

# Consumer Perception of Generic Drugs in Comparison to Branded Drugs: A qualitative Study

Ruta Joshi<sup>1\*</sup>, Aradhna Gandhi<sup>2</sup>

<sup>1,2</sup>Symbiosis Centre for Management and Human Resource Development, SCMHRD, Symbiosis International (Deemed University), SIU, Hinjewadi, Pune, Maharashtra, India

Email : <sup>1</sup>ruta\_joshi@scmhrd.edu, <sup>2</sup>aradhana\_gandhi@scmhrd.edu

## ABSTRACT

**Purpose:** The purpose of this paper is to determine if consumer perception of generic drugs is equivalent to their perception of branded drugs. The authors hypothesize that consumers have a preference for branded drugs over generics as they are perceived to be of a better quality due to marketing, promotions and advertising. This is despite their awareness that generic drugs are more economical. Furthermore, individuals seem to have developed a habit of using certain brand-names and are reluctant to make a switch to generics.

**Proposed Design/Methodology/Approach:** Qualitative in-depth interviews were conducted with 15 respondents from various cities in India to understand their lived experiences related to the purchase of drugs.

**Practical implications:** Generic drug manufacturers could gain a lot of insights regarding the pain points of their consumers which could enable them to relook at their current marketing strategy and incorporate change to foster acceptance for generics and achieve a better sales performance.

**Originality/ Value:** This paper has mainly two contributions. The study will increase consumer behaviour understanding in the pharmaceutical sector, relating to both branded and generic drugs. It will also give an emerging country (India) perspective which can bridge a knowledge gap in literature

## Keywords

Consumer perception, Generic drugs, Marketing, Emerging Countries, Pharmaceutical Marketing

Article Received: 10 August 2020, Revised: 25 October 2020, Accepted: 18 November 2020

## Introduction

India's domestic pharma market turnover is Rs 1.4 lakh crore for 2019, showing a growth of 9.8 per cent from Rs 1.29 lakh crore for 2018. Drug purchases is also forecasted to grow at 9-12% in India by 2025, making India part of the top 10 countries for drug purchase. Generic medicines dominated the market with about 70 percent of market share in terms of revenue generated for India's pharmaceutical sector in 2019 [1]

The purpose of this study is to determine if consumer perception of generic drugs is equivalent to their perception of branded drugs. A brand drug has exclusive and complete selling rights during the patent period. However, after this period is over, drug manufacturers use the same molecule to make the drug in a generic form to serve the same therapy area as the branded drug. If the generic drug and its branded counterpart have the same therapeutic benefit, one would expect the generic drug to sell better, as it is cheaper. However, research does not support this hypothesis [2] A possible explanation could be brand loyalty for the branded drugs. Also, few consumers prefer using branded drugs, and this preference is more important to them than the need to save through purchasing generic drugs. Consumers also perceive the quality of branded drugs to be greater than generics. Furthermore, patients have developed habits that involve taking prescription medicine, leading to continued usage of brands. If a branded drug is effective, patients refuse to switch to a lower priced equivalent. All of these factors contribute to branded drug manufacturers not considering generic drugs as real competition. Also, quite

often the market for generic drugs is from a different economic section of society, further reducing competition for branded drugs as their customers are often able to afford them.[3]

The perception of generic drugs is dependent on drug characteristics, which comprise of drug pricing, perceived quality of both branded drugs and generic drugs and whether the drug is new to the market or is well established. There is a difference of opinion based upon family income, where affluent class perceive branded drugs to be of a higher quality and hence prefer them over generic drugs, while lower middle class prioritize the savings aspect and hence are found to purchase and use greater amount of generic drugs, as far as possible[4]

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[5]. The production quality of generics has improved greatly, but consumers still face trust issues and have a reduced willingness to purchase them [6].

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 [7]. 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 [8]. 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 [9]

Reluctance to purchase generics is even more predominant, in particular for Over-The-Counter (OTC) drugs, as their purchase is dependent entirely upon patient discretion, unlike prescription drugs that require physician approval.[10]. Thus, without prescriber's medical expertise and assurance, the risk factor associated with generics increases in consumer's mind[11]. This leads them to fall back to extrinsic cues that assure them of a product's quality, the most important of which is the brand name. However, in the absence of brands, consumers might depend upon different factors such as price and country of origin.[9] Drug manufacturers might benefit from this research as they may be interested in understanding how to improve their market share. Outside the pharmaceutical industry, this work can provide the public insights into why branded drugs are still preferred over generic drugs. Along with this, they can also understand the logistics behind the global challenge of defending branded drugs against generic equivalents. [12]

## Literature Review

Patients are greatly unaware about the existence of generic drugs and purchase and consume the brands given by Doctors. These branded drugs can often be very expensive. The consumer would save approximately 10-30 percentage if they buy generic brands instead of branded drugs [13]. The cost effectiveness of drug therapy meaning the potential of generics is barely been recognized and there are multiple discussions being passed around to understand the "why" of this problem [14]

The various stakeholders involved in the buying process do not have enough confidence in the generic drugs. The doctors are not informed sufficiently and therefore they have misconceptions about these products [15]. Patient preferences is also a contributing aspect as they do not feel confident about the efficacy of a generic drug [16]. Some studies have ascertained that patients prefer branded drugs as compared to the generic equivalents on the presumption that they are of a better quality.

