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To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v8-i5/4170>

DOI:10.6007/IJARBSS/v8-i5/4170

Received: 21 March 2018, Revised: 29 May 2018, Accepted: 03 June 2018

Published Online: 08 June 2018

In-Text Citation: (Mwirigi, Maina, & Kimencu, 2018)

To Cite this Article: Mwirigi, R. N., Maina, S., & Kimencu, L. (2018). Moderating Role of Demographics on the Relationship between Customer Relationship Management and Satisfaction of Commercial Banks' Account Holders in Kenya. *International Journal of Academic Research in Business and Social Sciences*, 8(5), 680–698.

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Vol. 8, No. 5, May 2018, Pg. 680 - 698

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Moderating Role of Demographics on the Relationship between Customer Relationship Management and Satisfaction of Commercial Banks' Account Holders in Kenya

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Abstract

Customer relationship management (CRM) in the banking sector is concerned with maintenance and optimization of long lasting valuable relationships with customers. Globally, CRM has been applied in the banking sector to enhance customer satisfaction which increases competitiveness, customer retention, loyalty and profitability. The greatest challenge in the banking industry is maintaining relationships with customers of different age sets, gender and income levels which impact negatively on customer satisfaction and performance. The objective of this study was to establish the moderating effect of demographics (age, gender, income level) on the relationship between CRM and satisfaction of commercial banks account holders in Kenya. The target population was 28,324,334 account holders from commercial banks in Kenya out of which a sample of 400 respondents was used. The study used both descriptive and explanatory research design. Primary data was collected using multi-stage sampling technique. For data analysis, stepwise multiple linear regression was used. This study established a significant and positive moderating relationship explaining; age ($R^2 = 56.9\%$), gender ($R^2 = 62.3\%$) and income level (54.6%) variation in satisfaction of account holders. This study concluded that age, gender and income have a positive and statistically significant moderating effect on the relationship between CRM and satisfaction of account holders in Kenya. Based on the findings, this study recommends that commercial banks should develop CRM strategies that minimize account holder dissatisfaction and maximize satisfaction with their services based on age, gender and income level. The study further suggests that similar studies be carried out in other service industries to further validate the study proposition.

Keywords: Demographic Characteristics, Customer Relationship Management, Relationship Marketing, Satisfaction, Account Holder

Introduction

Customer Relationship Management is an integrated customer-oriented approach to strategies, practices and technologies that aim at customer retention through effective management of relationships with customers as opposed to transaction-based marketing (Christopher, Payne & Ballantyne, 1991). The concept of CRM is multidimensional in nature and comprising four broad behavioral components namely; CRM organization, knowledge management, key customer focus and technology-based CRM. Literature supports the notion that successful implementation of CRM require integration of people, technology, strategy and processes which in turn influence organizational performance and competitiveness (Sin, Tse & Yim, 2005; Yim & Tse, 2005). CRM practices facilitate organizations such as banks to identify the needs, wants and expectations of customers and to segment their markets in order to achieve their customer satisfaction, loyalty and lifetime value (Payne & Frow, 2008). Further, CRM enable organizations to maintain long term mutual and valuable relationships with customers which depends on implementation of company-wide, cross functional and customer focused practices in all operational processes and application of technologies (Chen & Popovich, 2003; Sin, Tse & Yim, 2005).

Globally, the intensity of competition in the financial sector has compelled banks to re-engineer their operations to focus on customer centricity and satisfaction through investment in CRM practices that promote efficiency in service delivery such as on-line banking, agency banking and Automated Teller Machines (ATMs) (Turkyilmaz & Ozkan, 2007). This trend is motivated by the fact operational efforts that are not customer oriented have a negative effect on customer satisfaction and loyalty, competitive advantage, market share and profitability (Carter, 2010; Voss & Voss, 2008). In the absence of CRM strategies that are age, gender, income specific and meet customer expectations, dissatisfied customers switch to competitors for service satisfaction.

