

# CRM success factors in Women Apparel Retail Outlets

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**ABSTRACT--** Customer relationship management (CRM) is a vital business strategy for all the businesses to survive and sustain. A successful customer relationship management leads to customer acquisition, customer retention, and increased customer loyalty which in turn increases the profit and enhances the sales of the organisation in which CRM is implemented. The study is conducted among 100 female customers of women apparel retail outlets in Thirupattur district of Tamil Nadu, India. Exploratory factor analysis is performed to find out the CRM success factors. Confirmatory factor analysis is done to know the consistency of the underlying constructs and two step cluster analysis is employed to segment the customers on the basis of demographic and CRM success factors. It was found that highest number of customers i.e. 35% of female customers are in the age group of 18-30 years and spent around Rs.1000- 5000 in shopping apparels during festival occasion.

**Key words--** Customer relationship management, customer relations, relationship marketing, customer satisfaction, retail industry, etc.

## I. INTRODUCTION

Customer satisfaction is an important concept in marketing which is influenced by many factors such as product, price, promotion, service quality and market place. With the rapid development of information and communication technologies, increase in competition and growing demand of customers, the manufacturers/retailers are adopting various innovative techniques to lure the customers. By maintaining productive and strong relationship with customers, the business can create trust, create value, enhance their profitability and reduce acquisition cost. Customer relationship management is an approach which is the combination of strategies, practices and technologies to acquire retain and satisfy the needs of the business clientele to increase sales and enhance profitability. The uses for CRM can be grouped into two functions: customer acquisition and customer retention. CRM cannot be practiced in business without tracking patterns within customer data. Data mining helps in extracting meaningful patterns and relationships from large data sets. A complete data mining process comprises assessing and specifying the business objectives, data sourcing, transformation and creation of analytical variables and building analytical models using techniques such as logistic regression and neural networks, scoring customers and obtaining feedback from the field data mining can redefine and improve customer relationships. CRM streamlines customer segmentation process to reach the customers who are most receptive to the products and services. Customer segmentation is the practice of dividing

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a customer base into groups on basis of age, gender, income level, customer preferences, purchase habits, etc. of individuals that are similar in specific ways relevant to marketing.

## **II. REVIEW OF LITERATURE**

Customer relationship management has become a management tool for any business who wants to survive in today's volatility, uncertainty, complexity and ambiguity era. In the terms of Coldwell, CRM is a combination of business process and technology that seeks to understand a company's customers as to who they are, what they do, and what they are like. Abbott, et al. (2001) found three keys to success: segmentation, retention, and prospects based on clean and accurate data. One of the common concerns of these models is to emphasize 'customer retention and segmentation' steps. Myron (2003) highlighted that there are six barriers in implementing CRM which include lack of guidance, integration woes, no long-term strategy, dirty data, lack of employee buy-in and no accountability.

Puschmann (2004) described that there are three areas of CRM, namely i) operational CRM, which supports front-office processes, e.g. the staff in a call centre; ii) analytical CRM, which builds on operational CRM and establishes information on customer segments, behaviour and value using statistical methods; and iii) collaborative CRM, which concentrates on customer integration using a coordinated mix of interaction channels, e.g. online shops, and call centres. Thus, CRM is viewed as a compilation of marketing and technological components that interact with each other to enhance the way an organization deals with its customers.

Daniela Şchiopu (2010) used two-step cluster method to analyse information about the customers of a bank. Two-step creates three customers' profiles. The largest group contains skilled customers, whose purpose of the loan is education or business. The second group consists in persons with real estate, but mostly unemployed, which asked for a credit for retraining or for household goods. The third profile gathers people with unknown properties, who make a request for a car or a television and then for education.

Alamgir, et al. (2015) considered the resource-based view in developing CRM success framework where ten customer-service managers of different telecom operators of Bangladesh have been interviewed. The results of the interviews identified three factors affecting CRM success.

Tkaczynski (2017) employed two step cluster analysis on a sample of 537 respondents in an active school travel social marketing campaign that was being developed in Queensland at time of writing. Three segments were identified and validated, each of which differed significantly based on psychographic, behaviour, geographic and demographic variables.

