



AN ANALYSIS OF E-COMMERCE IN INDIA AND ITS EFFECTS ON CONVENTIONAL ORGANIZED RETAIL, WITH A FOCUS ON KOVILPATTI

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ABSTRACT

E-commerce in India has rapidly transformed the retail landscape, evolving from traditional small stores to large-scale online platforms. This study examines the effects of e-commerce on organized retail in Kovilpatti, exploring consumer behaviour, pricing patterns, and market dynamics. Using questionnaires, interviews, and secondary data, the research highlights the advantages of e-retailing, including 24/7 availability and attractive discounts, while addressing challenges like security concerns and the lack of touch-and-feel shopping experiences.

Findings indicate that most e-shoppers are males aged 15–40, motivated by convenience and competitive pricing. However, organized retail still dominates market share due to certain demographics' preference for in-person shopping. The study also underscores the growing importance of omnichannel strategies, blending online and offline retail to meet diverse consumer needs. The COVID-19 pandemic further accelerated the shift to e-commerce, reshaping consumer habits and emphasizing safety.

While the competition between e-retail and traditional retail continues, collaboration between the two models could enhance customer satisfaction and operational efficiency. The study concludes that understanding consumer preferences and addressing security concerns is vital for the growth of e-commerce in India.

Keywords: E-commerce, Consumer Behaviour, Omnichannel Retail, COVID-19 Impact, and Retail Market Dynamics

Introduction

One form of e-commerce called e-tailing, e-retailing, or online retailing allows customers to legally purchase products or services from a vendor online without the need for middlemen. E-retailing is basically the online clearance of goods. The first companies to make the online shopping business viable were Amazon and Dell, which provided all user services on their websites, from product browsing to placing orders and making payments. Due to the success of these and other organisations, established retailers are being pressured to make their physical channels more accessible online. In India, this creative method of marketing goods and services has also become more common.

In India, e-commerce has been around for over a decade. In the late 1990s and early 2000s, a few players made their debut. However, it's possible that many of them did not make it through the 2000 dot-com boom and bust. A few game-changing players gave e-tailing power through the advancement and creation of action plans during the second e-tailing surge, which grew in 2007. The

business is at a dangerous point right now as players vie for initiative prospects, experienced players are feeling hopeless, environmental factors are beginning to improve, and financial experts are confirming their faith in the sector.

In India, e-retail began in 2007 when the Dell Company began selling computers online. With more international businesses investing in e-retail, e-retailing has already started to grow gradually. Over the following four years, the e-retail market is projected to grow from US\$30 billion in 2019 to US\$99 billion. India may become the world's leading e-retail market in the years to come as a result of the significant development in the e-retail sector brought about by the rise in internet penetration and mobile phone users.

Un organized retail, organized retail, and electronic retail are the three main segments of the Indian retail market. According to estimates, organized retail's market share was only 7% in 2012; by 2019, it had increased to almost 11%, or US\$ 87.5 billion. Brick is the current classification for organized retail. Both online and brick-and-mortar stores. In



this case, the market share of brick-and-mortar retail, which includes large chains like Big Bazaar, Pantaloons, Reliance Fresh, etc., is projected to be 7% in 2019 (or US\$56 billion). In contrast, the market share of online retail is 4%, or US\$31 billion.

India has witnessed a significant transition in marketing strategies from tiny, unorganized stores to large retail establishments and finally to e-commerce. At first, only tiny Kumar shops existed, followed by department stores, retail chains like Big Bazaar and Reliance Fresh, and finally, online retailers. The most recent revolution altered the marketing outlook in general since, previously, a person sitting in a village could not obtain the goods through an online medium. One factor that is encouraging customers to shop online is convenience and ease of use.

To mention a few, e-retailing trades in a variety of goods and services, including the following

1. Clothes
2. Appliances and Electronics
3. Mobile phones
4. Baby goods and toys
5. Cosmetics
6. Furnishings and home décor

7. Drugs
8. Stationery and books
9. Food
10. Services such as reservations for hotels, movies, trains, flights, buses, etc.