The competitiveness and productivity of commercial banks depends on their CRM practices (Thu, 2011) which indirectly influence customer satisfaction and the banks contribution to the economy. Satisfied customers are an important source of new customers while dissatisfied customers discourage potential customers by negative word of mouth and complaints (Kombo, 2015; Gupta & Dev, 2012). Satisfaction is a summary of accumulated encounters with the bank over time, feelings towards a bank while satisfaction and dissatisfaction ranges from very dissatisfied to very satisfied (Terpestra, Kuijlen, Sijtsma, 2014; Mihelis, Grigoroudis & Malandrakis, 1998) argue that customer satisfaction can be measured in terms of image, personnel, products, access and services. This study adopted a modified version of Mihelis et al., (1998) to measure customer satisfaction. These measures are positive experience with banks' personnel, preference for banks' products and services, image of the bank and access to banking services. To attain the desired profits, competitiveness, success and customer satisfaction banks need to incorporate demographic characteristics of their customers in their CRM practices, policies and strategic plans.

Demographics, Customer Relationship Management and Satisfaction

Demographic information enables researchers to obtain meaningful characteristics of a sample. These characteristics explain the differences in consumer behavior and attitudes towards products and services (Narteh & Kuada, 2014; Elanian, 2003). There are a number of demographic variables, but this study will focus on age, gender and income. Studies have associated these variables with customer satisfaction with banking services. For example Dewan and Mahajan (2014) examined the moderating effect of demographics and situational factors on customer satisfaction. The demographic factors considered were gender, occupation, age, education, marital status and income. The situational factors included number of years served by bank and frequency of visits made to the branch. The study established a significant difference in the satisfaction levels of different customers based on frequency of bank visits, occupation, gender and marital status. However the study did not establish the moderating effect of age and income level on CRM and customer satisfaction. This gap was addressed in this study.

Umarani, Saravanaraj and Mahalakshmi (2013) found a significant and positive relationship between age, gender, status in family, marital status, religion, monthly income, educational qualification, occupation, sector and customer relationship services offered by Indian banks. However, the study did not examine mediating effect of age, gender and income level on the relationship between CRM and customer satisfaction; a gap addressed in this study.

Zulkifli and Tahir (2012) examined the effect of customers' perception of CRM practice on use of online banking usage in Malaysia and established insignificant differences in means between customers' perceptions on CRM practices and education level, age, employment, gender and online banking usage. This finding suggested that customers' perception of CRM practices is similar regardless of age, educational level, employment, gender and online banking services. These findings concur with Palvia & Palvia (1999) who found age to be a significant determinant of satisfaction with Information Technology. The moderating effect of age, gender and income level on the relationship between CRM and customer satisfaction was not revealed. Therefore, this study filled this gap.

Similarly, Krishna, Moorthy and Anandavel (2014) also assessed the effect of CRM on customer satisfaction with deposits, advances and related banking services in India. The results revealed a positive and significant relationship between CRM and customer satisfaction while age and educational qualifications were significantly associated with CRM dimensions. This study further explored the moderating effect of age, gender and income level on the relationship between CRM and satisfaction in the Kenyan context.

Statement of the Problem

Customer relationship management is a critical tool in banking industry that establishes long lasting relationships with customers and enhances customer satisfaction. Customer satisfaction enables commercial banks to attain their long-term objectives as well as their significant contribution to the economy (Kombo, 2015; Belas, Cipova, Demjan, 2014). However, the relationship between CRM, demographic characteristics and customer satisfaction has not been clearly identified. For example, scholars have demonstrated the importance of moderator variables such as consumer characteristics in relation to customer satisfaction and loyalty link in different industries (Narteh & Kuada, 2014; Ranaweera, McDougall, Bansal 2005; Fonseca, 2014).

Consumer demographic factors have been found to be important when examining customer relationship management and satisfaction. The consumers' demographic characteristics among other moderator variables have the ability to enhance understanding of the customer relationship management and satisfaction variables (Walsh, Evanschitzky & Wunderlich, 2008).