Today, CRM has become an important business strategy for many business organizations. Thus, for the manufacturers and retailers it is very important for them to that obtain the customer data to know the current market trends and make predictions for the future to acquire the new customers and retain the acquired customers.

## **III. STATEMENT OF THE PROBLEM**

Augmentation of working women, increase in westernised culture, easy credits, consistent growth of economy and rapid urbanization rate has led to proliferation of female apparel retail outlets. In order to increase

their sales and sustain their business, the retailers should have knowledge about the need, preference and behaviour of the customers. There is also a dire need for the retailers , identify the good or receptive customers , attract the new customers, to select the right prospects on whom to focus and take steps to retain the existing customers. There are four steps to implement CRM as ‘identify customers,’ ‘differentiate customers,’ ‘interact with customers,’ and ‘customize for customers.’ Though the retailers are using various traditional strategies to improve their sales and increase their customer base, effective customer segmentation will be an added advantage for them to make accurate predictions about their past, present and future clientele.

#### IV. OBJECTIVES OF THE STUDY

The purpose of the study is to determine the success factors influencing CRM practices in female apparel retail outlets among the female respondents and to segment the customers and identify the important variables that influence female customers to purchase in the retail outlets in Tirupattur.

#### V. RESEARCH METHODOLOGY

Exploratory and analytical research design was adopted. Data were collected through a structured questionnaire. The respondents are asked to indicate their agreement level of each item of the sections on the five-point Likert scale. The overall reliability of the questionnaire is 0.823 which is more than the acceptable level of 0.7. Simple random sampling technique is employed. A total of 120 questionnaires were distributed randomly among the females in Tirupattur district. Among completed survey forms, excluding those with omissions or with randomly repeated answers, 100 usable responses were obtained, providing an acceptable level of response rate of 83 per cent. In this study, two data mining techniques are applied namely factor analysis and clustering. Exploratory factor analysis is employed to determine the success factors influencing CRM practices in female apparel retail outlets among the female respondents. Confirmatory factor analysis is used to test whether measures of a construct are consistent and fit to the hypothesized measurement model. Finally, two step cluster analysis is performed to segment the customers and predict their purchase behaviour.

#### VI. ANALYSIS AND INTERPRETATIONS

##### 6.1. Demographic profile of the respondents

**Table 1:** Demographic Profile of the Respondents

Demographic Factor		Frequencies	Percentage
Age (years)	18-30	31	31.0
	30-50	37	37.0
	Above 50	32	32.0
Frequency of visit	Fortnightly	4	4.0
	Half-yearly	18	18.0
	Monthly	9	9.0
	Yearly	30	30.0

	Festivals and Occasions	39	39.0
Amount spent (Rs.)	Less than 1000	27	27.0
	1000-5000	58	58.0
	5000-10,000	14	14.0
	Above 10,000	1	1.0

Source: Primary Data.

The above table reveals that 37% of the respondents were in the age group of 30-50 years, 32.0% of the respondents were above 50 years and 31% of the respondents were in the age group of 18-30 years. 39% visit apparel stores during festival and occasions, 30% visit yearly, 18% visit half yearly, 9% visit monthly, and 4% visit apparel stores fortnightly. 58% of the respondents spend Rs.1000-5000 in apparel shopping, 27% of the respondents spend less than Rs.1000, 14% spend Rs.5000-10000 and 1% spend above Rs.10000 in apparel shopping.

## 6.2. Exploratory factor analysis to know CRM success factors

Factor analysis, which is a regression based data mining technique, used to represent a set of observed variables in terms of common factors. Exploratory factor analysis was used to identify the three success factors of customer relationship management. Initially, 12 items were taken, based on the literature. Due to the low communalities ( $<0.50$ ), one items was removed. The Kaiser-Meyer-Olkin measure of sampling adequacy was found to be 0.734, which suggests that the responses given with the sample were adequate. The same table shows that the Bartlett's Test of Sphericity is significant ( $p = 0.000$ ). This suggests that correlation matrix is not an identity matrix.

