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INVESTIGATING THE EFFECT OF CUSTOMER RELATIONSHIP MANAGEMENT ON CUSTOMER SATISFACTION OF ABUJA ELECTRICITY DISTRIBUTION COMPANY PLC, NIGERIA

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ABSTRACT

The study investigated the effect of Customer Relationship Management (CRM) customer satisfaction using a sample of customers of Abuja Electricity Distribution Company (AEDC). The study was guided by three specific objectives. To achieve these objectives, the study took a quantitative approach using a survey structured questionnaire to collect primary data on each of the variables from 316 staff of AEDC across all its regions and clusters. The demographic data collected was analysed using descriptive statistics in the form of tables and percentages while the null hypotheses were tested using inferential statistics in the form of Structural Equation Modelling (SEM) with Analysis of Movement Structures (AMOS) version 22 software. The findings obtained from the analysis indicated that the model's R² was 58%. The results showed

that CRM (Customer knowledge [$\beta = 0.171$, $p\text{-value} = 0.048$], customer value [$\beta = 0.275$, $p\text{-value} = 0.006$], CRM Technology [$\beta = 0.399$, $p\text{-value} = 0.000$]) has a significant positive effect on customer satisfaction. Therefore, all the three null hypotheses were rejected. The study concluded that CRM has a significant positive effect on customer satisfaction and recommended among others that AEDC's management should tailor CRM strategies towards satisfying customers which invariably boost company's performance.

Keywords: Customer Relationship Management (CRM), Customer Satisfaction, Abuja Electricity Distribution Company (AEDC), Structural Equation Modelling (SEM).

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1.0 Introduction

Customer satisfaction (CS) is a crucial element in business success. This satisfaction shows the feelings of customers after using a firm's product/service and then compare the service performance derived with their expectations. The goal of every business organisation is to perform impressively and survive for a long time in the contemporary business environment characterised by stiff competition. To achieve this, firms must move closer to their customers, expend more effort in discovering innovative approaches by which they can enhance customer satisfaction (Dewi *et al.*, 2024).

Contemporary business environment places a strong call on a well-crafted customer relationship for a business to succeed (Fraihat *et al.*, 2023). Consequently, many firms across the world have honed their strategies to adopt a customer-centric approach, thus, shifting away from the conventional product-centric marketing approach so as to develop and maintain healthy relationship with valuable customers through an improved Customer Relationship Management (CRM) approach (Bachir, 2021).

CRM is the integration of practices, strategies, and technologies that firms use in the management and analysis of customer interactions and data for improvement in customer service relationships and help in achieving effective customer and drive performance (Sahoo,

2020; Adegbola *et al.*, 2024). Contemporary businesses such as electricity distribution companies (DISCos) carry out their operations in a customer-centric business environment where consumer relevance in the market is on the rise. They are being compelled by this awareness to regard customers as assets that should be treasured and managed (Jaja & Gabriel, 2024). Hence, firms in today's now appreciate prioritising customers' needs and are actively implementing CRM as a basic strategy of business.

Scholars (Dewi *et al.*, 2024; Fauzi and Mustafa, 2024; Mechta *et al.*, 2024) have identified various dimensions of CRM such as personalisation, customer feedback, customer involvement, improved service delivery, building long-term relationships, knowledge management, customer orientation, technology integration, customer identification, customer value, customer needs analysis, system integration, communication management, monitoring and evaluation, sustainable process development, and customer development that could affect customer satisfaction.

Electricity Distribution Companies play a crucial role in ensuring a reliable and efficient supply of electricity to consumers. AEDC is a major player in Nigeria's power sector, responsible for electricity distribution in the Abuja region. Given the critical role of electricity in driving economic activities, AEDC's performance is crucial for local development. The Abuja Electricity Distribution Company (AEDC) operates in a challenging environment that significantly deviates from this ideal state. Effective CRM for AEDC would involve improving customer relations and communication, addressing customer grievances, and ensuring service reliability. Enhanced customer engagement can lead to better customer satisfaction and loyalty, which are vital for performance (Suleiman & Alabi, 2022).

