

A Study of Consumer Buying Behaviour in Delhi NCR towards FMCG Products

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Abstract: FMCG is the fourth largest sector in the economy of India. FMCG has a high consumption rate and provides high turnover. FMCG market in India includes toothpaste, cosmetics, toiletries, detergents, snacks, and even pharmaceuticals. Initially, online FMCG consumers were only youngsters especially teenagers but with the passage of time, development of technology and change in living standards, senior citizens are also relying on online FMCG purchase. Hindustan Unilever, Dabur, Patanjali and RP-SanjivGoenka group are also major players in FMCG production. Revenue of the FMCG sector in the financial year 2018 reached US\$ 52.75 bn and it is expected to touch 103.7 bn in the financial year (India FMCG report, 2020). The trend of purchasing FMCG online in Delhi-NCR is increasing in all age groups due to various factors and this paper is an effort to understand the factors which are responsible for online FMCG purchase. While researching about FMCG it has come to the notice that notwithstanding an increase in online purchase of FMCG consumers has a liking towards the traditional purchase that is by visiting nearby shops and malls. This paper will help in understanding the behavior of FMCG consumers in online as well as traditional purchase.

1 INTRODUCTION

As one of the significant sectors in India, FMCG is highly consumer-centric and fulfils daily consumer needs. Due to affordable rates and wide availability, these products are sold fast; hence the name is given fast-moving consumer goods (FMCG). FMCG is one of the important contributors in the Indian economy. FMCG sector is highly attractive because of its low cost, proper distribution network, and large number of consumers. The presence of multinational and national companies and industries has made the FMCG sector extremely competitive. More than 50% of the FMCG products have cost less than ₹10 and this low cost has been a reason behind huge turnover (P.H. Pahl, 2016) and domestic companies are giving tough time to the multinational companies. Out of total FMCG urban areas consume 66% while rural areas consume 34%. The main factors in the growth of the FMCG market are changing life style, ease in access, and enhancing awareness. Apart from these India's regulatory framework and policies played added drivers to the growth of the FMCG market. FMCG market has a

pivotal role in daily life and it has great significance (R. Jayanthi, 2017) due to strong MNC presence, competition between unorganized and organized sectors, cheap labor cost, easily available raw material, and a big market. The online FMCG market is growing rapidly. The main reason is an increase in the number of internet users which is expected to cross 850 million by 2025. Further retail marketing is going to increase from US\$ 672 bn in 2016 to 1.1 tn in 2020 with 20-25% modern trade growth, which will eventually increase the FMCG revenue. Since the last few years, with the efforts of Patanjali, consumers have started consuming Ayurvedic products with a market capitalization of 14.94bn. The Indian government is playing a pivotal role in promoting online FMCG trade by allowing 100 percent FDI in the online retail of goods and services. The government has also planned to train 500 million workers by 2022 which will encourage domestic as well as multinational companies' investment in the FMCG market in India. Consumers in Delhi and NCR have adopted online varying commerce in different categories which depends on the need and the dynamics of the market.

There are many factors that influence the online FMCG purchase like economic conditions, cultural differences, new technologies. In the last decade, the online FMCG purchase has been grown by 40% for mainly electronic goods and accessories like watches, goggles, etc., and growing gradually in many fields. Traditional consumers for FMCG are gradually turning to online consumers, but due to certain restrictions, such consumer prefers traditional purchase. The main reason behind this may be their economic condition or very little need. For example medicines for seasonal flu, cough and fever are generally preferred to be purchased from nearby medical stores; most of the consumers have believed in purchasing from their known vendors for a little extra discount or timely and trustful services in case of any problem in the product. Clothes are still purchased in the traditional way due to fitting or if any alteration is required. But if a person has to take long-term medicine for blood pressure, diabetes, or any such incurable disease, the bulk-online purchase is preferred due to heavy discounts and other facilities for long-term consumers.

This paper focuses on the trends of consumer behavior in Delhi-NCR regarding online as well as traditional FMCG purchase for this purpose the author has visited and collected primary data about the consumers and in some cases secondary data has also been used. The secondary data has been collected from already published work such as journals, books, periodicals, newspapers, and magazines. The primary aim of this article is to understand purchase trends for FMCG by the consumers of Delhi and NCR and the shift and cause from traditional to the online process. A mathematical analysis has also been provided in an attempt to formulate the consumer behavior for FMCG. This study is useful in understanding the way to promote FMCG and to find a way for optimizing the turnover keeping in mind the hybrid consumers (the consumers who are involved in online as well as traditional purchasing).

