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## DETERMINANTS OF BUYER BEHAVIOR IN PURCHASING GENERIC AND BRANDED DRUGS – A STUDY IN ANDHRA PRADESH

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### ABSTRACT

Understanding customer behavior and the factors influencing the purchasing behavior of generic and branded medicines is the crucial for marketing drugs. This study aimed to examine the influencing factors in customers' decisions to purchase medicines of branded and generic. In this purpose Andhra Pradesh state has taken study area and in which three regions i.e. North Coastal Andhra, South Coastal Andhra and Rayalaseema were selected and from each region one district randomly selected. Thus, from North Coastal Andhra, Srikakulam district, from South Coastal Andhra, West Godavari district and from Rayalaseema Kurnool district were selected for this study. Moreover, this is a quantitative and qualitative study used a self-administered questionnaire to collect data from the respondents. A convenience quota sample of 600 participants was selected randomly from selected three districts. The questionnaire included 6 items on personal characteristics, 10 statements on generic medicine use characteristics, 10 statements each on branded medicine use characteristics, and 9 items on determinants influencing customers' decision to purchasing medicine. A three-step analysis method was used to study the perceptions of respondents on purchasing behavior of medicines, priority based rank analysis and identification of determinants to purchase medicines. Statistical significance was set at p<0.05, with a 95% confidence interval. Linear multiple regressions is best fit to measure the influence of socioeconomic variables of buyers on their attitude towards purchase of Generic and Branded drugs. In this model of regression analysis out of the total 9 explanatory variables as many as 7 variables are found to be significant, but two variables i.e. quality of drug and reliability of drug are not significant. The study reveals that price, quantity, discounts and incentives, product availability of medicines and employment status, economic status and family size of the buyers are indicating significant influence on drugs buying behavior.

**Keywords:** Buyer Behavior, Socio-Economic Dimensions, Generic Drugs, Branded Drugs.

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## Introduction

The Indian economy is growing rapidly. This has led to an increase in disposable income and an increase in the demand for healthcare products. The government is also investing heavily in the healthcare sector. This has led to the growth of the pharmaceutical industry in India. Another macroeconomic factor is the availability of skilled labor. India has a large pool of skilled workers who are employed in the pharmaceutical industry. This has led to the growth of the biopharmaceutical sector in India. In conclusion, the pharmaceutical market in India is growing rapidly due to the rise of contract manufacturing, the growth of the biopharmaceutical sector, customer preferences for affordable healthcare products, and the presence of a large number of small and medium-sized pharmaceutical companies. The market is highly regulated by the government and is influenced by underlying macroeconomic factors such as the growing Indian economy and the availability of skilled labor. This leads India is one of the largest pharmaceutical markets in the world.

When a medicine with a new active ingredient is first developed, a patent (a legal right given to a new or innovative product or process) protects it for several years. The patent allows the company to make profits to recover the money it spent developing the medicine, or on buying the rights to market it. Under a patent, other companies cannot sell a similar medicine that contains the same active ingredient. This is called a branded drug or medicine. After the patent expires, other companies are allowed to develop medicines based on the active ingredient. These are known as generic drugs or medicines. Several different brand-names may all have the same active ingredient as the original medicine. Thus, a generic medicine works the same way as brand-name medicine, but there are some differences. Every medicine has 2 names i.e. a brand name from the pharmaceutical company that markets the medicine and a generic name, which is the medicine's active ingredient that makes it work.

## Generic and Branded Drugs in India

Generic medications offer a comparable and economically efficient substitute for branded medications. The generic drugs include same active components and have the same potency as the branded medications (C.H. BP., 2016). According to the World Health Organization (WHO), generic medicine is defined as "a pharmaceutical product, usually intended to be interchangeable with an innovator product that is manufactured without a license from the innovator company and marketed after the expiry date of the patent or other exclusive rights" (WHO, 2015). According to Stewart et al. (2014), generic medications must meet the same standards as brandname medications for potency, safety, efficacy, quality, pharmaceutical dosage form, and administration method. However, they may differ in terms of excipients, colour, and shape. Therefore, before being approved, generic medications must pass the basic regulatory requirement of bioequivalency testing (Alemayehu, et al., 2018).

Bioequivalence, as defined by the United States Food and Drug Administration (US-FDA), refers to the lack of a notable disparity in the speed and amount at which the active ingredient or active moiety in pharmaceutical equivalents or alternatives becomes accessible at the location where the drug takes effect. This occurs when they are administered at the same molar dose and under comparable conditions in a properly designed study (Rong Wang, 2022).

### **Consumer Behaviour on Generic and Branded Medicine**

On a global scale, the utilisation of generic medications is strongly advocated due to their costeffectiveness and availability. Consumers generally have a negative perception and attitude towards using generic medicine, perceiving it as being of lower quality and inferior compared to branded drugs. In comparison to branded drugs that are usually developed by bigger pharma laboratories, generics have more advantages as they have the same functional therapeutic value, but at a lower cost and since generics have been introduced in the markets since the early 1970s, customers have several negative beliefs about them in terms of risk, effectiveness and value (Barsky, et al., 2004). The production quality of generics has improved greatly, but consumers still face trust issues and have a reduced willingness to purchase them (Brennan and Lee, 2004). From an international perspective, developed countries use a greater number of generic drugs as compared to the developing or underdeveloped countries. 26% of the pharmaceutical turnover comes from generic drugs in France, while this number is as high as 77% in the United States of America (De Joncheere, 2004). In developing or underdeveloped nations, generic drugs are especially important as they make healthcare affordable and thereby aid in health improvement and development for the general public. Yet, consumer acceptance is very low. Some countries like Tunisia has made huge political efforts to promote generics, but still generics represent just only about 30% of the pharmaceutical market (Ganther and Kreling, 2000). However, there is more research carried out in developed countries, which can lead to more accurate statistics available for them, as opposed to emerging nations (Association for Accessible Medicines, 2020).

## Need and significance

In India once a product has established its brand name and is popular among many, the products are prone to get quickly copied, forged and sold with either same name as a lookalike copy or a minor tweak is done on the name or presentation of the product. The use of generic medicines, compared to their branded counterparts, has the potential to substantially reduce out-of-pocket expenditure on drugs for patients with chronic diseases (Banahan and Kolassa, 1997). In India, however, generic substitution is not a universally accepted practice. This results from various factors including non-availability of generic formulations, distrust of generic medicines by practitioners often due to perceived inferior quality and counterfeiting of drugs (Billa, et al., 2014).

In this context generic and branded drugs are available for treating wide range of ailments as well as for enriching daily diets to have elevated level of micronutrients (Manisha Das, et al., 2017). Implementation of generic prescribing policy is however ongoing in institutional settings, where drugs can be procured in bulk and dispensed from the institutional inventory with appropriate quality control measures. The rich profile of these products in India includes category such as health supplement, vitamins, minerals, cough and cold formulas, antacids. The entry of generic medicines in market brought a revolutionary change in healthcare system and the market share is continuously increasing. The poor and needy sections of the society are getting benefitted because these are authentic, reliable, secure, affordable and accessible for all. Now there is an option available against the high-cost branded medicines.