Abuja Electricity Distribution Company (AEDC) PLC faces significant performance challenges. Despite being a crucial player in Nigeria's electricity distribution sector, AEDC struggles with operational inefficiencies, customer satisfaction issues, and competitive pressures. The persistent poor supply of electricity by AEDC has affected commercial activities negatively in the three states as well as Abuja that constitutes its area of coverage. In addition, exorbitant estimated electricity bills that do not reflect actual consumption are given to customers at month ends despite poor electricity supply followed by prompt disconnection of customers by AEDC's staff in a manner that negates good customer relationship management, thus, resulting in frequent harassment and general dissatisfaction among customers.

Previous attempt by the government to tackle find a solution to the problem of unfair billing and reduce the associated problem through the introduction of prepaid meters has not

yielded meaningful results as some customers who paid for installation so as to avoid the exorbitant estimated bills are yet to be treated. This has further worsened the frosty relationship between AEDC and its dissatisfied customers, a situation that has affected overall performance of the company. Understanding the impacts of CRM on client satisfaction within AEDC's environment is important as a solution to these aforementioned challenges. Against this backdrop, therefore, this study analysed, using Structural Equation Modelling-Analysis of Movement Structure (SEM-AMOS), to ascertain the effect of CRM on the customer satisfaction of AEDC.

2.0 Literature Review

2.1 Conceptual Review

2.1.1 Customer satisfaction

Customer satisfaction is a key component in modern-day business models which gives greater recognition to the customer as an extremely important stakeholder (Boo and Kim, 2022). The effectiveness of the entire concept of CRM is determined by its ability to generate customer satisfaction. A satisfied customer will persistently seek for avenues to further develop and maintain the relationship between him and the company (Udeh *et al.*, 2024). Therefore, customer satisfaction is a crucial aspect of any business, and AEDC is no exception. It is essential because it has a significant effect on customer retention, loyalty, and profitability (Elgarhy & Mohamed, 2022).

2.1.2 CRM

CRM refers to the process of discovering, acquiring, and preserving valuable customers and calls for a clear focus on the features of a service that can give value to customers so that it can generate loyalty (Wibowo, 2023). CRM is one of the important strategies used in managing customers. It focalises understanding and relating with customers as individuals who has a choice rather than if they are part of the group (Udeh *et al.*, 2024). It is essential for firms to become aware that customers always have several choices and alternatives which leads them to make their choices and decide to withdraw their loyalty to any firm when they feel dissatisfied (Gifford *et al.*, 2010). Due to its influence on management processes in areas such as marketing, sales, and services, it is beneficial in improving customer satisfaction and general commercial activities (Guerola-Navarro *et al.*, 2020).

2.1.3 Dimensions of CRM

According Wibowo (2023) identifies a number of CRM dimensions including customer needs analysis, system integration, employee training, personalisation of services,

communication management, monitoring and evaluation, and sustainable process development. However, this study is dedicated to four of these dimensions that are considered relevant to CRM practices at AEDC. These are customer interaction, customer knowledge, customer value, and technology integration.

2.1.3.1 Customer knowledge Management (CK)

Customer knowledge can be conceptualised as the information and experience obtained from the effective acquisition, development, and retention of a profitable customer portfolio. It involves comprehending the values of customers, customer product experience, and the effect of behavioural and environmental factor on their ability to achieve satisfaction through the utilisation of the product (Holgado & Macchi, 2023). Additionally, CK also involves knowing customer-specific and market features, which is vital to the design of competitive services and adjustment of service processes. The acquisition of knowledge on customer data and information raises the chance that the product and services produced by the enterprise will serve customers' needs and meet their requirements. In view of this, the study tested the first hypothesis as stated below:

H₀₁: Knowledge management has no significant effect on the customer satisfaction of AEDC.

