

Customer Relationship Management in an Era of Digital Disruption and Business Model Evolution

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Abstract – This research is grounded on the conceptualization of CRM as a collection of technology solutions that play a pivotal role in effective company management. The current work aims to elucidate and establish the significance of the advantages associated with CRM, as previously emphasized in relevant literature, in relation to achieving business success. Existing sustainable studies are of special importance in this setting because they provide a model of practical inquiry into the positive effects of CRM practices across the 3D of sustainability (environmental, social, and economic). Once our predictions are confirmed, the following model's validation will enhance our comprehension of how CRM-related advantages might amplify the beneficial influence of its conditions on each sustainability dimension. CRM may be seen as a kind of Green IT, focused on facilitating modern transformation and promoting the development of sustainable business models. This research model has the potential to serve as a foundational framework for a more targeted approach aimed at quantifying the effects and advantages of using CRM. We argue that this encompasses models of sustainable innovation and business.

Keywords – CRM (Customer Relationship Management), SMEs (Small and Medium Enterprises), Customer Relationship Management (CRM), Social Customer Relationship Management (SCRM), and Customer Knowledge Management (CKM).

I. INTRODUCTION

This study presents an aimed research model by examining the effect of CRM on SMEs, specifically focusing on the twin benefits of innovation and CKM. The convergence of advantages and interests is a pivotal aspect to see CRM as an essential instrument for fostering business model innovation, hence propelling small and medium enterprises (SMEs) towards achieving economic, social, and environmental sustainability. Historically, SMEs have done a pivotal role in the European economy, accounting for more than 99% of all firms in Europe and contributing to two-thirds of private-sector employment. Therefore, the significance of CRM in SMEs is particularly noteworthy due to the sector's social and economic importance.

Relationship Marketing (RM) concepts are a burgeoning field within contemporary marketing and serve as the foundation for CRM. The notion of CRM gained prominence throughout the 1990s, particularly within the realm of business. As an area of academic investigation, this topic has garnered significant attention and has sparked interest within the scientific community and worldwide corporate entities. The establishment of a new business environment is a fundamental aspect of this method, since it facilitates the implementation of CRM. The advent of the Internet in the 21st century has had a profound impact on society, leading to the emergence of a new revolution. Technology, particularly the Internet, is now widely regarded as an essential and influential component of modern life.

Moreover, the use of Internet technology empowers organizations to monitor their online activity and performance, as well as tailor pricing, communications, services, and goods to effectively attract new clients. In order to effectively cater to consumers' demands, organizations must possess a comprehensive understanding of their customers' requirements, enabling them to provide relevant information, services, and goods via the medium of the Internet. In light of the shift in the corporate landscape from a product-centric approach to a customer-centric approach, there is a prevailing notion that cultivating strong customer relationships is crucial in driving profitable and enduring revenue development. According to Zhang and Zhang [1], empirical evidence suggests that there is a favorable impact on customer-to-firm interactions when service providers create strong ties with their clients. CRM facilitates a firm in gaining a deeper comprehension of both the explicit and implicit requirements of its consumers. As a result, businesses have made substantial investments in CRM and

integrated it as a fundamental component of their business strategy. CRM is an approach that strategically aims to optimize and cultivate enduring customers relationships. It emphasizes the need of gathering relevant information prior to making informed decisions.

According to Bhenamesh and Panahi [2], the concept of CRM may be known as a complete process and strategy aimed at recruiting, maintaining, and forming partnerships with specific users in order to give the enhanced value for both the client and business. The recent rise of CRM systems has placed more emphasis on the value of customer data as a crucial asset for organizations. Furthermore, the operational aspects of CRM facilitate the adoption and advancement of initiatives that are specifically designed to enhance customer-centricity, thereby contributing to the overall success of the company. The use of technology inside an organization has the potential to enhance its operational processes, hence leading to an improvement in overall performance.

Triki and Zouaoui [3] have proposed that the examination of CRM should be undertaken by considering five distinct areas: marketing sales, supply chain management, project management and implementation, e-business, and, knowledge management. These subjects are recognized as independent fields of study. When considering these subjects together, these five subtopics constitute the network of CRM. Khan, Lewis, and Singh [4] have posited that marketing of one-to-one, the establishment of intimate relationships with clients, and the customer management data are crucial elements in sales and marketing strategies. In the realm of project execution and management, Pathranarakul and Sae-Lim [5] have put forward many critical components, including risk management, adaptability for survival, standards of measurement, organizational culture, and corporate-wide customer focus. The movement of e-business may be categorized into two primary categories: Intranet, which is a technology used to re-engineer internal company processes, and Internet, which serves as a two-way conduit connecting businesses with worldwide markets. Knowledge management has been shown to be a crucial factor in achieving effective relationship marketing. Al-Busaidi and Olfman [6] have suggested that the organizational sharing of investments and knowledge in information technology are the primary components in this regard. Lastly, it has been stated by Raman and Grover [7] that the major components consist of business re-engineering, integration of value systems, and investments in information technology. Yohe [8] have made modifications to the CRM Network, as seen in **Fig 1**, by considering cultural considerations.

