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## A COMPARATIVE STUDY TO IDENTIFY THE OTC BRAND PREFERENCE IN THE ANTACID SEGMENT AND THE INFLUENCING FACTORS FOR CONSUMER PURCHASE

<sup>1</sup>Prof. Suneel G. Deshpande\* & <sup>2</sup>Dr R.K.Srivastava

<sup>1</sup>Ph.D scholar at MGM Institute of Health Sciences, Sion Panvel Highway Kamothe,  
Navi Mumbai 410209, Maharashtra, INDIA

<sup>2</sup>Ph.D guide - Pharmaceutical Management at MGM Institute of Health Sciences, Sion Panvel  
Highway, Kamothe, Navi Mumbai 410209, Maharashtra, INDIA

### Abstract

This study has been conducted to ascertain the role of various factors that influences a consumer to purchase an OTC brand . Also the objective of this study is to find out the role of gender on the OTC brand purchase by the consumers . The influence of gender on the OTC brand purchase through the physical attributes of the brand is another objective of this study .The research design of this study is descriptive, cross-sectional comprising of primary and secondary research which comprised of a stratified random sampling methodology. The sampling elements comprised of 300 adult consumers from Mumbai and 200 from Pune .The tools for data collection were an interview schedule, email and google doc.This study revealed that gender did not influence the purchase of OTC antacid products in the city of Mumbai and Pune wherein Eno is the OTC antacid brand most preferred by male and female consumers in Mumbai & Pune. The results of this study also depict that there is an involvement of gender in the brand recollection for an OTC product through its physical attributes viz their color, shape and packaging in Mumbai and Pune. This study has highlighted the role of the influencing factors like This study has highlighted the role of the factors like ease of packing of the OTC brand , good previous experience, price, convenience of usage , quickness in providing relief ,awareness of the OTC brand ,availability and safety of the OTC brand to be important influencing factors for consumer purchase decision of an OTC antacid brand . This study has highlighted that brand ambassador has lesser importance as an influencing factor neither does the gender of a consumer plays any role in the decision to purchase an OTC antacid brand in the cities of Mumbai and Pune. This research study would be able to provide insights to a pharmaceutical organization to devise an overall business direction for marketing OTC antacid brands along with a disclosure of the factors that influence the consumers to prefer an OTC antacid brand which would give insights for the promotional strategy /thrust /investments to be made by an organisation interested to market OTC antacid brands . This is also useful for that pharmaceutical company which is contemplating a shift of their brand/s from the Rx-to-OTC category.

**Keywords:** OTC prescription brand antacid, preference factors consumers purchase pharmaceutical industry.

### Corresponding Author:

**Prof. Suneel Deshpande**

Ph.D scholar,

MGM Institute of Health Sciences,

Sion Panvel Highway, Kamothe, Navi Mumbai 410209, INDIA

E-mail: [sunielDeshpande@outlook.com](mailto:sunielDeshpande@outlook.com)

Phone: +91- 9870330859



## INTRODUCTION

The Indian healthcare industry is valued around USD 100 Billion which is expected by the year 2020 to reach USD 280 Billion [1]. The OTC drugs market is a component of the Indian pharmaceutical market which is a component of the healthcare industry is valued around US \$ 12 Billion [2] enabling it to rank third globally in terms of volumes while thirteenth in value. The Indian pharmaceuticals industry contributes around 10 % of the global production of pharmaceuticals by volume, growing at an annual growth rate of around 10% [3].

### SELF-MEDICATION AND CONSUMER PERCEPTION ON SELF –MEDICATION

Self administration of OTC products is a common phenomenon in the world and in India. A large number of drugs such as antacids, analgesics, cold & cough preparations, laxatives, anti-allergy products, vitamins, nasal decongestants are consumed as self-medicated products. Self medication is seen as important for acute disorders as well as the prevention and management of chronic conditions and diseases including minor ailments. As per the opinion of respondents the benefits of self-medication are prevention and treatment of their disorders , better health conditions , greater freedom towards medication and satisfaction .The key reasons considered by the consumers to self medicate are lack of time, high consulting fees of physicians, need for fast relief, choice of ayurvedic drugs , besides other reasons like widespread availability , personal knowledge and quality of information on the risks & benefits of self medication , the nature of the conditions and diseases and trust in their own abilities for self –medication [4]. The retail pharmacist and the General Physicians are considered as the primary sources of information on self-care [5]. The primary reasons for self medication can be the need of self-care, catering with sympathy to sick family members , shortage of time , deficiency of health services , financial limitations, erroneous beliefs, lack of knowledge and easy availability can lead to more incidences of self –medication [6].