2 LITERATURE REVIEW

According to ASSOCHAM report, 2020 India contributes only 0.68 percent of the world FMCG market and it is expected to grow in the next five years. Most of the FMCG companies are shifting towards e-commerce because of the increasing penetration of mobile and the internet. In 2015 FMCG products globally accounted for 5 percent of the online share, while in India the same accounted for 1-2 percent. The decelerating global economic

growth in the developed countries offers an advantage to India due to its better economic situation. In 2015 FMCG market constituted 46 percent food and beverages, 23 percent personal care, 11 percent household care, and others 20 percent. One of the main reasons for the FMCG market in India is the organized retail sector's growing share.

(IBE report, 2018) has laid stress on the growth opportunities in the FMCG market of India. The rural market is gradually becoming vital for FMCG products due to the presence of a strong distribution network of industries and it is expected to touch US\$ 220 bn by the year 2025. FMCG market in India has a great opportunity for growth due to the high adaptability of consumers for innovative products like gel-based facials, sugar-free products, men's cosmetics, etc. Other factors that can provide an opportunity for FMCG growth in India are inclination towards premium products, leverage to India a sourcing hub for products that are cost-competitive and increasing penetration in the rural market.

FMCG sector is one of the best performing (A. Singhi, N. Jain, 2018). This sector has delivered shortly as well as long term high return. Since variation in volume growth is having little correlation with GDP growth rate, hence FMCG growth rate less dependent on macro-economic factors. By 2025, household income of 22 million more people will become nearly ₹10 Lakh per annum which will eventually add to the growth of the FMCG market. A transformational change is taking place in the FMCG industry because of demographic shift due to the increase in the use of digital media. Hence to exploit this opportunity for FMCG growth the companies must re-engineer the methods to operate.

The future perspective of FMCG industry trends (Indian FMCG growth snapshot, 2018) can be explained on the basis of the growth trajectory of GDP, rural income boost, the trend in private consumption, consumer confidence, and inflation. It has been observed that FMCG companies of Indian descent performed far better than multinational companies. In 2016, seven out of ten companies were of Indian origin whose FMCG annual turnover was more than ₹1000 crore.

3 ONLINE FMCG MARKET IN DELHI – NCR

In the last decade, consumer trust and confidence have increased in online purchasing for FMCG in a broader range and categories (Economic times

report, 2018). Due to the high average income and living cost of the population of Delhi in comparison to the other cities in India, the FMCG market is highly developed. The major cities in Delhi-NCR in which FMCG dominates are New-Delhi, Gurugram, Noida, and Ghaziabad. Gurugram is considered to be one of the IT capital in India and due to increasing employment opportunities, the FMCG sector is growing very fast. Noida (New Okhla Industrial Development Authority) is a highly developed industrial hub in India and manufacturing units of various industries are contributing to the growth of online FMCG consumers. Ghaziabad is also gradually catching up with online FMCG purchases because most of the employees working in Delhi are residing in Ghaziabad but they have to up and down from Ghaziabad to Delhi, hence the shortage of time for personal life residents rely mostly on the online purchase of FMCG. The major players for FMCG in Delhi-NCR are Dabur India Ltd., Colgate-Palmolive India, ITC Kitchen of India, TCL, Sony, IFB, Godrej, Videocon, Haier, LG, Cadbury India Ltd., Pepsi Co., Marico, Parle Foods Pvt. Ltd., Proctor, and Gamble, Nestle, Nirma Ltd., etc. Due to the availability of online FMCG nowadays senior citizens have got great relief in most of their purchases related to daily utility especially in the cases where children are working in other cities or abroad.