2.1.3.2 Customer value

Customer value can be conceptualised as the benefits they obtain from certain services that come as a result of interactions, integration, and resource sharing. It stands in between an enterprise' resources and the outcomes of the market which form the financial goal of the business (Dananjoyo *et al.*, 2024). Customer value has been considered a source of competitive advantage for organizations (Apoorva and Arif, 2022). Customers do not become loyal to enterprises automatically. Such loyalty must be intentionally built by firms through value creation for customers to be faithful. A positive customer experience will build a positive brand image (Nainggolan *et al.*, 2022). Therefore the study formulated another hypothesis to test the effect of customer value on customer satisfaction as follows:

H₀₂: Customer value has no significant effect on AEDC's customer satisfaction.

2.1.3.3 CRM technology

CRM technology refers to computer technology organised with the sole objective of establishing a strong and enduring customer relationship management. It is the degree to which firms use supporting information technology to manage customer relationships effectively. Different Industries resort to the adoption of novel techniques and strategy like CRM

technology use to offer assistance to customers, employees and boost firm performance (Othman and Kamarohim, 2021). It permits the integration of a firm's marketing activities such as market research, communication, service, order management, and sales in order to create knowledge on individual customers leading the firm to concentrate on customer acquisition, retention, and profitability (Alshourah, 2019). The above position led to the formulation of another hypothesis for empirical test as shown below:

H₀₃: There is no significant effect of technology integration on the customer satisfaction of AEDC.

The conceptual framework of the study is adapted from Fraihat *et al.* (2023) and it is shown in Figure 2.1.

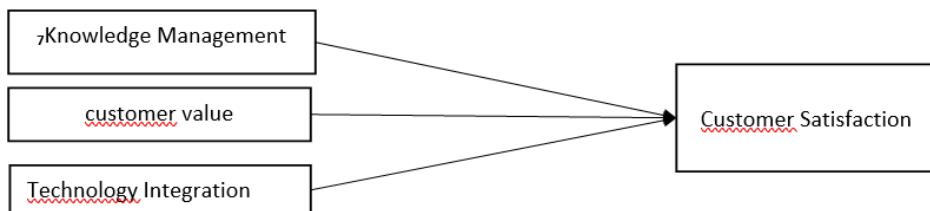


Fig. 2.1: Conceptual Framework of the Study

Source: Adapted from Fraihat *et al.* (2023)

Figure 2.1 shows the two major constructs of the study. These are the independent (CRM) and the dependent construct (CS). It further indicates that CRM which is the independent construct has three different dimensions (customer knowledge, customer value, and CRM technology) through which it affects customer satisfaction which serves as the dependent construct of the study. Therefore, the conceptual framework depicted in Table 2.1 illustrates the nature of the interactions or relationships existing among the constructs of the study in relation to AEDC's performance.

2.2. Theoretical framework

The theory of Resource-Based view underpins this study (RBV). The RBV offers a suitable multidimensional approach to the CRM application because it connects efficiency in firm performance to the various resources that result in competitive advantage (Barney, 1991). It highlights that, building and maintaining unique resources that provides long term competitive advantages unlike external factors, these resources, if rare and matchless can protect the firm from competitor's and market changes. In this study, CRM resources taken into consideration are customer interaction, customer knowledge, customer value and CRM technology.

Practical implications of the study could include insights for policy makers on regulatory frameworks to reward efficient and customer centric practices in the energy sector. For company managers, the study could provide recommendations on optimising marketing strategies to enhance customer satisfaction, reduce churn, and improve financial performance. Other stakeholders such as investors and consumers could benefit from a better understanding of the factors influencing organisational performance and how they can contribute to or benefit from improvements in the energy sector.

2.3 Empirical review on the effect of CRM on Customer satisfaction

Samia *et al.* (2020) beamed their empirical searchlight on how CRM affects business performance in the hospitality industry by evaluating the impact of CRM on CS and customer loyalty through the mediation effect of customer perceived value. The study which drew its sample from 5-star hotels in Egypt gathered primary data through self-administered questionnaires to 190 respondents. Analysis of the data collected through the application of SEM revealed that CRM has a significant positive direct impact on CS.