### REASONS FOR A SHIFT OF DRUGS FROM THE PRESCRIPTION CATEGORY INTO THE OTC CATEGORY

There are several reasons for prescription to OTC switch over. They are given below;

a) ***Increasing health awareness***

There is an increasing mind-set amongst the population with reference to healthcare: which is towards wellness rather than treatment for illness because of an increasing trend amongst people to keep themselves fit & healthy by taking OTC medications. This is because of higher literacy levels, increasing availability of internet & social media leading

to increased levels in health education & awareness responsible to a higher demand for OTC products.

b) **Completion of product patents**

This is a strategy put in practice for those products whose patents have been expired especially in regulated markets which enables the pharmaceutical company a chance to extend the life cycle of the patented product.

c) **Repositioning strategy**

This is also used to reposition those products that have reached the maturity stage of their product life cycle when they are shifted into the OTC segment by virtue of which higher volume sales & revenues due to a higher market access are possible.

d) **Increase in population and demand** - Increasing population in our country especially in urban areas, working couples leading to higher disposable incomes and a lifestyle that is fast paced are the reasons for increasing demand for OTC medicines for many minor health disorders. Some of the other reasons for increased OTC drugs demand include higher quantum of consulting fees, ease of availability, availability in convenient dosage forms & pack sizes.

### **OVER THE COUNTER MARKET [OTC] DRUG MARKET IN INDIA**

The OTC drug market in India is growing at a higher growth rate than that of the domestic pharmaceutical industry with a positive growth trend over the last decade. The OTC drugs segment has recorded value sales of US \$1243 Million in the year 2005 to US \$ 2354 Million in the year 2012 [7] and estimated to record value sales of US \$ 3800 Million by 2019 [8] OTC products can be categorized into a) "True" OTC products that are introduced in the market place and advertised on public media b) Prescription products converted into OTC c) Rx products that are purchased OTC- OTCx products.

### **GROWTH DRIVERS OF THE INDIAN OTC DRUG MARKET**

There is an increase in per capita expenditure of an Indian from \$ 43.1 in the year 2008 to \$ 57.9 in 2011 at a CAGR of > 10 % and around \$ 88.7 in the year 2015 [9]. Increasing literacy levels, increasing awareness of health & hygiene through increasing government promotion, expansion of social media, increased budgetary spending by the government on healthcare are some of the reasons. There is a change in the overall lifestyle of people in metro cities and urban areas where life has become fast paced, changing dietary habits, stress where time is a constraint which necessitates quick solutions to healthcare issues creating demand for OTC products. With an

increase in the disposable incomes in the family due to the dual incomes of husband & wife in urban areas there is an increase in the per capita disposable income in India by 19 % for 2008-09, 13 % for 2009-10, 14% for 2010-11, 17.5% for 2011-12 as per the Central Statistics Office [CSO] [10] There is an increasing inclination amongst consumers towards wellness than illness through better health and prevention of diseases that is one of the growth drivers for the OTC products in categories such as antacids, nutraceuticals, vitamins & minerals , health drinks & dietary supplements. The number of people using the internet is around 19 crores by the end of the year 2013, while the internet population is growing at a CAGR of around 30 % between 2008-2013 as per a report published by McKinsey & Facebook [11]. The internet has proven to be a very good advertising medium for the OTC products which has the benefit of attracting the attention of a huge number of probable consumers. The internet facilitates experience sharing through insights into the experience of friends and relatives using similar OTC products, community reviews and online promotion by companies- All this results into increased confidence of consumers to use OTC products. Availability of varied formulations, different dosage forms , pack sizes and differing flavours make OTC products a favorable proposition with consumers .Due to the internet OTC products can attract the attention of the urban & rural consumers . Also this enables the consumers to get an opportunity to get detailed information about the products, their experience, side-effects, overall safety etc. The drug categories that are drivers of growth in India are: Vitamins, minerals & supplements, Gastrointestinals, Analgesics, Dermatologicals [12].

### **STATEMENT OF PROBLEMS AND NEED FOR STUDY**

There are several factors impacting the pharmaceutical industry in India out of which the regulatory environment in the recent past has adversely affected the industry bringing down the growth rates of the prescription only brands. The resultant is an increased shift of Rx only brands to the OTC category. The OTC brands by virtue of the dynamic environment are expected to have their promotional budgets [expenses] on the higher side. The proportion of these promotional budgets is around 20-25 % to sales as compared to just 5-10 % for ethical prescription only brands [13] Unlike the prescription only brands in the OTC category the acceptance of the OTC brand by the consumers is important determinant for a successful Rx –to-OTC switch. This is very significant as many of the current prescription brands that are likely candidates for OTC shift have high value turnover that are responsible to generate very significant levels of revenue to the organization. The OTC market in India is *growing at a growth rate higher than the global average of around 5 %* [7] .This is the resultant of higher incidences of self-medication being

practiced in a growing economy like India .Because of increasing health ailments in India which is a resultant of a changing lifestyle this is changing the treatment practices of consumers as many of them now have a preference for self-medication more than consulting their physician.. Therefore the consumer becomes important and a central decision maker for deciding the OTC product to be purchased -*which is the reason for this research study.*