Economists have opined that in a lot of countries the treatment cost gets covered by insurance for those who have taken an insurance policy, such that the patients do not have to pay for the bills [17]. The bias for branded drugs is thus amplified as the cost of prescriptions is paid by the insurance companies, where both the physicians and the patients lack the determination to invest in mediocre costing treatment, also ignoring the status of the generic verses branded products [18].

Patients suffering from chronic conditions, had negative responses regarding generic prescriptions, which further strengthened the claim that patients who are ill with chronic conditions observed that the risk factors are grave and damaging their health at a greater level regards with the use

of generic alternatives [19]. Doctors find it extremely hard to convince patients to switch to generic alternatives especially if they haven't initially spoken about the various alternatives available and their advantages [20]. Especially, with reference to geriatric patients who consumer drugs on a daily basis and who often tend to be cautious about the use of generic drugs and the probable hazards to their health .In fact a study conducted on generic substitutions found that at least 12-13 percentage patients who were exposed to generics disclosed that they experienced lesser side effects along with lower efficacy. Additionally, Brennan and Lee stated that some patients even believed of being allergic to alternative generic products. Moreover, there seems to be the case of nocebo phenomenon, when patients experience decreased efficacy and/or general adverse effects when administered with generic drugs [21].

It stated that from the 1970s patients' trust and understanding towards generic medication was increasing slowly, especially in developed countries. Although it was explained that safety and efficacy were a huge factor in determining patient acceptance toward generic medication, the steady rise in confidence and trust towards it all came down to doctors and healthcare professionals imparting their knowledge and guidance and educating their patients, thus maintaining a healthy communication and doctor patient relationship [22].A fairly recent report also stated that the mistrust and low acceptance towards OTC products generally comes from patients with mediocre or lower knowledge and education [23]. However surprisingly, a different report stated that the opposite was seen in a few patients who despite coming from lower socioeconomic backgrounds and average education level preferred purchasing generic drugs over brand name drugs [24]. It was later found that this discrepancy was noted only in case of reports whose main focus was on OTC medicines. Apart from these it was also noted that aspects which had no significant role in influencing the patients buying pattern were guidance from health counsellor, guidance from relatives or friends, level of illness, appearance and taste of the drug, appearance of outer packaging and levels of efficacy of the generic product. This survey however did not include patients' insurance status whether they had a healthcare insurance or they covered the cost of generic medications by themselves. [25]

Factors influencing the acceptance of generic products include beliefs, potential of the drug and affects and knowledge. It was also noted that generic substitution was seen largely in acute illnesses and very scarcely in chronic or severe diseases. Nowadays health is considered as a valuable aspect more than it has ever before. It has been noted that in many developed countries the total investment in health is soaring past the gross domestic product., the reason for this is the rise in pharmaceutical expenditures [26]. One way to curb health spending would be the use of generic products over brand name products, as the results of either are similar and t would barely affect patient care and definitely cheaper than its brand name alternative. [1].

Although, still many countries have seen the lack of use generic drugs. Setting aside the constructional reasons for the lack of acceptance of generic drugs[27], It has come across that the beliefs and attitude of people towards the use

of generic drugs is a giant barrier [28]. According to many studies it has been proved that consumers still feel a little cryptic when told to use generic drugs [29]. However, some may also agree that use of generic drugs is very cost effective and should definitely be used frequently [30]. While some others still show bold reluctance when asked to substitute brand name drugs with generic drugs, claiming that the positive reviews about the said acceptance of generic products is not equivalent to its increased use [31]. Along with these reports have made it clear that a person's decisions on using generic drugs and the likelihood of the same is influenced by many factors like socioeconomic status i.e income and knowledge to name a few, also people with chronic illnesses rarely ever substitute brand name drugs with generic alternatives. [32].

In the case of China, a developing country, the pharmaceutical industry has been known to have an inability to conduct innovative research. This is attributed largely to Chinese pharmaceutical product managers choosing to focus on shortterm profits that are received from generic drugs rather than long term profits that can be achieved through innovation and research. [33]. In developing countries especially, it is found that health care management and services can be improved with the addition of TQM (Total Quality Management) and Total Relationship Management. [34]

In Portugal, pharmacists are able to change the prescription of branded products to a similar generic with a lower price. However, physicians retained the final authority and had the power to restrict this substitution, revealing themselves as the most important decision makers. [35] A paper on Green Chemistry found that branded drug manufacturers were more likely to have sustainable manufacturing as comparing to generic drug manufacturers. For environmentally inclined patients, this might be an important decision making factor. [36]

The physician has a very significant role in deciding whether the patient requires a generic drug or a branded drug, and they decide this according to their own tried and tested methods and techniques of prescription. [37] According to literature, even though generic medicines are being used widely, healthcare professionals and patients both seem to have negative perceptions of generics. [38]. India exports just 10% of the world's branded drugs, but 20% of the global generic drug exports are from India. Hence, it could be possible that countries other than India are the major customers for generic drug manufacturers [39]. Furthermore, this number is drastically reducing, due to stiff competition from other nations. [40]

