

# A Perception of Promotional code Technique in E-commerce that uses Data Analytics and Data Mining for Consumer Response

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## ABSTRACT

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The role is to examine how retail strategies such as advertising, store design, sales promotion, and merchandising affect customer satisfaction. The retail marketing strategies of two fashion stores, Reliance Trends and Westside, were examined through 200 responses collected from customers visiting the stores to see the relationship between retail strategies, customer satisfaction and brand preference. With the change in the market scenario, conditions have changed enormously. Coupons are a revenue marketing device commonly used by marketers. Coupons are very important to encourage customers to purchase the product and thus help organizations increase revenue. To attract more buyers, look at De Kano. Special promotional tools and customer identification Almost a "satisfied purchase" attitude.

**Keywords :** Coupon Code, M-coupon, Data Mining, Types of Coupon Code

## I. INTRODUCTION

Marketing, a coupon is a ticket or document that can be exchanged for an economic discount or a discount on the purchase of a product. Type I – V Food Ration Vouchers for Direct Workers and Workers in Vietnam, 1976–1986 Vouchers are typically issued by consumer packaged goods manufacturers or retailers, to be used in retail stores as part of sales promotions. They are often widely distributed by mail, coupon envelopes, magazines, newspapers, the Internet (social media, email newsletters), directly from the retailer, and mobile devices such as cell phones. The

New York Times reported that "more than 900 producer coupons" were distributed per household and that "the United States Department of Agriculture estimates that four out of five households use coupons." be selectively targeted at regional markets where price competition is strong. Most coupons have an expiration date, although U.S. military commissioners overseas accept coupons from manufacturers up to six months after the expiration date.

Precision Maker language and online personal learning without referral services for Morning and

Just to analyze the rubber bead binding run to These are generalizations include the following: (i) Each customer can have a coupon for an increase in more than one field (ii) the researcher observes the number of coupons redeemed in each period, but not the total number of customers who received the coupon.

**Working of Promo Code**

The discount can be a percentage or a specific dollar amount. Promo codes also provide customers with free shipping or gift wrapping. This marketing strategy essentially gives customers one more reason to buy your products. According to Microsoft, a promotional code, also known as a coupon code or discount code, is made up of a combination of numbers and letters. It is used for specific purposes, such as a Christmas marketing campaign.

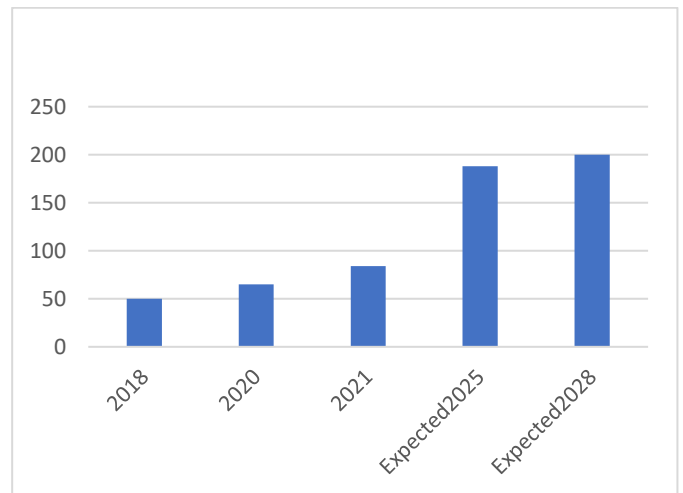
**Why Promotional codes work**

When a store issues promotional codes, it provides customers with an incentive to buy, which benefits both the customer and the business. Customers get the products they want at a lower price, and the eCommerce store generates revenue. One of the most useful things about coupon codes is that they work well with new and returning customers. These incentives also have a direct impact on the overall shopping experience, according to research from the Center for Neuroeconomics Studies at Claremont Graduate University. The study showed that people who received coupon codes had high levels of oxytocin, which is a hormone that creates feelings of happiness. With the same physical reaction in the minds of your prospects, it's a good idea to experiment with incorporating coupon codes into your blog's business plan, no matter how you're monetizing your website.