However, studies interrogating the moderating effect of demographic characteristics on the relationship between CRM and satisfaction reveal mixed findings and indicate both positive and negative outcomes (Evanschitzky & Wunderlich, 2006). Notably previous studies such as Zulkifli and Tahir (2012) did not find any significant relationship between age, gender and bank customers' perception of CRM practices and satisfaction. Narteh and Kuada (2014), established that age, gender and income are moderators of customer satisfaction in many service industries. Similarly, Oyewole's (2001) study on customer satisfaction with airline services reported that education, gender and occupation have significant effect on satisfaction while household income and age had no significant effect on satisfaction with airline services. In Kenya, Kombo (2016), found that age, gender and income level determine customer satisfaction in commercial banks. Hence, there is need for an empirical study to validate such propositions. This study sought to fill these gaps by examining the moderating effect of age, gender and income level on the relationship between CRM and customer satisfaction in the Kenyan context.

Research Objectives

- i. Establish the moderating effect of age on the relationship between CRM and satisfaction of commercial banks account holders in Kenya.
- ii. Examine the moderating effect of gender on the relationship between CRM and satisfaction of commercial banks account in Kenya.
- iii. Assess the moderating effect of income level on the relationship between CRM and satisfaction of commercial banks account holders in Kenya.

Research Hypotheses

H₀₁: Age has no moderating effect on the relationship between CRM and satisfaction of commercial banks account holders in Kenya.

H₀₂: Gender has no moderating effect on the relationship between CRM and satisfaction of commercial banks account holders in Kenya.

H₀₃: Income level has no moderating effect on the relationship between CRM and satisfaction of commercial banks account holders in Kenya.

Research Methodology

This study adopted both descriptive and explanatory research design which was cross-sectional in nature. According to Copper and Schindler (2003), cross-sectional research design aims to obtain accurate data from respondents at a specific point in time. The study population was approximately 28,234,334 account holders from all commercial banks in Kenya which were categorized as large, medium and small (CBK, 2014). A sample size of 400 was determined using Yamane (1967) formula for calculating the sample size from a finite population.

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

Where: n is the sample size

N is the population size and;

e is the allowed margin of error = 0.05 hence;

$$N=28,234,334$$

$$n = \frac{28,234,334}{(1+28,234,334)(0.05)^2} = 400$$

Gender	Frequency	Percent
Male	176	52.4
Female	160	47.6
Total	336	100
Age(Years)		
18-26	49	14.6
27-35	99	29.5
36-44	63	18.8
45-53	77	22.9
54-62	32	9.5
>63	16	4.8
Total	336	100
Monthly income (Ksh.)		
<10,000	24	7.1
10,000-30,000	69	20.5
31,000-50,000	72	21.4
51,000-70,000	69	20.5
71,000-100,000	53	15.8
>100,000	48	14.3
Total	336	100
Duration served		
< 1 Year	21	6.3
1-3 Years	65	19.3
3-5 Years	56	16.7
>5 Years	194	57.7
Total	331	100
Accounts in other banks		
Yes	239	71.1
No	97	28.9
Total	336	100
Banking Services		

Cash Withdrawal	321	95.5
Cash Deposit	277	82.4
Payment of Bills	130	38.7
Loans	176	52.3
Salary Processing	76	22.6
Fee payment	117	34.8
Bank Statement	215	63.9
Cheque services	82	24.4
Money transfer	57	16.9
Custodial services	38	11.3

Disproportionate stratified random sampling was used to select a sample size of 400 from a population of 28,234,334 commercial banks account holders. This sampling technique helps to balance the strata size and variability to ensure fair representation of all strata (Gay, 1981; Kothari 2009; Borg & 1989). Subsequently, systematic random sampling was applied in selecting the respondents from various commercial banks.

A semi-structured questionnaire was used to collect primary data from 400 account holders of commercial banks in Nairobi headquarter branches. A five point likert scale ranging from “not at all” to “a very large extent” was used. This scale had equal interval where objects were arranged according to their magnitude and values cannot be comparable (Malhotra, Hall, Shaw & Oppenheim, 2002). Quantitative data were analyzed using both descriptive and inferential statistics in Statistical Package for Social Sciences (SPSS) version 19. This study carried out several assumptions of regression as recommended by Gupta (2005) as critical to regression analysis.

Research Findings and Discussions Analysis

Descriptive Analysis

The demographic characteristics of interest to this study were age, gender and monthly income level. Other demographic information was duration served by respective banks and banking services sought. The frequency distribution and percentage of the respondents' demographic information is shown in Table 2.

