A STUDY ON CONSUMER PREFRENCE TOWARDS GENERIC MEDICINES IN NASIK CITY

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Abstract: The research is about consumer preference towards generic medicines in Nasik City. The researcher has attempted to analyze customer's awareness for generic Medicines. These medicines effectively treat many of the illness along with providing cost benefit to the customers. The paper highlights the equivalence of generic medicines to branded medicines. However the difference created in both of these is due to the marketing activities adopted by branded medicines. The study attempts to check the effect of demographic segmentation in consumer buying behavior in terms of education and income level. It is been observed that the consumption of generic medicine strongly depends on the type of disease that is acute or chronic. The research concludes that consumers of generic medicines are satisfied with the product. The objective undertaken also clarifies the reasons of consumers to purchase generic medicines over branded and the relationship of consumer satisfaction with the purchase of the same. The research is a primary research with five hypotheses. The study is specifically carries out in Nasik city of Maharashtra for which the prospect respondents where the consumers of generic medicines.

Key Words: **consumer preference, cost benefit, demographic segmentation, in consumer buying behavior, consumer satisfaction**

I INTRODUCTION

1.1 About Generic Medicines

a. Definition:

A drug product that is comparable to a brand/reference listed drug product in dosage form, strength, route of administration, quality and performance characteristics, and intended use. A brand name drug is a medicine that's discovered, developed and marketed by a pharmaceutical company. Once a new drug is discovered, the company files for a patent to protect against other companies making copies and selling the drug. At this point the drug has two names: a generic name that's the drug's common scientific name and a brand name to make it stand out in the marketplace. This is true of prescription drugs as well as over-the-counter drugs.

An example is the pain reliever Tylenol®. The brand name is Tylenol® and the generic name is acetaminophen. Generic drugs have the same active ingredients as brand name drugs already approved by the Food and Drug Administration (FDA). Generics only become available after the patent expires on a brand name drug. Patent periods may last up to 20 years on some drugs. The same company that makes the brand name drug may also produce the generic version. Or, a different company might produce it.

b. Pharma Regulations for Generic Product in India

Generics have an important role to play in public health as they are well known to medical community and usually more affordable due to competition. They are formulated when patent and other exclusivity rights expire. The key for generic medicines is their therapeutic interchange ability with originator products. To ensure the therapeutic efficacy generic products must be pharmaceutically interchangeable (contain the same amount of active ingredient and have the same dosage form) and bioequivalent to the originator product.The detailed description how it is carried out is described in respective WHO document and national regulatory guidelines. Well-resourced regulatory authorities require that a generic medicine must meet certain regulatory criteria. For applying the ANDA's in US, application is submitted under any of the below subsections of 505(j) of Federal act, it is important to comply with rule and regulations of US because it's the major export destination for Indian generics manufacturers, the various application which can be applied for ANDAs in US is depicted in Table 2. The ANDAs review process is most important for developing generics, the review by FDA and CDER is done for generic applicant to compare its therapeutic bioequivalent with brand drugs after its approval for equivalency generic version of drug can be marketed. The review for equivalency is done by taking into account the bioavailability of product with branded drug, its microbiology, chemistry and labelling of product, this are current regulation to follow for generic approvals given by respective FDA.

1.2. About Customer Perception:

Customer perception refers to the process by which a customer selects, organizes, and interprets information/stimuli inputs to create a meaningful picture of the brand or the product. It is a three stage process that translates raw stimuli into meaningful information. In simpler terms, it is how a customer see's a particular brand with whatever he or she has been able to understand by watching the products, its promotions, feedback etc. It is the image of that particular brand in the mind of the customer.