Government of India is taking lot of steps to promote the availability of generic medicines both in rural and urban areas and also taking steps to aware people that it is equally safe and effective as that of branded medicines.

Many pharmaceutical companies are manufacturing generic medicines and making them available in market through retail outlets. Moreover, the Government has opened thousands of Pradhan Mantri Bhartiya Janaushadhi Kendra (PMBJK) across the country (GOI, 2024) where one can get generic medicines at much lower cost, people are still prefer to purchase branded drugs in the retail pharmacy outlets (Manisha Das, et al. 2017). Thus, the present study has undertaken to know the availability of generic and branded medicines in the market and comparison of purchasing behaviour in generic and branded drugs, reasons for selecting generic or branded medicines available in the market. In this purpose two categories of people have been taken in this study to collect their perceptions, opinions and attitudes towards buyers' behaviour in generic and branded drugs for use, and the other one is pharmacist/chemist, who sells the drugs to the buyers in the open outlets (market). Hence, this study entitled 'Buyer behaviour in Generic and Branded Drugs in the Market – A study with reference to economic dimensions' to meet the following objectives.

### **Objectives of the Study**

The prime objective of the study is to analyse the factors influencing the buyer behaviour of generic drugs with a specific focus on the economic factors. The other objectives set for the research are:

- 1. To study the buyers' perceptions on differences between generic and branded drugs available in the market
- 2. To study the factors determining buyers' behaviour in purchasing of generic and branded drugs
- 3. To examine the determinants buyers behavior in generic and branded drug marker with reference to economic dimensions

## Hypothesis

H<sub>0</sub>: The determinants of economic dimensions of buyers impact on their purchasing behaviour with reference to total expenditure in Generic and Branded Drugs

H<sub>1</sub>: The determinants of economic dimensions of buyers do not impact on their purchasing behaviour with reference to total expenditure in Generic and Branded Drugs

### Methodology

Moreover, the main aim of this research is to study the decision of buyer behaviour in purchasing generic and branded drugs in the market, this section deals with the research design and the methodology adapted to obtained and analyze the research data. Thus, it covers the research method that has been used as a tool in the research analysis, specifically for the purpose of study the objectives and test the hypotheses. Therefore, in this section a detailed discussion on research tool, collection of data, editing, sampling design, defining constructs, deciding measurement scales and statistical methods used for data analysis are presented.

### Study Area

Since, this study has been confined to Andhra Pradesh state as study area, and three districts were selected from each region, i.e. from North Coastal Andhra, South Coastal Andhra and Rayalaseema. From each region one district has been selected on random basis.

Hence, from North Coastal Andhra, Srikakulam district was selected, from South Coastal Andhra, West Godavari district was selected and from Rayalaseema region Kurnool district was selected for this study. While in Srikakulam district Ichapuram, Plalsa, Amudalavalasa, Pathapatam and Stikakulam mandals were selected, in West Godavari district Bheemavaram, Thanuku, Thadepalligudem, Kovvuru and Nallajerla mandals were selected, but in Kurnool district Adhoni, Nadhyala, Guduru, Kurnool and Srisailam mandals were randomly selected. Thus, in this study the subjects are the buyers of drugs (medicines) living in the above said area have been taken under consideration for data collection with the help of questionnaires.

## **Sampling Size**

Since, the study aims to analyse the buyers' behaviour in generic and branded drugs market, here the buyers are the key role players in this regard. Thus, the study selected 600 buyers randomly in the study three districts of Andhra Pradesh state. The questionnaires have been administered to the target samples through hard copies and data were collected with stratified random sampling method, where 5 mandals from each selected district and 40 samples from each selected mandal. Moreover, a stratified random sampling method has been followed in selection of buyers with reference to buyer behaviour of generic and branded drugs, here equal number of samples in all the selected three districts and selected mandals was considered. Hence, the data of 200 samples each from Srikakulam, West Godavari and Kurnool districts was collected for this study.

## **Research Instrument**

The questionnaire is the research instrument used in this study which was designed with specific components relating to buyer behaviour in purchasing of generic and branded drugs that contains 1) Opinion of buyers on Generic drugs, 2) Opinion of buyers on Branded drugs, and 3) Demographic profile of buyers. With reference to perceptions of buyers on generic and branded drugs, five-point Likert scale was used, i.e. Strongly agree=5, Agree=4, Undecided=3, Desagree=2, and Strongly Disagree=1. This tool was adopted from a research work of Mr. Kanthe Rajesh Uttam of Shivaji University has developed the tool under the guidance of Dr. Kodag Vasant and was awarded his Doctorate in the year 2011.

## Data Analysis Technique

After data was collected from the selected respondents of buyer samples it was computed with SPSS software for analysis. For this data was distributed by frequencies and percentages, scored by Likert's scale for rank analysis and descript analysis done by ANOVA test to discriminated the differences among various groups of respondents in their opinions. In addition the above statistics the study also employed the regression model to estimate the determinants of the buyers' behavior in purchasing of generic and branded drugs. In this purpose the total expenditure make of buyers to purchase drugs in a year considered as dependent variable and behavioural aspects of buyers with reference to socio-demographic dimensions are considered as independent variables. Thus, the generated tables are presented in the following and analysed the results of the study objectives.

## Demographic profile of Buyer

The demographic profile of the buyers deals with age, gender, marital status, education, occupation and monthly income levels. Hence, the distribution of the respondents under these demographic variables are presented in the following table and analysed by percentages.

Demographic variables	5 Demographic groups	N Suite a burlant	ame of the Distric	ts V	Total
					112
	Less than 30 years	(16.0)	(10.0)	(21.0)	(18.7)
		(10.0)	(19.0)	(21.0)	1/1
	30 - 40 years	(23.0)	(24.0)	(23.5)	(23.5)
Age		(23.0)	62	(25.5)	(23.3)
	41-50 years	(33.0)	(31.0)	(24.0)	(29.3)
		56	52	63	171
	Above 50 years	(28.0)	(26.0)	(31.5)	(28.5)
		94	89	86	26.5)
Gender	Male	(47.0)	(445)	(43.0)	(44.8)
Gender		106	111	(43.0)	331
	Female	(53.0)	(555)	(57.0)	(55.2)
		(33.0)	68	80	218
	Unmarried	(35.0)	(34.0)	(40.0)	(36.3)
		90	95	(40.0)	258
Marital status	Married	(45.0)	(17.5)	(36.5)	(13.0)
		(45.0)	37	(30.3)	124
	Divorced/Separated	(20.0)	(18.5)	(23.5)	(20.7)
		(20.0)	(18. <i>3</i> ) 59	(23.3)	(20.7)
	Primary	(25.0)	(29.5)	(24.0)	(26.2)
		(25.0)	(29.3)	(24.0)	129
	Secondary	(23.0)	(20.0)	(21.5)	(21.5)
	Intermediate	(23.0)	(20.0)	(21.5)	135
Education		(22.5)	(25.5)	(10.5)	(22.5)
		(22.3)	(23.3)	(19.3)	(22.3)
	Graduation	(15,5)	(12.0)	(18.5)	(15.3)
		(13.3)	(12.0)	(10.3)	(15.5)
	Post graduation	(14.0)	(13.0)	(16.5)	(14.5)
		(14.0)	(13.0)	(10.3)	(14.3)
	Unemployed	30 (10 0)	(21.5)	(17.5)	(10.2)
		(19.0)	(21.3)	(17.3)	(19.5)
	Govt. Employee	(25,5)	(24.0)	(26.5)	(25, 2)
Occupation		(23.3)	(24.0)	(20.3)	(23.3)
	Private Employee	(22.0)	(285)	(25.0)	(21.8)
		(32.0)	(28.3)	(55.0)	(31.8)
	Others	(22.5)	32	42	(22.5)
		(23.5)	(20.0)	(21.0)	(23.5)
	Less than 5,000	18	29	$\frac{21}{(10.5)}$	08
		(9.0)	(14.5)	(10.5)	(11.5)
	Rs.5,000 to 10,000	$\frac{4}{(22.5)}$	(20.5)	32	(22, 2)
Monthly Income		(23.5)	(30.5)	(16.0)	(23.3)
·	Rs.10,000 to 20,000	83	(27.5)	89	247
		(41.5)	(37.5)	(44.5)	(41.2)
	Above 20,000	52	55 (17.5)	58 (20.0)	145
		(26.0)	(17.5)	(29.0)	(24.2)
	Total	200	200	200	600
		(100.0)	(100.0)	(100.0)	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