In Delhi-NCR the main factors in the increase of online FMCG consumers are (I.G.Varma, 2016):

- i. 4G internet services,
- ii. Wide product range availability
- iii. Grow in living standard
- iv. Lack of time due to busy lifestyle
- v. Increase in the number of online shops
- vi. Introduction to mobile applications

Online FMCG consumption has been increasing continuously since 2009. According to IAMAI, PwC Analysis and Industry (2020) experts the total FMCG trade in 2009 was 3.8 billion USD, while it creased to 5.3 billion USD in 2010 and subsequently reached 12.6 billion USD in 2013. It has been projected that between 2017-20 the total FMCG trade-in Delhi-NCR is going to touch more than 35 billion USD. This can be depicted as per the following graph (Fig. 1):

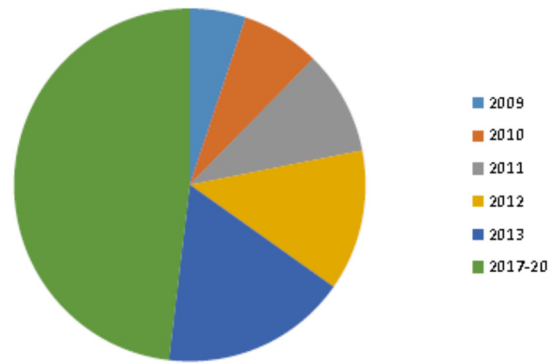


Figure 1: Increase in online FMCG trade

The graph shows that from 2009 to 2010n the net increase in the online FMCG trade was nearly 39% while between 2010-11 it was approximately 32%. Between 2011-12 the increase in the online FMCG trade was 35% and that between 2012-13 the growth was 32.6%. Thus an average growth rate of 58% took place from 2009 to 2013.

The growth of online FMCG consumers can be attributed to the increase in the internet penetration rate in India from 4% in 2007 to nearly 50% in 2020. Due to more and more internet penetration consumers are inclined towards online purchase. This has become possible because internet is available from high-income groups to daily wage earners. (Statistical S. Diwanji, 2020), India is second in the world in terms of active internet users and half the population has the access to the internet in 2020. The low-income population is basically involved in purchasing travel tickets, television subscriptions of various channels, gadgets like watches, and sometimes goods for small celebrations in their family. The graphical representation of internet penetration in India is depicted in Fig. 2.

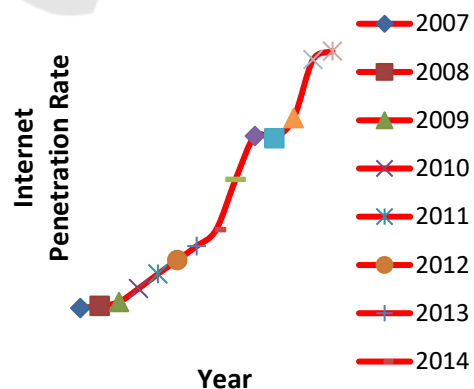


Figure 2: Internet Penetration Rate in from 2007 to 2020

The increasing internet use and decreasing broadband prices have empowered Delhi-NCR consumers for buying groceries to furniture, apparels

to accessories, jewelry, beauty products, ticketing, etc. Not only in Delhi-NCR but in all parts of India the online FMCG consumers are increasing because of embedded advantages in online commerce: (1) Online stores are available 24 by 7 at home as well as at the workplace, (2) Instructions of use and demonstrations are available online, (3) Price selection facility is also provided on online stores. Apart from these advantages online consumers also face some disadvantages like hands-on inspection, privacy issues, and credit or debit card frauds. Despite these disadvantages (for which various companies are working day and night), online purchase is becoming popular day by day due to time-saving and efforts by industries to maintain trust and quality.

4 TRADITIONAL FMCG MARKET IN DELHI – NCR

The Traditional FMCG market in Delhi-NCR is equally effective as the online FMCG market. There are many factors that affect traditional FMCG consumption. For example age of the consumer, medical condition of the consumer, life-style of the consumer, location of the consumer, and financial condition of the consumer. Among teenagers, the snacks are on the top for traditional purchases instead of going online purchase. Such impulsive buying is an important phenomenon in retail business and marketing (P. M. M. Ferraze, 2013). These impulsive products are also known as convenience goods. They are characterized as frequently purchased and low-cost products. Such products demand little cognitive effort from the consumers (D.W. Rook, 1985), L.P. Buonklin (1963), H.Winzar (1992). In Delhi-NCR a sample of 260 male and 260 female consumers were taken to study the various products they purchase by traditional methods and the questions asked were:

- Q1. Which product would you like to purchase by directly going to shops or malls or superstores?
- Q2. Whether they consider brads in a particular product for traditional shopping?
- Q3. If they purchase traditionally keeping in mind the price of the product?
- Q4. Why they prefer buying traditionally instead of online purchases?
- Q5. How frequently they go to shops/ malls/ supermarkets?
- Q6. How much time do you spend in traditional shopping?
- Q8. What excites you for traditional shopping?

