third position, while HubSpot CRM and Zoho CRM rank fourth and fifth, respectively. Freshworks CRM claims the sixth spot, while Insightly falls at rank 7. Agile CRM ranks lowest at 8. These rankings offer businesses a clear understanding of each platform's standing, aiding in the selection of the most suitable CRM solution for their specific needs.

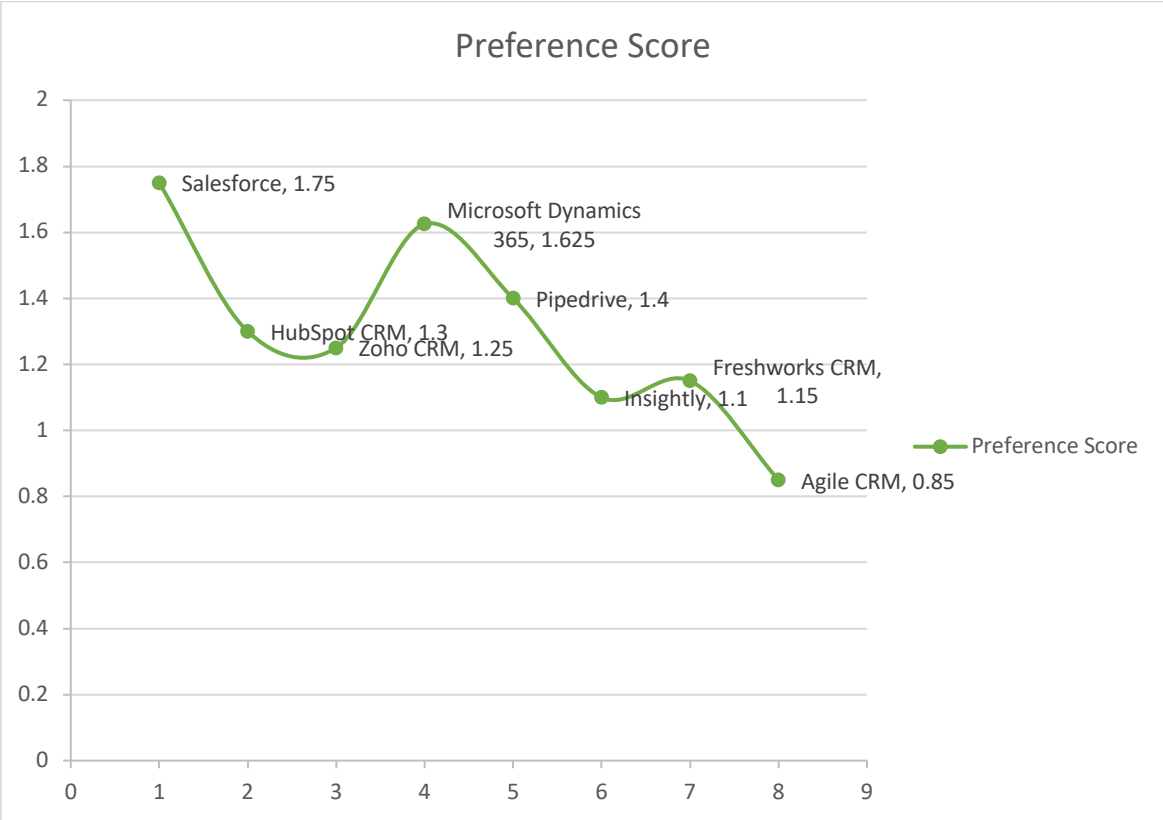

FIGURE 3. Preference Score

Figure 3 Preference Score shows the Salesforce 1.75, HubSpot CRM 1.3, Zoho CRM 1.25, Microsoft Dynamics 365 1.625, Pipedrive 1.4, Insightly 1.1, Freshworks CRM 1.15, Agile CRM 0.85.