**Table-1:** Distribution of respondents by their demographic variables

#### Source: Survey data

@ Figures in the brackets are the percentage to their row total

The Table-1 illustrates about the demographic features of respondents and their distribution under various groups. According to the age wise distribution of buyers it shows that in Srikakulam district a dominated group of 33.0 percent are in 41-50 years age group and a minimum group of 16.0 percent are less than 30 years age group.

In West Godavari district a predominant group of 31.0 percent in between 41-50 years age group and a lest number of 19.0 percent are in the age group of less than 30 years. Whereas as in Kurnool district a dominated group of 31.5 percent are in the age group of above 50 years and a minimum group of 21.0 percent are in the less than 30 years age group. With reference to gender wise distribution of buyers, in Srikakulam district 53.0 percent are female and 47.0 percent are male, in West Godavari district 55.5 percent are female and 44.5 percent are male, and in Kurnool district as many as 57.0 percent are female and 43.0 percent are male. The marital status of the drugs buyers revealed that in Srikakulam district majority group of 45.0 percent were married and least group of 20.0 percent are divorced/ separated. In West Godavari district as many as 47.5 percent are married and 18.5 percent are divorced/ separated. Whereas, in Kurnool district a predominant group of 40.0 percent respondents are unmarried and a least number of 23.5 percent are divorced/ separated.

Education qualification of the respondents observed from the study that in Srikakulam district 25.0 percent studied up to primary level, whereas 14.0 percent qualification post graduation. While 29.5 percent respondents in West Godavari district studied up to primary level education, only 12.0 percent qualification graduation. Whereas, in Kurnool district 24.0 percent studied primary level education but 18.5 percent gualified graduation and 16.5 percent gualified post graduation. The occupation-wise distribution of buyers shows that in Srikakulam district dominated group of 32.0 percent are working in private organizations and a minimum number of 19.0 percent are unemployed. In case of West Godavari district majority group of 28.5 percent are working as private employees and least group of 21.5 percent are unemployed. Whereas, in Kurnool district, as many as 35.0 percent are working in private organisations, but 17.5 percent are found without any employees. The monthly income level of the buyers of drugs in this study revealed that in Srikakulam district as many as 41.5 percent are earning between 10-20 thousand rupees per month and 9.0 percent are earning less than 5 thousand rupees. In the case of West Godavari district a dominated group of 37.5 percent earning 10-20 thousand rupees per month and least group of 14.5 percent are earning less than 5 thousand rupees. Whereas in Kurnool district a predominant group of 45.5 percent earning 10-20 thousand rupees per month but a minimum of 10.5 percent earning less than 5 thousand rupees.

Table-2 represents the opinions of buyer about generic drugs. It is observed that 31.7 percent of the respondents strongly agreed and 27.5 percent agreed that generic drugs are less cost, but 13.0 percent disagreed, 10.3 percent strongly disagreed and 17.5 percent neutral about this. Regarding purchasing choice of drugs, it is noticed that 25.7 percent agreed and 20.7 percent strongly agreed that people buy branded drugs only when generic drugs are not available in the pharmacy store, whereas 16.0 percent are strongly disagreed, 15.7 percent disagreed and 22.0 percent neutral in this. While a dominated group of 31.0 percent respondents strongly agreed that doctors never recommend generic drugs to their patients, 13.8 percent disagreed, 11.0 percent strongly agreed and 22.3 percent agreed that generic drugs never cure chronic diseases, but 14.3 percent disagreed and 12.5 percent strongly disagreed and 25.0 percent neutral about this. Since, as many as 29.7 percent respondents agreed followed by 28.0 percent strongly agreed that government promotes generic drugs to benefit the poor people, but 11.8 percent disagreed, 10.3 percent strongly disagreed and 20.2 percent neutral on this.

#### Table-2: Opinion of buyer towards generic drugs

SI. No.	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
1	Jeneric drugs are less cost	62	78	105	165	190	600
1	Jenerie drugs are less cost	(10.3)	(13.0)	(17.5)	(27.5)	(31.7)	(100.0)
2	'eople buy branded drugs only when generic	96	94	132	154	124	600
4	lrugs are not available in the pharmacy store	(16.0)	(15.7)	(22.0)	(25.7)	(20.7)	(100.0)
3	Octors never recommend generic drugs to	66	83	102	163	186	600
3	heir patients	(11.0)	(13.8)	(17.0)	(27.2)	(31.0)	(100.0)
4	Conoria druga novar aura abronia diagona	75	86	150	134	155	600
4	seneric drugs never cure chronic diseases	(12.5)	(14.3)	(25.0)	(22.3)	(25.8)	(100.0)
5	Jovernment promote generic drugs to	62	71	121	178	168	600
3	enefit the poor people only	(10.3)	(11.8)	(20.2)	(29.7)	(28.0)	(100.0)
	Jnless branded drugs are available at the	81	100	108	167	144	600
6	harmacy store chemist recommend generic	(13.5)	(16.7)	(18.0)	(27.8)	(24.0)	(100.0)
	rugs	(13.3)	(10.7)	(10.0)	(27.0)	(24.0)	(100.0)
7	30th generic and branded drugs give equal	42	50	96	187	225	600
/	esults in curing disease	(7.0)	(8.3)	(16.0)	(31.2)	(37.5)	(100.0)
8	'eople prefer generic drugs only for general	47	65	100	198	190	600
0	ealth problems	(7.8)	(10.8)	(16.7)	(33.0)	(31.7)	(100.0)
0	Jeneric drugs available only in limited	51	54	95	175	225	600
9	tores	(8.5)	(9.0)	(15.8)	(29.2)	(37.5)	(100.0)
10	Conoria drugs give loss profits to the caller	60	68	82	182	208	600
10	seneric drugs give less promis to the sener	(10.0)	(11.3)	(13.7)	(30.3)	(34.7)	(100.0)

