

## **A Study on Consumer Behavior towards Online Shopping: A Structural Equation Modeling Approach**

**By**

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### **Abstract**

With India's Consumer Economy's exponential rise in the retail market and internet usage, there are numerous opportunities for online shopping. To survive and exceed expectations in this competitive environment, e-tailers must understand consumer behaviour in order to personalise their product offering and ensure client satisfaction. This modern and convenient method of purchasing is becoming increasingly popular among people, particularly among tech-savvy millennials who understand that careful use of technology is required for a positive online shopping experience. The purpose of this study was to discover a link between three variables in online purchasing: consumer prudence, perceived risk, online shopping experience, and their impact on consumer satisfaction. The study's target population was millennial consumers in the study area, with 88 valid questionnaire sets out of 128 distributed used for hypothesis testing. Consumer Prudence, Perceived Risk, online shopping experience and Consumer Satisfaction all have a favourable association, according to the study.

**Key Words:** Online Shopping, Consumer Behaviour, SEM

### **Introduction**

The internet is fast transforming the way people shop for and acquire goods and services, and it has become a global phenomenon. Many businesses have begun to use the internet to decrease marketing costs, lowering the price of their products and services, as well as to communicate and disseminate information, sell products, solicit feedback, and perform consumer satisfaction surveys. Consumers use the internet to evaluate costs, product characteristics, and after-sales service facilities that they will receive if they purchase a product from a specific store. Many experts believe that online commerce has a bright future.

Companies also utilise the Internet to communicate with customers, disseminate information, sell products, collect feedback, and run customer satisfaction surveys. Customers utilise the Internet to not only buy products online, but also to compare costs, product features, and after-sales support options. Aside from the enormous potential of the E-business industry, the Internet offers businesses a one-of-a-kind opportunity to reach out to existing and future clients more effectively.

## **Litreature Review**

According to **Chih-Chien Wang (2009)**, one major factor impacting the level of trust is knowledge. Knowledge is positively connected with trust and online shopping habits, according to the findings. In other words, consumers who are more knowledgeable about online purchasing are more likely to trust and shop online. To develop a secure online transaction environment, online retailing practises should educate the public about online transaction security methods.

Human needs and motives, according to **Chisnall (1995)**, are intricately intertwined, and the relationship between them is so tight that it's impossible to pinpoint the precise distinction that distinguishes them. People may purchase new coats to protect themselves from the elements, but the underlying overriding need may be to keep up with the latest fashion trend.

Shopping on the internet has its own set of characteristics. According to **Huseynov and Yldrm (2014)**, the lack of physical interaction is the most significant barrier to online retail purchases, followed by the privacy of personal information and the security of online financial transactions. Demangeot and Broderick (2010) also discovered that in this scenario, perceived ease of use has no bearing on the behavioural pattern, which is impacted instead by security and privacy concerns. Even if a customer spends hours on the Internet, no relationship is formed between the customer and the online shop when there is a perceived online risk (**Zuroni & Goh, 2012**).

Different elements, such as the introduction of the Internet, influence daily taste, preference, and choices. However, this progress necessitates a deeper understanding of customer behaviour. Consumer behaviour research has identified a generic model of purchasing behaviour that shows the steps that consumers go through while making a purchase choice (Vrender, 2016). Marketers value these designs because they can explain and anticipate customer purchase behaviour.

Broderick and Demangeot (2010): Their findings demonstrated that in this scenario, perceived ease of use has no bearing on the behavioural pattern, which is instead impacted by security and privacy concerns. There is no relationship between the customer and the company.

Ali and Mahfuz(2015) - Consumer views regarding internet buying are often influenced by two factors: trust and perceived benefits. As a result, consumer behaviour toward online purchasing appears to be driven by trust and perceived rewards.

## **Need of the Study**

Online, and each of them represents a potential customer for an online sales organisation. Because the technology that surround the Internet are rapidly evolving, a firm that wants to sell products through its website will have to constantly look for a competitive

advantage. Because there are so many prospective customers, it's critical to be able to grasp what they want and need. The importance of finding elements that influence a consumer's decision to buy something on the Internet cannot be overstated. Because the Internet is a new medium, consumers have put forth new demands. As a result, understanding what motivates online retailers is critical.

## **Objectives of the Study**

1. To Study the Consumer perception towards online shopping
2. To analyze the impact of consumer prudence, Perceived Risk & online shopping experience on consumer satisfaction

## **Hypothesis**

**H<sub>0</sub>:** Consumer Prudence, perceived risk and online shopping experience has no significant impact on Consumer Satisfaction.

**H<sub>1</sub>:** Consumer Prudence, perceived risk and online shopping experience has a significant impact on Consumer Satisfaction.

## **Research Methodology**

It refers to the procedures or techniques used to find, process, and evaluate information on a certain issue.

