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# **A Study on Attributes of Websites with Specific Reference to Online Purchase Intentions of Baby Products in Chennai**

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**Abstract.** Baby products, our area of interest, are very sensitive products which are used by tender infants and little kids. Therefore, parents exercise great care while purchasing them and only go for the best, which explains our need to study the online purchase intentions of baby products. Working women with financial resources of their own and coupled with availability of huge information on the internet have empowered them to make informed decisions while purchasing for their babies and kids. Most of the baby products are available online and customers now prefer to buy the products through online shopping websites. But product sales through online particularly relies on the trust of the company and the company website. This article tries to analyze the appearance of the website, features and other related factors of the online shopping portal and their influences on making purchase decisions for baby products among the customers in Chennai. In this regard, data were collected from 174 respondents, through a survey method, by using structured questionnaire and the judgemental sampling method was adopted. Collected data were analysed and results revealed that trust and usability factors were significant. The results also revealed the most important factors for designing a website for achieving more customer satisfaction.

**Keywords:** Baby products, Consumer behaviour, Online purchase, Trust and privacy, Website design

## **1. Introduction**

Indian Economy is growing at a fast pace due to the surge in the working age population. Household incomes and therefore, spending capacity has greatly increased. Likewise, the disposable incomes of young parents have been on the steady rise and most of them live in urban areas as nuclear families. Both the parents are working and in particular, the working women are looking forward to use safer and better products for their babies. They are also willing to pay more for the premium quality. India has a huge birth rate too every year compared to other countries. Hence there is a huge potential for the baby care products' segment in India. Also CAGR has pointed out that the projected growth rate of baby care market is over 17% till 2020 [1].

There is a huge array of products available for babies like diapers, wet wipes, powders, baby baths liquids, shampoos, dresses, baby food, baby furniture, toys,

books and many more. Due to the surplus of information available in the internet they are able to compare and contrast between various brands and choose the right product for their babies.

Due to the busy lives of people and hectic work schedules, there is a huge surge in e-commerce purchases. When people are already familiar with the product and there is no need to go and physically examine them before buying, people prefer to purchase them online, so that it reaches their place without the hassles of commuting to the shop. Hence online shopping now plays a pivotal role in our lives. There are a lot of online shopping portals now available. For the e-commerce website to be a huge success and reap profits, it is essential to keep the website attractive and safe for customers. Customers should feel comfortable and find it easy to purchase through online. Websites have also started to use Artificial Intelligence to effectively tap more customers.

Therefore, there is a big market for those who do online purchases, especially for baby products and hence this explains our need to study the online purchase intentions of baby products. In this study, Chennai region is alone considered as it is the hub of both buzzing technological and economic activity. Later on, this study can be expanded to other regions also.

## **2. Review of literature**

Online purchase is greatly influenced by perceived usefulness [2]. Findings show that the usability, entertainment, and complementarity of economy hotel websites positively affected eTrust which in turn positively influenced online booking intentions [3]. Proper design strategies pertaining to every stage of the purchase decision-making process have to be planned by the online merchants who have adopted social commerce, so that the online portals meet the needs and desires of customers [4].

Consumers' purchase intentions are greatly influenced by the website quality and it increases product appeal. Purchase intentions are increased when the trust in e-commerce sites increases and also there exists a positive relationship between quality of the website and purchase intentions [5]. Major factors which influence the development of e-loyalty are hedonism, privacy, e-satisfaction and customer service [6]. Website quality, design and information should be given more opportunity to improve website quality [7]

One of the finding says that the online purchase intentions are related to the ease of browsing and using. The added information should be true and good interactions support online purchase intentions [8]. Another study says that, Customers online purchase intentions are positively associated with website quality [9].

Cho.V, [10] said that there is a hierarchical relationship among the constructs. The most important construct was the perceived usefulness for online services. Perceived risk and trust were less important mostly on online legal services. Findings of another study show that website quality has a direct and positive impact on customer satisfaction which in turn has an impact on purchase intentions. The influence of website quality on purchase intentions significantly mediates the effect

[11]. Reputation had a positive effect on consumers' emotion and negative effect on perceived risk [12].

It is a product category where parents are initially unable to judge brand performance as consumption is undertaken by babies or toddlers. Manufacturer-branded baby-care products were regarded by respondents to be of higher quality and lower perceived risk than retail-branded baby-care products [13]. Understanding the purchase pattern of parents would help firms in formulating strategies to cater to the needs of the consumer and thereby increase their market share [14].

Normative-beliefs have been found as the most significant to influence students' intention for shopping on Internet [15]. To develop a successful e-business online store, it is necessary to have a deep understanding on the trust developed and how it affects online purchase intentions [16].