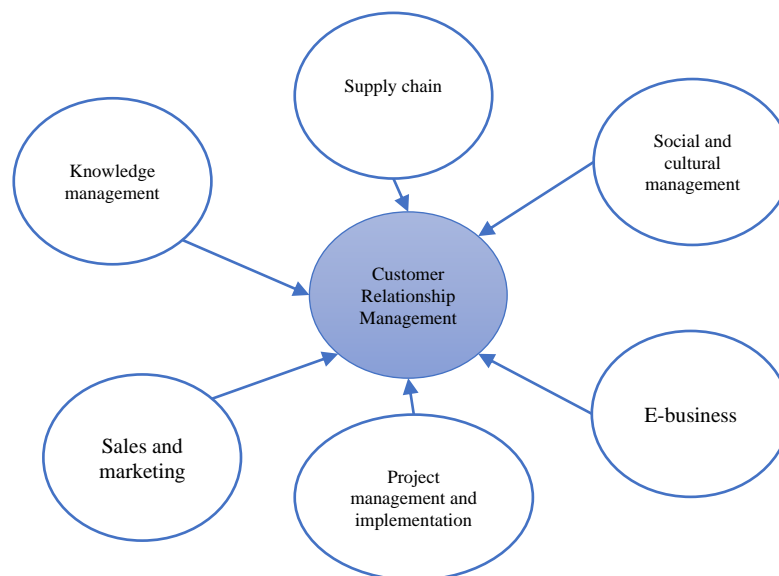


Fig 1. The CRM Network (Modified Framework)

The outcomes of using this study framework, when applied to a particular organization, will demonstrate the impacts of adopting and utilizing CRM on user knowledge, innovation and management. The research begins with a comprehensive literature analysis centered on the idea of CRM and its associated advantages. Through an examination of primary literature, we have gained insight into the contemporary notion of CRM and its effects on adaptable businesses. This concept encompasses both technological advancements and organizational modifications. As a result, we've realized we need to go further into the fundamentals of ambidextrous companies, such as customer knowledge management (representing exploitation) and innovation (representing exploration). Not only will each industry be studied and analyzed independently, but also in light of its special relationship to customer relationship management. This paper will continue in the following structure: The research approach is described in Section II. In Section III, we examine the research on customer relationship management, CSR, CKM, and CRM-driven innovation. Results are discussed in Section IV, with particular attention paid to the CRM benefit charts, the research model, the suggested model, and the model assumptions. Finally, the study is summed up in Section V.

II. METHODOLOGY

The first section of our literature analysis focuses on elucidating the idea of CRM and highlighting the recognized advantages associated with its implementation. This serves as a basis for further research endeavors aimed at quantifying the influence of CRM on crucial business metrics. The subsequent section of this evaluation focuses on two pivotal factors pertaining to organizations that are ambidextrous. The first one is CKM, which is a fundamental element of the process of exploitation. The consideration of the link between CKM and CRM is crucial, as it has the potential to define the tangible advantages of CRM implementation inside organizations. We also take into account innovation as a key factor in our study, as it has been studied in tandem with CRM as a pastime that significantly affects CRM. In the context of using CRM as a fundamental instrument for achieving sustainable business models, innovation has emerged as the most significant component. This dimension does an important role in guaranteeing the future viability and enhancement of the associated advantages.

III. LITERATURE REVIEW

CRM: Concept and Benefits

CRM is a collection of designed software tools to handle the 3 dimensions of relationship of firm-customer, namely services, marketing, and sales.

The inception of CRM may be traced back to the 1970s, during which it arose as a technical tool aimed at automating the internal sales force management inside organizations. Recent bibliometric analyses have examined the development of productivity and influence hubs in the field of CRM, focusing on eminent authors, countries, and institutions. These studies have revealed a significant increase in interest in CRM since 2010, as demonstrated by de Araújo, Pedron, and Picoto [9]. This research serves as a valuable addition to the existing reviews of literature on the effect of CRM on entrepreneurial innovation and marketing, as conducted by Harrigan, Ramsey, and Ibbotson [10].