The study of Bachir (2021) highlighted the various benefits offered by the introduction of electronic CRM into banking operation such as reduced routine work across bank branches, huge customer information data storage, assessment of customers' their needs and instant responses to complaints. The study which was conducted in Beirut, Lebanon was titled the evolution of customer relationship management in the digital age and its impact on banks was aimed at satisfying customers' needs and attaining their loyalty to achieve higher revenues and thus profits. The study which employed a structured questionnaire to elicit information from 100 respondents applied regression analysis to analyse the data generated and found that CRM has significant positive effect on customer satisfaction. The study recommended the need for marketing managers to improve the already existing CRM guidance in order to meet the needs of customers.

Similarly, Dananjoyo and Wibowo (2024) defended the opinion that CRM strategies have become essential for improving company efficiency in the area of customer satisfaction in today's fast-paced business world characterised by stiff competition. Examining the role of CRM in to strengthening CS. Using purposive sampling technique, the study collected primary data from 170 consumer of Indonesian retailers of building materials through a structured questionnaire. The data collected were analysed through the application of SEM and the results indicated that CRM has a positive and significant impact on CS in the building material retail sector.

Miracle *et al.* (2023) aligned their view with earlier researchers by emphasising that CRM is a key strategy for a bank's competitiveness in Nigeria wherein lies the success of commercial banks. They submitted in the findings of the study conducted in Southeast, Nigeria, on the effect of CRM on satisfaction of commercial bank customers that the components of CRM as used in the study which included knowledge management, CRM technology, and customer orientation have significant positive on CS. In the study, primary data collected from 400 bank customers were analysed using hierarchical multiple regression.

In a study conducted by Dewi *et al.* (2024), the relationship between CRM System and customer satisfaction was examined using 200 patients drawn from Penjaringan Health Center in Indonesia as respondents. The study which adopted a quantitative approach collected data through structured questionnaires and employed SEM with AMOS and SPSS software for data analysis. It was found that The CRM system itself shows a substantial positive effect on patient satisfaction, demonstrating its role in improving service efficiency, responsiveness, and personalisation.

However, in a study conducted in Algeria, Mechta *et al.* (2024) explored the effect of customer relationship management dimensions on hotel reputation using a quantitative approach. Data were collected from 136 participants through a questionnaire. The data generated were analysed using multiple linear regression analysis. The findings indicated that CRM did not have a significant effect on hotel reputation. The study recommended that managers of hotels should strive towards satisfying customers to enhance positive reputation.

The literature reviewed under this section has examined the nexus between CRM and CS with samples drawn from sectors such as hospitality, banking, agriculture and building and the results obtained from these studies have shown profound consistency with respect to the effect of CRM on CS. However, the current study offered a unique opportunity of investigating this relationship further by extending it to the energy sector which was not considered in previous studies. Given its importance and peculiarities, an investigation into the relationship between CRM and CS might produce a different finding which further deepens existing knowledge.

3.0 Methodology

This study used a survey research design. This approach is chosen to provide a detailed examination of the effect of CRM on the performance of AEDC in Nigeria. The population of the study was one thousand six hundred and ninety-eight (1698) staff of AEDC in the commercial services department. The unit of analyses were the Chief Business Officers (CBOs)

and the staff in commercial services department. Table 3.1 shows the distribution of the population among the three states and Abuja where AEDC carries out its operations:

Table 3.1: Distribution of Population of Interest across Regions and Clusters

S/N	Region	State	Staff strength	Percentage (%)
1	Abuja Region	Abuja		
	Garki Cluster	Abuja	307	18
	Wuse Cluster	Abuja	430	25
	Apo Cluster	Abuja	383	23
2.	Niger Region	Niger State	189	11
3	Kogi Region	Kogi State	221	13
4	Nasarawa Region	Nasarawa State	168	10
	Total		1698	100

Source: AEDC Headquarters, Abuja (2025)

The study used Yamane (1976) formula to determine the sample size of 356 and the formula is denoted below.