For this study secondary data has been collected. From the website of KSE the monthly stock prices for the sample firms are obtained from Jan 2010 to Dec 2014. And from the website of SBP the data for the macroeconomic variables are collected for the period of five years. The time series monthly data is collected on stock prices for sample firmsand relative macroeconomic variables for the period of 5 years. The data collection period is ranging from January 2010 to Dec 2014. Monthly prices of KSE - 100 Index is taken from yahoo finance.
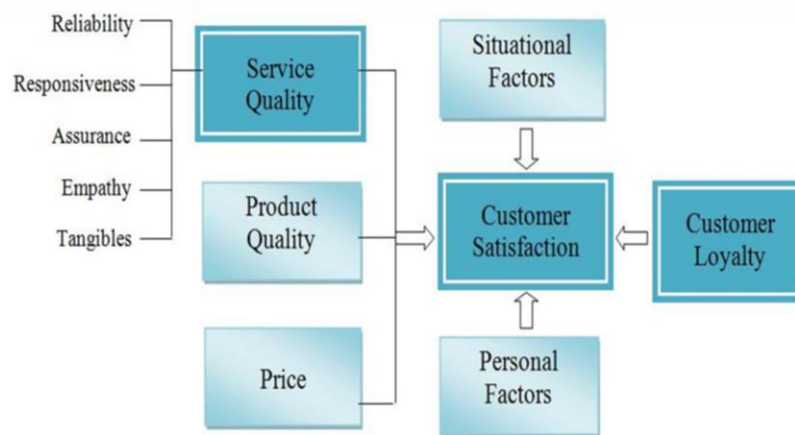

Figure: Service Quality and satisfaction

Source: Kotler's Study on Consumer Perception

1.3 Background of the study

Timely and effective use of medicines can ensure effective treatment of many illnesses and avoid or delay the need for costly hospital treatment for patients. Significantly, generic medicines can effectively treat many of today's illnesses and its use provides the opportunity to substantially reduce costs to health care budgets and patients. There is no doubt that branded medicines have exercised tremendous influence in utilization of medicines, but generic drugs, being bioequivalent to their brand-name counterparts, are considered safe as well as cost-effective. The use of generic drugs is steadily increasing internationally because of the result of economic pressure on drug budgets. Generic drugs provide the opportunity for major savings in healthcare. Expenditure since they are usually substantially lower in price than the innovator brands. However, physicians are apprehensive regarding the quality of generic drugs and have concerns about their reliability as well as interchange of certain drug categories. Although the generic medicines are bio-equivalents of their innovator counterparts and are produced in similar facilities according to good manufacturing practices, these are widely believed as inferior in their therapeutic efficacy and quality to branded products. Marketing practices adopted by manufacturers of imported branded medicines also propagate the belief that generics are of inferior quality as reported from countries in Central and Eastern Europe and independent countries emerged from former Soviet Union. Currently, almost all medicines in India are sold under a brand (trade) name and medicines are called as branded medicines or branded-generic.

In real sense, Indian market does not have branded medicines (a name commonly given to an innovator product) because till January 2005 product patent was not applicable in India. In India, many pharmaceutical companies manufacture two types of products for the same molecule, i.e. the branded product which they advertise and push through doctors and branded-generic which they expect retailers to push in the market. The so-called branded medicines in India are manufactured and promoted by multinationals or by reputed Indian manufacturers. Branded-generics, on the other hand, are not promoted or advertised by the manufacturer.

Generic medicines are a key strategy used by governments and third-party payers to contain medicines costs and improve the access to essential medicines. This strategy represents an important opportunity provided by the global intellectual property regimes to discover and develop copies of original products marketed by innovator companies once the patent protection term is over. While there is an extensive experience regarding generic medicines policies in developed countries, this evidence may not translate to developing countries.