Key Participants in E-Retailing

Among the leading companies in the e-retailing industry are:

1. The Flipkart website
2. Amazon
3. The Ladder in the City
4. The Big Basket
5. The website Snapdeal.com
6. Reserve My Show
7. The Paytm Mall
8. India's MakeMyTrip Pvt Ltd
9. Myntra
10. Firstcry, among other things.

The purpose of the research

The goals of the current investigation are as follows:

1. To research the current e-commerce and e-retail developments in India.
2. To determine the factors that influence customers to make purchases or engage in online shopping.
3. To investigate India's e-commerce obstacles.
4. To forecast India's e-commerce

or e-shopping future.

5. To investigate how the emergence of e-commerce has affected retail establishments' profitability.
6. To examine the impact on retail establishments' pricing patterns.
7. To identify ways to improve corporate practices to satisfy customers.

Crucial Components of Retailing

Retailers may increase efficiency by understanding how seven components fit into their locations' daily plans and long-term goals. The seven elements are brand, operations, merchandising, price, location, industry, and services. The energy retailer's specific sector will determine how best to optimize the seven components, but only a coordinated approach can ensure that each possible area of value is capitalized.

Facility

An office should satisfy the needs and preferences of its clientele. That extends much beyond the structural factors themselves. It's critical to navigate the shopping and purchasing process effectively. The network's dependability is also taken into account because it fosters a

certain level of comfort and commonality for customers who prefer to know where to find the products they need fast. Consistency is a challenge that is sometimes overlooked for businesses with different distribution networks.

The study's scope

With a ten percent GDP contribution and 8% of the workforce employed, retail in India is a strong economic pillar. According to what the Indian retail is estimated by the Brand Equity Foundation (IBEF) to be worth US\$0.7 trillion in 2019 and is expected to grow to USD 1.1–1.3 trillion by 2025. Only 9% of the total is made up of organized shopping. Additionally, there has been a huge increase in growth through investment and foundation support. In contrast, organized retail has been expanding at an astounding rate of 35% annually, while unorganized retail has been estimated to increase at 6% annually. In actuality, it is 16 to 18 percent of the total requirement.

The study's main goal is to examine how online and physical retail differ in terms of factors, including cost-effectiveness, housing, 24-hour shopping, shopping security, and



product similarity. Research how consumers perceive online shopping, identify current trends in the industry, and determine what deters consumers from making online purchases. Additional analysis can be conducted on a number of segmentation grounds, including gender, age, discount factor, convenience, and benefits.

Significance of The Study

The purpose of this study is to examine how e-commerce has affected traditional retail, what motivates consumers to make online purchases, or what prevents them from doing so. Additionally, it aims to provide new insights into online purchase intention analysis that pertain to the individual propensities or demographics of consumers when they shop online, including an understanding of shopper direct examples (such as what, where, when, why, and how customers purchase the items online) and their relationship with demographic, financial, and mental variables. Choose an item with a brand order and payment method for online purchases to elucidate the means associated with or method of the buyer's particular leadership. The study will aid in understanding e-

commerce and its many customer-related characteristics.

Internet Marketing

One aspect of electronic trading is online marketing. In some circumstances, online marketing may involve data processing, advertising, customer service, and sales.

Since Internet networking has become more widely accessible and widely used, electronic businesses and online marketing have gained popularity. In fact, over thirty-three percent of consumers with residential Internet connections say they use the Internet for commerce. Three types of buyer products can be found on the Internet: interactive goods and services, traditional objects, and buyer products. Regardless of the type of goods, online purchasing is new and distinct from conventional retail. The world. Customers should be aware of the following differences: switching to a PC, using the website, placing self-service orders, comparing websites to store retirements, and interacting with an unauthorised domain as opposed to the retailer directly.