Q9. On a scale of 1-10, how would you rate traditional shopping?

These questions were asked from a wide range of age groups from 5 years to 70 years and genders. For children of ages 5-10 years, the questions were asked from parents or guardians who were accompanying them. In response to the question, 1 male did maximum traditional shopping for clothes (nearly 22%) followed by snacks (21%) and medicine (16.5%). Males did minimum traditional shopping for cosmetics. The data for male behavior for Q1 can be understood by the following column-graph (Fig.3).

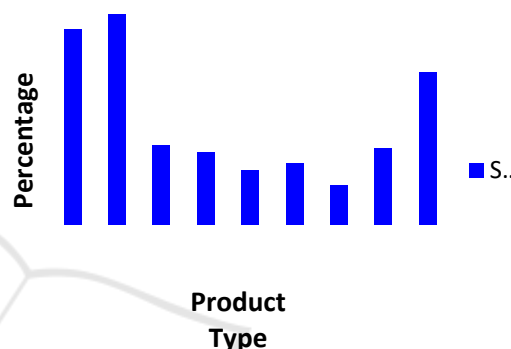


Figure 3: Percentage Traditional Purchase by Male Consumers

The female consumer behavior about the traditional purchase of the types of products is shown in Fig. 4. The trend of female consumers in traditional shopping is the same as that of male consumers but the percentage of medicine and cosmetics is high as compared to the male consumers. Fig. 3 and 4 also show that female's requirement of medicine is high as compared to the male traditional FMCG consumers. Hence the availability of medicines, snacks, and cosmetics in nearby shops and malls will surely increase consumption.

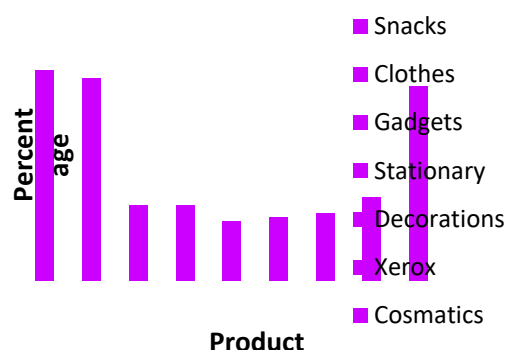


Figure 4: Percentage Traditional Purchase by Female Consumers

In response to Q2, both male and female consumers asserted that they prefer to use the brands which are mostly used in their family tradition. For example, suppose a family prefers tea brand A then most of them use the same brand and the consumer rarely differ from their family choice. And because the products like tea are purchased either on a monthly or weekly basis the consumers prefer traditional purchasing because they can change the product immediately if any defect is detected and they cannot wait for days to change in such cases. In traditional purchasing, many products are before their eyes in the racks so they can compare prices with other family members. In the Delhi-NCR region generally, traditional shopping is done with family so every member can select the product of their choices at the same time which saves time. This was the response of consumers in response to the Q3 and Q4. In response to the Q5, most of the consumers go for traditional purchase monthly and in few cases fortnightly or weekly, but maximum traditional shopping takes place on monthly basis, and generally, the day is fully dedicated for traditional purchase in the Delhi-NCR region. On average, a Delhi-NCR consumer has much less time for traditional FMCG purchase as compared to the non-metro cities due to rush. Hence they have to plan for the traditional shopping either fortnightly or monthly and they spend 3-4 hours on this day hence on an average Delhi-NCR consumer gets only 12 minutes per day for traditional purchase. Even due to lack of time Delhi-NCR consumer is sometimes not able to buy vegetable and fruits on daily basis. Hence despite the availability of nearby shops and malls, consumer behavior is gradually shifting from traditional to online behavior.

5 TRENDS OF CONSUMER BEHAVIOUR FOR FMCG:

According to V. Jadhav et al (2016), India in online retailing is in its initial stage although it has shown tremendous growth in recent years. According to the KPMG Advisory Services Private Limited (KPMG report, 2018), youth (mainly students) play a major role in online FMCG consumer. Of total internet users, 29% are only college-going students IAMAI report (2018), which is increasing day by day. One of the major factors in the shift from traditional purchase to online purchase is the exposure to mass media and the rising of social network applications targeting youths (mainly college going students).