CRM is a contemporary corporate management tool that facilitates the establishment of efficient techniques and channels for management of customer-centric data. This is often done in combination with Enterprise Resource Planning (ERP) systems. The major objective of this initiative is to enhance organizational performance, hence facilitating enterprises in attaining superior business outcomes. The contemporary methodology presented in this study exhibits notable distinctions from previous methodologies, such as the one outlined by Sin, Tse, and Yim [11], which introduced a fundamental conceptualization of CRM as "an amalgamation of individuals, procedures, and technology aimed at comprehending the clientele of a firm." The aforementioned definition has grown outdated in light of the current advancements in CRM systems, which now include a holistic approach to managing information pertaining to customer knowledge. This shift aims to enhance the efficacy of interactions with customers. Contemporary research in the sector of management of business and the integration of information technology emphasizes the importance of effectively managing crucial information for decision makers in the business realm. Ojasalo [12] have developed a comprehensive conceptual framework on a global scale, which underscores the significance of managing customer information and expectations in order to facilitate successful decision making. This framework further enables the formulation of effective marketing and well-coordinated strategies that aim to retain and attract the most customers profitable for the organization. CRM is considered a crucial instrument for this particular objective.

Recent research supports the significance of CRM as a pivotal instrument in facilitating the modern society transformation and the dynamic market and the present-day globalized. The significance of CRM is emphasized not just due to its ability to enhance existing practices of management, but also due to its potential to foster innovation and exploratory capabilities. The potential inherent in CRM positions it as a very influential technological solution within the realm of contemporary corporate management.

Sustainable CRM

Globally, the pursuit of sustainability has emerged as a central strategic goal. As described by Fishbach, Eyal, and Finkelstein [13], it entails meeting the requirements of the present without sacrificing those of the future. However, there are numerous other sustainable explanations concept that can be categorized into 5 groups: (1) the traditional viewpoint of economists; (2) the non-environmental degradation viewpoint; (3) the integrational viewpoint, which considers economic, environmental, and social factors together; (4) the intergenerational viewpoint; and (5) the holistic viewpoint.

The concept of development sustainability has led to a shift of paradigm in policies and enterprise values, as well as in the business understanding. This shift has also prompted the development of models of new management that consider the environmental, social, and economic consequences of decision-making. The objective is to create enduring mutual benefits for both the organization and its external and internal stakeholders, including both social value and economic.

Within this particular setting, the concept of SCRM emerges as a progressive iteration of CRM as discussed by Ferrer-Estévez and Chalmeta [14]. According to Carr and Smeltzer [15], the concept of Supply Chain Relationship Management (SCRM) involves recognizing the environmental, social, and economic consequences of customer-focused company operations. Additionally, it entails effectively communicating corporate sustainability concerns to consumers, hence enhancing the value of the organization among customers who prioritize sustainability.

SCRM emerges as a result of several factors. Firstly, there is a growing awareness of sustainability within companies. Secondly, the advancement of data technologies, like big data and digitalization, enables the business processes of re-

engineering of CRM, leading to enhanced sustainability. Lastly, the rise of conscientious consumers plays a significant role, as these individuals, cognizant of the adverse impacts associated with the prevailing production and consumption model, actively seek more lifestyles that are sustainable see **Fig 2**.

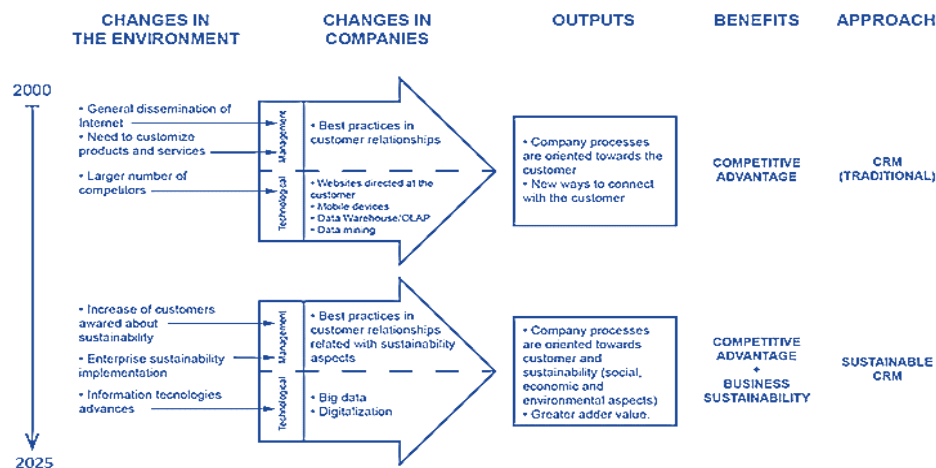


Fig 2. CRM Evolution Concept to CRM Sustainable

CRM and Customer Knowledge Management

The effective administration of the wisdom of the customer is of utmost importance for SMEs. This management process is dependent on two distinct strategic resources, namely CKM and CO. According to Fidel, Schlesinger, and Emilo [16], the authors contend that IO often functions as a highly and crucial efficient mediator between CKM and CO. The influence of both customer cooperation and innovation orientation on customer knowledge management (CKM) and marketing outcomes inside a company is evident, suggesting that both characteristics are crucial for enhancing business performance via the refinement of customer knowledge. CKM, or customer knowledge management, has significant strategic value and exerts a notably beneficial impact on marketing activities, surpassing even the effect of Innovation Orientation. From our perspective, this demonstrates the need of establishing cohesive methods aimed at enhancing the acquisition of comprehensive consumer information.