Customers' perception about the website is greatly affected by trust and perceived risk which in turn their purchase intentions [17]. There is a positive correlation between the overall perceived quality and the purchase intention when considering the company's website [18].

### **3. Research Problem**

#### **3.1. Research focus**

While doing literature study, the researcher came across scarce literature support for baby products based studies, whereas studies related to online purchase intention and behaviour were found to have quite reasonable numbers. Baby product segment is very sensitive since new born babies are very sensitive towards accessing their products such as clothes, cosmetics, toys etc. Since the current generation is more focussed towards the single child concept, every parent is very keen on choosing their baby products. Although they have more experience on online purchase, they struggle while doing the same for purchasing baby products because they may not be aware of choosing criteria due to the single child concept and sensitive nature of new born babies. Hence the researcher would like to support and enlighten the new parent's online purchase behaviour towards baby products buying with a comfortable manner. This study also supports E-Retailers in order to design their websites in a more user friendly manner. Hence this study was conducted with the following objective.

#### **3.2. Objective of the study**

The objective of this study is to analyse the various attributes of E-retail websites by focusing the buying behaviour of baby products.

### **4. Research Methodology**

This research was designed based on a descriptive method. Scope of this study was confined within Chennai city. Scopes of respondents were limited to the people who are purchasing baby products online. It was not mandatory that the respondents

should have kids; instead they could buy baby products for others such as other family members, relatives and friends for gifting purposes. Structured questionnaire was prepared which includes basic demography details, buying behaviour and website attributes related questions. Data were collected from 200 respondents, of which 26 were rejected due to poor and incomplete responses. Finally 174 responses were considered for data analysis. Data was collected through a survey method by using non-probability cum judgemental sampling methods, because the data collection person has to make sure, whether they have purchased any baby products online earlier, before giving the questionnaire to a respondent. Collected data were entered into the SPSS software package and analysed by using various statistical tools such as frequency analysis, factor analysis, reliability analysis and regression analysis, and results were given in the following section.

## **5. Data Analysis and Results**

### **5.1. Frequency Analysis**

Frequency analysis was carried out for demography details just to get basic understanding about the respondents. Data were collected from 54% of male respondents and 46% of female respondents. Among them 53% were between 21 to 30 years of age and 47% were above 30 years. This study includes 28% of unmarried respondents and 72% were married. Education qualification of the respondents was 10% Diploma holders, 60% Undergraduates, 28% Post graduates and 2% with Ph. D. Among the total respondents 13% were self-employed, 17% were homemakers, 63% private employees, 4% government employees and 3% doing various other professions. Around 69% of the respondents were below an income level of Rs.30,000 per month and remaining 31% above Rs.30,000 per month. This study includes 37% of respondents from North Chennai zone, 44% from Central Chennai and 19% from South Chennai zone. Among the total respondents 36% had children below 4 years and 64% didn't have kids below 4 years. Around 41% of respondents had one child less than 4 years, 4% had two children less than 4 years and 55% had children greater than 4 years. Among the total respondents around 54% of the people purchase less frequently, 20% purchase always and 26% purchase only if someone recommends. Among all respondents around 43% of the people purchased for their own kids, 30% purchase for their family members and other 27% for gifting purposes. Around 37% of respondents were using mobile phones, 48% laptops, 9% desktops and 6% tablets for purchasing baby products through online.

### **5.2. Factor Analysis**

Factor analysis was used to minimize the multiple variables into few factors, so that variables could be categorized under specific attributes. Factor analysis was presented by using three different segments such as KMO and Bartlett's test, total variance explained and rotated component matrix. KMO test was used to justify the sampling adequacy. Table 1 shows that, sampling adequacy value of KMO test was 0.852.

It denotes that sampling adequacy for this study was 85% and it was considered as adequate. Bartlett's test of factor analysis shows that significant value of all the factors which consider for this study and resulted as significant, since the significant value was 0.000 ( $p \leq 0.05$ ).

**Table 1. KMO and Bartlett's Test**

<b>KMO and Bartlett's Test Parameters</b>		<b>Values</b>
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.852
Bartlett's Test of Sphericity	Approx. Chi-Square	619.876
	Df	136
	Sig.	0.000

**Table 2. Total Variance Explained**

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.543	50.252	50.252	4.102	24.128	24.128
2	1.407	8.279	58.531	3.237	19.040	43.168
3	1.292	7.601	66.132	2.802	16.482	59.650
4	1.040	6.118	72.250	2.142	12.601	72.250
5	.755	4.442	76.693			

The total variance explained through factor analysis by all variables was 72% (Table 2) with four different factors (components). All these four factors were extracted by using principle component analysis method. Loadings of each variable were determined and rotated by using Varimax rotation method. Rotation converged in 9 iterations. All the variables categorized under these four different factors based on the loading value of 0.5 and above.