Delhi-NCR is a hub of educational institutions as well as a number of companies due to which the population density is quite high. There are many local services which provide their own apps to be used by the residents of Delhi-NCR and made their life easy. For example, Swiggy is a food delivery app that has benefitted consumers as well as owners of restaurants due to lack of manpower. Delhi metro app is helpful to especially those passengers who are new to the metro or rarely use the metro. Uber/Ola apps are useful in booking shared or solo taxi booking 24×7 from any point in Delhi-NCR. Now passengers don't have to wait for long in case of emergency. Also, passengers can choose the vehicle of their choice as per their pocket or need. CRED is also a popular app among Delhi-NCR consumers although it is a member-only app that gives rewards for paying the bill by credit cards. Urban company app provides you the facility of professionals from industries at your doorstep. For stressed persons, Headspace is an app to keep you calm and helpful even in anxiety disorders. Walnut keeps track of expenses and can suggest how to expend wisely. There are many more apps floating in Delhi-NCR which are trying to make the life of consumers easy and smooth. Hence these apps and the busy lifestyle of Delhi-NCR consumers are shifting from traditional FMCG consumers to online FMCG consumers.

6 MATHEMATICAL ANALYSIS

According to the reports published in Statistical the internet penetration rate in Delhi NCR in the year, 2019 was 69 percent. The data of IBEF (FMCG Report, 2019) shows that the revenue of the FMCG market has increased from 17.8 bn US\$ in 2007 to 83.3 bn US\$ in 2019 and by the end of 2020 it is expected to reach 103.7 bn US\$. This study can be correlated to the increase in internet penetration with the conclusion that due to internet penetration the FMCG market has also flourished at a great pace. The relation of internet penetration and growth in FMCG can be understood by regression line in which the rate of internet penetration can be taken as the independent variable (x) while revenue generated can be taken as a dependent variable (y) (Table 1).

Table 1: Internet Penetration versus FMCG Revenue Generated

Year	Internet Penetration Rate (in %)(x)	Revenue of FMCG in billion US\$ (y)
2007	4	17.8
2008	4.4	21.3
2009	5.1	24.2
2010	7.5	30.2
2011	10.1	31.6
2012	12.6	33.3
2013	15.1	35.7
2014	18	38.8
2015	27	43.1
2016	34.8	49.0
2017	34.4	52.8
2018	38.2	68.4
2019	48.48	83.3
2020	50	103.7

To determine the regression line of FMCG revenue generated on the internet penetration rate following steps would be included:

Average of the internet penetration rate (\bar{x}) = $\frac{\sum x}{n} = \frac{309.68}{14} = 22.12$

Average of the FMCG revenue generated (\bar{y}) = $\frac{\sum y}{n} = \frac{633.2}{14} = 45.22$

Calculation of $S_{xy} = \sum xy - \frac{\sum x \sum y}{n}$
 $= 19012.53 - \frac{309.68 \times 633.2}{14}$
 $= 5006.12$

Calculation of $S_{xx} = \sum x^2 - \frac{(\sum x)^2}{n}$
 $= 10363.35 - \frac{95901.70}{14}$
 $= 3513.23$

Slope of the regression line is given by, $\beta_1 = \frac{S_{xy}}{S_{xx}} = \frac{5006.12}{3513.23} = 1.42$

Intercept of the regression line, $\beta_0 = \bar{y} - \beta_1 \bar{x} = 45.22 - 1.42 \times 22.12 = 13.7$

Hence the regression line of FMCG revenue generated on the internet penetration rate is given by $y = 1.42x + 13.7$

The plot of this regression line is shown in the Fig. 5 Plot of Regression Line of Internet Penetration Rate versus FMCG Revenue Generation

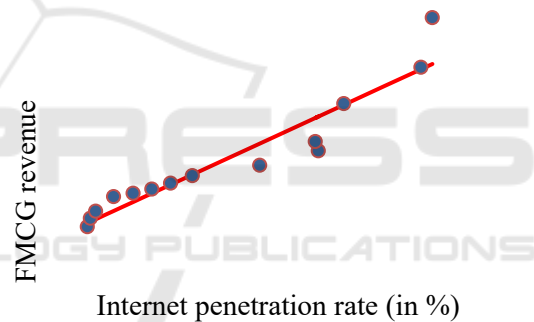


Figure 5.