Source: Survey data

@ Figures in the brackets are the percentage

Te data reveals that 27.8 percent respondents agreed and 24.0 percent strongly agreed that chemist recommend generic drugs at the pharmacy store when branded drugs are not available, whereas 16.7 percent disagreed, 13.5 percent strongly disagreed and 18.0 percent fond neutral about this. From the data 37.5 percent strongly agreed and 31.2 percent agreed that both generic and branded drugs give equal results in curing disease, but 8.3 percent disagreed, 7.0 percent strongly disagreed and 16.0 percent neutral about this. It has also noticed that 33.0 percent of respondents strongly agreed and 31.7 percent agreed that people prefer generic drugs only for general health problems, whereas 10.8 percent disagreed, 7.8 percent strongly disagreed and 16.7 percent neutral for this. According to the data it is observed that majority group of 37.5 percent strongly agreed followed by 29.2 percent agreed that generic drugs availability only in limited stores, but 9.0 percent disagreed, 8.5 percent strongly disagreed and 30.3 percent neutral on this. Moreover, 34.7 percent of the respondents strongly agreed and 30.3 percent agreed that the generic drugs give less profits to the seller, 11.3 percent disagreed, 10.0 percent strongly disagreed and 13.7 percent strongly agreed and 30.3 percent strongly disagreed and 13.7 percent strongly agreed and 30.3 percent strongly disagreed and 13.7 percent strongly agreed and 30.3 percent strongly disagreed and 13.7 percent strongly disagreed and 30.3 percent strongly disagreed and 13.7 percent strongly agreed that the generic drugs give less profits to the seller, 11.3 percent disagreed, 10.0 percent strongly disagreed and 13.7 percent neutral about this.

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SI. No.	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
	Scale Value (SV)	1	2	3	4	5	
1	Generic drugs are less cost	62	78	105	165	190	600
	Frequency x Scale Value	62	156	315	660	950	2143-V
2	People buy branded drugs only when generic drugs are not available in the pharmacy store	96	94	132	154	124	600
	Frequency x Scale Value	96	188	396	616	620	1916-X
3	Doctors never recommend generic drugs to their patients	66	83	102	163	186	600
	Frequency x Scale Value	66	166	306	652	930	2120-VI
4	Generic drugs never cure chronic diseases	75	86	150	134	155	600
	Frequency x Scale Value	75	172	450	536	775	2008-VIII
5	Government promote generic drugs to benefit the poor people only	62	71	121	178	168	600
	Frequency x Scale Value	62	142	363	712	840	2119-VII
	Unless branded drugs are available at the						
6	pharmacy store chemist recommend generic drugs	81	100	108	167	144	600
	Frequency x Scale Value	81	200	324	668	720	1993-IX
7	Both generic and branded drugs give equal results in curing disease	42	50	96	187	225	600
	Frequency x Scale Value	42	100	288	748	1125	2303-I
8	People prefer generic drugs only for general health problems	47	65	100	198	190	600
	Frequency x Scale Value	47	130	300	792	950	2219-III
9	Generic drugs available only in limited stores	51	54	95	175	225	600
	Frequency x Scale Value	51	108	285	700	1125	2269-II
10	Generic drugs give less profits to the seller	60	68	82	182	208	600
	Frequency x Scale Value	60	136	246	728	1040	2210-IV
	Total Score						21300
	Maximum Possible Score	5 (Maximum score points) 600 (number of respondent X 10 (number of statements)					
	Percentage of score	Total sco	re of buyers Possible	on generic e Score X 1	drugs/Ma	aximum	71.0
	Average	То	otal score / N	umber of s	statements	5	2130.0

Table-3: Perceptive score analysis on the opinions of buyers towards generic drugs

#### Source: Survey data

The perceptive score analysis on opinion of buyers towards generic drugs is presented in the Table-3. In this part of generic drug specifications there are 10 statements and each one carrying the opinions of buyers. According to the opinions each statement has been scored with the help of five-point Likert's scale and based on the score each one has given a rank. Hence, the rank order priority of buyers towards the statements showed in the table are analysed with their score values.

According to the score values it is noticed that the 1<sup>st</sup> rank is given to the statement 'Both generic and branded drugs give equal results in curing disease' with a score value 2303, followed by the 2<sup>nd</sup> rank which is given to the statement 'Generic drugs available only in limited stores' with a score value 2269. In this order the 3<sup>rd</sup> is given to the statement 'People prefer generic drugs only for general health problems' which is secured a score value of 2219, 4<sup>th</sup> ranks are given to the statements 'Generic drugs give less profits to the seller' with score value of 2210. It is found that the 5<sup>th</sup> rank is given to 'Generic drugs are less cost' with score value 2145, the 6<sup>th</sup> rank is given to the statement 'Doctors never recommend generic drugs to their patients' with score value 2120.

The 7<sup>th</sup> rank is given to the statement 'Government promote generic drugs to benefit the poor people only' with a score value 2119, 8<sup>th</sup> rank is given to the statement 'Generic drugs never cure chronic diseases' which is secured a score value of 2008, 9<sup>th</sup> rank is given to the statement 'Unless branded drugs are available at the pharmacy store chemist recommend generic drugs' which is carrying a score value of 1993 and the 10<sup>th</sup> rank is given to the statement 'People buy branded drugs only when generic drugs are not available in the pharmacy store' with a score value 1916. According to the scores of the ten statements the total score obtained was 21300 and the average score is 2130.0. Hence, the statements are separated by more positive and less positive statements according to their individual scores and presented in the following.

Particulars	Category	Ν	Mean	Std dev	Std Err	f- value	p-value
Districts	Srikakulam	200	35.48	4.581	0.324		
	West Godavari	200	35.89	4.838	0.342	1.114	0.329
	Kurnool	200	35.14	5.528	0.391		
	Less than 30 years	112	36.02	4.356	0.412		
1 22	30 - 40 years	141	35.62	5.131	0.432	0.640	0 5 9 4
Age	41-50 years	176	35.24	5.075	0.383	0.649	0.584
	Above 50 years	171	35.33	5.215	0.399		
Condon	Male	269	35.77	4.781	0.291	1 / 1 9	0.234
Gender	Female	331	35.28	5.167	0.284	1.418	
	Unmarried	218	35.65	5.163	0.350		
Marital Status	Married	258	35.42	5.065	0.315	0.147	0.863
	Divorced/Separated	124	35.41	4.587	0.412		
	Primary	157	35.55	5.172	0.413		0.336
Educational	Secondary	129	35.94	4.930	0.434		
Qualification	Inter	135	35.50	5.077	0.437	1.142	
Quanneation	Degree	92	35.73	4.531	0.472		
	Post - Graduation	87	34.52	5.117	0.549		
	Unemployed	116	35.59	4.969	0.461		
Occupation	Govt.Employee	152	34.96	4.862	0.394	0.807	0.400
Occupation	Private Employee	191	35.70	4.732	0.342	0.807	0.490
	Others	141	35.74	5.508	0.464		
	Less than 5,000	68	34.28	4.892	0.593		
Annual Incoma	Rs.5,000 to 10,000	140	36.08	4.768	0.403	5 765**	0.001
Annual Income	Rs.10,000 to 20,000	247	36.15	5.020	0.319	5.705***	0.001
	Above 20,000	145	34.41	4.991	0.414		
Total		600	35.50	4.999	0.204		