Table 3 shows the different variables in specific factors. First factor includes six variables such as not vulnerable to hacking, information security features, satisfied on addressing issues, proper security wall, handling financial transactions and carries out the functionalities seamlessly. This factor named as Trust. Second factor includes four other variables such as options provided, sorting filters, comparison of features and navigating the sites. This factor named as Web Design. Third factor includes four variables such as easy to use and buy, easy interaction, easy to understand and operating speed. This factor named as Usability. Finally fourth factor includes three variables such as amount of information, accuracy of the information and ease of applying the promotional offers. This factor named as Information quality.

**Table 3. Rotated Component Matrix<sup>a</sup>**

Variables	Factors (Components)				
	Trust Factor	Web Design Factor	De-Factor	Usability factor	Information Quality factor
Easy to use and buy				.713	
Easy interaction				.637	
Easy to understand				.829	
Satisfied on operating speed				.831	
Options provided		.732			
Sorting filters		.596			
Comparison features		.734			
Navigating the sites		.749			
Amount of information					.715
Accuracy of the information					.621
Ease of applying the promotional offers					.515
Not vulnerable to hacking	.651				
Information security features	.810				
Satisfied on addressing issues	.826				
Proper security wall	.789				
Handling financial transactions	.658				
Carry out the functionalities seamlessly	.662				
Reliability (Chronbach's Alpha value)	.927	.779		0.738	0.801

Extraction Method: Principal Component Analysis.  
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 9 iterations.

Reliability of these four factors were also analysed by using Cronbach's alpha value. First factors show that 93% ( $\alpha = 0.927$ ) of reliability value. Second, third and

fourth factors shows the reliability value of 80% ( $\alpha = 0.779$ ), 74% ( $\alpha = 0.738$ ) and 80% ( $\alpha = 0.801$ ) respectively and these values were highly accepted.

### 5.3. Regression Analysis

Regression analysis was conducted by using overall satisfaction on website service as dependent variable and all seventeen website based factors considered as independent variables. Regression analysis revealed following findings. Model summary (Table 4) in regression analysis shows that  $R^2$  value of 0.645. This justified that 64.5% of variance explained by the variables which taken in this study. ANOVA analysis (Table 5) in the regression analysis justified that all the variables which taken for regression analysis was significant, since significant value was 0.000 ( $p \leq 0.05$ )

**Table 4. Model Summary of regression analysis**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.803 <sup>a</sup>	.645	.473	.68845

a. Predictors: (Constant), Factor1, Factor3, Factor2, Factor4

**Table 5. ANOVA result of regression analysis**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	23.405	4	5.851	10.925	.000 <sup>b</sup>
Residual	26.243	49	.536		
Total	49.648	53			

a. Dependent Variable: Overall satisfaction of the website service factors ; b. Predictors: (Constant), Factor1, Factor2, Factor3, Factor4

**Table 6. Coefficients of regression analysis**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std.Error	Beta		
(Constant)	-.690	.706		-.978	.333
Trust	.135	.057	.331	2.369	.022
Web design	.064	.057	.176	1.109	.273
Usability	-.048	.067	-.124	-.706	.483
Information quality	.083	.035	.393	2.363	.022

a. Dependent Variable: Overall satisfaction of the website service factors



Out of four factors, trust and information quality factors were turned to be significant factors since their significant values were 0.022 and 0.022 respectively. Influence of each factor decided based on Unstandardized Coefficients values. For example, increase of one unit in trust factor would influence 0.135 units of customer satisfaction. Similarly increase of one unit in information quality factor would increase 0.083 units of customer satisfaction. Whereas, importance of these factors were decided based on standardized coefficients. In this study Information quality factor (0.393) was identified as very important factor in customer satisfaction and followed by trust factor (0.331). Hence this study strongly recommends online retailers to concentrate more on quality of information and trust factors such as payment gateway, product quality, and safety of kids etc., while designing their websites in order to increase their customer satisfaction.

These findings were validated through literature support. Review of the literature section of this article is substantiating these findings, because most of the literatures were documented by supporting trust, quality of website and its information to be considered as most important factors while designing E-retail websites. Though these variables were given for general E-retail purposes, this study revealed that those factors not only important to general online purchase, but also significant for online buying of baby products too.

## 6. Conclusion

Baby care segment is in great demand due to a steadily growing economy and increase in disposable incomes. Also online shopping is more and more gaining popularity due to the ease of access in buying products. Most of the baby care products are also bought online owing to a huge segment of working mothers. Hence there is always a huge potential for purchasing baby care products, online. This study finds out that quality of information and trust based factors were identified as very important factors while designing baby products E-Retail websites in order to achieve more customer satisfaction. Moreover, the parents of first baby also could validate and choose the best websites that sells baby products online through these factors by considering respective variables mentioned in this study.

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