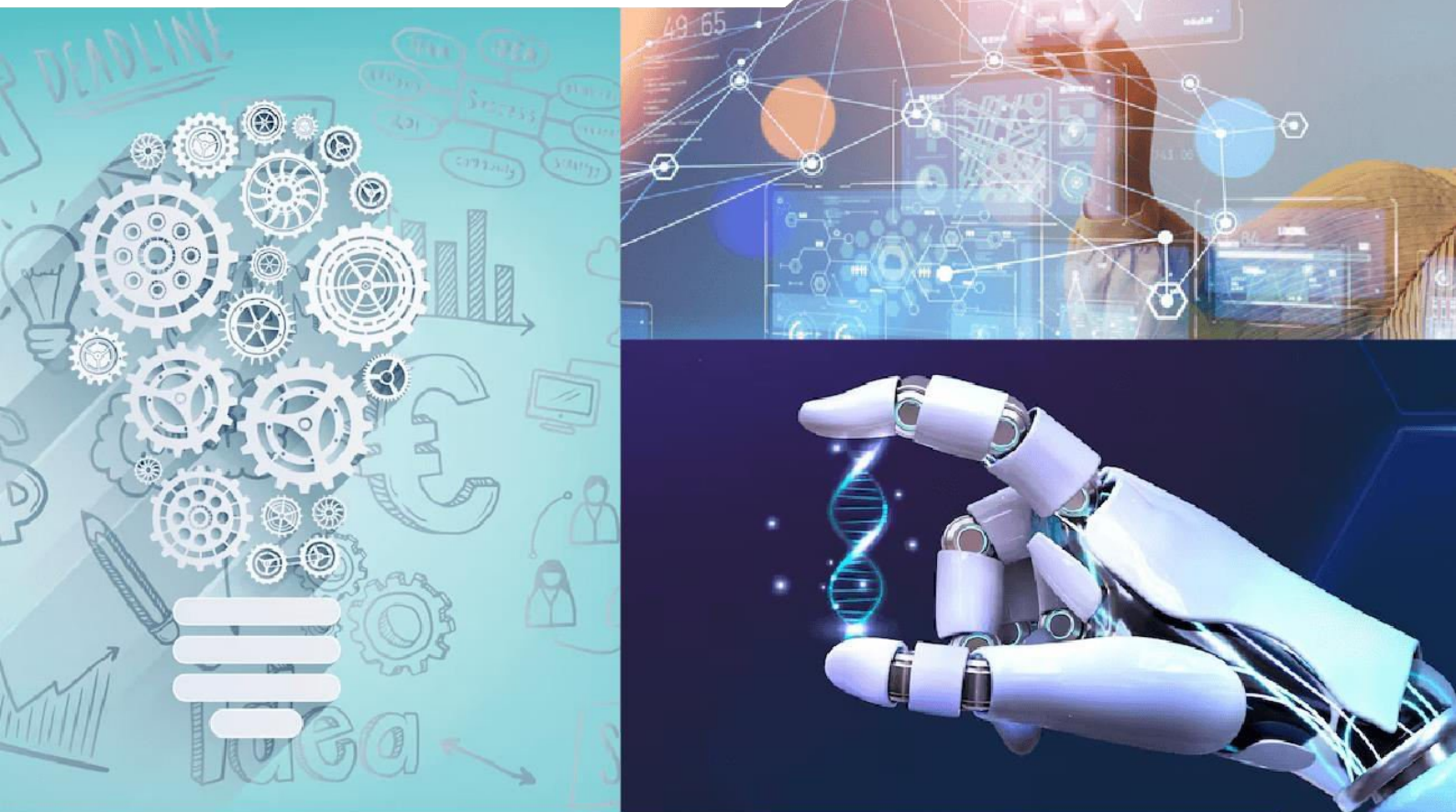




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A Study on the Effectiveness of Customer Relationship Management (CRM) with Business Intelligence in Raini Industries India Private Limited, Chennai