Analysing data and using statistical tools

The process of gathering and

converting unprocessed data into information that consumers may utilise to make decisions is known as data processing and analysis. Data is collected and analysed to answer queries, validate hypotheses, or refute them. The theories of Judd, Charles, and McClelland, Gary (1989). In 1961, John Tukey, a statistician, defined data as “Procedures for examining data, techniques for translating the results of such procedures, ways of planning the social event of data to make its analysis easier, progressively precise or increasingly exact, and all the hardware and results of (scientific) statistics which apply to investigating data.”

1. Testing Hypotheses: Advantageous

Analysis

Out of 200 respondents, 35 percent prefer in-person shopping, 56.5 percent think online shopping is a useful medium, and 8.5 percent do not buy digitally. Data about the study, preference statistics, and information surveyed are shown in Table 1.1 and Figure 1.1. The normal distribution test hypothesis is reflected in the following equations. Given that there is an equal chance that people will find all media beneficial, analysis data and facts indicate that the danger that 113 or more people will find online buying favourable is less than p worth. As a result, zero hypothesis H_0 —which suggests online buying is more beneficial—is rejected.

Table 1.1 Beneficial frequencies

Do you shop online?	Which do you prefer, shopping online or in stores?	No. of respondents	%Percentage
Yes	Find offline shopping beneficial	70	35
	Find online beneficial	113	56.5
No	Lower, Middle	17	8.5
Total		200	100

Calculations: Hypothesis testing using One Sample Z-test for Proportion.

H_0 : Both modes of shopping are equally beneficial: $p=1/2$

H_1 : Online mode of shopping is more beneficial: $p>1/2$

α level=0.05

Let X be the random variable: the proportion of persons who decide that online purchasing is a better option. Given that the probability of selecting both mediums is equal, or 0.5, and that X is normally distributed, it is possible to determine whether or not getting 113 or



more participants to select online shopping as the more advantageous medium is statistically significant by calculating the Z-score and comparing the p-value with the significance level. We calculate the Z-score

$$P = \frac{\text{n.of successes}}{\text{sale size}} \frac{113}{200} = .565$$
$$P = 0.5$$

We would expect to see a sample proportion as extreme as 0.566, 0.16% of the time under the null hypothesis.

Since 0.16% is less than the significance level of 5.00%, we have sufficient evidence to reject the null hypothesis.

Hence, online mode of shopping is more beneficial

Out of the 200 respondents, 17% are between the ages of 15 and 25, 9% are over 55, 23% are between the ages of 40 and 55, and 51% are between the ages of 25 and 40. The study and surveyed age group data and facts are shown in Table 1.2 and Figure 1.2. Tables 1.3 and 1.4 present a chi-square analysis. Facts and research figures indicate that χ^2_{cal} is higher than χ^2_{tab} . Age is, therefore, a dependent factor for an online purchasing mode, as noted in the rejection of null hypothesis H0.

H0: Age has no bearing on the way people shop.

H1: Age affects the type of shopping

II. Testing Hypotheses: Age Evaluation

Table 1.2 Age and Shopping Medium

Age Group (in years)

Age	Shopping online yes	Shopping online no	No of Respondent	% Percentage
15- 25	32	2	34	17
25 - 40	98	4	102	51
40 - 55	43	3	46	23
Above 55	10	8	18	9
Total	183	17	200	100

Table 1.3 Age & Online Purchase Chi-square Details

Oij	Eij	Oij-Eij	(Oij-Eij) ²	(Oij-Eij) ² /Eij
32	28.69	3.31	10.95	0.14
2	5.31	-3.31	10.95	1.50
4	16.76	-12.76	162.81	7.48
98	85.24	12.76	162.81	0.70
43	39.28	3.72	13.83	0.13
3	6.72	-3.72	13.83	1.42
10	18.31	8.31	69.16	3.78
8	16.31	8.31	69.16	4.24

				19.39
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$$\chi^2_{\text{tab}}=7.81473$$

$$\text{D.F (Degrees of Freedom)} =(r-1)(c-1)=(4-1)(2-1)=3$$

$$\alpha = 5\%$$

Research statistics and facts show χ^2_{cal} is greater than χ^2_{tab} . So, the null hypothesis H_0 is rejected, which means age is a dependent factor in online purchasing.