**Primary Data Collection of Coupon code**

**Table 1.** Coupon Statistics: Coupon Usage & Trends E-Commerce Market in India (USD BLILION)

2018	2020	2021	Expected 2025	Expected 2028
50	65	84	188	200

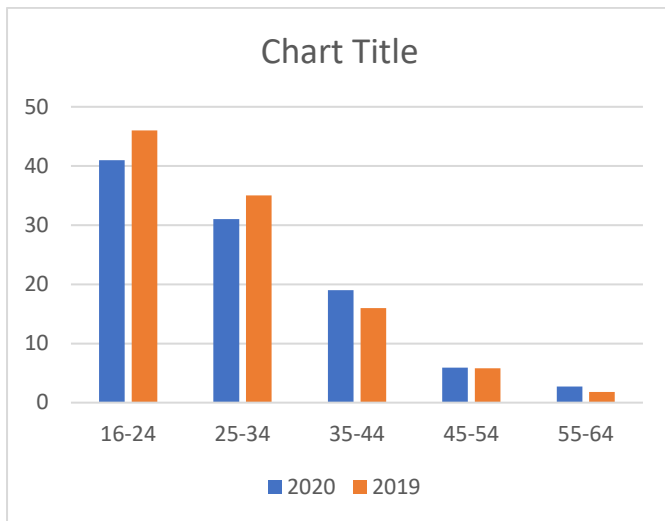


**Fig. 1. Illustration of e-Commerce Market in India (USD BLILION)**

Today's digital coupons not only serve the purpose of deals and discounts, they also help grow your customer base, keep old ones, and increase loyalty and brand building. According to the Deal Street data release, nearly 95% of shoppers search for deals online and 74% view coupons available on coupon portals, indicating that Indians have a higher demand for digital coupons.

**Table 2.** Change in Age wise Demography composition among E Commerce Shoppers in percentage

Age/Year	16-24	25-34	35-44	45-54	55-65
2019	46%	35%	16%	58%	2.07%
2020	41%	31%	19%	59%	2.07%

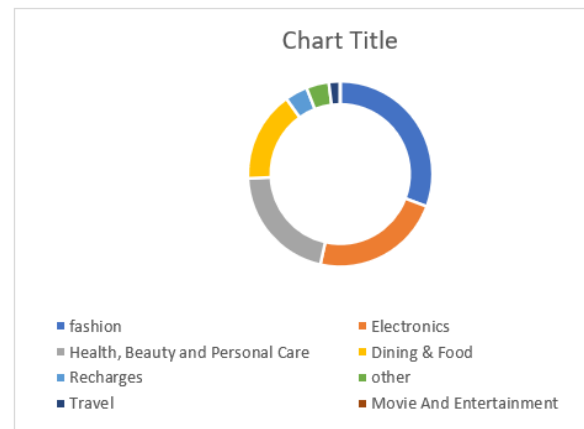


**Fig. 2. Illustration of Change in Age wise Demography composition among E Commerce Shoppers in percentage.**

According to a recent M&C Saatchi Performance study of e-commerce customers in India, it reveals that most customers do their own research before making a purchase decision. 51% of customers surveyed spend time researching the best deals before making purchases, while 50% of respondents mentioned using discount codes or coupons when shopping online. Such data indicates the high preference for discount codes or coupons among Indian online shoppers, which is a good trend for the Indian coupon market.