## **REVIEW OF LITERATURE**

### **I. CONSUMER ACCEPTANCE OF OTC PRODUCTS**

As per Shohel Mohammed [14] familiarity with an OTC product is the key factor that's responsible for the re-purchase of the OTC product by the consumers. The author states that 36 % consumers believe that trust of the company is important to purchase an OTC product of that company, 46 % consumers believe that prior experience with the OTC product is important while 18 % consumers think word of mouth more important. The author also states the importance of the income factor and the author mentions that consumers with higher annual income are comfortable to buy an OTC product .The author reckons that price and annual income of the OTC product are considered important for buying an OTC product however consumers consider higher price to higher quality of the OTC product. According to Lodorfos [15] prior experience and brand value of the product are considered by the consumers while buying an OTC medication. In a survey by Drug Store News [16], 58 % of 900 Accent Health consumers mentioned previous use of OTC products as their reason for purchase, 54 % consumers conducted in-store browsing, 50 % depended on the recommendations of the pharmacists, 37 % were affected by the recommendations of their doctors , 36 % by online research and 34 % were affected positively by their peers. Michael Johnsen [17] in his research study reports that 82 % of consumers purchase OTC products recommended to them by a pharmacist while for new OTC medications product samples are most important source as per Shalo Sibyl [18]. For OTC paediatric products compliance, ease of delivery, portability are important as found by Michael Johnsen [19]. Economy (lower costs) is the most important factor for purchasing generic OTC products while factors like duration of OTC product effectiveness, advertisements, the dosage form of the OTC medication , safety, name of the company ,relief of numerous symptoms were the influential reasons for branded OTC products as per Kohli Erol [20]. McKenna M.[21] in her research study mentions the response of geriatric consumers to external communications for products belonging to five OTC categories: ophthalmic drops , gas relief ,allergy medication, back pain relief patches, and sleep aids which are products commonly used by this group of

patients. The author states that the companies should not use the same communications strategy for OTC products in these categories. Rubin [22] in her research article describes the switch of Claritin marketed by Schering Plough from the prescription category to the OTC category. The author states that the company introduced a new & better version of Claritin –called Clarinex which was desloratidine as their prescription brand -as their strategy for converting Claritin to the OTC category-whose patent was due to expire at the end of the year in which the OTC conversion was planned. The OTC conversion of Claritin was thus facilitated by introducing a new brand Clarinex. Troy Mike [23] in his study states that many prescription products are being shifted into the OTC category .The author states that upon shift into the OTC category the consumers expect the OTC product to be similar to their prescription counterpart in terms of its efficacy .This enables companies to link the OTC product to its prescription heritage with descriptions such as “now available without a prescription”. The author also mentions that due to an increase in the number of “Rx to OTC” shifts these phrases do not arouse consumer interest and in the future for successful Rx to OTC switches differentiating factors are required that would appeal to be meaningful to the consumers. As per Wazaify et al 2005 [24], the pharmacists’ recommendations was the factor that influenced the choice of OTC medicines followed by the recommendation of their General Practitioner. The other influencing factors are past experience and usage by friends/family members. As per Srivastava [25] the decision to purchase an OTC product is not a very high involvement decision. Information on efficacy [benefits] of the product is one of the important factor driving consumer purchase of an OTC product, followed by its brand name & pricing. As per Mala Raj [26], identification of the personality of pharmaceutical brands , developing promotional strategies to communicate the planned personality of the brand would help induce the requisite emotions in the consumers which is responsible for creating trust and loyalty leading to higher consumer preference of the brand.

## **II. SWITCHING OF PRESCRIPTION PRODUCTS TO OTC CATEGORY**

As per a study in Bangladesh reported by M.Babu [27] factors like previous experience, business image & brand identity , doctor’s prescription, awareness about the medicines are factors important for purchasing an OTC product. Stomberg Chris [28] in his research study finds out that conversion to OTC category increases access to drugs rather than leading to substitution between the OTC and prescription categories. The author further states that increased access to drugs could lead to better health outcomes as consumers can use OTC drugs suitably with less of their doctor’s supervision. The author further gives an example of OTC statins wherein the

author mentions that an increased access to OTC statins can lead to very high levels of public health benefits. The author quotes that 23,000 to 33,000 CHD [coronary heart disease] events can be prevented per million OTC statin users. The author also mentions that due to OTC statin availability would lead to cost savings –wherein the savings through the prevention of cardiac events can result in a savings of more than \$ 8 billion dollars in a ten year period considering the cost of \$ 35,000 for the treatment of a cardiac event.