CKM, also known as Customer information Management, is a comprehensive amalgamation of many organizational tools, processes, and soft skills. Its primary objective is to facilitate the creation, accumulation, and transfer of information pertaining to customers. **Table 1** presents the CKM stages and emphasizes the need for enterprises to concentrate on specific CKM processes within each of these phases. The chart shown above also illustrates the primary issues associated with each phase that enterprises must effectively tackle. The issues presented in this table are classified into three categories: technical, organizational, and human obstacles.

Table 1. CKM Phases

Phases	Processes	Major challenges		
		Human	Organizational	Technological
Phase 1: Knowledge repository	Storage, and acquisition	Trust issues, lack of customer engagement, competency challenges, motivation challenges	CKM approach challenges, inadequate support of management	Embedded knowledge repository, IT infrastructure issues
Phase 2: Knowledge route map	Organization and storage	Competency challenges	Inadequate support of management	IT infrastructure issues, knowledge organization, knowledge maps
Phase 3: Collaborative platform	Sharing	Privacy issues, trust issues, competency challenges, motivation challenges	Structural issues	Social media issues, collaboration system issues
Phase 4: Organizational learning	Knowledge-based utilization	Competency issues, trust concerns	Embedded CK in BP, cultural issues	Social media issues, CKM evaluation issues
Phase 5:	Action-based	Motivation concerns,	Embedded CK in BP,	CKM evaluation

Organizational quality and innovation	utilization	competency issues	cultural issues	issues
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The limited human capital often found in SMEs hinders their ability to internally generate knowledge. Consequently, the implementation of knowledge management (CKM) is essential for SMEs to strategically use their resources and provide value for their customers. According to Diugwu [17], the acquisition of both general knowledge and CKM is seen as a fundamental aspect that enhances competitive advantage inside enterprises of this kind. The connection between innovation and CKM has emerged as a novel field of research, presenting a valuable prospect for further exploration and understanding of these studies and their influence, particularly on excellence of the business excellence, and the enhancement of advantage that is competitive for medium and small-sized companies. Chen and Su [18] have been interviewed to examine the effects of CKM on project and business outcomes. In a more recent study, Nilsson and Ritzén [19] have examined the impact of this phenomenon on the capacities of company innovation.

The primary goals of customer relationship management (CRM) are better knowledge of and response to customers, increased sales, and increased profits. CRM is a managerial strategy that is widely recognized for its focus on the identification, acquisition, retention, and nurturing of valuable relationships of customer. The primary objective of CRM is to enhance customer loyalty, thereby driving profitability. In order to optimize their marketing efforts, prosperous companies have recognized the need of prioritizing consumers who generate substantial money, as opposed to those that are inactive or irrelevant. Consequently, the implementation of customer-tailored tactics has become crucial. CRM facilitates the implementation of these objectives via the effective management of individual customer relationships, using customer databases and interactive technology for mass customization. The need of maintaining an adequate and regularly updated understanding of customers is widely recognized in the context of CRM systems. Consequently, CRM has established significant connections with the field of CKM.

Innovation and CRM

The concept of innovation may be described as a collection of ideas, activities, or things that are seen as pioneering by either an individual or a collective. Innovation skills pertain to a technology organization's use in order to create novel services, systems, gadgets, policies, processes, products, and software. The aforementioned competencies also include a company's capacity to effectively incorporate and external information in order to acquire business data and knowledge that is directed towards achieving success.

The concept of innovation pertains to the capacity of organizations to effectively use their information resources in order to generate novel knowledge. Product innovation refers to the development of a distinct feature, improved aesthetics, or consistent product characteristic with the aim of gaining a larger market share. Service innovation involves manufacturers' dedication to various innovation initiatives aimed at enhancing customer satisfaction with after-sale services. In contrast, Paananen and Seppänen [20] argued that the delivery of customer values is contingent upon the establishment of an effective connection between the firm and its consumers. This relationship is seen crucial in determining the overall relevance of the corporation. Companies may have challenges in meeting customer satisfaction due to the complex nature of client behavior, which makes it difficult to accurately gauge their opinions on product or service quality. Many enterprises, ranging from tiny to medium-sized firms, have a particular inclination towards adopting novel technology as a means to promote and sell their offerings. According to Attaran [21], there is a belief that Information Technology (IT) is presently playing a significant role in the redesign of business processes, leading to a more substantial advancement in the company's service delivery system.