A huge reason for the blatant refusal of generic drugs within consumers is the lack of knowledge regarding generic products. It also identified as a crucial predictor of people's view when it comes to the use of OTC products. [41] It is important to note that these studies often focused one factor of knowledge, a crucial example of this would be the participants were asked to describe what they knew of generic drugs in general, something as simple as the definition of it and the differences and similarities between generic drugs and brand name drugs. [42]

A more in depth assessment was organized by Figueiras the Likert-scale was used to determine and identify the beliefs

regarding generic drugs. However, complications were risen when it was seen that the two aspects of knowledge and belief were entangled together, so it was very difficult to differentiate the results of each of them individually. [43]

In developed countries it is often seen that price has not been an issue when it comes to spending on health factors. People from various developed countries believe that they would only use the best treatments when catering to their health, thus protecting sacred values from trade-offs and thus it is said that many people also consider health as a sacred phenomenon and wouldn't mind spending and investing their money towards it [44]. This shows that people who value health more than anything else and consider it as a sacred value would be satisfied only with the best form of treatments. Hence, their acceptance for sage of generic drugs would be low, since they believe that brand name drugs are a lot more effective and provide for the best value over generic drugs [45]

Patients were considerably knowledgeable when it came to generic drugs, they correctly identified the similarities and differences between packaged brand drugs and generic drugs, and knew that they were used for the treatment of same illnesses with a different packaging. Some other patients though had a large percentage of incorrect answers, which showed the gap in the knowledge levels. It became conclusive that most people had issues when it came to the regulation of generic drugs if the patent for a branded drug gets expired, the company usually asks for signing of the new generic variant of the same brand name drug. Which results in generic drug organisations to not have to pay for a patent protection as the said patent has already expired- which is a lesser known fact. Also it is known that generic drug applications are exempted to include testing clinically to maintain safety and effectiveness [1] However, the SOPs for quality control and production remain to be the same for both brand name and generic drugs. These remains to showcase that the glaringly high percentage of misconceptions regarding generic drug regulation shows that people seem to be unaware of the facts. [46]

Results from previous studies about affective imagery point at the same way. The associations that were presented regarding generic substitutions were fairly favourable; the mean affect rating throughout all associations were positive and depicted generic drug acceptance and choices. For qualitative and detailed analysis of the main generic drug association was done by network visualisation. "Alternative", "cheap" and "price" were some of the core associations which were used frequently. [47]

Certain research showed that knowledge, beliefs, and affect are the prominent influencers of generic drug acceptance, and reports point in the same direction from the drug choice experiment. [48] Other studies [49], show that generic substitution is used in less severe illnesses like flu. Regardless to the range of illnesses from acute to chronic, however, it was found that knowledge, beliefs, and affect enhance and influence people's decisions. And so, this research provides direct applied implications for physicians and public health policies. Growing knowledge seems to be a good intervention to escalate generic alternatives. In accordance with this, it is proved that counselling about substitutes may decrease the amount of patients who aren't

satisfied with the generic alternatives [50] It would be useful in this regard that the development of targeted knowledge and the knowledge gaps to be recognized and filled and could provide an initiation in improving people's knowledge about generic substitution. Thus, imparting information about gains should change the total affective result and point of view of risks [51]. It will then be possible that knowledge that puts emphasis on many gains of generic drugs will lead way to a more assertive overall affect which would in return help in the acceptance of generic medicines.

Physicians heavily influence the selection of medication, and their prescribing practices – as well as generic substitution – vary to an oversized extent [52].

In sum, this literature review demonstrates that people's selections to just accept or to reject generic substitution area unit driven by psychological feature and affectional factors. Many people are already knowledgeable about generic drugs; but, have a tendency to not fill necessary information gaps. Thus, insights from this study might contribute to the event of increase in knowledge material or interventions aimed toward increasing the usage of generic drug

## Methods

The data for the qualitative study was collected in the months of May to July 2020. 15 respondents were interviewed using a semi structured in-depth interview. The respondents came from various backgrounds and were living in and around the city of Mumbai, India. Respondents who had previously bought generic drugs for a considerable period of time or were currently using generic drugs were selected through a snow ball sampling method as identification of such respondents was possible. As this study was exploratory in nature, emphasis was placed on letting the respondent's thoughts flow freely, and not restrict them to any one train of thought. Hence, all the interviews were more of a conversation and were conducted over telephone, due to environmental constraints regarding COVID-19. The exploratory nature of the interview did not confirm any existing hypotheses, but identified key themes for discussion. The telephonic conversations were recorded and transcribed by the interviewer for further analysis. Permission for recording was sought from the respondents and only after their explicit approval interviews were conducted. Coding was done on the transcribed interviews and relevant themes were identified as an iterative process immediately after each interview.

### Reliability and Validity of the Proposed Study

To ensure reliability, the transcripts were checked for any errors made during transcription by listening to the audio

files again and checking with the transcripts. Both the authors coded the transcripts individually and then the codes were compared to verify the intercoder agreement. Discussion was undertaken to resolve the discrepancy if any and then the codes were finalized based on consensus. This process enabled the reduction of authors bias while interpreting the results. It also ensured that no important paragraph or line was missed, while arriving at the codes.

