

## A STUDY ON CUSTOMER SATISFACTION ON THE CALCIUM BRANDS IN ANIMAL FEED IN GUJARAT

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### **ABSTRACT:**

*India is country of farmers and in this industry various companies are working. Animal feed is one of these industry, where domestic as well as multinational companies are working. This research paper is aim to know the customers satisfaction of customers towards the calcium brands in animal feed. For this purpose, research collect data from farmers who are using calcium as animal feed and tried to find out satisfaction on calcium brands on various parameters like value for money, availability of brand, and satisfaction on information about usages of brand. Researchers found that customers are satisfied, but there are still certain area where farmers are looking for better services. Research end this research with conclusion and suggesting various ways to companies to improve customers' satisfaction.*

**Key Words:** *Animal feed, Customers Satisfaction, Brand.*

### **Introduction:**

A large number of farmers in India depend on animal husbandry for their livelihood. Dairying has played a prominent role in strengthening India's rural economy. It has been recognized as an instrument to bring about socio-economic transformation. The vast potential of dairying in employment generation and poverty alleviation is well recognized. Today, India has the world's largest dairy herd (composed of cows and buffaloes), at over 304 million strong, and stands first in milk production.

Animal feed is food given to dairy animals in the course of animal husbandry. There are two basic types: fodder and forage. Used alone, the word "feed" more often refers to fodder.

In agriculture today, the nutritional needs of farm animals are well understood and may be satisfied through natural forage and fodder alone, or augmented by direct supplementation of nutrients in concentrated, controlled form. The nutritional quality of



feed is influenced not only by the nutrient content, but also by many other factors such as feed presentation, rumen stability, hygiene, digestibility, and effect on intestinal health.

Calcium is an essential nutrient for the development of most animals. It helps to strengthen bones, improves the solidity of eggs. Different forms of Calcium Phosphates delivers the best product quality and consistency, ensuring minerals and nutritional supplements for a well-balanced animal feed.

### Research methodology:

Objective of this research paper is to know the satisfaction of customers (farmers) on calcium brands available in market. For this purpose, researchers studied literature review on customers' satisfaction and animal feed. Data is being collected through primary sources (farmers) through structured questionnaire. Researcher also develop various hypothesis to know the impact or relationship between dependent variable and independent variable.

### Hypothesis:

H<sub>0</sub>: There is no significant difference in consumer satisfaction for various brands of calcium for animal feed.

### Literature Review:

**Ganeshan (1994)** had examined 152 buyers and 24 vendors about relationship aspects. It had been revealed that long term relationship with the retailers by vendors or marketers can create trust and dependence. Trust is necessary ingredient of long term relationship which can shift focus to future conditions. Through trust both parties believe that even under unanticipated contingencies rewards will be delivered to the retailers in fair manner. The research reveal that the effect of dependence on long-term orientation is affected by the channel role. Retailers are likely to have long term orientation with a vendor on whom they are dependent as well as who are providing important resources for increasing sales or awareness of product. Overall profitability of the film is highly influenced by the relationship with critical vendors and investment by both parties in relationship. Transaction specific investment in the relationship is playing vital role in creating relationship with the retailers. It helps in creating trustworthy relationship with commitment on both the side and did not affect benevolence.

**Brown, Lusch and Nicholson (1995)** Power and its usage can have a pivotal impact on the working relationship in marketing channels. The research shows that under certain conditions the use of power in the channel can enhance performance for all channel members. Commitment from channel partner and marketers plays significant role in creating better and strong relationship between channel owner and markers. Marketers are not in the market directly but they operate through channel partners. Channel power can give different edge to the brand. Researchers are of the opinion that the said research is applicable to the specific products only and for all products such generalised finding are not applicable.



**Kotler & Keller (2006)** in their book define customer satisfaction as “a personal feeling of pleasure or disappointment resulting from comparing a product’s perceived performance in relation to his/her expectation. If the performance fall short of expectations, customer is dissatisfied. If the performance match the expectations, the customer is satisfied. And if the customer is exceed the expectations, the customer is highly satisfied or delighted.”

**Verma, Kumar and Arya (2009)** had carried out to see the effect of feed supplement on milk yielding buffalo. The Buffaloes were divided in two group. One group was offered rich feed supplement for 7 days. Significant increase was observed in milk production, Total serum protein and calcium in feed supplemented group. The effect of milk production. Total serum protein and serum calcium level was observed significantly in feed supplemented group of the buffalo. But the effect of feed supplement was not found to be significant in Iron. However it has been observed that the level of Iron in serum was observed slight increased value than control, in control group, there is no effect on total serum protein, milk production serum calcium and Iron, but Fat was observed significant effect. There is negative co-relation between Fat % and milk production was observed. Increase in milk production decrease in Fat was observed.

**Gavan and Motorga (2009)** had executed study to determine the effects of the oral administration of propylene glycol and calcium propionate on performance of dairy cows. Treatments were 10 litre water (control), 10 litre water and 300 ml propylene glycol and 10 litre water and 500 g calcium propionate. In the said research work animals were mainly of Holstein breeds and were fed and managed in a commercial setting. The cows were divided randomly into an experimental group. One group to whom glycol propylene glycol is given and other group to whom calcium propionate had been given in the feed. Cows received the assigned treatment within 10 hours of calving and 24 hours after calving. Health events were recorded during calving and for the first 21 days in milk. Health examinations were performed on cows that appeared not well. The cows were milked three times daily and milk production was recorded electronically. The study reveals that average milk production was with 2.8 kg/d grater for animals receiving propylene glycol compared with those receiving the water drench. Average milk production was with 1.7 kg/d greater for animals receiving calcium propionate compared with that receiving water drench.