Lamiraud Karine et al [29] in their article states the influence of information on the preferences of the patients on prescription and OTC drugs. The author mentions that there is a high willingness to pay [WTP] by the consumer for an OTC drug which is positively influenced by the level of information wherein high levels of information to the consumer results in a higher WTP. The author further reports that in contrast, the information level has no impact on WTP by a consumer for prescription medicine. The author concludes that for such type of drugs which are safe and not requiring medical supervision, a switch to the OTC status is expected to be all the more advantageous, as the patient is provided with more information concerning the capability of the drug. Faerber Adrienne [30] et al in their study analyses the advertising & promotional content of prescription drugs that are switched to over-the-counter (OTC) category. The author states that advertisements of OTC products had more appeals than advertisements of prescription advertisements. The communication of these advertisements was concerned with symptom control, convenience, and long-lasting effects of OTC drugs. The author further states that 31% of OTC advertisements that advertised the OTC product had recently switched to the OTC category. The authors concluded that the advertisements of prescription products did not contain more drug information than the advertisements of OTC ads, and the OTC advertisements appealed more to the consumers with respect to the benefits of the product. Mahecha Laura [31] studies the reason behind the switches, the process of switches, the factors for success.. The author makes a conclusion that pharmaceutical companies switch a product from a Rx to OTC category for an additional possibility of revenue generation by extending the product life-cycle, also as a strategy to defend against generic competitors, to grow in the OTC category and to help the consumer have increased access to OTC medications.

The author mentions that it can take anywhere from 12 months to many years for conversion from Rx-to –OTC category which has stiff issues to be addressed –one of them is to gain approval from consumers for their consumption based on the OTC product safety and effectiveness.

The author further states the factors for achieving success for a shift from the Rx-to-OTC category as a) Product related b) Company related c) Regulatory related d) Market related.

The product related factors include: a easily recognizable brand name, the brand awareness, the safety and effectiveness of the product, possibility of side effects, ease of use, the product advantages over the existing OTC products and the generation of the drug in the same therapeutic category are some of the reasons for the success of the switch of the prescription drug to the OTC category.

The author further states that there are some facilitating factors that assist the shift of the prescription only drug to the OTC category that includes the “firstness” to market or early to market the newly switched drug, increased number of indications for the drug to be shifted, a sizable demand for the OTC drug and a reasonable price to the consumer.

The author further mentions some other important success factors which are mainly marketing related -which are - branding & positioning of the products shifted to the OTC category, a clear and effective brand strategy, an uniform communications strategy, an ability to maintain large scale advertising and promotion campaigns and excellent relationships with retailers for facilitating a smooth launch and to ensure widespread distribution.

The author summarized by concluding that the future shifts to the OTC category would be facilitated by the entry of generic competition for the Rx brands or even the competing drugs in the same class before the expiry of their own patents .As per Y.Sreedevi [32] the pivotal strategy would be to target different evolving consumer OTC segments which are at differing stages of health awareness ie at an early stage to offer effective and convenient solutions . It is important to understand the consumers’ journey, their perceptions, behaviour to improve health outcomes through the right product choices and improved adherence.

### **III. REACTIONS OF CONSUMERS TO OTC PRODUCTS WHICH WERE EARLIER ON PRESCRIPTION**

In their research study Creyer Elizabeth [33] et al analyses the change in consumers’ health care preferences in the wake of increasing Rx-to –OTC shift of drugs. Schwartz Susan [34] in her research article mentions her experience on a study in which Orlistat 60 mg was consumed by consumers without any doctor intervention, which was conducted by her to provide information.

### **GAPS IN LITERATURE AND IDENTIFICATION OF VARIABLES**

A review of the various literatures divulges the need for research studies with similar objectives to be undertaken in the Indian context. There is also a need to take into account other important

parameters like the ease of availability, the influence of packaging, the role of the brand ambassador and the effect of the consumer gender on the OTC brand purchase decision of the consumer. This leads to a gap in the current available knowledge on this subject matter which can be filled up through a study to be carried out that would identify the factors that influence the decision of the Indian consumers to the purchase of the Indian OTC brands.

## **THE VARIABLES**

Based on the above the variables for this study can be classified under the three categories as under:

### **a) Independent variables**

The factors are important determinants towards the outcomes. These are the cause factors that are responsible for bringing about changes in the phenomenon or situation. These are i] good previous experience with the OTC brand ii] promptness in relief iii] the price of the product iv] the awareness of the consumer v] usage convenience of the OTC brand vi] the packing of the OTC brand vii] the safety viii] the consumer gender ix] the OTC brand ambassador and x] the availability of the OTC brand [ease of availability]

### **b) Dependent variables** – These are the changes or the outcomes brought about by the effects of the independent variables that includes i] the preference/purchase of the OTC brand by the consumer.