To establish validity, the authors contacted the respondents and shared the findings of the study. The codes prepared based on the discussion with a particular respondent was shared and feedback was sought. This ensured that there was no gap in understanding and bias is eliminated to a great extent. The findings of the study were also shared with the respondents for their comments and observations. The respondents agreed to both the findings of the study and the codes generated from their transcripts thereby ensuring validity.

## Data Analysis and Findings

Several complex aspects related to generic drugs were raised during the in-depth interviews to understand whether consumers preferred to use these drugs as compared to the branded ones. After conducting fifteen interviews with respondents who were exposed to generic drugs, the study derived an exhaustive list of themes. Identification of themes would help us understand the facilitators and barriers to the consumer purchase decision with reference to generic drugs. During the interviews, some respondents talked for a long duration about a few themes that they could relate to the most while others provided their views on a wide array of themes which were facilitators as well as barriers to the purchase decision. The participants voices were retained, but some minor grammatical changes were made to provide more clarity and context. This was done while ensuring that the actual meaning of the conversation was not lost. Finally, while reporting the findings, pseudonyms were used for the participants to maintain anonymity.

Many recurring themes emerged during the interviews, as facilitators of generic drugs like doctor's recommendation, chemist recommendation, minor illness, cost/price of drug, doctor's awareness about generics, branded drug inavailability, time required for the drug to act and usage in governmental hospitals. Table I provides the coding sheet for the facilitators for purchasing the generic drugs.

These factors were generally observed to turn the discussion in favour of generic drugs and the presence of these factors made patients more receptive to considering the idea of usage and adoption of generic drugs.

**Table I:** Facilitators for generic drugs

	Doctor Recommendation	Chemist Recommendation	Minor illness	Cost/ Price of drug	Doctor Awareness about Generics	Branded drug inavailability	Time required for drug to act	Usage in Govt Hospitals
Pt 1	✓		✓	✓	✓			✓
Pt 2	✓	✓	✓	✓			✓	



Pt 3		✓						
Pt 4	✓		✓		✓			✓
Pt 5	✓		✓		✓	✓		
Pt 6	✓		✓	✓	✓	✓		
Pt 7				✓				
Pt 8			✓					✓
Pt 9				✓				
Pt 10	✓	✓		✓	✓			✓
Pt 11	✓	✓	✓		✓			
Pt 12		✓				✓		
Pt 13	✓		✓				✓	
Pt 14			✓		✓	✓	✓	✓
Pt 15		✓						

Each theme as facilitator of generic drugs is presented below to facilitate understanding.

### Doctor Recommendation

Participants seemed to find this an extremely essential factor when it came to supporting generic drugs. Quite a few were ready to switch from branded drugs to generics on doctor's recommendation and were willing to purchase generics if advised by their medical practitioner. A participant reported "We blindly use the medicines prescribed by our Doctor as we trust our Doctor completely. If he writes us generics next time, we will definitely buy them."

"My doctor has never told me about these generic drugs, but if he does, I will start using them the very next day"

### Chemist Recommendation:

The participants were very often recommended generic drugs by their local and trusted chemist, and they have been buying such drugs for several years and a few were willing to make the switch from branded to generic. One participant in particular said

"In case the prescribed medicine is unavailable, my local pharmacy suggests me a replacement with the same basic molecule. I purchase it regardless of whether it is branded or generic".

"My local chemist often informs me of cheaper alternatives to the medicines I buy, and I definitely prefer the cheaper option"

### Minor Illness

A number of participants reported that they did not wish to spend excess money for relatively minor ailments which can be cured using the generic medicines.

I am willing to use generic drugs for minor illnesses such as cough, cold, fever, rash, allergy, stomach upset, throat infection and the likes as they help me recover and I do not need to spend additional money as well. In any case the formulation is same as I check it before buying the drug".

### Price of the drug

**Price of the generic drug** was an important consideration in the minds of the respondents who preferred generic over branded drugs. A participant on being interviewed said, "If these generic drugs have a large price difference from branded drugs, it would save me a lot of money and I would definitely want to use them."

"I was not aware that Generic drugs are so inexpensive. I will do my research and start using them as much as possible"

### Doctor Awareness about generics

A large number of interviewed participants seemed to believe that their doctor was not aware about generics to the extent that they needed him/her to be. They believed that healthcare professionals in general need to brush up on their knowledge about generic drugs and be aware about patent expiry and inform patients as soon as a new generic drug was available in the market.

"If my Doctor knew about Generic drugs, he would definitely write them in his prescriptions. But the fact that he has never recommended a generic drug to me, makes me think that he himself might not be aware."

"I don't think my Doctor knows these Generic drugs exist"

### Branded drug unavailability

A few participants that were completely against generics otherwise seemed to concede regarding this point. They were ready to purchase and use generic drugs only and only if branded drugs are completely unavailable at the chemist shop.