## **Statement of the Problem**

When compared to the rest of the cities in a country, Bangalore is one of the fastest expanding cities. Bangalore has a high internet penetration rate, however it is lagging behind the world market in terms of internet use for online shopping. Hence the present study is undertaken to understand the behavior of the consumer towards online shopping.

The data has been collected by using questionnaire method through self administered questionnaires and Information was acquired from secondary sources such as published documents, websites, reference books, and journals. Samples were chosen at random from Bangalore city to research customer buying behaviour when it came to internet shopping. A total of 88 people were chosen from Bangalore, representing various age groups and professions. Simple percentages analysis and Structural equation modeling are used to examine and comprehend data collected from respondents.

## **Study Limitations**

The results of the study is time bound, it will enable marketers to better understand the consumer behavior towards online shopping. But since the consumer's preferences are due to an uncontrollable factor, this again is bound to change in time requiring a repeated study in future. The sample was only taken from Bangalore.

## **Data Analysis and Intrepretation**

The responses were tabulated and the findings were compiled once the completed questionnaires were obtained. The findings were analysed to determine the analyze the impact

of consumer prudence, Perceived Risk & online shopping experience on consumer satisfaction. To better evaluate the consumer perception towards online shopping, the researcher used, descriptive analysis, and Structural equation modelling. The survey's findings were used to make observations. This part contains the data analysis and results, as well as the conclusions and interpretations.

**Table1: Gender Wise Classification of the Respondents**

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>
Male	47	53.40
Female	41	46.60
<b>Total</b>	<b>88</b>	<b>100</b>

**Source: Primary Data**

Male accounts for the vast majority of responses (53 percent), while females account for only 47 percent, as seen in the table below. Male respondents play an important part in this study.

**Table 2: Educational Qualification Wise Classification of the Respondents**

<b>Educational Qualification</b>	<b>Frequency</b>	<b>Percent</b>
Under Graduation	25.00	28.40
Post Graduation	35.00	39.78
Professionals	28.00	31.82
<b>Total</b>	<b>88.00</b>	<b>100.00</b>

**Source: Primary Data**

According to the table above, the majority of respondents (39.78 percent) have a postgraduate educational qualification, followed by 28.40 percent who have a bachelor's degree, and lastly 31.82 percent who have a professional qualification.

**Table 3: Age Wise Classification of the Respondents**

<b>Age in Years</b>	<b>Frequency</b>	<b>Percent</b>
Age 20-30 Years	20	22.73
Age 30-40 years	38	43.18
Age >40 Years	30	34.09
<b>Total</b>	<b>88.00</b>	<b>100.00</b>

**Source: Primary Data**

According to the table above, the respondents (34.09%) are above 45 years old, followed by 22.73% who are 20-30 years old, and finally 43.18% who are 30-40 years old.

**Table 4: Reasons For Online Shopping**

<b>Particulars</b>	<b>Frequency</b>	<b>Percent</b>
Convenience	20	22.72
Time saving	28	31.82
Low price	20	22.73
Comparability	<b>20</b>	<b>22.73</b>
<b>Total</b>	<b>88.00</b>	<b>100.00</b>

**Source: Primary Data**

From the above table it can be observed that majority of the respondents choose online shopping in order to save the time (31.82%), Convenience (22.72%), Low price (22.73%) Comparability (22.73%).

**Table 5: Descriptive Statistics for Research variables**

Particulars	Mean	Standard Deviation
<b>Online Shopping experience</b>		
I received the actual product(s) that I ordered, and they were just as described. (OSE1)	3.5297	0.84986
Product(s) purchased were delivered on schedule. (OSE2)	3.4245	1.01021
The websites have a dedicated consumer service desk to address any issues. (OSE3)	3.5157	0.92291
The payment method is convenient, (OSE4)	3.5442	0.83263
<b>Consumer Satisfaction</b>		
Physical retail stores are preferred over online shopping. (CS1)	4.0841	0.72586
Shopping via the internet saves time. (CS2)	4.3297	0.76986
Shopping online is more convenient than shopping in a physical store. (CS3)	4.2245	0.93021
<b>Consumer Prudence</b>		
Only use well-known websites. (CP1)	3.5041	0.78586
Make sure the vendor company has all of your contact information, including a street address. (CP2)	3.7497	0.82986
Rather than paying cash on delivery, prefer to pay online. (CP3)	3.6445	0.99021
<b>Perceived Risk</b>		
I'm afraid that e-commerce companies acquire far too much personal information about me. (PR1)	3.7841	0.74586
If I buy through E-shopping, my chances of losing money are significant. (PR2)	4.0297	0.78986
A failure of e-commerce systems could result in unwelcome tension and uncertainty. (PR3)	3.9245	0.95021

The analysis has been presented in Table depicts that among all the sub-constructs of Online Shopping experience, the respondents agreed to the influence of I received the actual product(s) that I ordered, and they were just as described ( $M = 3.5297$ ) Product(s) purchased were delivered on schedule ( $M = 3.4245$ ), the websites have a dedicated consumer service desk to address any issues ( $M = 3.5157$ ), The payment method is convenient ( $M = 3.5442$ ).