Customer preference depends upon the following factors:

- Social
- Cultural
- Economical
- Psychological
- Demographical
- Political

1.4 Need and Significance of the Study
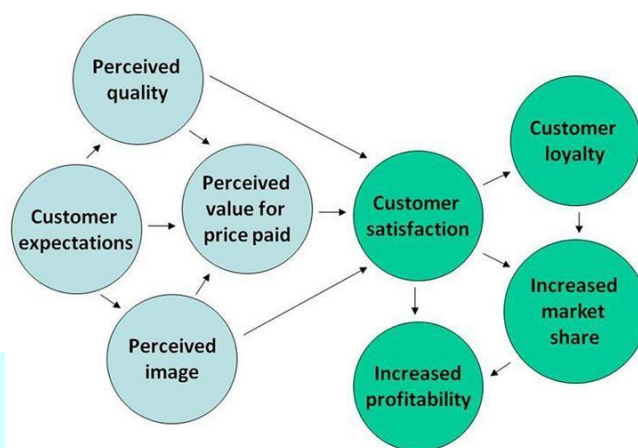
Source: Kotler's study on consumer satisfaction

1. To study consumers' perception about the quality of generic medicines
Generic drugs are required to have the same active ingredient, strength, dosage form, and route of administration as the brand name (or reference) product. Generic drugs do not need to contain the same inactive ingredients as the brand product.

- Through review of bioequivalence data, FDA assures that the generic product will perform the same as its respective brand name (or reference) product. This standard applies to all generic drugs, whether immediate or controlled release.
- A generic drug must be shown to be bioequivalent to the reference drug; that is, it must be shown to give blood levels that are very similar to those of the reference product. If blood levels are the same, the therapeutic effect will be the same. In that case, there is no need to carry out a clinical effectiveness study and they are not required.
- All generic manufacturing, packaging and testing sites must pass the same quality standards as those of brand name drugs and the generic products must meet the sameexacting specifications as any innovator brand name product. In fact, many generic drugs are made in the same plants as innovator brand name drug products.

2. Consumer perception about the price of generic medicines
There is a big difference between generic and brand name drugs. On average, the cost of a generic drug is 80 to 85% lower than the brand name product.

3. Consumers are switching to brand name medicines due to risking failure of generic medicines
Treatment failures can and do occur when taking generic or brand name drugs. If someone is switched to a generic drug around the time they are relapsing, they may attribute the problem to the switch.

4. Generic drugs cost less because they are inferior to brand name drugs
Generic manufacturers are able to sell their products for lower prices, not because the products are of lesser quality, but because generic manufacturers generally do not engage in costly advertising, marketing and promotion, or significant research and development.

5. Brand name drugs are safer than generic drugs.
FDA receives very few reports of adverse events about specific generic drugs. Most reports of adverse events are related to side effects of the drug ingredient itself.

1.5 Scope of the Study

The Indian government hopes to revamp the spending on public health by coming up with a proposal to provide hundreds of primary drugs free to the poor and the needy in hospitals and clinics, city hospitals and rural clinics. The cost is estimated to be nearly $5.4 billion over five years. This proposal is meant to cement the gap in the provision of health care in these hospitals, so that the sick can afford to get properly treated. It is being considered the first step towards the larger goal of a universal health care system in India, and was adopted last year. Mr. L.C. Goyal stated that

―The policy of the government is to promote greater and rational use of generic medicines that are of standard quality.‖

The generic drugs will be produced in bulk by India's leading generic drug companies like Cipla, Lupin and Ranbaxy. Generic drugs account for almost 90% of the total drug sales value in India. Since the drugs will be bought in bulk, this will reduce the government's annual cost and the state will pay for 25% of the free drugs, while the central government covers the rest. This will definitely cause a huge blow to Western pharmaceutical companies as the proposal bans the selling of branded drugs. If doctors still prescribe branded medicines, disciplinary action will be taken against them. Some of these big players will include Pfizer, Glaxo Smith Kline and Merck. This could potentially keep them out of the Indian drug market, or only be administered to the middle and upper classes in private hospitals. Western companies might be ordered to license their medicines to generic producers, which raise issues of patents, as was seen in the case of Bayer's cancer drug.