"If the brand I use regularly is nowhere to be found, I will consider using generics"

### Time required for drug to act

This theme was rare, but a handful of participants expressed that they would be willing to give generic drugs a try if the time required for them to act was lesser than the branded drug. This was especially in regards to painkillers, where time is a very important factor. A participant in her early 20s said,

*“I have a very busy schedule and I need painkillers to act as soon as I take them. If generics act in less time, than it would be very good for me”.*

### Usage in Government Hospitals

A few participants seemed to believe that they would be more motivated towards usage of generic drugs if they saw them being used more in government hospitals.

*“As my father is an employee of KEM, a government hospital, we go there for minor ailments and check-ups. And I have always been prescribed brand-name drugs.”*

**Table II:** Barriers for generic drugs

	Lack of Patient Awareness	Concerns about safety	Possibility of fake medicines/ substitutes	Illness being very severe or critical	Fear of Side effects	Lack of Government incentives	Not produced by well-known pharma company	Generic Drug inavailability	Marketing/Promotions of only Branded drugs
Pt 1	✓		✓	✓	✓	✓			
Pt 2						✓		✓	✓
Pt 3	✓		✓			✓	✓		
Pt 4		✓		✓				✓	✓
Pt 5	✓		✓	✓		✓	✓		✓
Pt 6			✓	✓	✓	✓	✓	✓	✓
Pt 7			✓			✓		✓	✓
Pt 8		✓	✓	✓		✓	✓		
Pt 9			✓			✓		✓	✓
Pt 10		✓	✓			✓	✓		
Pt 11		✓		✓		✓	✓		
Pt 12	✓	✓	✓						✓
Pt 13						✓			
Pt 14					✓			✓	
Pt 15	✓	✓						✓	

These factors were generally observed to turn the discussion against generic drugs and the presence of these factors made patients more resistant or unresponsive to the usage and adoption of generic drugs

Similarly, each theme as barriers of generic drugs is presented below to facilitate understanding.

*“ Maybe if I was recommended these drugs in the government OPD, I would use them.”*

### Doctor incentives

It was discovered that a fair number of participants strongly believed that the reason for branded drugs being recognized in the market was due to incentivisation of doctors by pharmaceutical companies. This is why they suggested that generic drug manufacturers should do similar promotions in order to increase sales. A participant who has been keenly following the pharma industry reported that

*“Doctors usually prescribe medicines if given some push from the manufacturers to do so. The same should be done for generic drugs”.*

**Lack of patient awareness:** By far the biggest barrier that was observed among participants was their lack of awareness regarding generics and their therapeutic benefits and cost advantage. They knew about generic drugs such as paracetamol but were unaware that generics are used for specialized ailments as well. Many participants said that *“We were unaware of the existence of these generic drugs before being interviewed, we have never received any information about them.”*

*"Please tell me more about these generic drugs, I have not heard of them before"*

**Concerns about safety:** Many participants expressed that while they appreciated the benefits and cost advantages of generic drugs, they were unsure about the safety aspect and would not ever consider switching from branded drugs to generics.

*"If generic drugs are really so cheap, the manufacturers must be cutting costs on production. I really can't trust these drugs."*

**Possibility of fake medicines/substitutes:** This was surprisingly a major concern for participants. Due to misinformation they were led to believe that there were no stringent quality tests and quality assurance conducted on generics and hence the possibility of them being fake was higher. One participant said,

*"I know that generic drugs essentially have the same molecule, but I am very suspicious about fakes being manufactured and sold, especially seeing the low prices."*

*"Anything that is cheap is often fake, I do not trust in generics due to this reason"*

**Illness being very severe/critical:** The few participants that suffered from chronic and/or major ailments were very wary of using generics as they did not believe them to be as effective as the branded drug they were currently using.

*"I am a heart patient and I also have diabetes. I will not switch from my trustworthy branded drugs to generic drugs for these ailments."*

*"I have daily medicines for my asthma, and I don't think any generic drug will be beneficial for me"*

**Fear of side effects:** Despite the core molecule being the same, a few participants expressed that they feared they would get additional side effects from the generic drug as opposed to the branded drug. One participant reported

*"I fear taking medicines in general because I get terrible gastric upset after them, and generics seem like they would be no different when it comes to side effects"*

*"If these medicines are cheap, I suppose they would have more side effects as well"*

**Lack of Government incentives:** A majority of the participants seemed to find that government incentives regarding generic drugs were a bit lacking, and if generics were really equivalent to branded drugs, the Indian Government would have promoted them more. Hence, they were sceptical of purchasing generic drugs.

*"I have never seen any Government promotions for Generic drugs. Hence, I do not believe they are worth consuming."*

**Not produced by a well-known pharma company:** It was discovered that participants had a few major names in the pharmaceutical industry they truly believed in, and that drugs produced by any other company were substandard for them. A participant said,

*"I think most of the generic drugs I have seen are made by no-name companies. It would increase my belief in generics if all the leading pharma giants manufactured them."*

**Generic drug inavailability:** Few participants felt that generic drugs were not available to them easily, with one participant in particular expressing that she was unsure of the place to purchase generics, if she needed to. A few participants said,

*"I have never seen generic drugs being sold in my local pharmacy."*

*"Are you sure that these generic drugs are available in my area? Because I have never seen them before"*

**Marketing/Promotion of only branded drugs:** Some participants expressed that they did not purchase and use generic drugs as they saw promotions of brands and wanted to purchase only branded drugs.