Table 2: Demographic Information

As indicated in Table 2, there were more male customers accessing banking services as opposed to their female counterparts. In terms of age, majority of the respondents were between 27-35 and 45-53 years implying that more youthful respondents participated in the study. With regard to respondents' monthly income, respondents of all economic status require commercial banking services. The findings also revealed that majority of the respondents (71.1%) had multiple accounts in different banks. This implies that majority of the respondents had more than one bank account irrespective of the years served by the bank. This raises the question on the account holders' satisfaction with commercial banking services. Opening multiple bank accounts imply that banks do not provide homogeneous services or their effectiveness differs, hence need for more accounts. In addition, the results indicated that withdrawals (95.5%) and deposits (82.4%) were the most bought services. The least commercial banking services sought by respondents

were custodial services and money transfer. This suggests that respondents seek these services from insurance companies that offer insurance facilities or telecommunication service providers such as Safaricom's Mpesa.

To predict existence of a relationship between age, gender, monthly income and customer satisfaction, cross tabulations were carried out with reference to account holders' satisfaction with commercial banking services. The cross tabulation results on age, gender, and income level on customer satisfaction are depicted in Table 3 (a-c).

Table 3 (a): Cross Tabulation on Age and Customer Satisfaction

Satisfaction						
Age (Years)	Not at all	To a little extent	To a moderate extent	To a great extent	To a very great extent	Total
18-26	0.0%	4.2%	39.5%	50.0%	6.3%	100%
27-35	0.0%	16.5%	53.6%	29.9%	0.0%	100%
36-44	3.2%	11.3%	45.2%	33.8%	6.5%	100%
45-53	0.0%	5.3%	40.7%	48.7%	5.3%	100%
54-62	0.0%	12.8%	45.2%	32.3%	9.7%	100%
>63	0.0%	21.4%	42.9%	35.7%	0.0%	100%

Table 3 (b): Cross Tabulation on Gender and Customer Satisfaction

Customer Satisfaction						
Gender	Not at all	To a little extent	To a moderate extent	To a great extent	To a very great extent	Total
Male	1.2%	11.7%	48.0%	36.8%	2.3%	100%
Female	0.0%	10.2%	43.3%	40.1%	4.3%	100%

Table 3 (c): Cross Tabulation on Monthly Income Level and Customer Satisfaction

Income Level (Ksh.)	Customer Satisfaction					Total
	Not at all	To a Little Extent	To a Moderate Extent	To a Great Extent	To a very Great Extent	
<10,000	0.00%	8.30%	33.30%	58.30%	0.00%	100%
10,000-30,000	0.00%	17.90%	43.30%	34.30%	4.50%	100%
31,000-50,000	1.40%	7.00%	52.10%	35.20%	4.20%	100%
51,000-70,000	1.50%	8.80%	45.60%	41.20%	2.90%	100%
71,000-100,000	0.00%	5.80%	51.90%	38.50%	3.80%	100%
>100,000	0.00%	17.80%	40.00%	35.60%	6.70%	100%

Generally Table 3 (a) reveals that 3.2% of the respondents of 36-44 years were not satisfied with commercial banking services. However, the findings indicate that respondents of all age categories were moderately satisfied as indicated by percentage scores close to 40%. This shows that the level of satisfaction is higher among the more youthful commercial bank customers as opposed to the old. The results concur with the findings by Zulkifli and Tahir (2012) that age affects customer satisfaction in the banking sector.

Results in Table 3(b), indicate that female account holders were more satisfied than the males. This implies that men as bread winners in patriarchal backgrounds have more financial responsibilities and needs hence they find services at the bank wanting especially with the changing economic environment. The findings are in agreement with Dewan and Mahajan (2014) who found that gender influenced customer satisfaction in banks.

As indicated in Table 3 (c), there were no major differences between the respondents' income and their satisfaction. However, the respondents with monthly income below 10,000 which was the lowest appear to be more satisfied while those who were dissatisfied were fewer; 1.4% and 1.5% for income level of Ksh. 31,000-50,000 and Ksh.51000-70,000 respectively.