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ABSTRACT: Business intelligence (BI) and customer relationship management (CRM) have emerged as a key tactic for companies looking to improve customer interactions, optimize processes, and promote data-driven decision-making. While BI tools examine vast datasets to provide insights that enhance strategic planning, CRM solutions assist companies in managing client connections, monitoring interactions, and streamlining sales processes. Businesses may improve overall company performance, increase service efficiency, and customize customer experiences by integrating these technologies. The purpose of this research is to assess how well CRM and BI work together to enhance data accuracy, decision-making, and sales success. Businesses looking to use technology for revenue development, client retention, and competitive advantage must comprehend the effects of this integration. The objective of the study is to analyse the effectiveness of Customer Relationship Management (CRM) with business intelligence in Raini Industries India Private Limited, Chennai. The sample size of the study is 120. Descriptive research method and convenience sampling technique have been used to analyse the study. Simple percentage analysis, chi square and correlation have been used to reach the findings of the study. To evaluate how CRM and BI support corporate expansion, maximize customer interaction, and improve operational effectiveness, this research is crucial. The report offers insights for firms to optimize the potential of CRM and BI in attaining long-term success by highlighting important obstacles and advantages.

KEYWORDS: Customer Relationship Management , Business Interlligence, CRM System, Sales Performance

I. INTRODUCTION

Businesses are depending more and more on technology in the digital era to better decision-making and increase consumer engagement. In order to manage client contacts, streamline corporate procedures, and build lasting partnerships, customer relationship management, or CRM, has become an essential tool. CRM systems provide businesses the ability to monitor client information, examine consumer spending patterns, and target marketing campaigns. To extract useful insights from massive volumes of data, business intelligence (BI) technologies must be integrated with CRM due to the increasing complexity of consumer expectations and market dynamics. By offering data-driven analytics, enhancing predictive modeling, and empowering companies to make well-informed, strategic choices, BI improves CRM. A number of variables, like as user acceptance, data quality, and system usability, affect how successful CRM with BI is. CRM improves customer management, but it can only reach its full potential when data is reliable, integrated, and used to inform business choices. Ineffective use of BI technologies, poor data quality, and a lack of integration may result in financial losses, unhappy customers, and poorly thought out plans. Therefore, assessing how companies use BI and CRM in tandem is essential to comprehending how they affect operational effectiveness, client retention, and sales success.

Objectives of the Study

- To study on the effectiveness of Customer Relationship Management (CRM) with business intelligence in Raini Industries India Private Limited, Chennai
- To evaluate the CRM system usability in improving business operations

- To assess the Data Quality and Integration within the CRM system for effective decision-making
- To analyze the Business Intelligence Tools Utilization in the company
- To examine the impact of CRM and business intelligence tools on sales performance

II. REVIEW OF LITERATURE

Lee, J. H., & Park, S. C. (2025).For the success of CRM, it is important to target the most profitable customers of a company. Many CRM researches have been performed to calculate customer profitability and develop a comprehensive model of it. Most of them, however, had some limitations and accordingly the customer segmentation based on the customer profitability model is still underutilized. This paper aims at providing an easy, efficient and more practical alternative approach based on the customer satisfaction survey for the profitable customers segmentation. We present a multi-agent-based system, called the survey-based profitable customers segmentation system that executes the customer satisfaction survey and conducts the mining of customer satisfaction survey, socio-demographic and accounting database through the integrated uses of business intelligence tools such as DEA (Data Envelopment Analysis), Self-Organizing Map (SOM) neural network and C4.5 for the profitable customers segmentation. A case study on a Motor company's profitable customer segmentation is illustrated.

Toma, m. I. (2024).The emergence of the Internet and tremendous connectivity promoted by the Web created a dynamic, open and convenient environment for social challenges, as well as business opportunities. In the case of businesses, the advent of the Internet provided the opportunity for new entrepreneurial projects focusing on the perspective of the Web, as well as it widened the opportunities for old, static or local traditional businesses. One of the most essential features issued by this social and technical change is the social interaction established by the new communication method. For example, in the case of goods promoted over the Internet customers don't access physical or any specific details, as consequence they have to rely on the promise of the seller concerning the performance of that product.