*"If I see any information or advertisements about generic drugs I will consider using them, but not before that."*

## Discussion

After analysing both facilitators and barriers for adoption of generic drugs, some interesting observations come to light. Consumers definitely consider factors other than "Price of the drug" while choosing to use generic and/or branded drugs. In fact, for many of the respondents interviewed, price was not a significant factor while purchasing medicines. This can be attributed largely to the fact that unlike the FMCG sector, the price elasticity of demand for the Pharma sector is always lower than 1, having a range of -0.18 to -0.60. This phenomenon is referred to as inelastic demand. It means that the change in quantity demanded is always less than the change in price, both taken relative to each other. Thus, it is observed that a rapid decrease in price does not affect demand as much as it would be in the FMCG industry.

Furthermore, severity, or lack of, of the illness seemed to be a very important factor regarding adoption of generic drugs. It was noted that patients were more likely to consume generic drugs if they were not suffering from a life-threatening disease. For mild illnesses such as cold, cough etc, the brand of the drug was not important to them. However, for diseases such as diabetes and heart disease, they showed high amounts of brand loyalty, possibly out of fear for their health.

A large number of well-known pharma companies in India (eg Sun Pharma, Lupin Pharmaceuticals and Sandoz) do manufacture generic drugs in India. However, the respondents seemed to have the perception that no known drug manufacturers are involved in the generic drugs market. It is possible that this could be due to the fact that, these drug companies do not invest as much of their capital into marketing for generics as they do for their branded drugs that are still under patent.

Awareness seems to be another factor that respondents discussed in their interviews. A large number of interviewed patients seemed to believe that their doctors, their chemists and no one in their immediate vicinity was aware about the existence of these generic drugs. This translated into respondents themselves being unaware about the existence of generic drugs. Along with this, despite generic drugs undergoing a fair amount of quality checks, patients seemed to feel that because of their decreased price, these drugs would not be safe and reliable. Sometimes, this was combined with patients saying that the generic drugs would show more number of side effects despite having the same active ingredient, or be fake/substitute products.

## Conclusion

The findings of this study suggest that consumer perception regarding generic drugs is greatly varied and depends on the consumer experience and their beliefs. For example, participants that have a better economic background had lesser awareness about generic drugs, as they had the power to afford branded drugs whenever there was a requirement. It was also discovered that participants as a whole were likely to go along with the Doctor's instructions and hence it falls to these healthcare practitioners to impart knowledge, awareness and also prescriptions for generic drugs.

In addition to this, it was found that educational background of the participants played no role in their perception to generics, and very highly educated folks were found to be more unaware of generic drug existence. Hence, an obvious gap is seen in marketing and awareness around generics and definitely needs to be addressed by pharma companies. Furthermore, members of the same family were found to have different opinions, despite having a common doctor, chemist and social circle.

Language and messaging contributed greatly to the understanding expressed by the participants, and positive reinforcement regarding generic drugs was found to be necessary. Overall, quite a few participants expressed the desire to shift to generic drugs, albeit for minor illnesses.

## References

- [1] Consolidated FDI Policy, Department of Industrial Policy & Promotion (DIPP), Press Information Bureau (PIB), Media Reports, Pharmaceuticals Export Promotion Council, AIOCD-AWACS, IQVIA, \*Top 10 companies as per research by HDFC Securities) [https://dipp.gov.in/sites/default/files/pn3\\_2020.pdf](https://dipp.gov.in/sites/default/files/pn3_2020.pdf)
- [2] Ascione FJ Historical overview of generic medication policy. *J Am Pharm Assoc (Wash)* 41: 567-577
- [3] Avery AJ 2000, A prescription for improvement? An observational study to identify how general practices vary in their growth in prescribing costs. *BMJ* 321: 276-281 Bae JP 1997 Drug patent expirations and the speed of generic entry. *Health Serv Res* 32: 87-101
- [4] Banahan BF 3rd, Kolassa EM 1997 A physician survey on generic drugs and substitution of critical dose medications. *Arch Intern Med* 157: 2080-2088
- [5] Barsky AJ, Non - specific medication side effects and the placebo phenomenon. *JAMA* 287: 622-627
- [6] Brennan TA, Lee TH 2004 Allergic to generics. *Ann Intern Med* 141: 126-130
- [7] De Joncheere K, Experiences with generics. *Int J Risk Safety Med* 15 2004: 101 -109
- [8] Ganther JM, Kreling DH 2000 Consumer perceptions of risk and required cost savings for generic prescription drugs. *J Am Pharm Assoc (Wash)* 40: 378-383
- [9] Hellerstein JK 1998 The importance of the physician in the generic versus trade-name prescription decision.
- [10] Lemye R 2000 Generic drugs (in French). *Rev Med Brux* 21: A273-275
- [11] Liberman A, Rubinstein J 2002 Health care reform and the pharmaceutical industry: crucial decisions are expected. *Health Care Manag* 20: 22-32
- [12] Mahajan, V. (2019), "Structural changes and trade competitiveness in the Indian pharmaceutical industry in product patent regime", *International Journal of Pharmaceutical and Healthcare Marketing*, Vol. 13 No. 1, pp. 21-39. doi: 10.1108/IJPHM-12-2016-0066
- [13] Mahajan, V. (2020) "Is productivity of Indian pharmaceutical industry affected with the introduction of product patent act?", *Indian Growth and Development Review*, Vol. 13 No. 1, pp. 227-258. doi: 10.1108/IGDR-11-2018-0116
- [14] McGettigan P, McManus J, O'Shea B, Chan R, Feely J 1997 Low rate of generic prescribing in the Republic of Ireland compared to England and Northern Ireland: prescribers' concerns. *Ir Med J* 90: 146-147 Meredith PA 1996 Generic drugs. Therapeutic equivalence. *Drug Saf* 4: 233-242
- [15] Mott DA, Kreling DH 1998 The association of insurance type with costs of dispensed drugs. *Inquiry* 35: 23-35