III. Testing Hypotheses: Gender Analysis

Out of the 500 respondents, 51.5% are women, and 48.5% are men. The study and the examined gender data and facts are shown in Table 1.5 and Figure 1.3. Chi-square analysis is presented in Tables 1.6 and 1.7. Facts and research data indicate that χ^2_{cal} is higher than χ^2_{tab} . Gender is, therefore, a dependent factor for an online purchasing mode, as noted in the rejection of null hypothesis H_0 .

H_0 : Mode of shopping is independent of Gender

H_1 : Mode of shopping is dependent on Gender

Table 1.4 Gender Details for Online Shopping

Gender	Shopping online yes	Shopping online no	No. of Respondent	% Percentage
Female	13	90	103	51.5
Male	4	93	97	48.5
Total	17	183	200	100

Table 1.5 Chi-square Analysis of Online Purchases by Gender

Oij	Eij	Oij-Eij	(Oij-Eij) ²	(Oij-Eij) ² /Eij
13	2.19	10.81	116.85	53.36
90	100.81	-10.81	116.85	1.16
4	14.81	-10.81	116.85	7.89
93	82.19	10.81	116.85	1.42
				63.83

$$\chi^2_{\text{tab}}=3.84146$$

$$\text{d.f} = (r-1)(c-1) = (2-1)(2-1) = 1$$

$$\alpha = 5\%$$

Research statistics and facts show χ^2_{cal} is greater than χ^2_{tab} . So, the null hypothesis H_0 is rejected, which means gender is a dependent factor in online



purchasing.

IV. Hypothesis Testing: Convenience Analysis

Out of 200 respondents, 6.5% shop offline and do not find it convenient, 1.8% find it convenient to shop offline and do not shop online, 37% do not find it convenient to shop online, and 54.45% find it convenient to shop online. Evidence and study statistics show that χ^2_{cal} is higher than χ^2_{tab} . The null hypothesis H_0 , which suggests that comfort is a dependent factor for the purchase mode, is thus rejected.

H0: Mode of shopping is independent of Convenience

H1: Mode of shopping is dependent on Convenience

Table 1.6 Convenience & Online Purchase Chi-square Contingency Details

	Online Purchase		No of Respondent
Convenience	Yes	No	
Yes	74	13	87
No	109	4	113
Total	183	17	200

Table 1.7 Conveniences & Online Purchase Chi-square Analysis

Oij	Eij	Oij-Eij	(Oij-Eij) ²	(Oij-Eij) ² /Eij
13	28.17	15.17	230.12	8.17
74	89.87	-15.17	230.12	2.56
4	19.17	-15.17	230.12	12.00
109	93.83	15.17	230.12	2.45
				25.18

$\chi^2_{tab}=3.84146$

D.F (degrees of freedom) = (r-1)(c-1) = (2-1)(2-1) = 1

$\alpha = 5\%$

Research statistics and facts show χ^2_{cal} is greater than χ^2_{tab} . So, the null hypothesis H_0 is rejected, which means convenience is a dependent factor in purchasing mode.

V. Testing Hypotheses: Analysis of Discounts

Out of the 200 respondents, 2.2% shop offline and think that offline retail offers attractive discounts, 6.4% believe that offline shopping does not provide attractive discounts and stay away from online shopping, 50% believe that online shopping provides attractive deals, and 41.4% think that online shopping does not offer attractive discounts. Evidence and study statistics show that χ^2_{cal} is higher than χ^2_{tab} . As a result, the null hypothesis H_0 is rejected, suggesting that the buying mode affects the consideration of discount.

