DOI : 10.18843/ijms/v5i2(4)/06
DOI URL :http://dx.doi.org/10.18843/ijms/v5i2(4)/06

# A Structural Equation Modeling approach to understand the Impact of Gartner's CRM Practices on Customer Retention

***Subhasish Das,***
Ph D Scholar,
CUTM, Jatni, Odisha, India.

***Dr. (Prof). Manit Mishra,***
Associate Professor,
IMI, Bhubaneswar, Odisha, India.

***Dr. (Prof). Prasanta Kumar Mohanty,***
Dean,
School of Management, CUTM, Jatni, India.

**ABSTRACT**

*Customer retention is more important than customer acquisition. Customer retention is one of the vital activities for any firm at this juncture. Many firms strive to attain it but are more or less confused to adopt the right kind of practices to retain customers. Gartner studies have identified CRM practices that manage customer relationships throughout the customer life cycle i.e. customer acquisition, retention and development. This paper tries to understand the influence of Gartner's CRM practices on customer retention in the selected retail store. It finds that among the different practices like CRM vision, CRM strategy, customer experience and organizational collaboration suggested by Gartner, only CRM strategy has the significant influence on retaining customers.*

**Keywords:** CRM, Gartner practices, Customer acquisition.

## INTRODUCTION:

Customer Relationship Management (CRM) is the process of managing relationships with the customer. Traditionally exchanges between the buyer and seller used to be only transactional; CRM concept for the first time prioritized relational exchange over transactional exchange. The core concept of CRM is relationship, more specifically the relationship between buyer and seller. A relationship is a series of interactions which constitutes actions and reactions. Through the interactions, the relationship between seller and buyer moves from a stage of independence to dependence or interdependence. When there is interdependence there is a relationship (Buttle, 2009).

CRM manages customer relationships through the three stages of customer lifecycle i.e. customer acquisition, customer retention and customer development. Many companies spend more money in customer acquisition and less on customer retention and they believe that they can always replace the defecting customer by acquiring more new customers. But, it is always costly to acquire new customers than retaining existing old customers and the defection rate of new customers is more than the old customers. Further the old customers are more profitable than new customers as the former spend more from their wallets on a seller. Customer retention increases the customer purchases, reduces customer management cost, increases referrals and supports in cross selling or up selling (Buttle, 2009).

Like customer acquisition, retention is also customer focused, as all customers won't be retained. Firms must identify 'whom' to retain and then plan 'how'. The firms who focus merely on customer acquisition are less profitable as customer acquisition is costly. So if the firm doesn't focuses on customer retention then they would be going on getting new customers and loosing old customers and can never reap the benefits of retaining customers. Studies have confirmed that old customers are more profitable as they spend more shares of their wallets and hence posses a bigger life time value.

## LITERATURE REVIEW:

One of the objectives of CRM is to manage the firm's customer relationships through the stages of customer life cycle i.e. customer acquisition, retention and development (Buttle, 2009).
Customer retention is the number of customers doing active business with a firm at the end of a financial year with respect to the number of customers doing business at the beginning of the same year (Dawkins and Reichheld, 1990).
The best CRM practices suggested by Gartner research in 'CRM best practices: from vision to collaboration' (COM-21-1015), has detailed the best CRM practices for developing vision, strategy, customer experience and organizational collaboration (Eisenfeld, Nelson, 2003).
Buttle (2009) in his book 'Customer relationship management: Concepts and technologies' has mentioned about the key performance indicators or measures of customer retention and they are, 'raw customer retention rate', 'sales adjusted retention rate' and 'profit adjusted retention rate'.
From the above references this study has developed the following hypotheses,

- $H_{01}$: CRM Vision of the retailer influences customer retention
- $H_{02}$: CRM Strategy of the retailer influences customer retention
- $H_{03}$: Customer experience influences customer retention
- $H_{04}$: Organizational culture of the retailer influences customer retention

## RESEARCH METHODOLOGY:

This study is descriptive in nature. The study in conducted in Vishal mega mart, one of the organized retail chains in Bhubaneswar, the capital city of odisha. This study includes two retail stores of the Vishal Megamart retail chains from locations like Ashok Nagar, Jayadev Bihar. The respondents of the study are the employees of the retail stores from all the levels. The findings of the study are based on the primary data collected through the questionnaire survey of almost all employees of the store which includes 219 respondents.

### Measures:

The study measures five constructs i.e. CRM vision, CRM strategy, Customer experience, Organizational collaboration and customer retentions and the questionnaire is designed accordingly. The questionnaire is developed from the previous studies of Eisenfeld and Nelson, (2003) and Buttle (2009).