II LITERATURE REVIEW

It was found that better communication among patients and health care professionals regarding the equivalency between most branded and generic products should increase the use of generic medications (Hassali,2009). Generic medicine policies is that generics are significantly less expensive than their originator (Taun A., 2013).

The literature suggests that significant pharmaceutical budget savings can be achieved from tenders, but the overall results are unclear. (Dylst P.,2011). The growing body of evidencethat generic drugs — even narrow therapeutic index drugs — are as effective as their brand-name. (Kesselheim AS,2010). Generic drugs have less research and development costs since the original manufacturer has already done. (Stafford ,2008). Previous researches have shown mistrust of generic medicines among the general population both in Australia and overseas (Valles, et al. 2003). More specifically, studies overseas have identified this as particularly problematic among older people, people with low socioeconomic status and those with low levels of health literacy (BlascoOliete,et al., 2003). There is still considerable room for improvement by the manufacturers of medicines, particularly in relation to generic drugs, that could affect medication safety in Australia (Shrank et al., 2007). Consumers' beliefs about generic medicines will strongly affect attempts to increase generic prescribing and thereby reduce growing Pharmaceutical Benefits Scheme. The usage, consumption and prescription of generic Drugs can be influenced by the belief that they are less effective than their brand name equivalents (Hellerstein,1988) and by the inherent risk associated with each type of drug (Tootelian,et al., 1989). Psychological risk has a direct influence on the risk perceived by the consumer when the consumers evaluate a generic drug (Mercedes Rozano ,et al., 2009). Perceptions regarding safety, quality, efficacy, and side effects of generic medicines were generally positive but responses proved even more positive for brands. More positive perceptions of brands were associated with a shift towards more negative perceptions towards generics (Tinashe Zigomo,2014). There has been rapid growth in the global generic pharmaceutical industry which has been propelled by several factors, including governments' and healthcare funders need to control the rapidly increasing healthcare expenditures, a growing middle class in emerging markets, and a longer life expectancy (Harding, 2010). The issue related to the safety of generic medicines was cited as a major hindrance which made community pharmacists wary of dispensing generic medicine except in some special situations such as poor socioeconomic conditions of the patient. Adequate information on bioequivalence (Hassali,2010). Appropriate understanding of generic medicines by community pharmacists can result in major cost-savings as they can be instrumental in controlling pharmaceutical expenditure when given the freedom to engage in generic and therapeutic substitution (Butt ZA,2005). Malaysian generic industry perceived the level of generic dispensing to be satisfactory but the level of generic prescribing, generic education and information to healthcare professional and generic public awareness were unsatisfactory.(OmotayoFatokun, 2013). Patients who have a positive initial experience with a generic are more likely to maintain a positive opinion into the future, the physician–patient relationship and interaction may be key to influencing improving patient approval of generic medicines(Suzanne,2015). Patients tend to prefer branded medications, that they have insufficient knowledge and information about generics and that physicians and pharmacists play a key role in the promotion of generic medicines to patients and in patients' acceptance of generic substitution (Allian, 2014). Consumer understanding of the prescription drug benefit—that is, education by experience was the most important predictor of understanding (Bridget,2005). Males generally tend to be less educated about medicines which make them more vulnerable to being easily convinced to use branded medicines instead of a generic which is as good as the branded medicine(Matthew,2007). Generic drugs are believed to provide therapeutic effects similar to those of their brand-name alternatives (Nightingale, 1998). The branded and branded-generic versions of the five ―paired‖ medicines had identical quality and they fulfilled all the criteria prescribed by the statutory standards (Singal,2011). Generic substitution rates have increased remarkably there, probably due to greater acceptance by physicians and pharmacists as well as encouragement from the third party payers (Dong-Churl,1999). There is no evidence of superiority of brand preparations to generic drugs (Kesselheim,2008). The Drug Price Control Order (DPCO) identifies active pharmaceutical ingredients (APIs) for which a pricing formula is used to set the MRP. There are only 74 bulk drugs which are underprice control (PCO,1995).Government controls and drug policies vary in nature globally and play major role in consumer decision-making and the degree of generic drug success, taking various forms across different jurisdictions (Karan,2014).