$$n = \frac{N}{1+N(e)^2} \quad (3.1)$$

Where:

n = Sample size

N = Population of the (1698)

e = Tolerable error (5%)

$$n = \frac{1698}{1 + 1698(0.05)^2}$$

$$n = 323$$

However, to make provision for possible non responses, 10% of the sample size was added. This increased the total sample size from 323 to 356. The multi-staged sampling technique was used to select participants into the sample from each cluster in proportion to the population composition of the region. The distribution of the sample size among the states that constituted the study area is shown in Table 3.2:

Table 3.2: Proportional Allocation of Sample Size

S/N	Region	State	Staff strength	Sample Size	Percentage (%)
1	Abuja Region	Abuja			
	Garki Cluster	Abuja	307	64	18
	Wuse Cluster	Abuja	430	90	25
	Apo Cluster	Abuja	383	80	23
2.	Niger Region	Niger State	189	40	11
3	Kogi Region	Kogi State	221	47	13
4	Nasarawa Region	Nasarawa State	168	35	10
Total			1698	356	100

Source: Researcher's Computation, 2025

Primary data collected through a structured questionnaire were used. The questionnaire, structured into six sets of questions was adapted from previous studies (Keramati *et al.*, 2010; Nedeljković *et al.*, 2022; Udeh *et al.*, 2024; Guerola-Navarro *et al.*, 2020). Responses were measured using a five-point Likert scale ranging from strongly agree (1) to strongly disagree (5).

The psychometric properties of the research instrument were determined through a pilot study which was carried out in Minna. The pilot study involved 40 participants. The properties that were assessed included the validity and reliability of the research instrument. The results showed that each of the constructs scored above the minimum threshold of 0.7 Cronbach's alpha value. The study employed both descriptive and inferential statistical tools for data analysis. Simple percentage and tables were used to describe respondents' demography, while Structural Equation Modelling (SEM) using Analysis of Movement Structure (AMOS) version 22 was used to analyse the data. SEM was selected for its ability to test and confirm hypothesised relationships and handle complex models in the context of CRM and customer satisfaction of AEDC. SEM AMOS was particularly appropriate due to its capacity to provide robust theoretical verification in dynamic and complex research environments. The hypotheses of the study were tested at 0.05 level of significance. P-values were used to take decisions on the rejection or retention of hypotheses, with values less than 0.05 indicating significant effects. The model of the study is specified as depicted in Fig.3.1

Independent Variable (CRM)

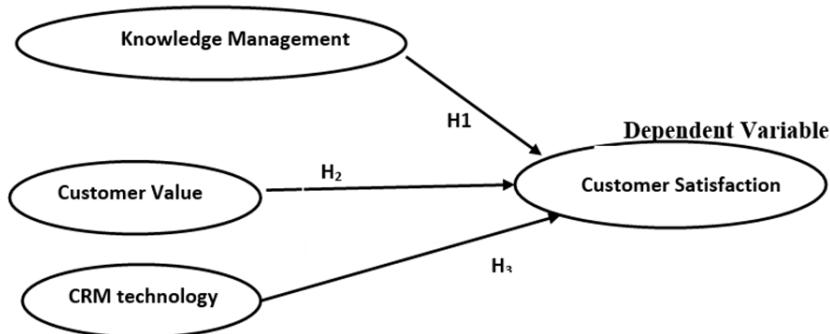


Fig. 3.1: Model Specification

Fig. 3.1 shows the structural specification of the model. It depicts the structural relationship between the three dimensions of CRM and customer satisfaction.

4.0 Results and Discussion

4.1 Descriptive Analysis

4.1.1 Response rate

In this study, the researcher administered 356 questionnaires and only 316 were filled and returned. This indicates a response rate of 89% as presented in Table 4.1.

Table 4.1: Rate of Response

Instrument	Frequency	Percentage
Completed and retrieved	316	88.8
Non-Responded	40	11.2
Total	356	100

Source: Field Survey, 2025

Table 4.1 puts the response rate of the respondents to the distributed research instruments at 88.8% which is considered as excellent. In a survey study, a response rate of 50% is treated as acceptable, while a response rate in the region of 60% is treated as good for analysis, whereas a response rate in the region of 70% or higher is considered as excellent (Al-Bashayreh *et al.*, 2022). This excellent response rate was achieved as a result of the countless encouragement made by the researcher and the research assistants to the respondents to complete the questionnaires.