**Construct reliability and validity**

| | CR | AVE | MSV | MaxR(H) | Vision | Strategy | Experience | Collaboration |
|---|---|---|---|---|---|---|---|---|
| Vision | 0.90 | 0.88 | 0.35 | 0.97 | 0.94 | | | |
| Strategy | 0.91 | 0.77 | 0.24 | 0.98 | | | | |
| Experience | 0.89 | 0.68 | 0.01 | 0.99 | | 0.01 | | |
| Collaboration | 0.94 | 0.85 | 0.3 | 0.99 | 0.38 | 0.34 | -0.03 | |
| Retention | 0.93 | 0.82 | 0.80 | 0.99 | 0.59 | 0.44 | 0.004 | 0.53 |

Reliability of the constructs can be checked through composite reliability (CR) and constructs are reliable if CR of each construct is greater than 0.7 (Hair et al., 2006). It can be seen from the above table (Table-1) that all constructs have CR more than 0.7.therefore all the constructs are reliable. Validity of the constructs can be established by convergent validity and discriminant validity. Values more than 0.7 for standardized factor loadings, CR and average variance extracted (AVE) established convergent variance and AVE more than Maximum shared variance (MSV) establish discriminant validity (Hair et.al, 2006). The same conditions can be seen satisfied from the Table-1 and hence all the constructs have a good validity.

### Measurement model

First an exploratory factor analysis (EFA) is conducted to identify the underlying constructs. Then a confirmatory factor analysis (CFA) is conducted with the help of AMOS.20 to understand the extent to which observed variables represent the latent constructs. AMOS gives several indices to check the model fitness, but this study has tested the model fitness on the basis of the indices and thresholds suggested by Gerpott et al., (2001), Homburg & Baumgartner, (1995) and Hair et al., (2006).

**Fig-1: Measurement model**

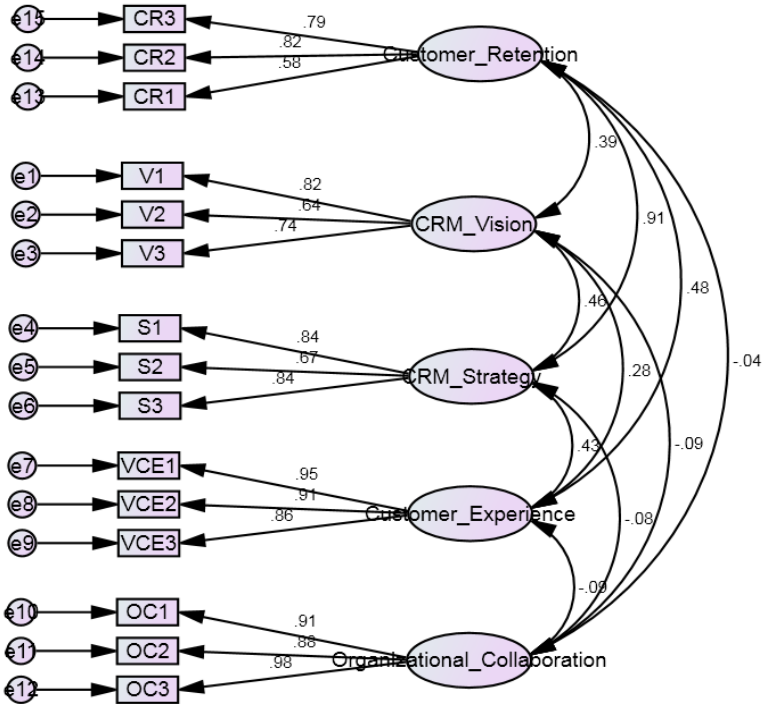


**Table-2: Model fit summary of the measurement model**

| Indices | Obtained values | Threshold values | Reference |
|---|---|---|---|
| P-Value | 0.023 | >0.05 | Gerpott et al., (2001), Homburg & Baumgartner, (1995) and Hair et al., (2006). |
| CMIN/DF | 1.341 | 0> CMIN/DF<5 | |
| RMSEA | 0.042 | <0.08 | |
| GFI | 0.935 | >0.9 | |
| AGFI | 0.903 | >0.9 | |
| NFI | 0.945 | >0.9 | |
| CFI | 0.985 | >0.9 | |

From the above table (Table-2) it can be seen that all the values of the model fit indices are according to the required values except P-Value, which is generally difficult to get at this sample size of 219. Therefore we can conclude that the measurement model holds a very good model fit and proves that the observed variables truly measure the constructs and the observed data fits the model.