III RESEARCH METHODOLOGY

3.1Type of Research Problem Identification and Statement

The research undertaken is based on the consumer behaviour and customer preference towards generic medicines in Nashik city. The city is moderately populated and hence in order to understand customer preference towards generic medicines was a tedious process. The perceived quality, perceived image of brand and perceived value paid for the product is problem to be studied in the project through primary research.

3.2 Objective of the Study

1. To study the level of awareness among the people about generic medicines.
2. To study the effect of educational level on the purchase of generic medicines
3. To understand the reasons behind the purchase of generic medicines.
4. To analyse the effect of income level on the purchase of generic medicines.
5. To study the relationship between the efficacy of generic medicines and satisfaction of consumers with the generic medicines.

Hypothesis Statements

1. H0: Customers use generic medicines for chronic diseases.
2. H0: Consumers of generic medicines perceive them to be as effective as branded medicines.
3. H0: Consumers purchase generic medicines because they are cheap to branded medicines.
4. H0: Consumers are of the opinion that Doctors don't prescribe generic medicines because they do not get any gifts from manufacturing Cos. for prescribing them.
5. H0: Purchase of generic medicines is income dependent.

Type of Research Design

The research design undertaken is Descriptive Research Design.

Descriptive research is a study designed to depict the participants in an accurate way. More simply put, descriptive research is all about describing people who take part in the study.

There are three ways a researcher can go about doing a descriptive research project, and they are:

- Observational, defined as a method of viewing and recording the participants
- Case study, defined as an in-depth study of an individual or group of individuals
- Survey, defined as a brief interview or discussion with an individual about a specific topic

3.3 Data Sources and Data Collection Method

Data collection is the process of gathering and measuring information on targeted variables in an established systematic fashion, which then enables one to answer relevant questions and evaluate outcomes. Data collection was done by means of primary data and secondary data.

a. Primary data:
   - Questionnaire: A questionnaire was prepared to collect the information and answers were received accordingly. It helped a lot to collect the information.
   - Discussions: The discussion with store keepers as well as the consumers was conducted to know the attitude and behaviour of recipient of generic medicines.
b. Secondary data:
   - Reference Books: Various books were referred to get more familiar with the topic and to get required theoretical knowledge of the same.
   - Internet: Some information about the company was also collected from the internet through various reliable sites.
   - Research papers: research papers related to the topic were studied as a guidance for the project.

Sampling Design

Sampling Unit: A sampling unit is one of the units into which an aggregate is divided for the purpose of sampling, each unit being regarded as individual and indivisible when the selection is made. (C.A. RAO) All the consumers and buyers of generic medicines in Nashik district are the sampling unit for the project.

Sampling method: The sampling method used is Stratified Random Sampling Method. In stratified random sampling, the strata are formed based on members' shared attributes or characteristics. A random sample from each stratum is taken in a number proportional to the stratum's size when compared to the population. These subsets of the strata are then pooled to form a random sample. (Prasanata Chandra). In this survey strata's were formed on the basis of geographic area or location

Location/ Geographic Strata	Respondents
Nashik Road	25
College Road	25
Cidco	25
Gangapur Road	25

Sampling Size: Sample size is the act of choosing the number of observations or replicates to include in a statistical sample. The sample size is an important feature of any empirical study in which the goal is to make inferences about a population from a sample. (Haven R. Rochel)

Sample size: 102

Initially the sample size was 110 but out of it only 102 gave a completely filled questionnaire. Hence only 102 responses were considered to be valid for the study.

Response rate = Number of respondent / Sample size

= 102/110

= 0.927

Sampling Frame: A list of the items or people forming a population from which a sample is taken.