Consumer Satisfaction, the respondents agreed to the influence of Physical retail stores are preferred over online shopping. ( $M = 4.0841$ ) Shopping via the internet saves time ( $M = 4.3297$ ), Shopping online is more convenient than shopping in a physical store ( $M = 4.2245$ ).

Consumer Prudence, the respondents agreed to the influence of Only use well-known websites ( $M = 3.5041$ ) Make sure the vendor company has all of your contact information,

including a street address (M = 3.7497), Shopping Rather than paying cash on delivery, prefer to pay online (M = 3.6445).

Perceived Risk, the respondents agreed to the influence of I'm afraid that e-commerce companies acquire far too much personal information about me(M = 3.7841) If I buy through E shopping, my chances of losing money are significant (M = 4.0297), A failure of e-commerce systems could result in unwelcome tension and uncertainty (M = 3.9245).

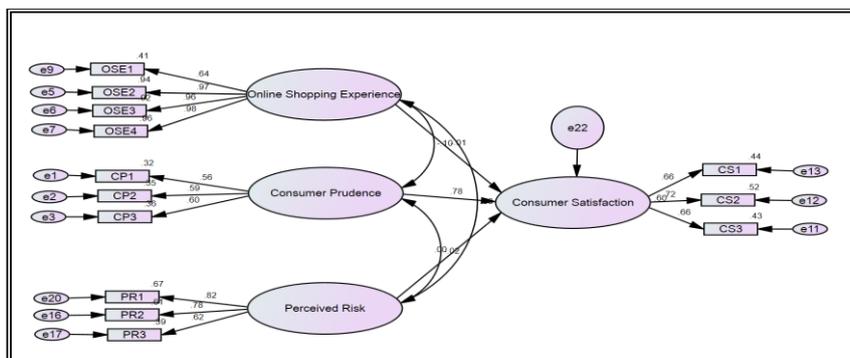
## Structural Equation Modelling

With the use of CFA-identified sub-constructs, a SEM model was created. The model's goodness-of-fit was assessed first (Table), and it was discovered that the values produced were within expected levels in the majority of cases, indicating that the model is resilient. As indicated in Table, the goodness-of-fit was calculated with the help of several scholars' recommendations.

**Table 6: Model Fit Indices**

Model Fit Indices	Recommended Values	Observed Value
Chi-square (CMIN/DF)	1-5	1.782
Goodness of fit Index (GFI)	> 0.90	0.949
Adjusted Goodness of fit Index(AGFI)	> 0.90	0.922
Normed Fit Index (NFI)	> 0.90	0.959
Relative Fit Index (RFI)	> 0.90	0.946
Incremental Fit Index (IFI)	> 0.90	0.982
Tucker Lewis Index (TLI)	> 0.90	0.975
Comparative Fit Index (CFI)	> 0.90	0.981
Root Mean Square Error of Approximation (RMSEA)	< 0.08	0.049

Given the sample size of 88, which is a large sample size, the Chi-square value was expected to be large and statistically significant (Hair et al., 2010). The CMIN/DF ( $\chi^2/df$ ) value was found to be 1.782, which is acceptable as suggested by Bollen and Long (1993) and Kelloway (1995). Further, the values of GFI(0.949), AGFI(0.922),NFI(0.959), RFI(0.946), CFI (0.981), IFI (0.982), and RMSEA (0.049) were also found to be within the acceptable limits as suggested by the authors specified in Table 06 All the indices were found to be within the stipulated limits and therefore, the goodness of the model can be confirmed, i.e., the accuracy of the model and its explanatory power in predicting the relationships between the constructs was found to be acceptable.