**Structural Model:**

**Fig-2: Structural model**

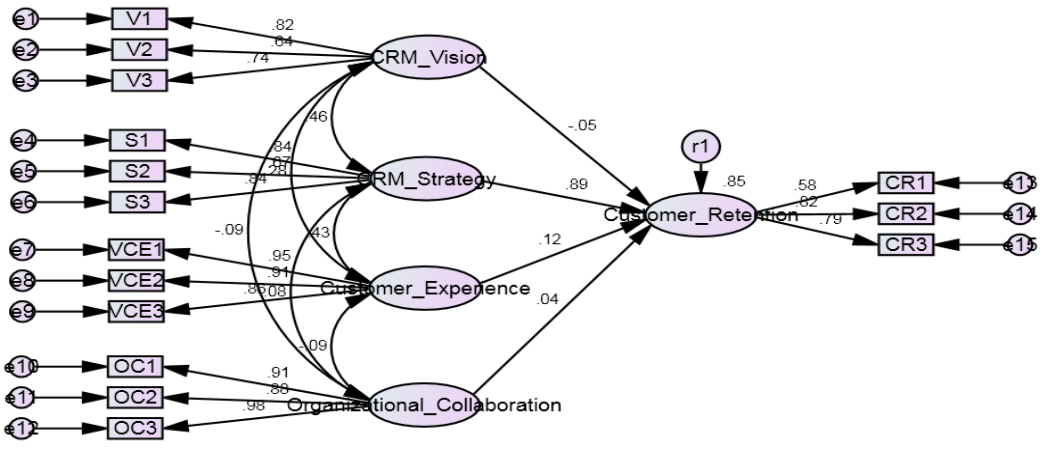

**Table 3: Model fit summary of the structural model**

| Indices | Obtained values | Threshold values | Reference |
|---|---|---|---|
| P-Value | 0.023 | >0.05 | Gerpott et al., (2001), Homburg & Baumgartner, (1995) and Hair et al., (2006). |
| CMIN/DF | 1.341 | 0> CMIN/DF<5 | |
| RMSEA | 0.042 | <0.08 | |
| GFI | 0.935 | >0.9 | |
| AGFI | 0.903 | >0.9 | |
| NFI | 0.945 | >0.9 | |
| CFI | 0.985 | >0.9 | |

From the above table (Table-3) it can be noticed that the fit indices are as per the requirement except P-value, as said it is generally difficult to get a required P- Value at this sample size. But all other fit indices are enough to conclude that the structural model exhibits a good model fit.

**Table-4: Beta coefficients**

| Beta Coefficients | | | Estimate | P |
|---|---|---|---|---|
| Customer Retention | <--- | CRM Vision | -.049 | .482 |
| Customer Retention | <--- | CRM Strategy | .890 | *** |
| Customer Retention | <--- | Customer Experience | .119 | .059 |
| Customer Retention | <--- | Organizational Collaboration | .036 | .496 |

The beta coefficients of the regression or relationships among the independent variables CRM vision, CRM strategy, Customer experience and Organizational collaboration with the dependent variable customer retention can be explained from the above table (table-4).It can be noticed that only CRM strategy significantly influences customer retention at Vishal Megamart. Though other CRM practices like CRM vision, customer experience and organizational collaboration have some influence on customer retention but they are not significant at all.

## CONCLUSION:

The study finds a significant and positive relationship between practices of CRM strategy and customer retention. All other practices suggested by Gartner are found insignificant on this retail store to retain customers. Therefore the findings of the study reflect a significant and positive relationship of CRM strategy of the retail store on customer acquisition and the influence of all other practices like CRM vision, customer experience and organizational collaboration though have some influence but are statistically insignificant. Thus this paper gives scope for future study to investigate the cause behind the same.

The findings of the study may not be generalized as it involves selected retail stores of a single retail chain at the same time it may have respondent's bias as it is completely based on the perception of the respondents. But the underlying cause for the significant or insignificant influence of the CRM practices on customer retention can be further investigated.

This study gives knowledge about the type of practices the firm's should adopt in order to strengthen the customer retention programs.

## REFERENCES:

Buttle, F. (2009). *Customer relationship management: Concepts and technology.* Burlington, USA: Elsevier.