Fig. 5 represents the regression line of FMCG revenue generation on the internet penetration rate. The graph shows that with an increase in the penetration rate the revenue of FMCG also increases. According to the reports by 2025 the internet penetration rate will grow by 64% and hence as per the regression line equation the revenue may approach 104.58 US\$ bn. But the actual plot shows that in 2020 the FMCG revenue is 103.7 bn US\$ which is higher than that calculated using the regression line. This change can be attributed to public awareness and other factors. Hence it can be safely predicted that by the year 2025 the FMCG revenue generation will be nearly 123.58 bn US\$ which is 19 bn US\$ more and equal to the difference of 2020 prediction and actual revenue generated.

A survey of 150 consumers in various parts of Delhi-NCR was conducted between 15 February 2020 and 29th February 2020 including students and senior citizens to assess the consumer behavior in terms of online and traditional FMCG purchase. The study has been divided into three categories according to the age of consumers (in years) viz. 20-40, 40-60, and 60-80. The study was conducted in the Karolbagh area of Delhi, the Knowledge Park area in Greater Noida, and Ghaziabad. In All three regions, the maximum number of users is of the age group of 20-40 and the least number of online FMCG is of the age group 60-80. In the Karol bagh area the percentage of the 60-80 group is much higher as compared to the other two regions. The trend can be understood by the following graphs (Fig.5a, 5b, 5c, and 5d):

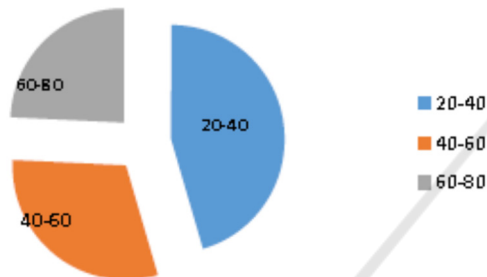


Figure 5(a): Distribution of Online FMCG Consumers in Karol Bagh

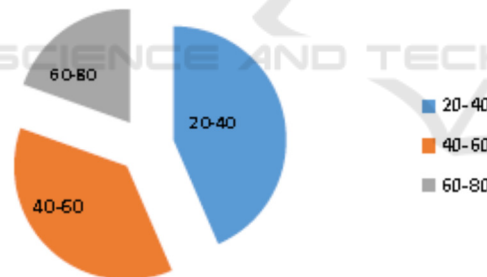


Figure 5 (b): Distribution of Online FMCG Consumers in Greater Noida

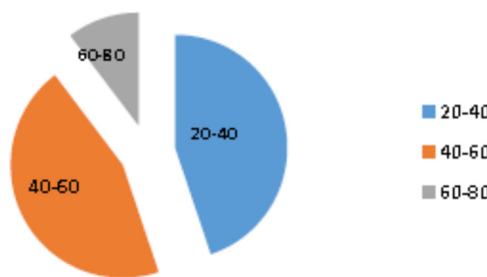


Figure 5(c): Distribution of Online FMCG Consumers in Ghaziabad

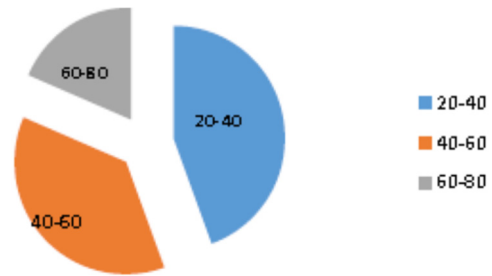


Figure5 (d): Overall Distribution of Online FMCG Consumers

7 CONCLUSION

The study shows that although the consumers are still involved in traditional purchasing due to changing lifestyle and the penetration of internet and social media app is gradually converting traditional FMCG consumers into online FMCG consumer. Industries are trying hard to generate trust and confidence in their products by providing online details of their goods. In short, it can be said that in coming years a majority of FMCG consumers will move towards online purchasing but traditional FMCG consumers will also play important role in the economy due to Indian tradition. For example in festivals people still believe in traditional purchasing, not because of availability but because they love to do so. Hence in coming years hybrid (online plus traditional) consumers will prevail and industries have to plan accordingly so as to boost the market. Finally, companies and government as well should enhance public awareness, build-up strong public confidence and provide better internet facilities with a strong distribution network to promote online FMCG products.

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