The key feature of client expectations in any business portal, as identified by Greenhalgh [22], is the quality of technical usage. The research conducted by Kocev [23] examines the potential benefits of using a CRM system. The findings suggest that the implementation of a CRM system may provide valuable insights into sales and marketing data, enabling organizations to enhance product innovation and improve customer service. The essential aspect of using the CRM system is the amalgamation of many technologies and business processes to effectively meet the needs and expectations of consumers throughout each interaction. According to Fahmi Al-Zyoud [24], the use of a CRM system has the potential to enhance marketing efficiency via the implementation of flexible tools, insightful analytics, essential management capabilities, and automated reaction mechanisms.

The primary focus in modifying a process, product, or service inside an organizational marketing system is the customer value. The utilization of the CRM system in company technology innovation necessitates alterations to the corporate culture. The integration of business processes and technology is essential for the CRM succession program. However, it is significant to recognize that individual workers have an important role in the development and maintenance of customer connections. According to Eversheim, Krumm, Heuser, and Müller [25], it is essential for companies to enhance their innovation strategies so as to find market demands and the requirements of their customers.

According to Sav [26], organizations that exhibit higher levels of inventive skills in their services and products tend to achieve more success and profits generation that are twice as high compared to enterprises that lack innovation. In light of this, the proactive enhancement of innovation skills to effectively respond to the demands of highly volatile markets and competing entities has emerged as a crucial area of focus for manufacturing enterprises. A study in [27] emphasized the

need of a business perspective that goes beyond customer retention and also includes engaging customers to provide valuable recommendations for the improvement of the firm's goods and services. The use of client Relationship Management (CRM) systems enables firms to enhance their understanding of client preferences and tastes, as highlighted by Bhenamesh and Panahi [28]. The efficacy and efficiency of CRM have been increasingly acknowledged as a mechanism for providing a sustained competitive advantage and enhancing the capacity for innovation.

SMEs have the potential to enhance their CKM by focusing on two primary factors: CO and IO. The CRM requires a comprehensive and harmonized strategy that incorporates both CKM and CO practices. This is a factor that is crucial in ensuring the success of CRM deployment. Both CKM and CO are indispensable resources for the organization. When implemented and utilized as a comprehensive global strategy, the integration of three key resources, namely CKM, CO, and IO, has the potential to enhance the capabilities of SMEs. This includes improving their innovation skills and achieving better results, particularly in terms of marketing, while also maintaining their competitive advantages.

Childress [29] assert that information overload (IO) is seen as a valuable resource inside organizations, playing an equal role in enhancing and sustaining competitive advantage. Rahimi and Mansouri [30] assert that organizational intelligence (IO) plays a crucial role in the attainment of success for firms. Boachie-Mensah and Acquah [31] emphasize the significant contribution of innovation-centered performance in facilitating the development of SMEs. This approach enables organizations to enhance their competitiveness by undergoing a change in their direction. The level of CRM development and command varies across various companies, suggesting that each company's innovation capabilities are likely to be influenced differently in relation to CRM. Technology-based initiatives have been identified as the most prominent driver of CRM impact, with positive benefits across all five categories of innovation. However, it may be argued that not all CRM initiatives have a favorable impact on innovation programs. Hence, it is essential to augment CRM with other components, such as supplier data.

IV. RESULTS AND DISCUSSION

Based on a comprehensive examination of the available scholarly literature, it can be inferred that a majority of prior investigations have effectively elucidated the advantages associated with the CRM usage systems in enhancing performance of organization. However, there is a lack of theoretical understanding on the integrated strategy to balancing the conflicting objectives of exploiting current CRM advantages and exploring future CRM benefits. With the aforementioned dual advantages serving as a foundation, this seeks current study to propose methodology research with the objective of assessing the extent to which CRM may be considered a solution of technology within sustainable business model and the realm of sustainability.

Benefit Charts for CRM: Present and Future

In order to provide a concise overview of our final observations derived from the preceding theoretical discourse, we give a visual representation in the form of a chart see **Fig 3**. This chart illustrates the anticipated advantages that may be attained via the deployment of CRM, including both the present use of CKM and the future innovation potential.

From a standpoint compositional, CRM has three distinct components, namely services, marketing, and sales. These three instruments, when used in collaboration, aim to achieve the primary goal of formulating a successful CRM strategy, with the intention of fostering the improvement of client loyalty. Customer knowledge management (CKM) pertains to the performance of an organization, particularly the discernible benefits associated with CRM. On the other hand, innovation pertains to the anticipated gains that arise from investing in process improvement. Our literature analysis has shown the dearth of viewpoints that explicitly connect CRM (Customer Relationship Management) to sustainability. Additionally, it has highlighted the lack of interest in exploring mix as a dual trend for development sustainable.

Research Model

The current research gaps highlight the need for a set of methodology principles that allow us to connect all of the benefits of CRM, both immediate and long-term, with the current business model that ensures its sustainability in terms of the economy, society, and environment. This study intends to investigate the potential role of CRM as a long-term enterprise management solution for Small and Medium Enterprises (SMEs).