Dawkins, P.M. and Reichheld, F.F. (1990). *Customer retention as a competitive weapon,* Directors & Board, Summer, pp. 42–47

Eisenfeld, B., Nelson, S. (2001). CRM best practices: from vision to collaboration (COM-21-1015). Available from: http:// www.gartner.com/ Id-117541.

Hair, J. F., Jr., Anderson, R. E.,Tatham, R. L., Babin, B. J., & Black, W. C. (2007). *Multivariate data analysis (6th international ed.)*. Delhi: Dorling Kindersley (India) Pvt. Ltd

Homburg, C., & Baumgartner, H. (1995). Beurteilung von Kausalmodelen. *Marketing*, 17(3), 162e176

Gerpott, T. J., Rams, W., & Schindler, A (2001). Customer retention, loyalty and satisfaction in the german cellular telecommunications market. *Telecommunications Policy*, 25(4), 249e269.

## APPENDIX

**Model Fit Summary for Measurement Model:**

**CMIN**

| Model | NPAR | CMIN | DF | P | CMIN/DF |
|---|---|---|---|---|---|
| Default model | 40 | 107.283 | 80 | .023 | 1.341 |
| Saturated model | 120 | .000 | 0 | | |
| Independence model | 15 | 1963.288 | 105 | .000 | 18.698 |

**RMR, GFI**

| Model | RMR | GFI | AGFI | PGFI |
|---|---|---|---|---|
| Default model | .061 | .935 | .903 | .624 |
| Saturated model | .000 | 1.000 | | |
| Independence model | .515 | .363 | .272 | .318 |

**Baseline Comparisons**

| Model | NFI Delta1 | RFI rho1 | IFI Delta2 | TLI rho2 | CFI |
|---|---|---|---|---|---|
| Default model | .945 | .928 | .986 | .981 | .985 |
| Saturated model | 1.000 | | 1.000 | | 1.000 |
| Independence model | .000 | .000 | .000 | .000 | .000 |

**Parsimony-Adjusted Measures**

| Model | PRATIO | PNFI | PCFI |
|---|---|---|---|
| Default model | .762 | .720 | .751 |
| Saturated model | .000 | .000 | .000 |
| Independence model | 1.000 | .000 | .000 |

**NCP**

| Model | NCP | LO 90 | HI 90 |
|---|---|---|---|
| Default model | 27.283 | 4.269 | 58.371 |
| Saturated model | .000 | .000 | .000 |
| Independence model | 1858.288 | 1718.129 | 2005.825 |

**FMIN**

| Model | FMIN | F0 | LO 90 | HI 90 |
|---|---|---|---|---|
| Default model | .550 | .140 | .022 | .299 |
| Saturated model | .000 | .000 | .000 | .000 |
| Independence model | 10.068 | 9.530 | 8.811 | 10.286 |

**RMSEA**

| Model | RMSEA | LO 90 | HI 90 | PCLOSE |
|---|---|---|---|---|
| Default model | .042 | .017 | .061 | .737 |
| Independence model | .301 | .290 | .313 | .000 |

**AIC**

| Model | AIC | BCC | BIC | CAIC |
|---|---|---|---|---|
| Default model | 187.283 | 194.434 | 318.407 | 358.407 |
| Saturated model | 240.000 | 261.453 | 633.374 | 753.374 |
| Independence model | 1993.288 | 1995.970 | 2042.460 | 2057.460 |

**ECVI**

| Model | ECVI | LO 90 | HI 90 | MECVI |
|---|---|---|---|---|
| Default model | .960 | .842 | 1.120 | .997 |
| Saturated model | 1.231 | 1.231 | 1.231 | 1.341 |
| Independence model | 10.222 | 9.503 | 10.979 | 10.236 |

**HOELTER**

| Model | HOELTER .05 | HOELTER .01 |
|---|---|---|
| Default model | 186 | 205 |
| Independence model | 13 | 15 |

| | |
|---|---|
| Minimization: | .016 |
| Miscellaneous: | .978 |
| Bootstrap: | .000 |
| Total: | .994 |

**Model Fit Summary for structural model:**

**CMIN**

| Model | NPAR | CMIN | DF | P | CMIN/DF |
|---|---|---|---|---|---|
| Default model | 40 | 107.283 | 80 | .023 | 1.341 |
| Saturated model | 120 | .000 | 0 | | |
| Independence model | 15 | 1963.288 | 105 | .000 | 18.698 |

**RMR, GFI**

| Model | RMR | GFI | AGFI | PGFI |
|---|---|---|---|---|
| Default model | .061 | .935 | .903 | .624 |
| Saturated model | .000 | 1.000 | | |
| Independence model | .515 | .363 | .272 | .318 |