 Table-4: Perceptive score difference among various demographic group buyer on opinions towards generic drugs

\*\*significant@1%level

The Table-4 shows the perceptive score differences among various demographic group buyers on opinions towards generic drugs. It is noticed from the data that among various districts the average perceived score of West Godavari respondents (35.89) found highest and the lowest average score perceived by Kurnool district respondents (35.14) and their standard deviations are 4.838 and 5.528 respectively. With the mean and standard deviation differences of various districts group respondents the calculated f-value 1.114 does not indicate any significant result because the p-value 0.329 is higher than 0.05. This infers that there is no significant difference in the opinions of various study districts' buyers on generic drugs.

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With reference to age groups the average score perceived by less than 30 years respondents (36.02) found highest than the other groups and the lowest average score perceived by 41-50 years age group respondents (35.24), and their standard deviations are 4.356 and 5.075 respectively. With the mean and standard deviation differences of various age groups respondents the calculated f-value 0.649 does not indicate significance because p-value 0.584 is higher than 0.05. This infers that age is not a factor to determine the opinion of buyers towards generic drugs. Whereas between gender groups of the buyers, it is found that the average perceived score of male (35.77) is higher than the average perceived score of female (35.28) and their respective standard deviations are 4.781 and 5.167. But the calculated f-value 1.418 indicate no significance result because the p-value 0.234 is higher than 0.05. This infers that gender dose not determine the opinions of buyers on generic drugs.

According to the marital status of the respondents the average perceived score of unmarried (35.65) found higher than the other groups and least average score (35.41) was perceived by divorced/separated and their standard deviations are 5.163 and 4.587 respectively. With the mean and standard deviation differences of various marital status groups the calculated f-value 0.147 not indicate significance result because the p-value 0.863 is higher than 0.05. This infers that marital status does not influence the opinions of buyers on generic drugs.

The perceptive score of various education qualification groups of buyers, the average score of secondary level study group (35.94) found higher than other groups and the average score of post graduation group (34.52) found least, and the standard deviation of these two groups are 4.930 and 5.117 respectively. According to the mean and standard deviation differences among various groups of education levels the calculated f-value 1.142 did not indicate significance result because the p-value 0.336 is higher than 0.05. This infers that buyers opinion on generic drugs does not influenced by their education qualification.

Regarding to the average perceptive scores of various occupation group buyers, it shows that other occupation group (35.74) found highest and government employees found least (34.96), and their standard deviations are 5.508 and 4.969 respectively. With these mean and standard deviation differences of the groups the calculated f-value 0.807 found no significance result because p-value 0.490 is higher than 0.05. This shows that occupation of respondents does not determine the opinions of buyers in purchasing of generic drugs.

Whereas, the perceptive scores of various income level group buyers it is found that the average perceptive score of less than 5 thousand rupees income group found minimum (34.28) and the average score of 10 to 20 thousand rupees income group found maximum (36.15), and their respective standard deviations of the groups are 4.892 and 5.020. In this regard the calculated f-value 5.765 indicate significance at 1% level because the p-value 0.001 is lesser than 0.01. This infers that the opinions of buyers on generic drugs influenced by their annual income level, where middle income groups found more positive towards generic drugs than others.

SI. No.	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
1	Pronded drugs are well tested	53	74	112	149	212	600
1	Branded drugs are well tested	(8.8)	(12.3)	(18.7)	(24.8)	(35.3)	(100.0)
$\mathbf{r}$	Prended drugs are continer than others	63	68	95	171	203	600
L	Branded drugs are costiler than others	(10.5)	(11.3)	(15.8)	(28.5)	(33.8)	(100.0)
2	Duran da di durana alimana anfa ta man	71	78	108	159	184	600
3	Branded drugs arways sale to use	(11.8)	(13.0)	(18.0)	(26.5)	(30.7)	(100.0)
4	Deeple trust most on branded drugs	50	69	92	170	219	600
4	People trust most on branded drugs	(8.3)	(11.5)	(15.3)	(28.3)	(36.5)	(100.0)
5	Branded drugs give better results than	48	52	90	188	222	600
5	others	(8.0)	(8.7)	(15.0)	(31.3)	(37.0)	(100.0)
6	Doctors and health professionals always	54	78	106	161	201	600
0	recommend branded drugs	(9.0)	(13.0)	(17.7)	(26.8)	(33.5)	(100.0)
7	Branded drugs are clinically tested before	40	48	86	180	246	600
/	they come to market	(6.7)	(8.0)	(14.3)	(30.0)	(41.0)	(100.0)
0	Branded drugs give more profits to the	66	59	80	194	201	600
ð	seller	(11.0)	(9.8)	(13.3)	(32.3)	(33.5)	(100.0)
	Unless branded drugs are available at the	17	70	110	157	206	600
9	pharmacy store people never buy generic	47 (7 9)	(12)	(10.7)	(26.2)	(24.3)	(100.0)
	drugs	(7.8)	(12.0)	(19.7)	(20.2)	(34.3)	(100.0)
10	Branded drugs are available in all medical	28	71	61	187	253	600
10	stores	(4.7)	(11.8)	(10.2)	(31.2)	(42.2)	(100.0)

#### Table-5: Opinion of buyers on branded drugs

Source: Survey data ; @ Figures in the brackets are the percentage

Table-5 represents the opinions of buyers towards branded drugs. According to the data, a dominated group of 35.3 percent respondents strongly agreed followed by 24.8 percent agreed that branded drugs are well tested in the labs, whereas 12.3 percent disagreed, 8.8 percent strongly disagreed and 18.7 percent neutral in this regard. It is found that a predominant group of 33.8 percent respondents strongly agreed followed by 28.5 percent agreed that branded drugs are costlier than generic drugs, but 11.3 percent disagreed, 10.5 percent strongly disagreed and 15.8 percent neutral about this. It was noticed that as many as 30.7 percent respondents strongly agreed that branded drugs are always safe to use, whereas 13.0 percent disagreed, 11.8 percent strongly disagreed and 18.0 percent neutral on this. The data also observed that 36.5 percent respondents strongly agreed and 28.3 percent agreed that people trust most on branded drugs, whereas 11.5 percent disagreed, 8.3 percent strongly agreed and 15.3 percent neutral about this. It has been noticed from the data that 37.0 percent of the respondents strongly agreed and 31.3 percent agreed that the branded drugs give better results than other drugs, but 8.7 percent disagreed, 8.0 percent strongly disagreed and 15.0 percent neutral on this.