Moderating role of Age, Gender, Income on CRM and Customer Satisfaction

Stepwise multiple linear regression analysis results for moderating effect of demographic characteristics (age, gender, income) on CRM and satisfaction are presented in Table 4 (a-c).

H_{4a}: Age has no moderating effect on the relationship between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya.

In the first step, the composite index of CRM and age were regressed on customer satisfaction.

The results are shown in Tables 4 (a-c). The results are shown in Tables 4 (a-c).

Table 4 (a): Goodness -of- fit of the Regression Model

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1 ^a	.739 ^a	.546	.545	.487
2 ^b	.756 ^b	.572	.569	.474
3 ^c	.926 ^c	.857	.856	.274

a. Predictors: (Constant), CRM
b. Predictors: (Constant), CRM, Age (Years)
c. Predictors: (Constant), CRM, Interaction effect, Age (Years)

Dependent variable: Customer satisfaction

The results in Table 4 (a) show an adjusted R²=0.545 in the first model. This means that 54.5 % of customer satisfaction was explained by age. In addition, when interaction effect was introduced into the model the explanatory power increased from 54.5% to 85.6% as shown in table 4 (a). Hence, there was change in adjusted R² between the 2nd and 3rd models which supports moderation effect of age on CRM and customer satisfaction.

Results in Table 4 (b) indicates F-statistics and P-values (F=392.483, P=0.000<0.05; F=216.816,

Table 4 (b): ANOVA for CRM, Age and Customer Satisfaction

		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	92.969	1	92.969	392.483	.000 ^a
	Residual	77.220	326	.237		
	Total	170.189	327			
2	Regression	97.280	2	48.640	216.816	.000 ^b
	Residual	72.909	325	.224		
	Total	170.189	327			
3	Regression	145.843	3	48.614	646.950	.000 ^c
	Residual	24.347	324	.075		
	Total	170.189	327			

a. Predictors: (Constant),CRM
b. Predictors: (Constant), CRM, Age (Years)
c. Predictors: (Constant), CRM, Interaction effect, Age (Years)
d. Dependent Variable: Customer Satisfaction

P=0.000<0.05, F=646.950, P =0.000<0.05) for models 1, 2 and 3 respectively. This implies that CRM, age and interaction effect have a statistically significant moderating effect on customer satisfaction in the banking sector.

Table 4 (c): Significance of the Regression Models

Model		Unstandardized Coefficients		Standardized Coefficients	t-stistic	Sig.
		B	Std. Error	Beta		
1	(Constant)	.569	.143		3.979	.000
	CRM	.793	.040	.739	19.811	.000
2	(Constant)	.549	.139		3.941	.000
	CRM	.732	.041	.682	17.710	.000
	Age (Years)	.024	.005	.169	4.384	.000
3	(Constant)	2.512	.112		22.500	.000
	CRM	.254	.030	.236	8.325	.000
	Interaction effect	.225	.009	1.612	26.431	.000
	Age (Years)	-.769	.030	-1.461	-25.422	.000

a. Dependent Variable: Customer Satisfaction

Results in table 4(c) indicates that the moderating effect of age on CRM and customer satisfaction is statistically significant at $\beta=0.732$, $P=0.000<0.05$; $\beta=0.024$, $P=0.000<0.05$. The study also found that introduction of interaction effect in the model produced statistically significant results at $\beta=0.254$, $P=0.000<0.05$; $\beta=0.225$, $P=0.000<0.05$. The study found that there exist a relationship between customer satisfaction and CRM. The regression coefficient of 0.793 implies that for every unit change in CRM, customer satisfaction is adjusted by a factor of 0.793 which is statistically significant at 95% confidence level. Similarly, on addition of age on the same relationship, the study found that the regression coefficient decreases from 0.793 to 0.732. The results also show that age will increase customer satisfaction by a factor of 0.024. This value was statistically significant at 5% significance level ($P\text{-value} = 0.024<0.05$). This suggests that in the absence of an interaction term, the older account holders were more satisfied with banking services than the younger ones. The third model shows that the relationship between CRM, age and interaction term was inverse but statistically significant ($\beta=-0.769$, $P=0.000<0.05$). In the presence of interaction term, customer satisfaction decreases with decrease in age meaning the younger are more satisfied with commercial banking services.