H_0 : Mode of shopping is independent of Convenience

H_1 : Mode of shopping is dependent on Convenience

Table 1.8 Discount & Online Purchase Chi-square Contingency Details

Discount	Online Purchase		No of Respondent
	Yes	No	
Yes	74	13	87
No	109	4	113
Total	183	17	200

Table 1.9 Conveniences & Online Purchase Chi-square Analysis

O_{ij}	E_{ij}	$O_{ij}-E_{ij}$	$(O_{ij}-E_{ij})^2$	$(O_{ij}-E_{ij})^2/E_{ij}$
13	28.17	15.17	230.12	8.17
74	89.87	-15.17	230.12	2.56
4	19.17	-15.17	230.12	12.00
109	93.83	15.17	230.12	2.45
				25.18

$$\chi^2_{tab}=3.84146$$

$$D.F \text{ (degrees of freedom)} = (r-1)(c-1) = (2-1)(2-1) = 1$$

$$\alpha = 5\%$$

Research statistics and facts show χ^2_{cal} is greater than χ^2_{tab} . So, the null hypothesis H_0 is rejected, which means convenience is a dependent factor in purchasing mode.

VI. Testing Hypotheses: Analysis of Discounts

Out of the 200 respondents, 2.5% shop offline and think that offline retail offers attractive discounts, 6 % believe that offline shopping does not provide attractive discounts and stay away from online shopping, 50% believe that online shopping provides



attractive deals, and 41.5% think that online shopping does not offer attractive discounts. Evidence and study statistics show that χ^2_{cal} is higher than χ^2_{tab} . As a result, the null hypothesis H_0 is rejected, suggesting that the buying mode affects the consideration of discount.

H0: Mode of shopping is independent of Convenience

H1: Mode of shopping is dependent on Convenience

Table 1.9 Discount & Online Purchase Chi-square Contingency Details

Discount	Online Purchase		No of Respondent
	Yes	No	
Yes	83	12	95
No	100	5	105
Total	183	17	200

Table 1.10 Discount & Online Purchase Chi-square Analysis

Oij	Eij	Oij-Eij	(Oij-Eij) ²	(Oij-Eij) ² /Eij
12	23.45	11.45	131.10	5.59
5	16.45	11.45	131.10	7.97
83	71.55	11.45	131.10	1.83
100	88.55	11.45	131.10	1.31
				16.70

$\chi^2_{tab}=3.84146$

D.F (Degrees of Freedom) = (r-1)(c-1) = (2-1)(2-1) = 1

$\alpha = 5\%$

Research statistics and facts show χ^2_{cal} is greater than χ^2_{tab} . So, the null hypothesis H_0 is rejected, which means that the discount is a dependent factor on purchasing mode.

Conclusion

Customers also stated that the lack of a touch-and-feel element and security issues with their credit and debit cards are the main drawbacks of online buying. They have little interest

in purchasing what. People who are shopping prefer to go with friends and family rather than alone because they like to get advice from them while they are shopping.

The shopfronts have a lot of

room to grow. It is not necessary to protect this retail establishment to advance businesses; rather, it is necessary for society to sell goods to customers of all economic levels. Customers from the examination areas favored high-quality goods and services and tried to take advantage of stronger incentives and rebate programs. In addition, online shops want to give their clients precise and prompt delivery.

E-retailers must provide adequate security, safety, and trust in their business, as e-shoppers are reluctant to shop online due to security-related concerns. Additionally, some people are reluctant to shop online because they don't use the internet; in this situation, they could start utilising Google to search and make transactions online.

According to the research, some internet buyers are a little afraid to buy branded items like watches, purses, shoes, fragrances, and clothing since the online retailer occasionally sells knockoffs.

The voice search feature will boost sales since, while a person is occupied

with something else, they may place an online order without touching or searching on their device by just launching their assistant, such as Alexa, which Amazon or Google Assistant introduced.

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