Sustainability and CRM

According to the World Commission on Development and Environment, sustainable development is able to meet the requirements of the current generation without endangering the capacity of subsequent generations to do the same. With the growing awareness among customers regarding sustainability issues such as the scarcity of natural resources, environmental degradation, and social inequalities, customer-centric organizations are now redefining their approach to CRM. This redefinition involves placing greater emphasis on sustainability by striking a balance.

In this instance, the concept of sustainability-oriented CRM is examined by Yun, Vigneswaran, Lee, and Lee [32], who explores the integration of economic, environmental, and social sustainability concerns within the basic aspects of CRM. This perspective highlights the significance of addressing fundamental values and strategic considerations that are often overlooked in traditional CRM approaches, as noted by Aggarwal and Madan [33]. According to Yun, Vigneswaran, Lee, and Lee [34], the incorporation of sustainability concerns into CRM strategies may result in a distinct competitive

advantage and contribute to the long-term viability of corporate operations by taking into account ecological and social constraints. The evident correlation between sustainability and CRM yields significant advantages for both enterprises and customers, hence necessitating more investigation.

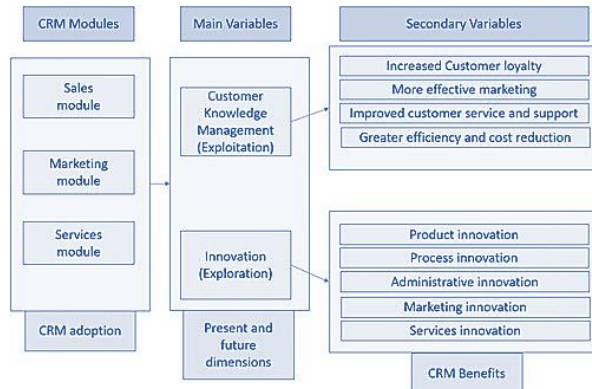


Fig 3. CRM Benefit Chart

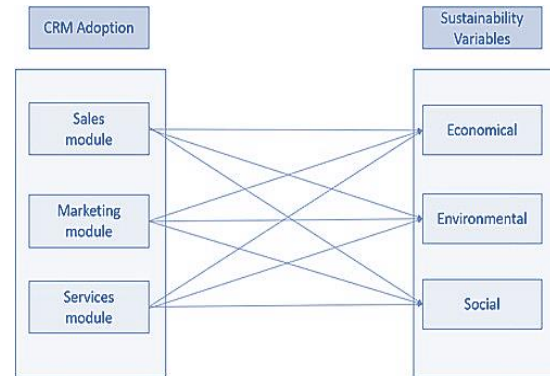


Fig 4. Proposed Research Model

The three primary elements of the "triple bottom line," another name for the three connected features, are the "social bottom line," "environmental bottom line," and "economic bottom line." The achievement of economic sustainability occurs when there is a harmonious equilibrium between the principles of sustainable development and the pursuit of economic performance. The concept of sustainability environment pertains to the effect that activities, processes, and a business operations organization have on the natural habitat. This impact may be either beneficial or detrimental. Social sustainability promotes the establishment of a robust alliance between commercial entities and society, with the aim of achieving sustainable development. In essence, the objective of this last dimension is to achieve a mutually beneficial outcome.

Proposed Model

This section introduces our overarching study model, which seeks to examine the potential impact of CRM deployment on several sustainability factors. This relationship is visually shown in **Fig 4**.

The research questions at hand concern the ways in which the three CRM subsystems—services, marketing, and sales—might affect the 3D of sustainability—social, environmental, and economic. Based on a comprehensive literature study focused on CRM, it has been determined that there is a lack of explicit connections between CRM and Sustainability. This finding suggests that there may be a promising area for further research in exploring the relationship between these two concepts. Based on our perspective, the collective number of links that can be established across the three primary components of CRM, namely sales, marketing, and services, results in a total of nine distinct hypotheses pertaining to fundamental elements of company sustainability.

Model Hypotheses

The following are the nine assumptions/hypotheses of our study model, previously indicated. Confirming these hypotheses would allow us to establish the acceptability of CRM as an innovative solution that is sustainable in the environmental, social, and economic domains.

Hypothesis 1. The CRM sales usage module has an important effect on the cultural viability of the organization.

In the context of economic sustainability, CRM may be seen as a pivotal instrument and a lucrative resolution for fostering more sustainable company models. Shihab, Sukrisna, and Hidayanto [35] has recognized that a substantial investment in CRM may lead to the attainment of client loyalty. This objective is achieved by the allocation of resources towards Improvement and Research, as well as through the pursuit of innovation in MIS. It is apparent that the usage of CRM has the potential to enhance the integration of sustainable practices within a company. However, it is noteworthy that no existing research has specifically focused on presenting empirical evidence to support this claim. From a scholarly standpoint, a more comprehensive review suggests that the sales module of CRM should not alone provide insights into an organization's financial viability, but also provide the groundwork for long-term, sustainable economic prosperity.