The findings in Tables 4 (a-c) are in line with Narteh and Kuada (2014) who established that age moderates customer satisfaction in service industries such as banks. Further, the results support Umarani *et al.*, (2013) that age has appositive and significant effect on customer satisfaction in the banking sector. Therefore, the hypothesis that age has no moderating effect on the relationship between CRM and customer satisfaction was not supported by the results. Based on the regression results in Table 4 (a-c), the following model was formulated:

$$\text{Customer Satisfaction} = 2.512 + 0.254\text{CRM} - 0.769\text{Age} + 0.225\text{CRM} * \text{Age} \dots \dots \dots 1$$

H_{4b}: Gender has no moderating effect on the relationship between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya.

Table 5 (a): Goodness-of- fit of the Regression Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.739 ^a	.546	.545	.487
2	.791 ^b	.625	.623	.443
3	.954 ^c	.911	.910	.216
<i>a. Predictors: (Constant), CRM</i> <i>b. Predictors: (Constant), CRM, Gender</i> <i>c. Predictors: (Constant), CRM, Interaction effect, Gender</i>				

Dependent variable: Customer satisfaction

The first model in Table 5(a) shows the relationship between CRM and customer satisfaction with an adjusted $R^2 = 0.545$. This implies that 54.5% of the variation in the model is accounted for by CRM. The second model shows the relationship between CRM, gender and customer satisfaction with adjusted R^2 of 0.623 which implies that 62.3% of the variation in customer satisfaction is explained by CRM and gender. The results show a change in adjusted R^2 value by a margin of 7.8%. This reveals that inclusion of gender in the model improves the relationship between CRM and customer satisfaction. The third model took into account the interaction effect between CRM and gender. The adjusted R^2 was 0.910 which implies that 91% of the variation is accounted for by CRM, gender and interaction affect. This reveals a high explanatory power on customer satisfaction as indicated in the increase from 62.3% to 91% which translates to 28.5% and further supports moderation effect of gender.

Table 5 (b): ANOVA for Regression Models for CRM and Gender

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	92.969	1	92.969	392.483	.000 ^a
	Residual	77.220	326	.237		
	Total	170.189	327			
2	Regression	106.444	2	53.222	271.349	.000 ^b
	Residual	63.745	325	.196		
	Total	170.189	327			
3	Regression	155.021	3	51.674	1103.816	.000 ^c
	Residual	15.168	324	.047		
	Total	170.189	327			
<i>a. Predictors: (Constant), CRM</i> <i>b. Predictors: (Constant), CRM, Gender</i> <i>c. Predictors: (Constant), CRM, Interaction effect, Gender</i> <i>d. Dependent Variable: Customer Satisfaction</i>						

The regression analysis results in table 5(b) indicate the overall significance for the three models. The study found that the first model was statistically significant at 95% confidence level (F-statistic=392.483, P-value=0.000<0.05). Similarly, the study revealed the second and third models were statistically significant at 5% significance level (F=271.349, P-value=0.000<0.05; F=1103.816, P-value =0.000<0.5 respectively). The results of the three models of CRM and gender predicting customer satisfaction indicate a significant relationship with customer satisfaction with commercial banking services among account holders in Nairobi County, Kenya.

Table 5 (c): Significance of Regression Models

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.569	.143		3.979	.000
	CRM	.793	.040	.739	19.811	.000
2	(Constant)	.560	.130		4.304	.000
	CRM	.642	.041	.599	15.779	.000
	Gender	.108	.013	.314	8.289	.000
3	(Constant)	2.780	.094		29.642	.000
	CRM	.157	.025	.146	6.276	.000
	Interaction effect	.537	.015	1.567	36.379	.000
	Gender	-1.797	.056	-1.246	-32.213	.000

a. Dependent Variable: Customer Satisfaction

The findings in Table 5 (c) indicate the coefficients for the three models considered in the study. Regression results reveal a statistically significant relationship between the variables. The regression coefficient of 0.793 implies that for every unit change in CRM, customer satisfaction is adjusted by a factor of 0.793 which is statistically significant at 5%. The inclusion of gender in the second model, results in regression coefficient reduction from 0.793 to 0.642. This implies that a unit increase in CRM will increase customer satisfaction by 0.642 keeping gender variable constant. The results also show that gender will effect customer satisfaction by a factor of 0.108. This value was statistically significant at 5% significance level (P=0.000<0.05). The third model shows that the relationship between CRM, gender and interaction effect was statistically significant at 5% significance level (P=0.000<0.05). The findings further revealed that female respondents were more satisfied with banking services than males.