IV Data Analysis & Interpretation

Table 4.1 Gender Distribution

No of males	No of females
73	29

Interpretation: out of 102 respondents majority are male respondents i;e 73 and females are 29

Table 4.2 Age (in Years)

Age (years)	No of respondents
20-30	12
30-40	21
40-50	33
50-60	27
Above 60	9

Interpretation: the major respondents fall in the age group of 40-50 years which contributes 30% and it is followed by the age group of 50-60 years with 26% .only 9% of respondents are from age group of above 60 years. Majority of male respondents fall in the age group of 40-50 years.

Table 4.3 Educational Level

Educational level	No of respondents
No education	2
SSC	6
HSC	20
Graduate	52
Post Graduate	22

Interpretation: 50% of the respondents are graduates. It is being studied that the maximum respondents that are graduates are majorly males respondent and they affect the purchase of generic medicines. Only 2% of the respondent population is uneducated.

Table 4.4 Income per Month (in Rupees)

Income per month (in rupees)	No of respondents
Less than 10k	5
11k- 20k	19
21k – 30k	21
31k – 40k	33
41k – 50k	13
More than 50k	11

Interpretation: It can be seen that 33% of respondent population are earning between 31k – 40k per month. 20% and 19% of respondent are of the income group 21k- 30k and 11k – 20k respectively. It is being observed that the purchase of generic medicines is being dominated by income of the individual.

Table 4.5 Awareness about generic medicines

Yes	No	Can't say
82	12	8

Interpretation: 80% of respondents are aware of generic medicines. The 12 % of respondents who are unaware of generic medicines still form 3% of the buyers of generic medicines.

Table 4.6 Awareness about Branded medicines

Yes	No	Can't say
95	1	6

Interpretation: 93% of respondents are aware of branded medicines. These 93% of population are the majority people i.e 80% of these people who buy generic medicines

Table 4.7 Usage of Generic Medicine for the type of disease

Classification of disease	No of respondents
Acute disease	33
Chronic disease	45
Both	22

Interpretation: 45% of respondents consume generic medicines for chronic disease , it because it helps them to save on their monthly pharmacy bills. 33% people consume for acute diseases and 22% for both.

Table 4.8 Consumer preference towards generic medicines/ branded medicines

Generic Medicines	Branded Medicines	Both
30	14	58

Interpretation: Majority of respondents i.e. 57% respondents consume both generic and branded medicines depending on the kind of medication. They generally prefer branded medicines for acute disease and generic medicines for chronic diseases.

Table 4.9 Sources of Awareness of generic medicines

Sources of awareness	No of respondents
Doctor	19
Family Member	23
Friends	29
Newspaper	8
Mass media	16
Any other	7

Interpretation: Majority of respondents i.e. 29% of them got to know about generic medicines from friends and then by family members and doctors respectively. Newspaper creates least awareness of generic medicines.

Table 4.10.1 Rate the consumer perception on a five point likert scale.

Consumer Perception	Strongly Agree	Agree	Can't Say	Disagree	Strongly Disagree
I am aware of GM	49	37	2	12	2
GM are easily available	8	11	12	62	9
GM are of low quality compared to BM	3	12	11	26	50
GM are cheap to BM	38	37	17	4	6

Interpretation: it is being observed that the respondents are aware of generic medicines and they agree that it is not easily available in the market. Consumers are of the opinion that GM are of same quality as BM and are relatively cheap in price to BM.

Table 4.10.2 Rate the consumer perception on a five point likert scale

Consumer Perception	Strongly Agree	Agree	Can't Say	Disagree	Strongly Disagree
GM are not prescribed by Drs because companies don't promote them	28	26	30	14	4
Drs don't prescribe GM because they don't get gifts from Cos.	40	8	28	17	9
Drs don't prescribe GM because they are not easily available	25	38	30	9	0

Interpretation: Respondents are majorly unaware if doctors don't prescribe GM because they are not promoted by companies manufacturing them. Consumers strongly agree that doctors avoid prescribing GM because they don't get gifts from companies. Unavailability of GM is also one of the reasons for not prescribing generic medicines.