**Table 3. Top Demanding Product Category for Coupon usage**

Coupon Type	%
<b>fashion</b>	<b>31</b>
<b>Electronics</b>	<b>23</b>
<b>Health, Beauty and Personal Care</b>	<b>21</b>
<b>Dining &amp; Food</b>	<b>16</b>
<b>Recharges</b>	<b>4</b>
<b>other</b>	<b>3</b>
<b>Travel</b>	<b>2</b>
<b>Movie And Entertainment</b>	<b>0</b>



**Fig. 3. Diagram of Top Demanding Product Category for Coupon usage**

The Fashion segment sees the highest coupon usage followed by the Electronics & Beauty, Health and Food & Dining segment. Shopping sites like Paytm, Uber, Snapdeal, Amazon, Jabong, Myntra, Ola, Big basket, Gropers, etc. have seen a significant increase in the use of coupons.

The Zomato food delivery app, Swiggy has seen coupon code usage for each of their orders which is quite high through 2019, but has experienced a steep drop in 2020 since people have stopped or reduced orders. for several months in 2020 due to the COVID-19 situation in India. In recent years, online coupon codes have mainly been used by Healthkart, which saw a further increase in 2020 due to social distancing and people find a convenient and easier way to order medicine.



(source : <https://www.shopper.com/coupon-statistics-india>)

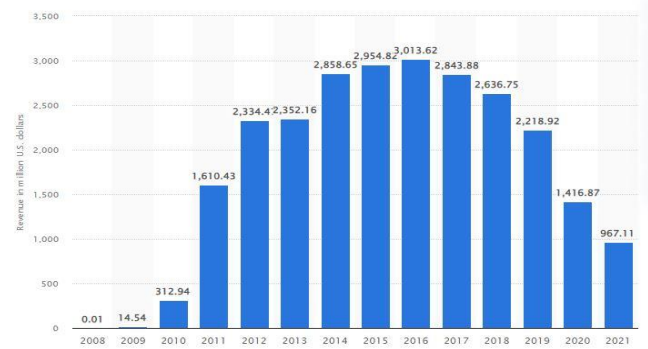
**Fig. 4. Diagram of Top Demanding Product Category for Coupon usage**

However, when you look at the matter, based on search success rates reported by shoppers, half of the time shoppers spend searching for online savings is wasted because they can't find a code that saves them money at checkout.

There are super shoppers (those who look for valid coupons every time they shop online), but there are also others who tend to miss the opportunity to save. These are all shoppers who have a hard time finding coupon codes and discounts. According to our study, 7% of Metro shoppers would use the codes to get a discount. However, these shoppers find it difficult to find discount coupons or they didn't know they could find a coupon by searching online. It is estimated that about 5% of non-metropolitan regions do not benefit from the discounts. Furthermore, they cite difficulties in searching and searching for coupons as the main reason for not using online coupons..

**Table5. Global revenue of Groupon from 2008 to 2021**  
(in million U.S. dollars)

Year	Revenue in million
2008	0.01
2009	14.54
2010	312.94
2011	1610.43
2012	2334.47
2013	2352.16
2014	2858.65
2015	2954.82
2016	3013.62
2017	2843.88
2018	2636.75
2019	2218.92
2020	1416.87
2021	967.11



**Fig. 5. Diagram of Top Demanding Product Category for Coupon usage**

As of 2021, the Groupon Daily Deals website has posted annual revenue of \$ 967 million. This figure is nearly half a million dollars less than the previous year's overall income. The coupon company achieved its highest global revenue in 2016 at just over \$ 3 billion. Coupon hunting is something that shoppers, no matter where they live, loathe with a common rage. As of now, we've seen around 60% of shoppers use discount codes for at least half of their online purchases. Almost always, a third of the others open a new tab and look for discount codes. However, it doesn't necessarily mean they're happy with the amount of work it takes to find these discount codes. Almost all of the above-mentioned shoppers would consider alternative options instead of looking for discount coupons online. When compared to the coupon industry statistics, we also found that an average Metro shopper searches online for coupons every 6 hours, compared to every 4.5 hours for the average non-Metro shopper.