The findings contradict Zulkifli and Tahir (2012) who found no significant difference between customers CRM perceptions based on gender. Further, the findings support Umarani and Mahajan (2014) who established that gender affects satisfaction levels in the banking sector. Hence, the results did not support the null hypothesis that gender has no moderating effect on the relationship between CRM and customer satisfaction in the banking sector.

Based on the findings of the stepwise multiple regression analysis used to estimate moderating effect of gender on CRM and customer satisfaction, the model was formulated as:

$$CS = 2.780 + 0.157CRM - 1.797Gender + 0.537CRM * Gender + \epsilon \dots \dots \dots 2.$$

H_{4c}: Income has no moderating effect on the relationship between CRM and satisfaction of commercial banks' account holders in Nairobi City County, Kenya.

Table 6 (a-c) presents results for moderating effect of income on relationship between CRM and customer satisfaction.

Table 6 (a): Goodness of-fit of the Regression Models

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.735 ^a	.541	.540	.486
2	.741 ^b	.549	.546	.483
3	.935 ^c	.874	.873	.256
<i>a. Predictors: (Constant), CRM</i> <i>b. Predictors: (Constant), CRM, Income Level</i> <i>c. Predictors: (Constant), CRM, Income Level, Interaction effect</i>				

Table 6 (a) reveals that CRM explains 54% of the variation in customer satisfaction. The results also reveal that adjusted R² increased by 0.6% when income variable was added in the model. Further, the results indicate that adjusted R² value increased to 0.873 when an interaction (CRM* income) was included in the relationship between CRM, income and customer satisfaction. This shows a remarkable change in explanatory power on customer satisfaction from 54.6% to 87.3% translating to 32.7% change. Therefore; the regression results of the three models were significant at 95% confidence level and support moderation effect of age, gender and income on CRM and satisfaction.

Table 6 (b): ANOVA of CRM and Income

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	90.589	1	90.589	382.938	.000 ^a
	Residual	76.883	325	.237		
	Total	167.471	326			
2	Regression	91.946	2	45.973	197.222	.000 ^b
	Residual	75.525	324	.233		
	Total	167.471	326			
3	Regression	146.356	3	48.785	746.282	.000 ^c
	Residual	21.115	323	.065		
	Total	167.471	326			
a. Predictors: (Constant), CRM b. Predictors: (Constant), CRM, Income Level c. Predictors: (Constant), CRM, Income Level, Interaction effect d. Dependent Variable: Customer Satisfaction						

The results of the first model in Table 6 (b) indicate a significant relationship between CRM and customer satisfaction ($F=382.938$, $P=0.000<0.05$). In addition, the second model reveal a significant moderating effect of income on the relationship between CRM and customer satisfaction ($F=197.22$, $P=0.000<0.05$). Further, the inclusion of the interaction effect in the third model yielded a significant relationship between CRM and customer satisfaction in commercial banks, ($F=746.282$, $P=0.000$).

Table 6 (c): Significance of the Regression Models

Model		Unstandardized Coefficients		Standardized Coefficients	t-statistic	Sig.
		B	Std. Error	Beta		
1	(Constant)	.586	.144		4.080	.000
	CRM	.788	.040	.735	19.569	.000
2	(Constant)	.706	.151		4.675	.000
	CRM	.798	.040	.745	19.858	.000
	Income Level	-.043	.018	-.091	-2.413	.016
3	(Constant)	2.524	.102		24.788	.000
	CRM	.261	.028	.243	9.219	.000
	Income Level	-.670	.024	-1.400	-28.257	.000
	Interaction effect	.193	.007	1.559	28.850	.000
a. Dependent Variable: Customer Satisfaction						