Hypothesis 2. The usage of the module of sales of CRM has a significant impact on an organization's degree of sustainability of environment.

In [36], Green IT may be seen as a collection of environmentally sustainable practices including many aspects such as pollution avoidance, sustainable growth, and product stewardship in management of IT. Researchers and practitioners are increasingly recognizing the ecological responsibilities of organizations. From a scholarly perspective, CRM emerges as a

significant remedy for mitigating the environmental consequences of managerial choices, mostly due to its effectiveness in implementing paper-saving procedures. However, our search for academic literature on the relevance of CRM as a collection of Green IT solutions has shown no results. Therefore, the objective of primary research is to promote the use of strategies aimed at minimizing the reliance on paper-based management procedures. Additionally, this study seeks to broaden the limited understanding of the interrelationships between Green IT and CRM. Thirdly, the aim is to emphasize the pivotal role of CRM in mitigating the environmental effect resulting from an organization's routine operations.

Hypothesis 3. The usage of the module of sales of CRM has a significant impact on an organization's degree of social sustainability.

From a social perspective, the optimization of inter-organizational processes within the framework of customer-vendor relationships holds significant importance for theories of common-good management. This is particularly relevant when considering CRM as a managerial approach, which enables the consolidation of customer information into a singular database with streamlined accessibility. Once again, a deficiency is observed in the existing body of research pertaining to the social illustration of customer relationship management and its efficacy in fostering enduring sustainability. In pursuit of this objective, our research framework seeks to validate the extent to which customer relationship management (CRM) effectively promotes societal welfare by the consolidation of sales information from many stakeholders (including suppliers, customers, and the corporate itself) into a centralized repository.

Hypothesis 4. The usage of the customer relationship management module of marketing has an important impact on the variability of the economy organization.

CRM systems play a significant function in the active cultivation and gradual enhancement of customer loyalty, which is an essential prerequisite for the establishment of a sustainable company model. To date, there is a lack of research literature examining the possible direct correlation between the implementation of the economic sustainability of firms and the CRM marketing module. This will enable us to ascertain if the usage of the component of CRM marketing may have a tangible impact on a company model that is sustainable. This proposition seems to be a rational potential as the consolidation and organized storage of marketing and customer data inside a single database might enhance the effectiveness of the company's marketing endeavors aimed at specific consumers. This, in turn, could lead to heightened loyalty of customer and, subsequently, improved economic viability.

Hypothesis 5. The usage of the Customer Relationship Management module of Marketing has a significant impact on a company's degree of sustainability of environment.

Environmental sustainability refers to the adoption of efficient strategies that have a beneficial influence on the ecological aspect of a firm. In [37], scholars provide a definition of Green IT as a collection of behaviors that prioritize sustainability of the environment. These practices include pollution avoidance, stewardship of products, and the promotion of development sustainability within management of IT. Despite the novelty of perceiving CRM as a solution of Green IT, this paper presents a framework that outlines the utilization of a centralized marketing-action database as a means to significantly diminish reliance on paper-based processes. Additionally, the model advocates for the adoption of time-saving procedures. It is reasonable to assert that such cost reductions are needed in order to establish a really sustainable corporate framework.

Hypothesis 6. The usage of the CRM module has a significant impact on the organization's degree of social sustainability.

Scholars in [38] demonstrate the potential benefits that may be achieved via customer information in commercial relationships and effective management of vendor. Tailoring campaigns of marketing and activities to effectively reach target consumers requires a substantial quantity of information, which may be seen as a public benefit and a crucial element of an organization's sustainable and socially responsible strategy.

Hypothesis 7. The usage of the Customer Relationship Management has an important effect on an organization's economic viability.

It is apparent that customer service excellence plays a crucial role in fostering customer loyalty. A company that is genuinely committed to meeting customer needs, expectations, and requirements must prioritize delivering a superior customer experience. This, in turn, has the potential to strengthen allegiance of customer. CRM is a technology that prioritizes customer service, emphasizing the importance of the customer's perspective in the organization's endeavors. This highlights the strong correlation between CRM and customer loyalty, which is facilitated by a robust services module. Customer loyalty is a fundamental aspect of economic sustainability. This observation prompts the formulation of a novel hypothesis that establishes a link between the financial sustainability and CRM services module.

Hypothesis 8. The usage of the Customer Relationship Management has a significant impact on an organization's degree of sustainability of environment.