### **c) Moderating variables**-They influence the effect of the independent variables upon the dependent variables. These are i] word of mouth, ii] recommendations of the pharmacist

In consideration of the above variables the following objectives have been devised:

## **OBJECTIVES OF THE STUDY**

Lakshmi B. [35] in her research study to ascertain the perception of consumers and product management personnel with respect to OTC products states that there are differences in perception of consumers for factors that are pondered when OTC products are purchased by the consumers and that these differences are based on the gender and age of the consumer. The differences based on gender are also greatest in responses to these; that is, males and females differ more in their perception, evaluation, and treatment of prolonged, mild conditions than of acute, life-threatening, or severe ones. In a research study done by Craig Stephen [36] the author concludes that women appeared more number of times than men as characters in OTC drug advertisements than in advertisements for other products, and that they are many times showcased in these advertisements as experts at home similar to mothers who would care for their sick

children. In a study by Al-Windi A. et al [37] it was concluded that a higher number of women consumed medicines that were prescribed, non-prescribed and herbal medicines and self-care products than men and this consumption of prescribed medicines increased in both the genders with age while in women the consumption of prescribed and non-prescribed medicines, herbal medicines and self-care products was more as compared to men.

Unlike a “prescription” product, an OTC product does not require any prescription of a doctor and is purchased directly by a consumer . Thereby the choice of the OTC medicine is done entirely by the consumer unlike the “prescription” product where the physician plays a major role and directs the consumer to purchase his/her prescribed product wherein the consumer does not purchase the product based on his/her self -opinion .In contrast to the pharmaceutical companies that market the prescription products the companies marketing the OTC products are not restricted and thereby allowed legally to promote their products in public media and other promotional channels , due to which there is a possibility that there are various factors that influence the consumer’s decision to purchase an OTC product .A study by More Aarti [38] has concluded that factors like colour, shape and packaging of an OTC product have influence on the OTC product preference ,by the consumer however there is not much research studies available that report the influence of gender on OTC brand preference through its physical attributes . Similarly also a limited amount of research exists that determines the various influencing factors on the consumer’s decision to purchase an OTC product especially in the Indian healthcare scenario. Thus with due consideration to the gender differences in the male and female perception and different purchase patterns of both the genders this study attempts to understand the factors influencing the consumer purchase decision of an OTC brand. Thereby the specific objectives of this study are:

- i. To understand the influence of consumer gender in the OTC brand preference decision
- ii. To understand if there is an impact of gender involvement influencing brand recollection through it’s physical attributes
- iii. To identify the influencing factors on the consumer decision to purchase an OTC brand

## **HYPOTHESIS**

There are various factors that can influence and impact upon the decision of the consumer to purchase an OTC brand. As per Rabin [39] and Benrimoj [40] inspite of the usage of OTC medicines by majority of the people at some time of their life , the actual rate of the consumption of OTC medicines varies with social factors like age, gender , geographic, social class [education

& income] and health status of the consumer. The author states that women consumers have more occasions to use OTC products and have higher consumption rates than male consumers. {Canadian facts[ 41] , Johnson [42] , Stoller [43] , Chaiton [44] , Bush [45] , Fisher [46], Christopher [47]}. The authors conclude that the rate of the OTC products usage changes with gender and female consumers have higher consumption rates of OTC products as compared to male consumers and also the physical attributes of the OTC brand can influence the OTC brand purchase decision as well . Based on market share analysis of the pharmaceutical industry OTC antacid segment is taken up for hypotheses formulations. Therefore the following hypotheses can be formulated:

We need to understand whether there is a relationship between the consumer gender and the buying decision of OTC antacid products. Hence the proposed hypothesis can be:

***Hypothesis -H<sub>1</sub>***

There is impact of gender involvement influencing the buying behavior for an OTC antacid brand

***Hypothesis -H<sub>2</sub>***

There is impact of gender involvement influencing an OTC brand recollection through it's physical attributes

**RESEARCH METHODOLOGY**

**i. Research design**

This research study is based on descriptive ,cross –sectional research study design. Descriptive research studies describe what is prevalent .They bring out the current status of a phenomenon .They describe the distinctiveness of an individual or of a group and are concerned with description of facts and characteristics of an individual , a group or a situation or they explain a problem, situation , service , phenomenon or a program. As this study takes into consideration the consumers of OTC products and proposes to find out the reasons for their purchase decisions of the OTC products.