- [16] Mott DA, Cline RR 2002 Exploring generic drug use behaviour: the role of prescribers and pharmacists in the opportunity for generic drug use and generic substitution. *Med Care* 40: 662-674
- [17] Pedulka M, Krautkramer K, Amerson D, Phillips B, Dolinsky D 1989 Consumers' attitude towards generic drugs. *J Pharm Mark Man age* 4: 93-104
- [18] Ascione FJ, Gaither CA 2001 Understanding the scientific issues embedded in the generic drug approval process. *J Am Pharm Assoc ( Wash)* 41: 856-860
- [19] Kohli E, Buller A. 2013 Factors influencing consumer purchasing patterns of generic versus brand name over-the-counter drugs. *South Med J*. 2013;106:155–60. doi:10.1097/SMJ.0b013e3182804c58.
- [20] -Gedadi, N. A., Hassali, M. A., & Shafie, A. A. (2008). A pilot survey on perceptions and knowledge of generic medicines among consumers in Penang, Malaysia. *Pharmacy Practice*, 6(2), 93–97. doi:10.4321/S1886-36552008000200006
- [21] Alhakami, A. S., & Slovic, P. (1994). A psychological study of the inverse relationship between perceived risk and perceived benefit. *Risk Analysis*, 14(6), 1085–1096. doi: 10.1111/j.1539-6924.1994.tb00080.x
- [22] Benthin, A., Slovic, P., Moran, P., Severson, H., Mertz, C. K., & Gerrard, M. (1995). Adolescent health-threatening and health-enhancing behaviors – A study of word-association and imagery. *Journal of Adolescent Health*, 17(3), 143–152. doi: 10.1016/1054-139X(95)00111-5
- [23] Betsch, C., Renkewitz, F., Betsch, T., & Ulshofer, C. (2010). The influence of vaccine-critical websites on perceiving vaccination risks. *Journal of Health Psychology*, 15(3), 446–455. doi: 10.1177/1359105309353647
- [24] Chapman, G. B., & Coups, E. J. (2006). Emotions and preventive health behavior: Worry, regret, and influenza vaccination. *Health Psychology*, 25(1), 82–90. doi: 10.1037/0278-6133.25.1.82
- [25] Connor, M., & Siegrist, M. (2011). The power of association: Its impact on willingness to buy GM food. *Human and Ecological Risk Assessment*, 17(5), 1142–1155. doi: 10.1080/10807039.2011.605725
- [26] Cousin, M. E., & Siegrist, M. (2008). Laypeople's health concerns and health beliefs in regard to risk perception of mobile communication. *Human and Ecological Risk Assessment*, 14(6), 1235–1249. doi: 10.1080/10807030802494550
- [27] Decollogny, A., Eggli, Y., Halfon, P., & Lufkin, T. M. (2011). Determinants of generic drug substitution in Switzerland. *BMC Health Services Research*, 11. Art. no. 17. doi:10.1186/1472-6963-11-17 doi: 10.1186/1472-6963-11-17
- [28] Diefenbach, M. A., Miller, S. M., & Daly, M. B. (1999). Specific worry about breast cancer predicts mammography use in women at risk for breast and ovarian cancer. *Health Psychology*, 18(5), 532–536. doi: 10.1037/0278-6133.18.5.532
- [29] Dohle, S., Keller, C., & Siegrist, M. (2012). Mobile communication in the public mind: Insights from free associations related to mobile phone base stations. *Human and Ecological Risk Assessment*, 18(3), 649–668. doi: 10.1080/10807039.2012.672900
- [30] FDA. (2013). What are generic drugs? Retrieved January 31, 2013, from <http://www.fda.gov/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/UnderstandingGenericDrugs/ucm144456.htm>
- [31] Ferreira, P. and Barbosa, H. (2017), "Choice of mandatory prescribed drugs in Portugal: a consumers' perspective", *International Journal of Pharmaceutical and Healthcare Marketing*, Vol. 11 No. 4,