With the growing awareness among customers regarding sustainability issues such as the limited availability of natural resources, environmental degradation, and social inequalities, organizations that prioritize customer satisfaction have begun to reevaluate their approach to customer relationship management (CRM) in order to incorporate sustainability considerations. This entails striking a balance between profitability and the responsibilities towards the environment and society. Shah, Ahmed, Ismail, and Mozammel [39] have established a connection between Green IT and environmental sustainability, highlighting it as a significant advantage that the deployment of CRM may provide to organizations. The use of Customer Relationship Management (CRM) has the potential to provide time and resource savings, as well as reduce paper consumption and other resource usage, aligning with the principles of environmentally friendly business practices. In accordance with this, a concluding hypothesis might pertain to and demonstrate the impact of CRM deployment on the aspects of ecology of outcomes of entrepreneur.

Hypothesis 9. The usage of the CRM has a significant effect on an organization's degree of social sustainability.

Anshari and Almunawar [40] provide an early scholarly work that investigates social CRM and puts out a conceptual framework for a "social CRM system." The conceptual framework integrates the features of Web 2.0, social media platforms, and customer relationship management (CRM) approaches. From this particular standpoint, Baral and Shrestha conducted a validation of a novel approach to implementing social customer relationship management (CRM) inside organizations. This approach included the integration of big data and Web 2.0 technologies with the aim of augmenting customer involvement. When examining the influence of managerial operations of CRM-related efficiency, it is reasonable to see CRM as a significant answer in the endeavor to establish mutually beneficial relationships between consumers and providers. The measurement of the effect of using the CRM for the aim of sustainability may be achieved by measuring the relationship between enhancements in service of customer, the growth of trust between customers and vendors, and the effectiveness of management of service-process.

V. CONCLUSIONS

In the contemporary corporate landscape, the need for achieving success necessitates the adoption of CRM strategies, bolstered by robust technical solutions for effective business administration. The installation of this technology solution has shown significant growth, making it one of the fastest-growing options in terms of its influence on return on investment. This learning has improved a model of research to empirically examine the effect of the three components of CRM on customer management and innovation, as well as on organizations' endeavors in sustainable model of business innovation and digital transformation. To begin, we have utilized the CRM-benefit chart depicted above as a foundation. This chart consists of two distinct trajectories: one focused on patterns of current-exploitation for enhancing performance of an organization, and another aimed at exploring potential innovations. These paths collectively pave the way towards the improvement of a sustainable model of business for the future. The model of study has been constructed to include all possible combinations of the three modules of CRM and the 3 sustainability factors, namely social, environmental, and economic. Organizations, namely those of smaller scale such as SMEs, have a strong inclination towards augmenting their capacity for data processing by embracing technologies and solutions that prioritize efficiency and success. CRM is a contemporary information system (IS) that offers business decision-makers (BDM) access to significant company data, particularly in relation to three key areas: services, marketing, and sales. The objective of the model of research shown in this article is to provide a framework and a set of credible hypotheses in a present empirical investigation to validate the impact of component of CRM that influence on the 3D of sustainability.

Upon the verification of these assumptions, the further on this model by validation has the potential to enhance our comprehension of the mechanism by which benefits related to CRM facilitate a positive association between each dimension and each CRM component sustainability. From this perspective, it is essential to see CRM as a distinct category within the realm of IT that is Green, focusing on modern transformation and the development of models of business sustainability. In relation to the CRM-benefit chart, it is important to recognize that CKM is the first primary variable. However, it is crucial to recognize four more factors that have a significant impact on business outcomes. These variables should be included in a more detailed research model to effectively quantify their influence. Given the impact of these factors on business indicators and the manner in which customer relationship management (CRM) facilitates their achievement as desired objectives, our research model has the potential to experimentally illustrate how CRM assists organizations in achieving success by implementing a systematic and well-organized approach for managing customer information.

First, favorable result is the augmentation of client loyalty, which demonstrates a customer-centric and therefore prosperous organization based on the concepts of relational marketing. Another advantageous outcome is the improvement of marketing strategy efficacy, as client Relationship Management (CRM) may provide vital information to internal marketing stakeholders. This enables them to strategize and choose the most successful campaigns and marketing initiatives for client targeting. One of the key benefits of CRM is the enhancement of customer care and support. This

aspect is closely linked to the services sector and does a vital role in facilitating an organization's ability to keep its most valuable clients. By implementing an effective post-sales customer experience plan, companies can assure the satisfaction and loyalty of their consumers. One additional advantage pertains to the enhancement of efficiency and reduction of costs. This advantage arises from the necessity for an organization to adjust its service, marketing, and sales strategies to align with certain objectives and characteristics of customer. By doing so, the company can tailor its offerings based on a clear understanding of demand of the market, thereby achieving success and attaining efficiency.

Data Availability

No data was used to support this study.

Conflicts of Interests

The author(s) declare(s) that they have no conflicts of interest.

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Ethics Approval and Consent to Participate

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