In this study a cross-section of the adult population consuming OTC products is being considered at a given moment of time. A secondary study was done to investigate the reasons that lead to purchase decisions of the OTC products by the consumers and the consumer acceptance of the OTC products therein. This was done through a search of various academic & professional journals, websites and academic papers. A review of the various literature was conducted on the study topic followed by a primary research study done to determine the influence of gender to the

consumer OTC brand preference and to ascertain the influence of the various factors that lead to the purchase of an OTC brand.

## ii. Sample design

Stratified random sampling methodology was used for this study. 300 adult consumers of OTC products who have used any of the OTC brands in the past or are using them currently from Mumbai & 200 similar consumers from Pune. The age group of the 300 sampling elements consisted of 90 in the age group 23-29 years, 150 in the age group 30-50 years, 63 in the age group 51-70 years of both genders as mentioned in the given in Table 1.

**Table 1: sample profile**

	Mumbai	Pune
Male	158	104
Female	142	96
Total	<b>300</b>	<b>200</b>

## iii. Questionnaire design

Data was collected through structured interviews. The tools for data collection were an interview schedule, email and goggle doc as an interview schedule is a research tool/instrument for collecting data. The respondents were requested a set of pre-planned questions in the similar order and using the same words as specified in the interview schedule. The questions in the interview schedule were used to find out the impact of the following independent variables: good previous experience with the OTC product, speed in relief, the price of the product, awareness of the consumers, usage convenience, the packing of the product, safety of the OTC product, the consumer gender, the brand ambassador and the availability [ease of availability] upon the dependent variables that includes i) the consumer preference/purchase of the OTC brand.

## RESULTS

The results are divided into OTC brand awareness, OTC brand preference & Awareness of OTC companies in the first stage of analysis. It is given below:

**Table 2: Awareness, Regular usage & Awareness of companies in the OTC segment**

Parameters	Mumbai		Pune		Total [N]	
	N	%	N	%	Mumbai	Pune
Awareness of OTC brands by the sampling elements	192	64	154	77	300	200
Regular usage of OTC brands by the sampling elements	186	62	102	51	300	200
Awareness of OTC companies	186	62	62	31	300	200

## INFERENCE

The awareness of the OTC brands is higher in Pune city as compared to Mumbai, while regular usage of OTC brands and awareness of companies marketing OTC products was higher in Mumbai as compared to Pune. There is greater usage of OTC products in Mumbai compared to awareness. The behavior of the majority of consumers in the market of OTC medications may be partly a reflection of the typical model of stimulus-response of the buyer. Mumbai is a metropolitan city with heterogeneous population. Disposable incomes added and higher income levels may influence the consumers towards self medication compared to Pune's consumers. Most often the needs (take the ailment away) for the medications (including OTC medications) result from patho- and physiological stimuli. Secondly, taking into account mainly these stimuli, the needs for the OTC medications are mainly 'stimulated' by biological factors or external factors (e.g. random events). Therefore, they are in large part independent of consumers. Getting satisfaction is directly related to personal factors and often subjective [48]. Our next study is related to OTC brand preference This is given in table-3.

**Table 3: First brand preference for OTC antacids [no. of consumers]**

Product	Mumbai					Pune				
	Male	%	Female	%	Total	Male	%	Female	%	Total
Digene	38	24	35	25	73	30	29	28	29	58
Eno	70	44	57	40	127	37	36	34	35	71
Gelusil	36	23	40	28	76	32	31	27	28	59
None	14	09	10	07	24	05	05	07	07	12
<b>Total</b>	<b>158</b>		<b>142</b>		<b>300</b>	<b>104</b>		<b>96</b>		<b>200</b>
<b>%</b>	<b>52.6</b>		<b>47.3</b>		<b>100</b>	<b>52</b>		<b>48</b>		<b>100</b>

**Table 4: Chi-Square Test for hypothesis 1 –Mumbai/Pune**

	Mumbai			Pune		
	Value	df	Asymp. Sig. (2-sided)	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.482 <sup>a</sup>	3	.686	.634 <sup>b</sup>	3	.889
Likelihood ratio	1.483	3	.686	.635	3	.888
N of Valid cases	300			200		

a. 0 cells (0.0%) have expected count less than 5 . The minimum expected count is 11.36

b.0 cells (0.0%) have expected count less than 5.The minimum expected count is 5.76

c..0 cells (0.0%) have expected count less than 5.The minimum expected count is 20.56

## INFERENCE

There is no significant relationship between the purchase of an OTC antacid brand & gender in Mumbai and Pune. Thus our hypothesis- There is impact of gender involvement influencing the buying behavior for an OTC antacid (H2) for the two cities viz. Mumbai and Pune is rejected. The most preferred OTC antacid brand by the male & female consumers in Mumbai & Pune is Eno