Bin Zulkiflee, I., Haw, S. C., Ng, K. W., Naveen, P., Krisnawati, L. D., & Mahastama, A. W. (2023). The Customer Relationship Management (CRM) dashboard with analytics capabilities may be useful for businesses desire to understand consumer behaviour and gain competitive ad-vantages. This user-friendly dashboard allows organizations to efficiently collect and evaluate important data, including customer interactions, purchase histories, and demographics. By leveraging various visualization techniques, such as histogram, bar charts, line charts, and heatmaps, the CRM dashboard displays statistics, enabling businesses to understand more about customer journeys, patterns, and behavioural trends. The integrated recommender system on the CRM dashboard is also crucial. Based on their historical interactions and buying behaviours, this system recommends tailored products or services to customers, enhancing engagement and ultimately increasing sales. The methodology used in this research is structured based on a standard data analytics procedure. The methods used to gather and evaluate the data are described in the data gathering and analysis. It contains details on the data gathering, the steps used to clean and prepare the data, and the statistical or analytical techniques employed to evaluate the data.

III. RESEARCH METHODOLOGY

In this study Descriptive research design is used. 120 sample size used in this study. Simple percentage analysis, chi square and correlation are used in this study. Conveniences sampling technique is used in this study. Both primary data and secondary data are used in this study.

Data Analysis and Interpretation

Table No: 1 JOB ROLE OF THE RESPONDENTS

JOB ROLE	NO. OF THE RESPONDENTS	PERCENTAGE
Sales & marketing	19	15.8
Customer service	55	45.8
IT & data analytics	25	20.8
Management & administration	11	9.2
Others	10	8.3
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 15.8% of the respondents said that sales and marketing, 45.8% of the respondents said that customer service, 20.8% of the respondents said that IT and data analysis, 9.2% of the respondents said that management & administration and 8.3% of the respondents said that others as their job role. Thus the majority of the respondents said that customer service as their job role.

Table No:2 Educational Qualification of the Respondents

EDUCATIONAL QUALIFICATION	NO. OF THE RESPONDENTS	PERCENTAGE
UG	30	25.0
PG	39	32.5
Professional	40	33.3
Diploma	11	9.2
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 25.0% of the respondents have completed UG, 32.5% of the respondents have completed PG, 33.3% of the respondents have completed professional and 9.2% of the respondents have completed diploma educational qualification. Thus the majority of the respondents have completed professional.

Table No: 3 CRM System Usability

Particulars	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
The CRM system provides a seamless experience across different devices	32 (26.7%)	15 (12.5%)	37 (30.8%)	22 (18.3%)	14 (11.7%)
The CRM interface is visually appealing and well-organized	41 (34.2%)	15 (12.5%)	21 (17.5%)	22 (18.3%)	21 (17.5%)
Customer data can be easily retrieved from the CRM	34 (28.3%)	25 (20.8%)	31 (25.8%)	20 (16.7%)	10 (8.3%)

system					
The CRM system rarely experiences technical issues or downtime	30 (25.0%)	16 (13.3%)	36 (30.0%)	22 (18.3%)	16 (13.3%)
Customization options in the CRM system enhance usability	46 (38.3%)	17 (14.2%)	21 (17.5%)	28 (23.3%)	8 (6.7%)

Interpretation

The table above demonstrates that 30.8% of the respondents are neither agree nor disagree towards the CRM system provides a seamless experience across different devices, 34.2% of the respondents are strongly agree towards the CRM interface is visually appealing and well-organized, 28.3% of the respondents are strongly agree towards customer data can be easily retrieved from the CRM system, 30.0% of the respondents are neither agree nor disagree towards the CRM system rarely experiences technical issues or downtime, and 38.3% of the respondents are strongly agree towards customization options in the CRM system enhance usability.

Table No: 4 Business Intelligence Tools Utilization

Particulars	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Business intelligence tools are regularly used for analyzing sales and customer interactions	31 (25.8%)	29 (24.2%)	30 (25.0%)	25 (20.8%)	5 (4.2%)
BI tools contribute to accurate sales forecasting	19 (15.8%)	36 (30.0%)	23 (19.2%)	23 (19.2%)	19 (15.8%)
Integration of BI tools with CRM improves workflow efficiency	25 (20.8%)	43 (35.8%)	18 (15.0%)	24 (20.0%)	10 (8.3%)
Business intelligence tools help identify potential business opportunities	25 (20.8%)	62 (51.7%)	12 (10.0%)	15 (12.5%)	6 (5.0%)
Dashboards and reports generated by BI tools are easy to interpret	43 (35.8%)	29 (24.2%)	10 (8.3%)	14 (11.7%)	24 (20.0%)

Interpretation

The table above demonstrates that 25.8% of the respondents are strongly agree towards business intelligence tools are regularly used for analyzing sales and customer interactions, 30.0% of the respondents are agree towards BI tools contribute to accurate sales forecasting, 35.8% of the respondents are agree towards integration of BI tools with CRM improves workflow efficiency, 51.7% of the respondents are agree towards business intelligence tools help identify potential business opportunities, and 35.8% of the respondents are strongly agree towards dashboards and reports generated by BI tools are easy to interpret.