*Structural Equation Modeling*

## Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
Customer Satisfcation	<---	Online Shopping Experience	-0.01	0.002	-5.50	***	Sig
Customer Satisfcation	<---	Consumer Prudence	0.76	0.12	6.39	***	Sig
Customer Satisfcation	<---	Perceived Risk	0.00	0.06	-0.06	0.96	N-Sig
Social_Mentoring1	<---	Consumer Prudence	1.00	--	--	--	Sig
Social_Mentoring2	<---	Consumer Prudence	0.92	0.13	6.84	***	Sig
Social_Mentoring3	<---	Consumer Prudence	0.99	0.14	6.88	***	Sig
Online Shopping Experienceional2	<---	Online Shopping Experience	1.39	0.10	14.70	***	Sig
Online Shopping Experienceional3	<---	Online Shopping Experience	1.36	0.09	14.55	***	Sig
Online Shopping Experienceional4	<---	Online Shopping Experience	1.40	0.10	14.78	***	Sig
Online Shopping Experienceional1	<---	Online Shopping Experience	1.00	--	--	--	Sig
Customer Satisfcation4	<---	Customer Satisfaction	0.95	0.11	8.95	***	Sig
Customer Satisfcation3	<---	Customer Satisfaction	1.21	0.13	9.31	***	Sig
Customer Satisfcation2	<---	Customer Satisfaction	1.00	--	--	--	Sig
Perceived Risking3	<---	Perceived Risk	0.92	0.08	12.06	***	Sig
Perceived Risking4	<---	Perceived Risk	0.78	0.08	10.36	***	Sig
Perceived Risking2	<---	Perceived Risk	1	--	--	--	Sig

The results indicates that Consumer Behaviour towards online shopping which constitutes Online Shopping Experience (B =-0.01,  $p < 0.05$ ;  $T=-5.5$ ), Consumer Prudence(B =0.76,  $p < 0.05$ ;  $T=6.39$ ) has a significant impact on Customer Satisfaction. The finding indicated that a unit change in Online Shopping Experience produced about -0.001 changes in Customer Satisfaction. Since  $p < 0.05$  it can be concluded that Online Shopping Experience significantly influences the Customer Satisfaction.

The finding indicated that a unit change in Consumer Prudence produced about -0.076 changes in Customer Satisfaction. Since  $p < 0.05$  it can be concluded that Consumer Prudence significantly influences the Customer Satisfaction. But It is observed that perceived risk has no impact of customer satisfaction, since P value is  $> 0.05$

## Findings

The findings of the research are has outlined under:

- It was found that **Online Shopping experience**, the respondents agreed to the influence of I received the actual product(s) that I ordered, and they were just as described ( $M = 3.5297$ ) Product(s) purchased were delivered on schedule ( $M = 3.4245$ ), the websites have a dedicated consumer service desk to address any issues ( $M = 3.5157$ ), The payment method is convenient ( $M = 3.5442$ ).
- It was evident that **Consumer Satisfaction**, the respondents agreed to the influence of Physical retail stores are preferred over online shopping. ( $M = 4.0841$ ) Shopping via the internet saves time ( $M = 4.3297$ ), Shopping online is more convenient than shopping in a physical store ( $M = 4.2245$ ).
- It was analysed that **Consumer Prudence**, the respondents agreed to the influence of Only use well-known websites ( $M = 3.5041$ ) Make sure the vendor company has all of your contact information, including a street address ( $M = 3.7497$ ), Shopping Rather than paying cash on delivery, prefer to pay online ( $M = 3.6445$ ).
- It was determined that **Perceived Risk**, the respondents agreed to the influence of I'm afraid that e-commerce companies acquire far too much personal information about me ( $M = 3.7841$ ) If I buy through eshopping, my chances of losing money are significant ( $M = 4.0297$ ), A failure of e-commerce systems could result in unwelcome tension and uncertainty ( $M = 3.9245$ ).
- All the indices were found to be within the stipulated limits and therefore, the goodness of the model can be confirmed, i.e., the accuracy of the model and its explanatory power in predicting the relationships between the constructs was found to be acceptable.
- The results indicates that Consumer Behaviour towards online shopping which constitutes Online Shopping Experience ( $B = -0.01$ ,  $p < 0.05$ ;  $T = -5.5$ ), Consumer Prudence ( $B = 0.76$ ,  $p < 0.05$ ;  $T = 6.39$ ) has a significant impact on Customer Satisfaction. The finding indicated that a unit change in Online Shopping Experience produced about -0.001 changes in Customer Satisfaction. Since  $p < 0.05$  it can be concluded that Online Shopping Experience significantly influences the Customer Satisfaction.
- The finding indicated that a unit change in Consumer Prudence produced about -0.076 changes in Customer Satisfaction. Since  $p < 0.05$  it can be concluded that Consumer Prudence significantly influences the Customer Satisfaction.

## Discussions

This work offers a lot of theoretical and practical consequences, as well as important insights into the multiple nature of risk perception, particularly in the context of e-shopping. The goal of this study was to delve deeper into the construct and find out more about it. Provide insight into the various aspects of it Evidence from previous research demonstrates that customer satisfaction is closely related to behavioral perception. Online shopping experiences and consumer prudence is closely influencing the customer satisfaction level. Engaging, enticing, converting, and delighting their audience will be the consequence of careful selection of proper digital tools and marketing techniques. Consumer distrust can be further reduced by combining a strong legal system with a solid cyber-crime management system. Furthermore, the government is expected to ensure a stable infrastructure for online shops as well as a favourable business environment for consumers.

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