According to the data it is found that 33.5 percent of the respondents strongly agreed followed by 26.8 percent agreed that doctors and health professionals always recommended branded drugs, whereas 13.0 percent disagreed, 9.0 percent strongly disagreed and 17.7 percent neutral on this. It is observed that as many as 41.0 percent respondents strongly agreed and 30.0 percent agreed that branded drugs are clinically tested before they come to market, but 8.0 percent disagreed, 6.7 percent strongly disagreed and 14.3 percent found neutral about this. It is noticed that 33.5 percent of respondents strongly agreed and 32.3 percent agreed that branded drugs give more profits to the seller, whereas 11.8 percent strongly disagreed, 9.8 percent disagreed and 13.3 percent neutral in this regard.

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While a majority group of 34.3 percent respondents strongly agreed and 26.2 percent agreed that people never buy generic drugs, unless branded drugs are available at the pharmacy store, but 12.0 percent disagreed, 7.8 percent strongly disagreed and 19.7 percent found neutral. Moreover, 42.2 percent respondents strongly agreed and 31.2 percent agreed that branded drugs are available in all medical stores, 11.8 percent disagreed, 4.7 percent strongly disagreed and 10.2 percent neutral about this.

SI. No.	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total	
	Scale Value (SV)	1	2	3	4	5		
1	Branded drugs are well tested	53	74	112	149	212	600	
	Frequency x Scale Value	53	148	336	596	1060	2193-VIII	
2	Branded drugs are costlier than others	63	68	95	171	203	600	
	Frequency x Scale Value	63	136	285	684	1015	2183-IX	
3	Branded drugs always safe to use	71	78	108	159	184	600	
	Frequency x Scale Value	71	156	324	636	920	2107-X	
4	People trust most on branded drugs	50	69	92	170	219	600	
	Frequency x Scale Value	50	138	276	680	1095	2239-IV	
5	Branded drugs give better results than others	48	52	90	188	222	600	
	Frequency x Scale Value	48	104	270	752	1110	2284-III	
6	Doctors and health professionals always recommend branded drugs	54	78	106	161	201	600	
	Frequency x Scale Value	54	156	318	644	1005	2177-VII	
7	Branded drugs are clinically tested before they come to market	40	48	86	180	246	600	
	Frequency x Scale Value	40	96	258	720	1230	2344-II	
8	Branded drugs give more profits to the seller	66	59	80	194	201	600	
	Frequency x Scale Value	66	118	240	776	1005	2205-V	
9	Unless branded drugs are available at the pharmacy store people never buy generic drugs	47	72	118	157	206	600	
	Frequency x Scale Value	47	144	354	628	1030	2203-VI	
10	Branded drugs are available in all medical stores	28	71	61	187	253	600	
	Frequency x Scale Value	28	142	183	748	1265	2366-I	
	Total Score						22301	
	Maximum Possible Score	5 (Maximum score points) 600 (number of respondents) X 10 (number of statements)						
	Percentage of score	Total score of	f buyer on br Sco	anded drug ore X 100	s/Maxim	um Possible	74.3	
	Average	Т	otal score / N	lumber of s	tatements	ł	2230.1	

#### Source: Survey data

The perceptive score analysis on opinion of buyers towards branded drugs is presented in the Table-6. In this aspect of buyer behavior on branded drugs there are 10 statements and each one perceived the opinions of the respondents. According to the opinions of the buyer each statement has been scored with the help of five-point Likert's scale and ranks have been given by their respective scores. Hence, the rank order analysis of buyer behavior on branded drugs presented and discussed in the following with their respective score values.

According to data the 1<sup>st</sup> rank is given to the statement 'Branded drugs are available in all medical stores' with a score value 2366, followed by the 2<sup>nd</sup> rank which is given to the statement 'Branded drugs are clinically tested before they come to market' with a score value 2344.

In this order the 3<sup>rd</sup> is given to the statement 'Branded drugs give better results than others' which is secured a score value of 2284, 4<sup>th</sup> ranks are given to the statement 'People trust most on branded drugs' with score value of 2239. In this process the 5<sup>th</sup> rank is given to 'Branded drugs give more profits to the seller' with score value 2205 and the 6<sup>th</sup> rank is given to the statement 'Unless branded drugs are available at the pharmacy store people never buy generic drugs' with score value 2203. The 7<sup>th</sup> rank is given to the statement 'Doctors and health professionals always recommend branded drugs' with a score value 2177, 8<sup>th</sup> rank is given to the statement 'Branded drugs are well tested' which is secured a score value of 2193, 9<sup>th</sup> rank is given to the statement 'Branded drugs are costlier than others' which is carrying a score value of 2183 and the 10<sup>th</sup> rank is given to the statement 'Branded drugs are costlier than others' is 30000, the obtained total score was 22301. Therefore, the average score is 2230.1, which is 74.3 percent of the maximum score.

The Table-7 shows the perceptive score differences among various demographic group buyers on their opinions towards branded drugs. It is noticed from the data that among buyers of various districts the average perceived score of West Godavari (38.17) found highest than other districts and the lowest average score perceived by Kurnool (36.64) and their standard deviations are 4.190 and 4.132 respectively. With the mean and standard deviation differences of various districts' respondents the calculated f-value 8.416 indicate significance at 1% level because the p-value 0.000, which is lesser than 0.01. This infers that there is a significant difference in the opinions of buyers from various study districts on branded drugs, here West Godavari buyers for more positive towards branded drugs the Kurnool district buyers found least in this regard.

The opinion scores of various age group respondents towards branded drugs it shows that the average score perceived by less than 30 years age group respondents (37.46) found higher than other groups and the lowest average score perceived by above 50 years age group (36.99), and their standard deviations are 4.642 and 4.261 respectively. With the mean and standard deviation differences of various age group respondents the calculated f-value 0.426 does not indicate significance because the p-value 0.735 is higher than 0.05. This infers that age is not a factor to determine the opinions of buyers on branded drugs.

With reference to gender group of the buyers it is found that the average perceived score of male (37.37) is higher than the average perceived score of female (37.01) and their respective standard deviations are 4.239 and 4.282. But the calculated f-value 1.070 indicate no significance result because the p-value 0.301 is higher than 0.05. This infers that there is no significant difference between male and female buyers towards branded drugs.