The results in Table 6(c) indicate significant variation in the relationship between CRM and customer satisfaction in all the models considered in the study. In the first model, a regression coefficient of 0.788 implies that for every unit change in CRM, customer satisfaction is adjusted by a factor of 0.788 which is statistically significant at 95% confidence level ($P=0.000<0.05$). The addition of income variable on the relationship between CRM and customer satisfaction revealed an increase in the regression coefficient from 0.788 to 0.798. This implies that a unit increase in CRM will increase customer satisfaction by 0.798 with income remaining constant. The results also indicate that increase in income level will decrease customer satisfaction by a factor of 0.043. This value was statistically significant at 5% significance level ($\beta = -0.043$, $P=0.000<0.05$). The third model shows that the relationship between CRM, income level and interaction effect was statistically significant at 5% significant level ($\beta = -0.670$, $P=0.00<0.05$; $\beta = 0.193<0.05$ respectively). The results suggest that increase in income decreases satisfaction of commercial banks account holders.

The results of the study support Krishina et al., (2014) who found a significant relationship between CRM and customers' income level. Further, the findings are in agreement with Narteh and Kuada (2014) finding that income levels moderate customer satisfaction in the service industry. The findings suggest that income level moderates the relationship between CRM and satisfaction of customers in commercial banks. Therefore, the hypothesis that income has no moderating effect on the relationship between CRM and satisfaction of commercial banks' account holders was not supported by the results.

From the findings in Table 4-6 (a-c), the following regression equation was formulated to estimate satisfaction of commercial banks account holders in Nairobi County, Kenya.

$$CS = 2.524 + 0.261CRM - 0.67 \text{ Income} + 0.193CRM * \text{Income} + \epsilon \dots \dots \dots 3.$$

Further, the results in Tables 4-6 (a-c) indicate that although the relationship was statistically significant for all the demographic variables the explanatory power was lower when an interaction factor was introduced in the model. The study concluded that, demographic characteristics (age, gender, income level) had a statistically significant moderating effect on the relationship between CRM and customer satisfaction. Therefore, the null hypothesis that demographic characteristics had no significant moderating effect on the relationship between CRM and satisfaction was not supported by the results of the study. These findings further confirm findings by Narteh and Kuada (2014) that age, gender and income levels moderate customer satisfaction in service industries.

Conclusion

From the summary of findings, this study concluded that age, gender and income had a moderating effect on the relationship between CRM and satisfaction of commercial banks account holders. This study further concluded that the moderating effect of demographic characteristics (age, gender and income) on the relationship between CRM and satisfaction of account holders was statistically significant when the variables were tested individually. Age had a moderating effect on CRM and account holder satisfaction. The youngest account holders who were 18-26 years were found to be more satisfied with banking services than the older customers. Female account holders were found to be more satisfied than the male customers. Monthly income level of account holders had a strong moderating effect on the relationship between CRM and customer satisfaction. Commercial banks account holders with lower income

(< 10,000) were more satisfied than those with higher income. The findings imply that age, gender and income level affect satisfaction of specific account holder groups and not the entire population served by commercial banks. This finding confirms the need for commercial banks to segment their markets using age, gender and income variables in order to develop personalized and differentiated services that meet account holders financial needs.

Recommendations

The results of this study have significant managerial implications to commercial bank managers that develop and implement CRM strategies. With regard to the findings, commercial bank managers should develop CRM strategies that focus on gender, age and income levels of account holders in order to satisfy them. In terms of technology, bank managers should implement self-services technologies that take into account the account holders' age. Similarly, banks should develop personalized communication techniques and customized products and services that meet the needs of account holders of all ages sets, gender and income levels. These strategies will enable banks to differentiate themselves from competitors, enhance account holder satisfaction and minimize multiple banking and bank switching. The study did not take into account other demographic characteristics and other CRM factors that affect account holder satisfaction. Therefore, future studies should include other demographic variables such as education, marital status, education, social class and cost of banking services to further validate the current model. Although this research met its objectives, there is need for future research to replicate this study in other industries in both developed and developing countries.

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