4.1.2 Respondents' characteristics

Table 4.1 shows that 316 respondents validly filled and returned their questionnaires. In Table 4.2, the researcher presents major characteristics of the respondents.

Table 4.2: Respondents' Characteristics

S/N	Characteristics	Frequency	Percentage
1. Age			
18-24 Years	17	5.4	
25-34 Years	132	41.8	
35-44 Years	120	38.0	
45-54 Years	39	12.3	
55 Years and above	8	2.5	
Total	316	100	
2. Level of Education			
WASSCE/NECO/GCE	11	3.5	
OND/NCE	67	21.2	
HND/BSc/BTech	177	56.0	
PGD/MSc	60	19.0	
PhD	1	0.3	
Total	316	100	
3. Region/Cluster			
Apo	73	23.1	
Garki	53	16.8	
Wuse	81	25.6	
Kogi	40	12.7	
Nasarawa	30	9.5	
Niger	39	12.3	
Total	316	100	
4. Rank/Position			
Chief Business Officer (CBO)	6	2	
Customer Relationship Officer	310	98	
Total	316	100	

Source: Field Survey, 2025

As indicated in Table 4.2, 41.8% of the staff of AEDC in the commercial department are aged between 25 and 34 years while 38% are aged between 35 and 44 years. Together, these two age categories are well within the active labour age. This provides AEDC the necessary manpower for driving the organisation's marketing activities. Furthermore, Table 4.2 reveals that 56% of the respondents are graduates while 21.2% are holders of National Diploma or Nigeria Certificate in Education. Taken together, this shows that about 77% of the staff in the commercial department of AEDC have acquired one form of tertiary education or the other.

This implies that AEDC focuses on employing quality manpower that can help in the achievement of its goals. Table 4.2 also shows that the highest concentration of AEDC's staff in the commercial department are found in the three clusters that make up Abuja region. These clusters are: Garki (25.6%), Apo (23.1%) and Garki (16.8%). The cosmopolitan nature of these clusters implies a well sophisticated customers which must be carefully managed by AEDC through an effective CRM in order to sustain its activities. Finally, the table also revealed that of the 316 respondents, 2% are management staff while 98% are CRM officers.

4.2 Model Assessment

The analysis of SEM is usually done in two stages. These two stages are the measurement model analysis and structural model analysis (Fraihat *et al.*, 2023).

4.2.1 Measurement Model Assessment

The measurement model of the study was assessed by conducting a Confirmatory Factor Analysis (CFA) test using AMOS version 22. The results are shown in Fig 4.1

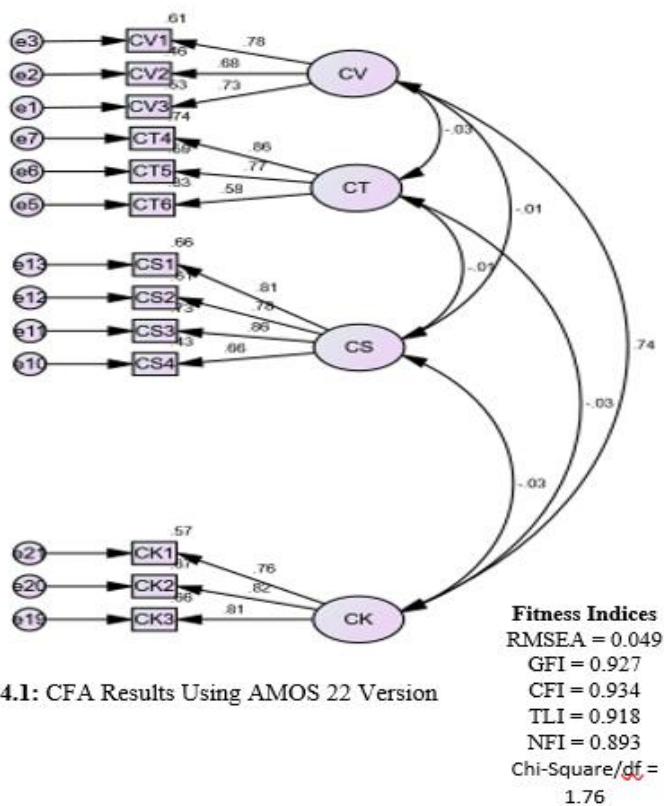


Fig. 4.1 shows the latent constructs on the ellipses, indicators on the rectangular boxes, factor loadings for the indicators on the arrows, and covariance values on the double-arrow curves. As shown by the diagram, the factor loadings are all greater than 0.6 while the co