**Table 2:** Exploratory Factor Analysis to know CRM success factors

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy			0.734
Bartlett's Test of Sphericity Approx. Chi-Square (df =55, P=0.000)			434.004
Exploratory Factor Analysis on CRM (n=100)			
Name of the Factor		Factor Loadings	% of Variance
Customer Satisfaction Strategy (CSS)	I am Satisfied with the product range offered by the retailer	0.888	34.57
	The outlet has product/brand which is demanded by me	0.886	
	I am satisfied with retailer's flexible pricing for various products or services that meet my needs	0.858	
	The promotional offers from the retailer provide a good value for money.	0.669	

Customer Retention strategy (CRS)	The outlet has convenient opening and closing time	0.930	16.92
	Product return and exchange is easy for me	0.899	
	My complaints are easily and immediately handled	0.557	
Customer Loyalty Strategy (CLS)	I intend to continue using services from this retail outlet for a long time	0.872	11.32
	I recommend to my friends and colleagues to visit & purchase through the same retail outlet as I do.	0.622	
	I feel secured and satisfied with CRM strategies of the retail outlet	0.813	
	The store has accuracy in performing financial transactions	0.766	
Total Variance Explained		62.81	

Table 2 shows that the first factor comprises of four variables, where the factor loadings range between 0.669 to 0.888 comprising of 34.57% of variance. This factor studies the satisfaction strategies adopted by retailers on customers which is termed as “customer satisfaction strategy”. The second factor comprises of three variables; the factor loadings range between 0.557 to 0.930 with 16.92% of variance. This factor deals with retaining tactics adopted by retailers, hence called as “customer retention strategy”. The third factor comprises of four variables, the factor loadings ranges between 0.622 to 0.872 comprising 11.32% of variance; related to repeat patronage by the customers, hence called as “customer loyalty strategy”.

### 6.3. Confirmatory factor analysis for CRM success factors

Confirmatory factor analysis is carried out to verify the factor structure of a set of observed variables and test the relationship between observed variable and their underlying latent constructs. Initial CFA model was built on the 3 latent factors namely as customer satisfaction strategy, customer retention strategy and customer loyalty strategy which were extracted from the EFA and were found to meet the benchmark model fit criteria. Out of these 3 latent factors, one factor viz. customer loyalty strategy was removed so as to meet the convergent and discriminant validity issues. Construct reliability was assessed using Cronbach's  $\alpha$ , composite reliability (CR) and average variance extracted (AVE) using CFA. In order to assess the discriminant validity, Fornell and Larcker's criterion, that square root of the AVE for each construct should be greater than the correlation between constructs, was used. The following table shows the Cronbach Alpha, composite reliability, AVE and discriminant validity results.

**Table 3:** Convergent and Discriminant Validity Results

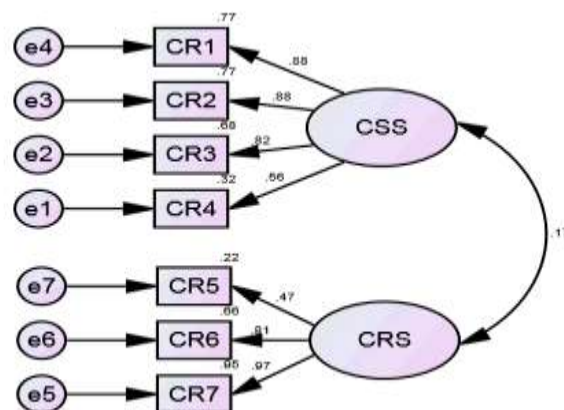
	Cronbach's Alpha	CR	AVE	MaxR(H)	CSS	CRS
CSS	0.863	0.870	0.633	0.902		0.781
CRS	0.781	0.813	0.610	0.953	0.173	

The Cronbach's Alpha and composite reliability are more than the acceptable range of 0.7. In addition, the average variance extracted for each construct is greater than 0.5. This indicates that the internal consistency of the CRM success factors. It can be seen from the table that AVE values of all the factors are greater than the inter-construct correlations which support the discriminant validity of the constructs. Thus, the measurement model has an adequate reliability and constructs validity. Model fit indices for the CFA with two latent constructs namely customer satisfaction strategy and customer retention strategy.