Table 4.10.3 Rate the consumer perception on a five point likert scale.

Consumer Perception	Strongly Agree	Agree	Can't Say	Disagree	Strongly Disagree
Chemist sell GM to en-cash high margin	8	36	36	16	6
GM have intense side effect	6	15	23	29	29
If alternative is available to BM that I use, I will switch to GM	38	17	24	8	15
Treatment with GM take longer time	19	20	36	17	10

Interpretation: consumers agree with the statement that chemist sell GM at MRP to en cash high margin. Respondents disagree that GM have side effects. They are ready to accept GM as a viable option to BM that they use.

Table 4.10.4 Rate the consumer perception on a five point likert scale

Consumer Perception	Strongly Agree	Agree	Can't Say	Disagree	Strongly Disagree
GM are as effective as BM	25	50	3	21	3
There should be more Generic stores in the market	65	29	0	8	0
I had used GM in past	29	38	7	17	11
I am satisfied with the efficacy of GM	32	43	4	16	7

Interpretation: consumers of GM strongly agree that they are as effective as BM. The strongly believe that there should be more generic stores out in the market. Majority of respondents have used generic medicines in the past. Consumers are highly satisfied with the efficacy of GM they are using.

Table 4.10.5 Rate the consumer perception on a five point likert scale.

Consumer Perception	Strongly Agree	Agree	Can't Say	Disagree	Strongly Disagree
GM saves me a lot on my monthly pharmacy bills	55	25	5	14	3
I will continue to use GM in future	53	28	12	1	8
I will tell my friends and family to purchase GM	61	26	10	2	3

Interpretation: The consumers of GM save a lot on my monthly pharmacy bills. They will also continue to use GM in future. The respondents will also recommend GM to their peer groups

Hypothesis Testing

H1: Consumption of GM is independent of the type of Disease being cured
Chi-Square Test

	medication_type_ta ken
Chi-Square	9.235a
Df	2
Asymp. Sig.	.010

Conclusion: Consumption of GM is independent of the type of Disease has been rejected , calculated $\chi2$ > table value of 3.84 for 2df & 0.05 sig. level.
Thus *H0 is rejected* i.e. Consumption of GM is dependent of the type of Disease being cured

H2: Generic medicine are as effective as branded medicines To test the above null hypothesis the one tailed t-test is used.
Sample mean = 4
T-Test

	Test Value = 4					
	t	df	Sig.(2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
GM_as_effective_as_BM	-2.524	101	.013	-.28431	-.5078	-.0608

Conclusion: Sample mean = 4 is accepted.
Since the calculated t-value (-2.524) is < (1.66) tabulated t Value
Hence ,the *H0 is accepted* i.e.; Generic medicines are as effective as branded med.

H3: Consumers purchase generic medicines because they are cheap to branded medicines.

To test the above null hypothesis the one tailed t-test is used. Sample mean = 4

T-Test

	Test Value = 4					
	T	df	Sig.(2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
GM_cheap_to_nonbranded_med	.533	101	.595	-.05882	-.2779	.1603

Conclusion:

Sample mean = 4 is accepted.

Since the calculated t-value (-0.533) is < (1.96) tabulated t -value Hence , the *H0 is accepted* i.e.; Consumers purchase generic medicines because they are cheap to branded medicines.

H4: Consumers are of the opinion that Doctors don't prescribe generic medicines because they do not get any gifts from manufacturing Cos. for prescribing them.

T-Test

	Test Value = 4					
	T	df	Sig.(2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
No_GM_prescription_for_not_ge	-3.832	101	.000	-.51961	-.7886	-.2506

Conclusion:

Sample mean = 4 is accepted.

Since the calculated t-value (-3.832) is <(0.9) tabulated t Value

Hence, the *H0 is accepted* i.e.; Consumers are of the opinion that Doctors don't prescribe generic medicines because they do not get any gifts from manufacturing Cos. for prescribing them.