- pp. 439-454. doi: 10.1108/IJPHM-07-2016-0039
- [32] Figueiras, M. J., Alves, N. C., Marcelino, D., Cortes, M. A., Weinman, J., & Horne, R. (2009). Assessing lay beliefs about generic medicines: Development of the generic medicines scale. *Psychology, Health & Medicine*, 14(3), 311–321. doi: 10.1080/13548500802613043
- [33] Figueiras, M. J., Cortes, M. A., Marcelino, D., & Weinman, J. (2010). Lay views about medicines: The influence of the illness label for the use of generic versus brand. *Psychology & Health*, 25(9), 1121–1128. doi: 10.1080/08870440903137170
- [34] Figueiras, M. J., Marcelino, D., & Cortes, M. A. (2008). People's views on the level of agreement of generic medicines for different illnesses. *Pharmacy World & Science*, 30(5), 590–594. doi: 10.1007/s11096-008-9247-y
- [35] Finucane, M. L., Alhakami, A., Slovic, P., & Johnson, S. M. (2000). The affect heuristic in judgments of risks and benefits. *Journal of Behavioral Decision Making*, 13(1), 1–17. doi: 10.1002/(SICI)1099-0771(200001/03)13:1<1::AID-BDM333>3.0.CO;2-S
- [36] Finucane, M. L., Slovic, P., & Mertz, C. K. (2000). Public perception of the risk of blood transfusion. *Transfusion*, 40(8), 1017–1022. doi: 10.1046/j.1537-2995.2000.40081017.x
- [37] Fiske, A. P., & Tetlock, P. E. (1997). Taboo trade-offs: Reactions to transactions that transgress the spheres of justice. *Political Psychology*, 18(2), 255–297. doi: 10.1111/0162-895X.00058
- [38] Gaither, C., Kirking, D., Ascione, F., & Welage, L. (2001). Consumers' view on generic medications. *Journal of American Pharmaceutical Association*, 41, 729–736.
- [39] Gill, L., Helkkula, A., Cobelli, N., & White, L. (2010). How do customers and pharmacists experience generic substitution? *International Journal of Pharmaceutical and Healthcare Marketing*, 4(4), 375–395. doi:10.1108/17506121011095218
- [40] Gillespie, M., Tenverget, E. M., & Kingma, J. (1987). Using Mokken scale analysis to develop unidimensional scales. *Quality & Quantity*, 21(4), 393–408. doi:10.1007/BF00172565
- [41] Granlund, D. (2009). Are private physicians more likely to veto generic substitution of prescribed pharmaceuticals? *Social Science & Medicine*, 69(11), 1643–1650. doi: 10.1016/j.socscimed.2009.09.016
- [42] Hall, S., French, D. P., & Marteau, T. M. (2009). Do perceptions of vulnerability and worry mediate the effects of a smoking cessation intervention for women attending for a routine cervical smear test? An experimental study. *Health Psychology*, 28(2), 258–263. doi: 10.1037/a0013425
- [43] Hanneman, R. A., & Riddle, M. (2005). *Introduction to social network methods*. Riverside, CA: University of California, Riverside.
- [44] Hanselmann, M., & Tanner, C. (2008). Taboos and conflicts in decision making: Sacred values, decision difficulty, and emotions. *Judgment and Decision Making*, 3(1), 51–63.
- [45] Hassali, M. A., Kong, D. C. M., & Stewart, K. (2005). Generic medicines: Perceptions of consumers in Melbourne, Australia. *International Journal of Pharmacy Practice*, 13, 257–264. doi: 10.1211/ijpp.13.4.0004
- [46] Hassali, M. A., Shafie, A. A., Jamshed, S., Ibrahim, M. I., & Awaisu, A. (2009). Consumers' views on generic medicines: A review of the literature. *International Journal of Pharmacy Practice*, 17(2), 79–88. doi:10.1211/ijpp.17.02.0002
- [47] Hay, J. L., McCaul, K. D., & Magnan, R. E. (2006). Does worry about breast cancer predict screening behaviors? A meta-analysis of the prospective evidence.

Preventive Medicine, 42(6), 401–408. doi:  
10.1016/j.ypmed.2006.03.002

- [48] Himmel, W., Simmenroth-Nayda, A., Niebling, W., Ledig, T., Jansen, R. D., Kochen, M. M., ... Hummers-Pradier, E. (2005). What do primary care patients think about generic drugs? *International Journal of Clinical Pharmacology and Therapeutics*, 43(10), 472–479.
- [49] Keller, C., Visschers, V., & Siegrist, M. (2012a). Affective imagery and acceptance of replacing nuclear power plants. *Risk Analysis*, 32(3), 464–477. doi: 10.1111/j.1539-6924.2011.01691.x
- [50] Keller, C., Visschers, V., & Siegrist, M. (2012b). The content and not only the valence of spontaneous associations should be analyzed response. *Risk Analysis*, 32(3), 481–482. doi: 10.1111/j.1539-6924.2012.01794.x
- [51] Leiserowitz, A. (2005). American risk perceptions: Is climate change dangerous? *Risk Analysis*, 25(6), 1433–1442. doi: 10.1111/j.1540-6261.2005.00690.x
- [52] McCaul, K. D., Schroeder, D. M., & Reid, P. A. (1996). Breast cancer worry and screening: Some prospective data. *Health Psychology*, 15(6), 430–433. doi: 10.1037/0278-6133.15.6.430