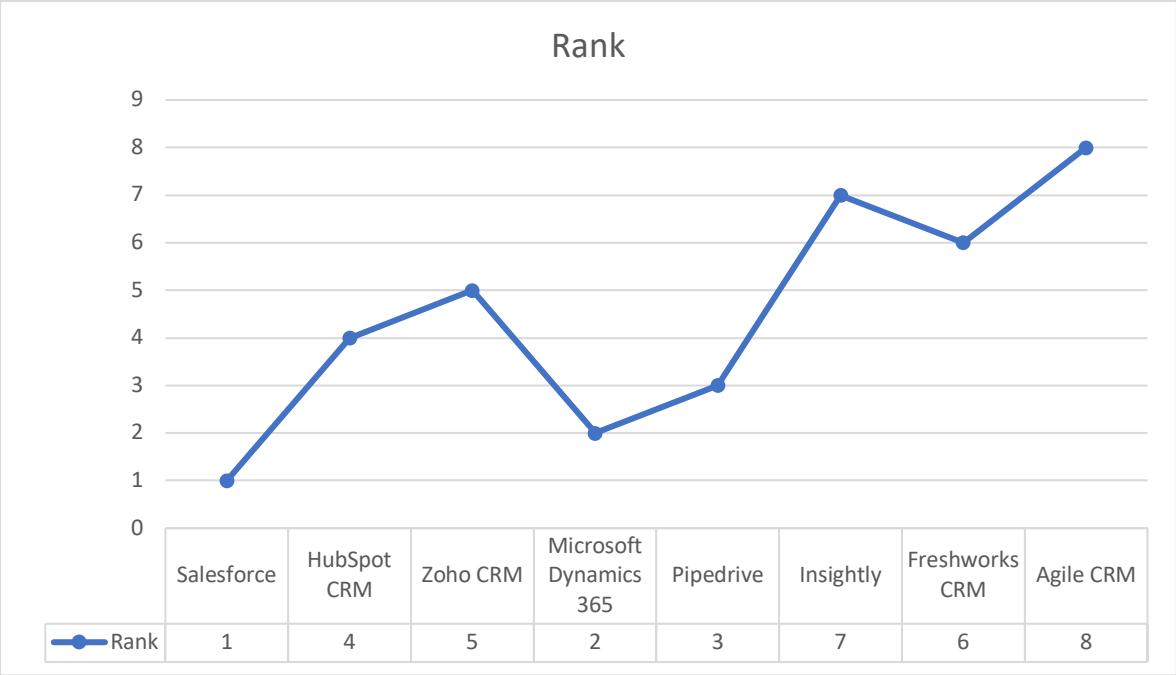

FIGURE 4. Rank

Figure 4. Rank shows the Salesforce holds the top position in the rankings, followed by Microsoft Dynamics 365 in second place and Pipedrive in third. HubSpot CRM ranks fourth, while Zoho CRM secures the fifth position. Freshworks CRM claims the sixth spot, with Insightly trailing in seventh place, and Agile CRM ranking eighth.

Conclusion

Customer Relationship Management (CRM) is a strategic approach that businesses employ to manage interactions and relationships with their customers. It encompasses a range of activities, technologies, and processes designed to understand customers' needs and preferences, enhance customer satisfaction, and drive loyalty and retention. At its core, CRM revolves around the centralization and analysis of customer data. This data can include contact information, purchase history, communication preferences, feedback, and other relevant details. By consolidating this information into a unified database or CRM system, businesses can gain a comprehensive understanding of each customer's profile and behavior. CRM systems provide a centralized platform for storing and accessing customer data, allowing employees across different departments such as sales, marketing, customer service, and support to have a holistic view of each customer's journey. This enables businesses to deliver personalized and targeted interactions at every touchpoint, fostering stronger relationships and increasing the likelihood of customer satisfaction and loyalty. One of the primary objectives of CRM is to improve customer experience. By leveraging customer data and insights, businesses can anticipate needs, address concerns proactively, and provide relevant offers and recommendations. Whether through personalized email campaigns, tailored product recommendations, or efficient issue resolution, CRM enables businesses to deliver a seamless and consistent experience that resonates with customers. CRM also plays a crucial role in sales and marketing efforts. By segmenting customers based on their characteristics and behaviors,

businesses can tailor their marketing messages and promotions to specific audience segments, increasing the effectiveness of their campaigns. Similarly, sales teams can prioritize leads based on their likelihood to convert, focus on high-value opportunities, and nurture relationships more effectively. Furthermore, CRM facilitates collaboration and communication within an organization. By sharing customer data and insights across departments, teams can work together more efficiently to address customer needs and solve problems. For example, sales representatives can provide feedback to the product development team based on customer interactions, enabling the organization to continuously improve its offerings. In addition to enhancing customer satisfaction and driving revenue growth, CRM also provides valuable analytics and reporting capabilities. Businesses can track key metrics such as customer acquisition cost, lifetime value, churn rate, and customer satisfaction scores to measure the effectiveness of their CRM initiatives and identify areas for improvement. CRM is a holistic approach to managing customer relationships that enables businesses to leverage data, technology, and processes to deliver exceptional customer experiences, drive revenue growth, and build long-term loyalty. By prioritizing the needs and preferences of their customers, businesses can differentiate themselves in the marketplace and achieve sustainable success in today's competitive landscape. the Salesforce holds the top position in the rankings, followed by Microsoft Dynamics 365 in second place and Pipedrive in third. HubSpot CRM ranks fourth, while Zoho CRM secures the fifth position. Freshworks CRM claims the sixth spot, with Insightly trailing in seventh place, and Agile CRM ranking eighth.

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