Chi Square Analysis: Relation Between The Job Role of The Respondents And CRM System Usability

Null hypothesis (H0): There is no significant difference between job role of the respondents and CRM system usability.

Alternative hypothesis (H1): There is some significant difference between job role of the respondents and CRM system usability.

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	234.074a	60	.000
Likelihood Ratio	195.492	60	.000
Linear-by-Linear Association	11.900	1	.001
N of Valid Cases	120		
a. 75 cells (93.8%) have expected count less than 5. The minimum expected count is .08.			

INTERPRETATION

As per the above table, it is inferred that the P value is .000; it is significant to 5% (0.05) significant level. The minimum expected count is .08. Thus null hypothesis is rejected and it is found that there is significant relationship between job role of the respondents and CRM system usability.

CORRELATION ANALYSIS: Relationship Between Educational Qualification of The Respondents And Business Intelligence Tools Utilization

Null hypothesis (H0): There is no significant difference between educational qualification of the respondents and business intelligence tools utilization.

Alternative hypothesis (H1): There is some significant difference between educational qualification of the respondents and business intelligence tools utilization.

Correlations			
		EDUCATIONAL QUALIFICATION OF THE RESPONDENTS	BUSINESS INTELLIGENCE TOOLS UTILIZATION
EDUCATIONAL QUALIFICATION OF THE RESPONDENTS	Pearson Correlation	1	-.353**
	Sig. (2-tailed)	120	.000
	N	-.353**	120
BUSINESS INTELLIGENCE TOOLS UTILIZATION	Pearson Correlation	.000	1
	Sig. (2-tailed)	120	120
	N	1	-.353**

**. Correlation is significant at the 0.01 level (2-tailed).

INTERPRETATION:

The above table indicates that out of 120 respondents, co-efficient of correlation between educational qualification of the respondents and business intelligence tools utilization is -.353. It is below 1. So there is negative relationship between educational qualification of the respondents and business intelligence tools utilization.

IV. SUGGESTIONS

- To improve decision-making, the company should implement real-time data updates in its CRM system.

- To protect sensitive customer information, the company needs to bolster data security and privacy measures within the CRM system.
- BI-driven insights should be used by the company to enhance sales strategies and improve customer engagement.
- The company should leverage CRM-driven customer insights to improve its customer relationship management initiatives.
- The company should utilize BI tools within CRM to enhance the precision and efficiency of sales forecasting.
- To achieve greater lead conversion rates, the company ought to concentrate on the integration of CRM and BI tools.
- The company needs to improve the sales reporting and tracking processes via the CRM system to boost efficiency.

V. CONCLUSION

The conclusion drawn is that the effectiveness of Customer Relationship Management (CRM) when combined with Business Intelligence (BI) is vital for improving business operations, customer engagement, and sales performance. An effectively executed CRM system guarantees smooth accessibility, usability, and data precision, aiding in efficient customer interactions. CRM transforms into a valuable organizational resource when combined with BI tools, facilitating decisions based on data, boosting the efficiency of workflows, and refining sales predictions. The results imply that in order to reap the full benefits of CRM and BI integration, companies should prioritize system optimization, customization, and data security. Moreover, it is concluded that the collaboration between CRM and BI tools enhances sales strategies, increases lead conversion rates, and improves customer insights, thereby propelling business growth. Organizations that regularly incorporate BI-driven analytics into their CRM systems acquire a competitive advantage by uncovering potential business opportunities and improving customer relationship management. In order to maintain long-term success, businesses must make ongoing investments in enhancing their CRM and BI capabilities, ensuring that technological progress is in line with organizational objectives and customer expectations.

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