**Table 4:** Model Fit Indices

Measure	Estimate	Threshold
CMIN	11.332	--
DF	13	--
CMIN/DF	0.872	Between 1 and 3
CFI	1.000	>0.95
SRMR	0.076	<0.08
RMSEA	0.000	<0.06
P Close	0.772	>0.05

Based upon the threshold limits which has been recommended by Hu and Bentler (1999), majority of the indices were found to be meeting the acceptable norms. The following diagram shows the standardised estimates of customer satisfaction strategy and customer retention strategy.



**Figure 1:** Standardised Estimates of CRM success Factors

#### 6.4. Correlation between CRM factors and demographic factors

In order to find out the relationship between CRM success factors and demographic variables, Karl Pearson correlation is applied.

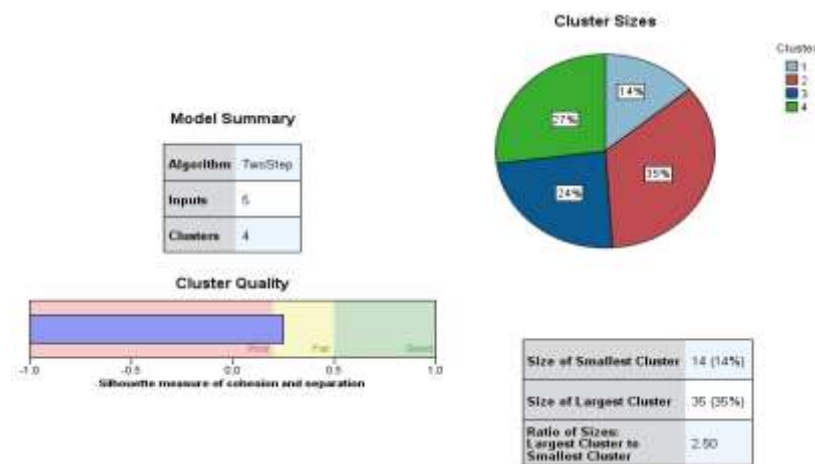
**Table 5:** Correlation between CRM Factors and Demographic Variables

	Customer Satisfaction Strategy	Customer Retention Strategy	Frequency of visit	Age	Amount Spent
Customer satisfaction strategy	1				
Customer retention strategy	.776**	1			
Frequency of visit	.716**	.719**	1		
Age	.480**	.475**	.508**	1	
Amount Spent	.240*	.156	.233*	.224*	1
**. Correlation is significant at the 0.01 level (2-tailed).					
*. Correlation is significant at the 0.05 level (2-tailed).					

There is a positive relationship between customer satisfaction strategy and customer retention strategy ( $r=0.776$ ,  $p<0.000$ ), customer satisfaction strategy and frequency of visit ( $r=0.776$ ,  $p<0.000$ ), customer satisfaction strategy and age ( $r=0.480$ ,  $p<0.000$ ), customer retention and frequency of visit ( $r=0.719$ ,  $p<0.000$ ), customer retention strategy and age ( $r=0.475$ ,  $p<0.000$ ), and age and frequency of visit ( $r=0.508$ ,  $p<0.000$ ) at 1% level of significance. There is a positive relationship between customer satisfaction strategy and amount spent ( $r=0.240$ ,  $p<0.016$ ), amount spent and frequency of visit ( $r=0.233$ ,  $p<0.019$ ) and age and amount spent ( $r=0.224$ ,  $p<0.025$ ) at 5% level of significance.

### 6.5. Cluster analysis for customer classification

The *two-step cluster analysis* procedure is useful for finding natural groupings of cases or variables. The main motive of clustering here is to group together customers with similar buying patterns. The resultant clusters should have minimum dissimilarity within the cluster and maximum dissimilarity with other clusters. The *two-step cluster analysis* works well with categorical and continuous variables, and can *analyze* very large data files. The researcher has performed two step cluster analysis on three categorical variables namely age, frequency of visit and amount spent and two CRM success factors viz. customer satisfaction strategy and customer retention strategy in order to understand the customer classification in the retail outlets of Thiruppattur.