H5: Purchase of Generic Medicines is not dependent on income groups To test the above null

hypothesis the chi – square -test is used.

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	39.609a	20	.006
Likelihood Ratio	30.035	20	.069
Linear-by-Linear Association	.097	1	.755
N of Valid Cases	102		

Conclusion: Since $\chi2$ calculated is greater than critical $\chi2$, H0 is rejected i.e. Purchase of generic medicine is income dependent.

V FINDINGS

- The study helped to understand that the people of Nashik city are well aware of generic medicines as a viable option to branded medicines, independent of the educational qualification.
- Though the educational qualification of majority of respondents is graduates which clearly indicates that education qualification definitely has an impact on the purchase of generic medicines.
- The study helps us to understand that the major reasons for the purchase of generic medicines are the customers education level, cheap in price than branded medicines and also because they are as effective as branded medicines.
- Income level has a moderate effect on the purchase of generic medicines as people purchase them from all income groups to save on their monthly pharmacy bills.
- It is been observed that the consumers of generic medicines are highly satisfied with its efficacy , which shows their high level of satisfaction with generic drugs and they will continue to use them in future as well as recommend to their peer groups.
- It is also been observed that generic medicines are not being used by most of the people because doctors not prescribe them due to its unavailability , companies don't promote them, and because doctors do not get gifts from the companies promoting them.
- The study also helps us to understand that the consumers are using generic medicines for chronic diseases than acute diseases and the reason for this is because purchase of generic medicines helps them save a lot on their monthly pharmacy bills.

VI CONCLUSION

A generic medicine is a multisource pharmaceutical product which is intended to be interchangeable with the originator product and is marketed after patents and other exclusivity rights of the innovator pharmaceutical company have expired. Globally, healthcare costs have been increasing rapidly and governments have adopted cost containment measures in an attempt to ensure efficient utilization of scarce resources. One of the important mechanisms to reduce health-care costs is to promote the use of cheaper generic medicines instead of more expensive branded equivalents. Although generic medicine use has become more widespread, there is evidence that many doctors and pharmacists hold negative views of generics and resist prescribing generic medicines. We conducted a systematic review to examine the perception towards generic drugs held by lay people, and pharmacists. We extracted from the literature the proportion of participants who held negative views about how generics were perceived compared to their branded equivalent for the following five perceptions: drug effectiveness, drug quality, the likelihood of causing side effects, drug safety and attitude towards generic substitution or the process of replacing a branded medication with its generic equivalent. A key factor in improving confidence in generic products is the provision of information andeducation, particularly in the areas of equivalency, regulation and dispelling myths about generic medicines(such as the belief that they are counterfeits). Further, as patient trust in their physician often overrules their personal mistrust of generic medicines, enhancing the opinions of physicians regarding generics may have particular importance in strategies to promote usage and acceptance of generic medicines in the future. Generic medicines provide cost- effective alternatives to branded medicines, resulting in considerable savings to healthcare budgets. However, if consumers are poorly informed about their equivalence to branded medication, it is highly unlikely that generic medicines will be preferred over their branded equivalents.

LIMITATIONS & SUGGESTIONS

Limitation
- Time period was limited for the project so it was not possible to learn whole things in the short span.
- Since the research is conducted in open marketplace where numerous variables act on research settings
- Some of the respondent found it difficult to fill the questionnaire because of linguistic barrier.
- The customer was biased while filling the research tool.

Suggestions
- Consumer awareness should be increased for generic medicines, this could be done by the doctors and the pharma companies engaged into it.
- Pharmacy industries should take initiative to promote generic medicines because they are same as branded medicines in effectiveness. Moreover it is cost effective for consumers.
- Doctors should prescribe generic medicines to patients.
- There should be more generic stores in the city in order to increase the availability of generic medicines across the city.
- Policies should be made regarding prescription, availability, and usage of generic medicines

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