## PHYSICAL PARAMETERS OF OTC PRODUCTS AND THEIR IMPORTANCE

Every time a consumer self-consumes a drug he/she undergoes a sensory experience during the consumption of a tablet or a capsule or consuming a syrup .As per Worthington [49] this process involves perceptions and can powerfully create a perception of a patient's view of treatment effectiveness .It is quite likely that the sensory elements of a medicine complement the technical [medical] features of the medicine to generate positive perceptions about the product .More Aarti [38] in her article mentions that the aesthetic attributes of the product are the outward appearance of the product , feeling of comfort given by the product [ergonomics] , utility, style and factors such as shape, design , dimensions , propositions , colour and finish of the product .As per the authors the physical attributes of a product are a source of pleasure and thereby they can influence it's purchase decision by the consumer, further the authors also state that the physical attributes of a product is an indicator of the quality of the product which would influence the consumer's purchase decision of the brand when all parameters are similar .Thereby from the previous discussion -the role of gender in influencing the OTC brand purchase decision and the influence of gender on the OTC brand purchase decision through it's physical attributes of the OTC brand are also important determinants to find out their overall role in influencing the purchase decision of the consumer for OTC brands. This is given in table -5

**Table 5: OTC brand recollection through physical attributes (N)**

Physical attributes	Mumbai					Pune				
	Male	%	Female	%	Total	Male	%	Female	%	Total
Colour	39	25	56	39	95	26	25	37	39	63
Packaging	91	58	29	20	120	57	55	49	51	106
Shape of bottle	28	18	57	40	85	17	16	02	02	19
None						04	04	08	08	12
Others										
Total	158		142		300	104		96		200
%	52.6		47.3		100	52		48		100

**Table 6: Chi-Square Test for hypothesis H<sub>2</sub> –Mumbai and Pune**

	Mumbai			Pune		
	Value	df	Asymp.Sig. (2-sided)	Value	df	Asymp.Sig. (2-sided)
Pearson Chi-Square	44.242 <sup>a</sup>	2	.000	15.404 <sup>b</sup>	3	.002
Likelihood ratio	45.937	2	.000	17.127	3	.001
N of Valid cases	300			200		

a.0 cells(0.0%) have expected count less than 5. The minimum expected count is 40.23

b.0 cells(0.0%) have expected count less than 5. The minimum expected count is 5.76

c.0 cells(0.0%) have expected count less than 5. The minimum expected count is 8.65

## INFERENCE

Chi- Square test is used to find out the result of our first two objectives. Chi--square test can reveal the significant association between the two variables -here the two variables are the gender and their preference for an OTC brand. The Chi square test is carried out at 95 % confidence level (Equivalent to 100-90 divided by 100 or 0.05 significance level. From the Chi square test output table we see that a significance level of 0.000 has been achieved for Mumbai and 0.002 for Pune and as we know that in a chi square test, for a 95 % confidence level, if the significance level is greater than or equal to 0.05, it signifies that there is no association between the two variables and if the significance level is less than 0.05, then it signifies that there is a significant relationship between the selected variables. From the output tables, the chi square test analysis reads a significance level of 0.000 and 0.002 at 95 % confidence level < 0.05, so the above results shows that there is a significant relationship between the two variables.

So our hypothesis 2 is accepted and it can be concluded that there is an involvement of gender in the brand recollection for an OTC product through its physical attributes viz their color, shape and packaging in Mumbai and Pune . Packaging of the OTC product was the physical attribute that helped recollect maximum number of consumers- an OTC brand in Mumbai and Pune whereas the physical attribute that helped recollect the highest number of male consumers an OTC brand in Mumbai was packaging of the OTC product while shape of the bottle for the female consumers in Mumbai.

The physical attribute that helped recollect the highest number of male & female consumers an OTC brand in Pune was packaging of the OTC product.

**Table 7: Factors influencing the consumer decision to purchase OTC antacid brand-Brand wise consumer responses**

	Gelusil				Eno				Digene			
	Mumbai	%	Pune	%	Mumbai	%	Pune	%	Mumbai	%	Pune	%
Good experience	23	08	56	28	34	11	18	09	29	10	49	24
Quick relief	31	10	37	19	44	15	40	20	33	11	38	18
Awareness	33	11	40	20	26	09	25	12	45	15	07	04
Convenience of usage	23	08	08	04	19	06	47	24	20	07	13	07
Ease of Packing	85	28	08	04	31	10	11	06	28	09	05	03
Safety	28	09	00	00	37	12	17	09	46	15	05	03
Price	26	09	33	17	46	15	17	09	38	13	14	07
Brand ambassador	00	00	00	00	00	00	02	01	00	00	03	02
Availability	21	07	07	03	49	16	06	03	29	10	05	03
None	30	10	11	06	14	05	17	08	32	11	61	30