**Figure 2:** Cluster Classification

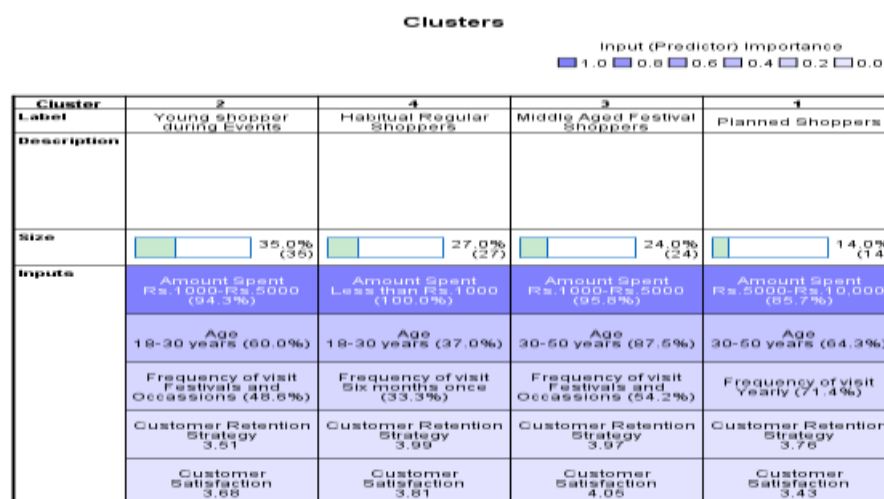
The model summary results reveal that 4 clusters were identified from the inputs given and the Silhouette measure of cohesion and separation is fair. Cluster 1 constitutes of 14% of customers, cluster 2 constitutes of 35% of customers, cluster 3 constitutes of 24% of customers and 27% of the customers fall under the category of cluster 4. The ratio between largest and smallest cluster is 2.50.

**Table 6:** Predictor Importance Variables

Nodes	Importance	Rank
Customer satisfaction	0.0342	5
Customer retention	0.0423	4
Frequency of visit	0.1356	3
Age	0.3213	2
Amount spent	1	1

The customer classification is done on the basis of predictor importance variables where amount spent ranks first followed by age as second, frequency of visit as third, customer retention strategy as fourth and customer satisfaction strategy as fifth important variables.





**Figure 3: Cluster Identification**

Based on the four types of clusters identified, cluster 1 comprises of 14% of customers who fall under the age group of 30- 50 years who spend around Rs.5000 to 10000 in shopping female apparels yearly. These customers are called as “planned shoppers”. Cluster 2 comprises of 35% customers in the age group of 18-30 years, spend around Rs.1000-5000 in shopping apparels during festivals and occasions. These customers are termed as “young shoppers during events”. Cluster 3 consists of 24% of customers in the age group of 30- 50 years spend around Rs.1000- 5000 in shopping apparels during festivals and occasions. These customers are called as “middle aged festival shoppers”. Cluster 4 has 27% of customers in the age group of 18-30 years spend less than Rs.1000 in shopping apparels half-yearly. These customers are termed as “habitual regular shoppers”.

## VII. FINDINGS

In the apparel retail outlets, customer satisfaction strategy and customer retention strategy are the two CRM success factors which influence the customers to buy the products. The correlation results reveal that the relationship between amount spent and customer retention strategy was not significant. This means that the customers do not restrict to one retail outlet for purchase of their apparels, they visit various retail outlets and purchase the product they like. The highest number of customers in Tirupattur district who visit retail outlets is in the age group of 18-30 years. They purchase apparels either during festivals and events or they are habitual regular shoppers who purchase apparels half yearly. Thus, the retailers have to concentrate in these age-group clientele to increase their sales and profits.

## VIII. CONCLUSION

From the foregoing analysis it can be ascertained that majority of the female customers are in the age group of 18-30 years, who wear fashionable attires and their preferences depends on the current fashion trends. The apparel retailers should see the various strategies for satisfying and retaining these customers. Customer relationship management is a comprehensive approach to maximize relationships with all customers, including

internet or e-customers, distribution channel members, and suppliers. It is becoming increasingly clear that stalled or failed CRM projects are often the result of companies lacking a thorough understanding of implementing CRM tools and techniques. CRM success lies in employee and corporate management support and better understanding of the concepts. Getting to know each customer through data mining techniques and a customer-centric business strategy helps the organization to proactively and consistently offer more products and services for improved customer retention and loyalty over longer periods of time.

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