Particulars	Category	Ν	Mean	Std	Std	f- value	n-value	
		11		dev	Err	I vuitue	<b>F</b>	
<b>D</b>	Srikakulam	200	36.71	4.309	0.305			
Districts	West Godavari	200	38.17	4.190	0.296	8.416**	0.000	
	Kurnool	200	36.64	4.132	0.292			
	Less than 30 years	112	37.46	4.642	0.439			
<b>A</b> = =	30 - 40 years	141	37.35	3.804	0.320	0.426	0 725	
Age	41-50 years	176	37.01	4.380	0.330	0.420	0.755	
	Above 50 years	171	36.99	4.261	0.326			
Condon	Male	269	37.37	4.239	0.258	1.070	0.201	
Gender	Female	331	37.01	4.282	0.235	1.070	0.501	
	Unmarried	218	37.16	3.874	0.262			
Marital Status	Married	258	37.23	4.592	0.286	0.063	0.939	
	Divorced/Separated	124	37.06	4.236	0.380			
	Primary	157	37.27	4.036	0.322			
Educational	Secondary	129	37.04	4.713	0.415		0.701	
Qualification	Inter	135	37.07	4.286	0.369	0.547		
Quanneation	Degree	92	37.66	4.160	0.434			
	Post - Graduation	87	36.79	4.072	0.437			
	Unemployed	116	37.60	4.088	0.380			
Occurrentier	Govt.Employee	152	37.03	3.982	0.323	0.500	0 (77	
Occupation	Private Employee	191	37.10	4.433	0.321	0.508	0.077	
	Others	141	37.04	4.478	0.377			
	Less than 5,000	68	36.66	4.294	0.521			
A	Rs.5,000 to 10,000	140	37.67	4.357	0.368	2 201	0.076	
Annual Income	Rs.10,000 to 20,000	247	37.40	4.139	0.263	2.301	0.076	
	Above 20,000	145	36.53	4.308	0.358			
Total		600	37.17	4.263	0.174			

**Table-7:** Perceptive score difference among various demographic group buyer on their opinions towards branded drugs

\*\*significant@1%level

Among various marital status group respondents the average perceived score of married (37.23) found higher than the other groups and least average score (37.06) perceived by divorced/separated and their standard deviations are 4.592 and 4.236 respectively. With the mean and standard deviation differences of various marital groups the calculated f-value 0.063 not indicate significance result because the p-value 0.939 is higher than 0.05. This infers that marital status does not influence the opinions of buyers towards generic drugs.

Regarding the perspective scores of various education qualification group buyers, it is found that the average score of degree qualified group (37.66) was found highest and the average score of post graduation qualified group (36.79) was least, and the standard deviation of these two groups are 4.160 and 4.072 respectively. According to the mean and standard deviation differences of various education qualification groups the calculated f-value 0.547 did not indicate significance result because the p-value 0.701 is higher than 0.05. This infers that opinions of buyers on branded drugs do not determined by their education qualification.

With reference to perceptive scores of various occupational group respondents, the average score of unemployed group (37.60) found higher than other groups and government employees found least (37.03), and their standard deviations are 4.088 and 3.982 respectively. With the means and standard deviations differences of various occupation group buyers the calculated f-value 0.508 found no significance because the p-value 0.677 is higher than 0.05. This shows that occupation of buyers does not influence their opinion on branded drugs.

Finally the average perceived scores of various income level group buyers revealed that the average score of above 20 thousand rupees income group found minimum (36.53) and the average score of 5 to 10 thousand rupees income group found maximum (37.67), and their respective standard deviations of the groups are 4.308 and 4.357. In this regard the calculated f-value 2.301 indicate no significance result because the p-value 0.076 is higher than 0.05. This infers that annual income levels of the buyers do not influence their opinions on branded drugs.

## Determinants of buyer behavior in the Generic and Branded Drugs Market

Buyer behavior refers to the decision and acts of people undertake to purchase products or services for individual or group who use. It's synonymous with the term "consumer buying behavior," which often applies to individual customers in contrast to businesses of a product. Buyer behavior is the driving force behind any marketing process. Here in this study the buyer behavior in purchasing generic and branded drugs has estimated with reference to various determinants or the factors influenced. In this purpose regression method has been adopted to estimate the determinants of buyer behavior in the generic and branded drugs market.

## **Regression Analysis Model**

In this regression analysis the researcher estimated the determinants of buyer behavior in generic and branded drugs market with special reference to economic dimensions. In this model the total expenditure of the buyer on the purchasing of generic and branded drugs has taken dependent variable, where the actual expenditure made by the buyer on branded and generic medicines in the open outlets of the pharmacists and chemists in the market. Whereas price, quality, quantity, reliability, discounts and incentives, product availability, employment status of the buyer, economic status of the buyer, and family size have measured by index and taken as independent variables.

Total number of respondents in the selected area (N=600)

Determinants of buyer behavior in Generic and Branded Drugs:

 $Y = a + x_1b_1 + x_2b_2 + x_3b_3 + x_4b_4 + x_5b_5 + \dots Model$ 

Multiple Regression Model  $Y=a+x_1b_1+x_2b_2+x_3b_3+x_4b_4+x_5b_5+\dots$ 

- Dependent Variable: Y = Total expenditure incurred on purchase of generic and branded drugs Independent Variables:
- x<sub>1</sub>-> Price of drug Quantitative variable, which is indexed by Likerts' Scale value (5 through 1) against Very high, High, Average, Low and Very low responses of buyers has considered
- x<sub>2</sub> -> Quality of drug Quantitative variable, indexed by Likerts' Scale value (5 through 1) against Very high, High, Average, Low and Very low responses of buyers has considered
- x<sub>3</sub> -> Quantity of drug Quantitative variable, indexed by Likerts' Scale value (5 through 1) against Very large, Large, Average, Less and Very less purchase of buyers has considered
- x<sub>4</sub> -> Reliability of drug Rank variable, where More reliable ranked as 3, Reliable ranked as 2, and Less reliable has given rank with 1
- x<sub>5</sub> -> Discounts and incentives Quantitative Variable measured by actual value of discount or the incentives given on drugs
- x<sub>6</sub> -> Product availability Dummy variable, where Available valued by 2, No stock or Not available valued by 0 and Not sure valued by 1
- $x_7 \rightarrow$  Employment status of the buyer Dummy variable (1-Employee or Earning member, 0-Unemployee)
- $x_8$  -> Economic status of the buyer Quantitative variable measured by actual monthly income levels of the buyer
- $x_9$  -> Family size Quantitative variable measured by actual members living in a house

Regression Summary for Dependent Variable: Total expenditure on drugs R= .99054769 R <sup>2</sup> = .98118473 Adjusted R <sup>2</sup> = .98014330 F(9,291)=942.15 p<0.0000 Std. Error of estimate: .40657										
BetaSt. Err. of BetaBSt. Err. of Bt(571)p-l										
Intercept			1.274	0.380	3.349	0.001				
Price of drugs	0.017	0.009	0.061	0.031	1.969*	0.045				
Quality of drug	0.000	0.008	0.003	0.051	0.056	0.955				
Quantity of drug	0.037	0.009	0.241	0.057	4.243**	0.000				
Reliability of drug	0.042	0.048	0.059	0.067	0.884	0.377				
Discount and incentives	0.238	0.028	0.363	0.043	8.521**	0.000				
Product availability	0.019	0.009	0.076	0.038	1.996*	0.047				
Employment status	0.261	0.039	0.413	0.062	6.664**	0.000				
Economic status	0.296	0.031	0.649	0.068	9.566**	0.000				
Family size	0.132	0.024	0.165	0.030	5.433**	0.000				

 Table-14: Determinants of buyer behavior in the Generic and Branded Drugs Market with special reference to Economic Dimensions

\*significant@1%level, \*\*significant@5%level

Price of drug is a quantitative variable estimated by value or cost in rupees is expected to be a significant relation with total expenditure on the Generic and Branded drugs. In the regression analysis it is found significant at 5% level because the t-value is 1.969 and the p-value is 0.045. This can be inferred that the higher the price of drugs leads to more expenditure on Generic and Branded drugs and the lesser the price of drug leads to lesser the total expenditure on the Generic and Branded drugs. This may be due to their experience in purchasing behavior of the buyer in the Generic and Branded drugs market.