## INFERENCE

*Ease of packing* of Gelusil was the factor influencing the maximum number of consumers [28%] for it's purchase in Mumbai while *good experience* was the factor influencing maximum number of consumers in Pune [28%]. Availability of Eno was the factor influencing the maximum number of consumers [16%] for it's purchase in Mumbai while maximum number of consumers in Pune were influenced by convenience of usage [24%]. Awareness and safety of Digene was the factor that influenced the maximum number of consumers [15%] for it's purchase in Mumbai while good prior experience influenced maximum number of consumers in Pune [24%]

## DISCUSSION

This research study was conducted by collecting the responses from 500 consumers [300 from Mumbai & 200 from Pune] of different age groups to find out the influencing role of the gender of the consumers in the purchase of an OTC brand and to ascertain the role of various factors that can influence the consumer to purchase an OTC brand. Also this study aims at finding out the influence of gender on the purchase of an OTC brand by consideration of the physical attributes of the brand by the consumer. The top OTC antacid brand as revealed in this study in Mumbai and Pune is Eno. The awareness of OTC brands in two of the top 10 metro cities of India ie Mumbai & Pune is 64 % and 77 % respectively. Awareness of companies marketing OTC products is higher in Mumbai which is a bigger metro than Pune which can be ascribed due to a

difficult and tough lifestyle in Mumbai necessitating the requirement of an OTC product as compared to a slightly better lifestyle of Pune city. In her research article Lakshmi B. et al [35] has stated that while purchasing an OTC brand consumers considered and evaluated various factors for the purchase of the OTC brand based on their gender which included the physical attributes like packaging of the OTC product .A review of the literatures reveals that there are not many studies done to reveal the role of the gender of the consumer on the OTC brand recollection by consideration of the brand's physical attributes like colour, packaging and shape . As gender has been an influential factor on the use of pharmaceutical drugs it's role has been the subject for investigation. This study is an attempt to find out whether gender has an influence on the OTC brand recollection through each of it's physical attributes. This research study has revealed important information pertaining to a relationship between the physical attribute of an OTC brand and the gender of the consumer in a metro city. This study has revealed that there is an involvement of the consumer gender in the brand recollection of an OTC product by consideration of the physical attributes of the OTC brand in the metro cities of Mumbai & Pune. In both the cities of Mumbai and Pune packaging of the OTC medicine is the most influencing factor for male and female consumers while in the metro city of Pune for female consumers shape of the pack is the most influencing factor.

## **CONCLUSIONS**

This research study is an attempt to determine the role of consumer gender as an influencing factor for consumers to purchase an OTC brand and also to identify the other factors that influence consumer purchase decision. This study has highlighted the role of the factors like ease of packing of the OTC brand, good previous experience, price, and convenience of usage, quickness in providing relief, awareness of the OTC brand, availability and safety of the OTC brand to be important influencing factors for consumer purchase decision of an OTC antacid brand. This study has highlighted that brand ambassador has lesser importance as an influencing factor neither does the gender of a consumer plays any role in the decision to purchase an OTC antacid brand in the cities of Mumbai and Pune. This study considered 3 OTC antacid brands, 2 out of which had been shifted from the Rx only category to the OTC category. This research study would be able to provide insights to a pharmaceutical organization to devise an overall business direction for marketing OTC antacid brands along with a disclosure of the factors that influence the consumers to prefer an OTC antacid brand which would give insights for the

promotional strategy /thrust /investments to be made by an organisation interested to market OTC antacid brands. This is also useful for that pharmaceutical company which is contemplating a shift of their brand/s from the Rx-to-OTC category.

### **LIMITATIONS OF THE STUDY**

The geographical location of this study was the cities of Mumbai and Pune area comprising an urban population. Around 70 % of India comprises of rural population, one of the limitations of this study is that it might not reveal the factors influencing the consumers in their OTC brand purchase in a rural setting as there could be factors that are different from the ones revealed herein. A study based on rural population needs to be undertaken. Also this study is limited to 3 OTC antacid brands in India, there could be the inclusion of other OTC antacid brands in local geographical markets and there could be other influencing factors for some of the OTC brands not considered by this study which couldn't be captured by this study. Although this study had adult consumers as the sampling elements specific studies can be undertaken to identify specific factors influencing specific categories of consumers on the basis of their age viz. college students, housewives, adult men, adult women, middle aged and geriatric consumers. Also there are many prescription brands prescribed by the doctors frequently that are purchased by the consumers without any prescription [OTx ] which are not covered by this study. Also certain factors like awareness as an influencing factor to purchase an OTC brand can be a temporary phase due to a higher media presence of that OTC brand which might be the resultant of a high level promotion campaign leading to higher awareness levels for that OTC brand.

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