**Baseline Comparisons**

| Model | NFI Delta1 | RFI rho1 | IFI Delta2 | TLI rho2 | CFI |
|---|---|---|---|---|---|
| Default model | .945 | .928 | .986 | .981 | .985 |
| Saturated model | 1.000 | | 1.000 | | 1.000 |
| Independence model | .000 | .000 | .000 | .000 | .000 |

**Parsimony-Adjusted Measures**

| Model | PRATIO | PNFI | PCFI |
|---|---|---|---|
| Default model | .762 | .720 | .751 |
| Saturated model | .000 | .000 | .000 |
| Independence model | 1.000 | .000 | .000 |

**SNCP**

| Model | NCP | LO 90 | HI 90 |
|---|---|---|---|
| Default model | 27.283 | 4.269 | 58.371 |
| Saturated model | .000 | .000 | .000 |
| Independence model | 1858.288 | 1718.129 | 2005.825 |

**FMIN**

| Model | FMIN | F0 | LO 90 | HI 90 |
|---|---|---|---|---|
| Default model | .550 | .140 | .022 | .299 |
| Saturated model | .000 | .000 | .000 | .000 |
| Independence model | 10.068 | 9.530 | 8.811 | 10.286 |

**RMSEA**

| Model | RMSEA | LO 90 | HI 90 | PCLOSE |
|---|---|---|---|---|
| Default model | .042 | .017 | .061 | .737 |
| Independence model | .301 | .290 | .313 | .000 |

**AIC**

| Model | AIC | BCC | BIC | CAIC |
|---|---|---|---|---|
| Default model | 187.283 | 194.434 | 318.407 | 358.407 |
| Saturated model | 240.000 | 261.453 | 633.374 | 753.374 |
| Independence model | 1993.288 | 1995.970 | 2042.460 | 2057.460 |

**ECVI**

| Model | ECVI | LO 90 | HI 90 | MECVI |
|---|---|---|---|---|
| Default model | .960 | .842 | 1.120 | .997 |
| Saturated model | 1.231 | 1.231 | 1.231 | 1.341 |
| Independence model | 10.222 | 9.503 | 10.979 | 10.236 |

**HOELTER**

| Model | HOELTER .05 | HOELTER .01 |
|---|---|---|
| Default model | 186 | 205 |
| Independence model | 13 | 15 |

| | |
|---|---|
| Minimization | .016 |
| Miscellaneous | .577 |
| Bootstrap | .000 |
| **Total** | .593 |

**Estimates (Group number 1 - Default model)**
**Scalar Estimates (Group number 1 - Default model)**
**Maximum Likelihood Estimates**
**Regression Weights: (Group number 1 - Default model)**

| | | | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|---|---|
| Customer_Retention | <--- | CRM_Vision | -.041 | .059 | -.703 | .482 | |
| Customer_Retention | <--- | CRM_Strategy | .604 | .084 | 7.163 | *** | |
| Customer_Retention | <--- | Customer_Experience | .064 | .034 | 1.889 | .059 | |
| Customer_Retention | <--- | Organizational_Collaboration | .019 | .027 | .681 | .496 | |

**Standardized Regression Weights: (Group number 1 - Default model)**

| | | | **Estimate** |
|---|---|---|---|
| Customer_Retention | <--- | CRM_Vision | -.049 |
| Customer_Retention | <--- | CRM_Strategy | .890 |
| Customer_Retention | <--- | Customer_Experience | .119 |
| Customer_Retention | <--- | Organizational_Collaboration | .036 |
| V3 | <--- | CRM_Vision | .741 |
| V2 | <--- | CRM_Vision | .635 |
| V1 | <--- | CRM_Vision | .818 |
| S3 | <--- | CRM_Strategy | .842 |
| S2 | <--- | CRM_Strategy | .673 |
| S1 | <--- | CRM_Strategy | .843 |
| VCE3 | <--- | Customer_Experience | .858 |
| VCE2 | <--- | Customer_Experience | .911 |
| VCE1 | <--- | Customer_Experience | .953 |
| OC3 | <--- | Organizational_Collaboration | .976 |
| OC2 | <--- | Organizational_Collaboration | .876 |
| OC1 | <--- | Organizational_Collaboration | .906 |
| CR1 | <--- | Customer_Retention | .578 |
| CR2 | <--- | Customer_Retention | .818 |
| CR3 | <--- | Customer_Retention | .790 |

---