Quality of drug is a quantity variable and specifies the level of quality measured by the buyer with Likert's scale. It takes value 1 for low quality drug and 5 for high quality drug. It is found that there is no impact of quality of drug on the purchasing behavior of the buyer in the Generic and Branded drugs where the t-value 0.056 is not significant because the p-value is 0.955. This shows that there is no significant relationship between the quality of the drug and total expenditure on the Generic and Branded drugs because whatever the quality of drug the buyer purchase according to the prescription of the doctor.

Quantity of drug is a measurable variable and specifies the quantity that how much the buyer is going to purchase and calculated with Likert's scale. It takes value 1 for very less quantity drugs and 5 for very large quantity drugs. It is expected to have a positive relation with the purchasing behavior of the buyer in Generic and Branded drugs, which indicates 1% significant, where the t-value 4.243 and p-value 0.00. This infers that the buyer who purchase larger and larger quantity of drugs found expend more and more amount towards Generic and Branded drugs.

Reliability of the drug is a variable which has estimated by ranks, where more reliable ranked as 3, reliable ranked as 2, and less reliable has given rank with 1. The reliability of the drug is expected to have a positive relationship with total expenditure of the buyers on Generic and Branded drugs, but it is no indicate any significance. Here the regression coefficient of t-value 0.884 is not a significant value because the p-value is 0.337. Hence it is expected that the reliability of the drug does not influence the buyers' purchasing behavior in Generic and Branded drugs market.

Discount and incentives on the drugs is a quantitative variable measured by actual value of discount or the incentives given on the drugs purchased. It is expected to have a positive relation with the total expenditure done by the buyers on Generic and Branded drugs, where Discount and incentives on the drugs are showing positive relationship with total expenditure of the buyer on drugs. Here the regression coefficient shows that t-value is 8.521 found significant at 1% level because the p-value is 0.00.

Product availability is a dummy variable, where available of drug at the chemist valued as 2, no stock or not available valued as 0 and not sure of availability valued as 1. Here the regression coefficient of t-value indicates positive significance at 5% level with 1.996 and the p-value is 0.047. In this case the attitude of chemists on availability of Generic and Branded drug in the market or the retail outlet shows more positive with increase more and more expenditure on the Generic and Branded drugs by the buyers.

Employment status of the buyer is a dummy variable, where 1 is valued to the buyer, who is an employee or earning member and 0 is valued to the un-employee or the non-earning buyer of the Generic and Branded drugs. Here it is expected to be a positive significant relation with total expenditure of the buyer on Generic and Branded drugs. In this estimation the regression coefficient of t-value is 6.664 which found significant at 1% level because p-value is 0.000. This infers that employment status of the buyer determines the behavior in purchasing Generic and Branded drugs in the market.

Economic status is a quantitative variable measured by actual monthly income levels of the buyer, where actual salary or the income acquired by the buyer is considered. Here the economic status of buyer is expected to be positive relationship with behavior of buyer in Generic and Branded drugs market. In the above regression table the co-efficient of t-value 9.566 is indicating significance at 1% level because the p-value is 0.00. It shows that more and more the economic status of the buyer indicates more positive attitude towards buying behavior in Generic and Branded drugs.

Family size refers to the quantitative variable measured by actual members living in the house of the Generic and Branded drugs buyer. This variable is expected to be a significant relation with the purchasing behavior of the buyer in Generic and Branded drugs, where the regression coefficient of t-value 5.433 indicates significant at 1% level because the p-value is 0.00. This infers that the more the family size of the buyer leads to influence the behavior in Generic and Branded drugs market and increase the total expenditure in drugs.

In this model of linear multiple regressions is best fit to measure the influence of economic dimension variables of buyers on their attitude towards purchase of Generic and Branded drugs. This is because the F-value in this regression is 942.15 which is satisfactorily significant at 1% level. This model also explains  $R^2$  at 98.01% of variation. In this model of regression analysis out of the total 9 explanatory variables as many as 7 variables are found to be significant, but two variables i.e. quality of drug and reliability of drug are not significant. The significant variables are price, quantity, discounts and incentives, product availability, employment status of the buyer, economic status of the buyer, and family size which are indicating significant at 1% level and 5% level.

## DISCUSSION

Since, the main aim of this study is to examine the determinants of buyers' behaviour in purchasing of generic and branded drugs in the open market, the perceptions of the buyers about the generic drugs revealed that 68.7 percent opined both generic and branded drugs give equal results in curing disease, moreover 66.7 percent felt generic drugs available only in limited stores.

While 65.0 percent of the buyers opined that generic drugs give less profits to the seller, 64.7 percent felt that people prefer generic drugs only for general health problems because 59.2 percent felt generic drugs are less cost. Moreover, 57.7 percent buyers opined that government promote generic drugs to benefit the poor people only, 58.2 percent buyers felt doctors never recommend generic drugs to their patients. It is observed that 51.8 percent buyers felt chemist recommend generic drugs only when branded drugs are not available at the pharmacy stores. Since, 48.1 percent buyers felt generic drugs never cure chronic diseases, 46.4 percent opined people buy branded drugs only when generic drugs are not available in the pharmacy store. On the other hand the perceptions of the buyers towards branded drugs revealed that 73.4 percent of the buyers opined branded drugs are available in all medical stores. While 71.0 percent of the buyers opined branded drugs are clinically tested before they come to market, 68.3 percent felt branded drugs give better results than others. Therefore, 64.8 percent of the buyers agreed that people trust most on branded drugs. Moreover, 65.8 percent of the buyers felt branded drugs give more profits to the seller, 60.5 percent buyers opined people never buy generic drugs, unless branded drugs are available at the pharmacy store. While 60.3 percent buyers opined that doctors and health professionals always recommend branded drugs, 60.1 percent felt branded drugs are well tested in the clinical labs. This is why 62.3 percent buyers opined branded drugs are costlier than others and 57.2 percent felt branded drugs always safe to use.

With reference to buyers' behaviour towards generic drugs it is observed that there is no significant difference between and with the groups of districts, age, gender, marital status, education qualification and occupation, whereas there is a significant difference found among the groups of buyers depending on their annual income levels, where middle income groups found more positive attitude towards generic drugs than higher income group and lower income groups. On the other hand the buyers' behaviour towards branded drugs it is observed that there is no significant difference found between and with the groups of age, gender, marital status, education qualification, occupation and income levels, but it is found significant difference among the buyers of selected three districts, where West Godavari district buyers observe more positive towards branded drugs than buyers of other districts.

## CONCLUSION

On the whole the study shows that the impact of socio-economic dimensions of buyer behavior in generic and branded drug market determine the total expenditure incurred in purchasing of medicines. In this point of observation it is found that the variables like price and quality of the medicine, discounts and incentives on the products, and product availability are the main influenced factors of buyers' behavior. In addition to these the employment status and economic status of the buyer, and family size also influence more on the purchasing generic and branded drugs in the market.

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