variances are not higher than the maximum threshold of 0.85. in addition, the fit indices: Root Mean Square Error of Approximation (RMSEA) of 0.054 is lower than 0.08, Chi-Square/df value of 1.935 is also lower than the threshold of < 3.0 while the Comparative Fit Index (CFI) of 0.967, Tucker–Lewis's index (TLI) of 0.956, and Goodness of Fit Index (GFI) of 0.948 are all above the recommended minimum thresholds of 0.9 (Al-Bashayreh *et al.*, 2022). All these indicate a satisfactory performance of the measurement model.

Further, the description of the psychometric properties of the measurement model are presented in Table 4.2:

Table 4.2: Reliability and Validity of the Measurement Model.

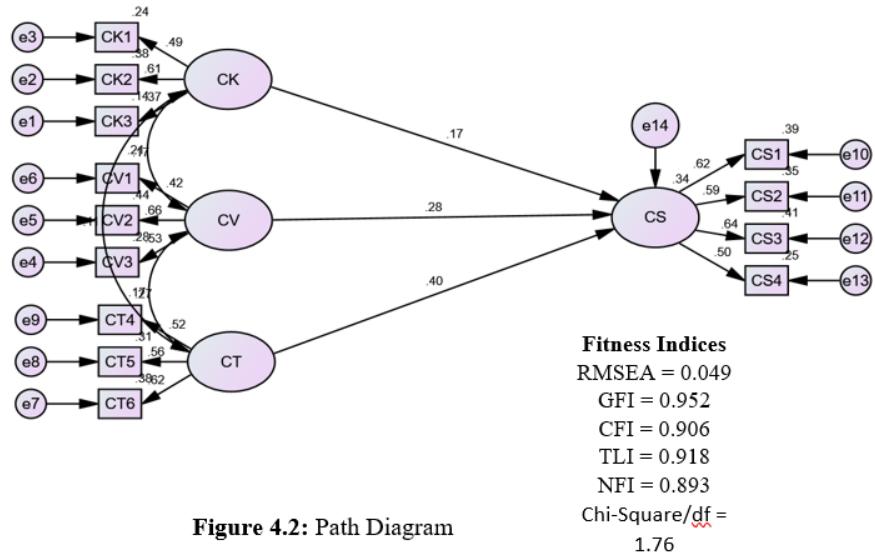
Construct	AVE	CK	CV	CT	CS
CK	0.634	0.796			
CV	0.539	0.729	0.734		
CT	0.554	-0.027	-0.027	0.744	
CS	0.609	-0.035	-0.020	-0.005	0.780
Composite Reliability (CR)	0.839	0.777	0.784	0.861	
Cronbach's Alpha	0.837	0.721	0.848	0.796	
Variance Inflation Factor (VIF)	1.086	1.094	1.108	1.217	

Source: Computation using AMOS Version 22 (2025)

The values presented in From Table 4.2 indicate that the measurement model's reliability and validity are good. Cronbach alpha values and composite reliability values are greater than 0.7 minimum threshold recommended by Hair *et al.* (2022). Further, Table 4.2 also shows that the value of AVE for each of the constructs is higher than 0.5. Discriminant validity was assessed through Fornell- Larcker criterion that draws comparison between the square root of the AVE values with the latent variable correlations. Table 4.2 indicates that the AVE's square roots for each of the constructs, represented by diagonal bold values are above the highest correlation value with any other construct. This confirms convergent validity (Basbeth *et al.*, 2018). Finally, the VIF indicates that all values are lower than five, confirming the absence of collinearity issues.