**II. Analysis & Result of Data collection**

**Coupon-Sharing Behavior of Indian Shoppers Based on Age**

If you know how to find the right codes at the right time, you can easily save on all eligible purchases. Shoppers often overlook the fact that there are many digital discounts that aren't personalized or limited to

one use. Our research on the online coupon industry in India suggests that coupon hunting is a team sport. About 47% of women and 33% of men helped a friend or family member find a discount code online. Coupon statistics also show that a similar percentage of men and women have shared a code with someone they know. This is a clear indication that coupons, if in the right hands, can be a very effective marketing tool.

### **Indian Shoppers and Their Feeling on Overlooking a Discount**

The importance of online discount codes can be easily overlooked if you don't understand how they work. All online shoppers expect to get the best prices for the products they buy. You can always feel great joy when you know you have saved a lot of money on a product that someone you know bought at a higher price. However, there is a chance that you end up paying more than others for the same product, just because you haven't looked for a working discount code.

The online coupon industry in India is estimated to account for around 13.5% of the total e-commerce audience in the country. This roughly translates to over 11 million coupon redemptions completed annually starting in 2021. However, with coupon usage and trends in India steadily growing at a 20.6% CAGR, the figures could be a lot higher. The coupon market in India is still in a development phase, but its popularity is increasing rapidly and some studies have been conducted to find out how demographics are reflected in coupon usage. An interesting finding from Indian coupon industry statistics suggests that 61.8% of coupon users are men and the remaining 38.2% women. Mumbai was the city with the most coupons used in the country. Electronics, fashion, health and beauty are also three of the most popular categories that Indian users have been looking for coupons for.

### **III.SUMMARY**

Based on the results of our online survey, it is evident that the coupon industry in India has great potential to evolve for the better every year. Consumers are more likely to use coupons in categories such as electronics, clothing, health and personal care, furniture and home decor, restaurants, groceries, refills, and taxis. Our studies also found that 7 out of 10 adults have used an online discount code at least once, and nearly a third look for discounts available on almost any purchase they make. However, not all research ends up giving a positive result. Additionally, millions of shoppers now use digital coupon apps and tools to help them on their discount-seeking adventures. About 1 in 3 Metro shoppers have admitted to using online coupon extensions in their browsers.

### **IV.CONCLUSION**

As of 2021, the Groupon Daily Deals website has posted annual revenue of \$ 967 million. This figure is nearly half a million dollars less than the previous year's overall income. The coupon company achieved its highest global revenue in 2016 at just over \$ 3 billion. India's internet penetration rate increased to nearly 45% in 2021, meaning nearly half of the population of 1.37 billion people had internet access that year. This also ranked the country second in the world in terms of active internet users. This sharp increase in internet penetration is driving demand from the e-commerce market and the online offers and coupons market in India. The chart shows India's e-commerce market revenue from 2017 to 2025. India's e-commerce revenue is expected to grow to \$ 79.5 billion in 2025 from \$ 18.2 billion in 2017. The market recorded a significant increase in 2020 due to lockdown and social distancing due to COVID-19. Such high growth of the e-commerce market is

expected to drive the growth of the coupon market in India.

## V. REFERENCES

- [1]. International Journal of Recent Advances in Multidisciplinary Topics Volume 3, Issue 4, April 2022| ISSN (Online): 2582-7839.
- [2]. International Journal of Innovative Science and Research Technology Volume 7, Issue 2, February – 2022 “Customer Relationship Management in Retail Sector”.
- [3]. Digital Redemption of Coupons: Customer Perceptions of Satisfying and Dissatisfying Price Discrimination Richard L. Oliver Mikhael Short† May 2002
- [4]. Key Growth Driver - Increasing Internet penetration:- <https://saving.in/coupon-market-in-india>
- [5]. India: retail e-commerce revenue forecast (USD Billion):- <https://saving.in/coupon-market-in-india>
- [6]. users of E-coupon & online deals:- <https://saving.in/coupon-market-in-india>
- [7]. Top Demanding Product Category for Coupon usage:- <https://saving.in/coupon-market-in-india>

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