4.2.2 Structural model assessment

In this study, SEM using AMOS Version 22 was performed to assess the hypothesized model. The significance of the path coefficient was tested using p-values and confidence interval (C.I) The AMOS path diagram for the study is presented in Fig 4.2



The results obtained from Fig 4.2 are presented in Table 4.4

Table 4.4: Results Direct Effect

Relationship	β	S.E	P-Value	Decision
	Coefficient			
CS <--- CK	0.171	0.152	0.048	Rejected
CS <--- CV	0.275	0.113	0.006	Rejected
CS <--- CT	0.399	0.109	0.000	Rejected
$R^2 = 0.34$				

Author's Extraction from AMOS Version 22 Output

The R^2 value of 34% obtained in this study as shown in Table 4.4 is substantial. It indicates that 34% of the variation customer satisfaction was jointly explained by changes in the three dimensions of CRM used as the independent variable. The remaining 66% in Microfinance Bank performance were accounted for by other constructs that were not covered by the scope of this study.

The first null hypothesis proposed that knowledge management has no significant effect on the customer satisfaction of AEDC. Testing at 0.05 level of significance, the results presented in Table 4.4 demonstrates that knowledge management affected customer satisfaction positively. With the associated P-value at 0.048, this positive effect is also significant. The implication of this result is that an increase in knowledge management by one

unit is associated with 0.171 unit increase in customer satisfaction. Therefore, the study rejects the first null hypothesis of the study.

The AMOS-generated results in Table 4.4 were also used to test the second null hypothesis which states that Customer value has no significant effect on AEDC's customer satisfaction. The outcome revealed that customer value has a significant positive effect on customer satisfaction ($\beta = 0.275$, $p\text{-value} = 0.006$) disproving the second null hypothesis at 0.05 level of significance. Going by these results, an increase in customer value by 1 unit would increase customer satisfaction by 0.275 units.

Finally, the last null hypothesis which suggests that there is no significant effect of CRM technology on customer satisfaction of AEDC was tested. The result indicates that the effect of CRM Technology ($\beta = 0.399$, $P\text{-Value} = 0.000$) on customer satisfaction is significant. The interpretation of the result shows that an increase in CRM Technology by 1 unit significantly pushes up customer satisfaction by 0.399 units. Therefore, the null hypothesis was rejected.

4.3 Discussion of Results

Looking at the results obtained from the test of hypothesis 1, it is clearly seen that the hypothesis of no significant effect was rejected. This shows that knowledge management affected customer satisfaction positively and significantly at AEDC. These results are in agreement with previous findings (Samia *et al.*, 2020; Bachir, 2021) which had established that value creation innovation affect business performance in a positively significant way.

It can also be seen from the results that customer value has a significant positive effect on AEDC's customer satisfaction. This position corresponds with that of Dananjoyo and Wibowo (2024). However, it is dissimilar to those of (Mechta *et al.*, 2024) who discovered had earlier discovered a non-significant effect of customer value on business performance.

The study also tested the proposition that CRM technology has no significant effect on customer satisfaction of AEDC. The result showed that the effect of CRM technology on customer satisfaction was both positive and significant leading to the rejection of the hypothesis. This finding is comparable to the findings of some scholars (Miracleet *et al.*, 2024; Dewiet *et al.*, 2024) who reported a significant positive effect of CRM Technology on customer satisfaction.

5.0 Conclusion and Recommendations

Based on the findings of the study, the researcher infers that the CRM has a significant positive effect on AEDC's customer satisfaction.

5.1 Recommendations

The researcher recommends the following as a way to improve the effect of CRM on customer satisfaction at AEDC:

- i. AEDC's management should improve on knowledge management so as to enhance the company's ability to satisfy its customers.
- ii. AEDC should continuously place stronger emphasis on customer value as a way of strengthening the ability of the company to satisfy customers.
- iii. It is also recommended that AEDC continues to invest on acquisition of modern technology, training of staff on the deployment of those technologies in order to boost the effect of CRM on customer satisfaction.

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