**Tanaka, Suzuki, Koth. and Kamiya (2011)** has observed calcium activity in dairy cows was limited, a decrease in calcium activity in the hot season might be possibly associated with milk productivity and the integrity of the mammary epithelium. Calcium activity in milk during this experimental period was negatively correlated with lactose concentration. The lactose concentration in milk has been shown to be positively correlated with the energy status of dairy cows. Increase of dry matter intake means improvement of the energy status and milk production of cows in general. It was suggested that the reasons for decreasing milk calcium content in summer season had been derived from decreasing of dry matter intake, which showed calcium intake deficiency. In this study, cows in higher milk production, expected higher dry matter intake, showed higher calcium activity. However cows higher lactose content, expected higher dry matter intake, showed lower calcium activity. The reasons of this discrepancy are not clear at the present time. The calcium activity in milk might not be associated with

only energy status of cows during the hot season. The precise relationship between calcium activity, casein and lactose in milk in hot season, however, remains to be clarified.

**Deshmukh (2014)** had observed that dairy cooperative movement has not only improved the lives of rural people but also generated employment opportunities for farm families and made significant contribution to the economy of the nation as well. Researchers further suggest that convergence in the provision of services relating to breeding, nutrition, healthcare, processing and marketing is an essential requirement for success. It can be more effective and beneficial for farmers if literacy movement would be launched to spread knowledge of food safety as well as animal hygiene and sanitation. Farmer-level capacity building as well as in the farms of outstanding dairy entrepreneurs (farmer to farmer learning). Public policies in the fields of import and export of animal feed, input and output pricing, investment and infrastructure development should ensure the sustainability and survival of small scale dairy farming.

**Upadhyay (2018)** is of the opinion that Indian livestock production system is predominantly a mixed crop livestock farming system, with the livestock segment supplementing farms incomes by providing employment, draught power and manure. Livestock sector plays important role for the Indian Economy. 16% of the total incomes of the country is due to contributed by livestock and in same sense in the rural area's income from livestock is 14%. Climate change had affect the production of milk and quality of milk. The research is of the opinion that Animal health management is significantly important. At present India has no policy and vision for livestock production and maintenance. Particularly for regularising feed quality and milk quality several steps are required to be taken. A proper policy making and policy implementing agencies are to be developed. Impact of climate change can't be cured. Sustainable dairy development is need of an hour in present situation. Different components of value chain creator in the dairy industry need to be studied and focused accordingly after keeping climate change. Sound strategies, implementable policies and regulatory mechanism in animal husbandry and dairying will not only generate employment opportunities but also help cope with climate change challenges in future.

From the above literature review its clear that calcium feeding in animal feed is very crucial. As par the objective of study, next section deal with data analysis.

### Data Analysis:

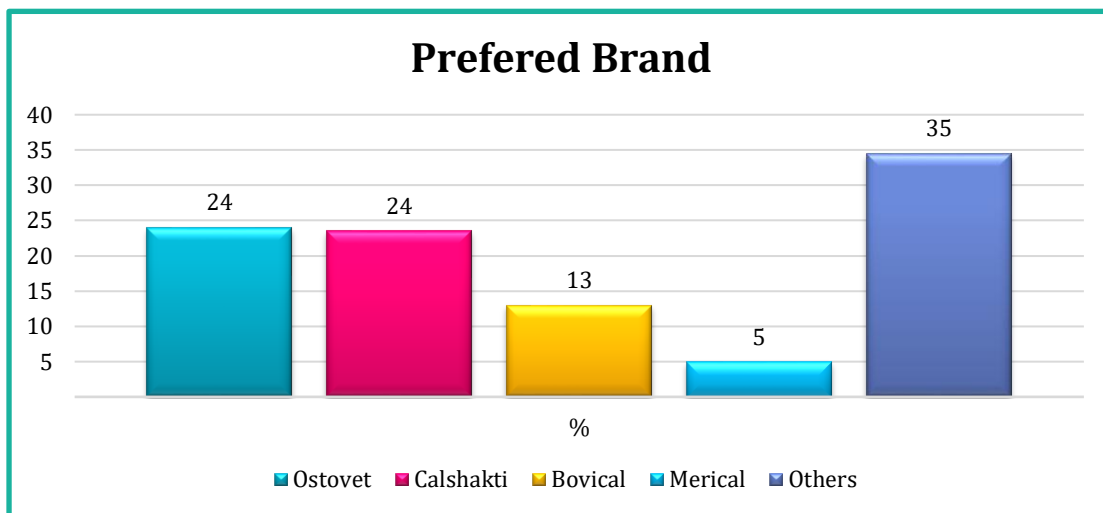


Chart: 1

Ostovet and Calshakti are brand leader with one quarter market capturing situation in each case. Bovical and Mercial are challengers of Calcium market with market share of 13% and 5% respectively. Most surprising information is dominance of other local brands or unbranded calcium used by farmers for increase in milk production. It seems that market is unorganised and not regulated also.

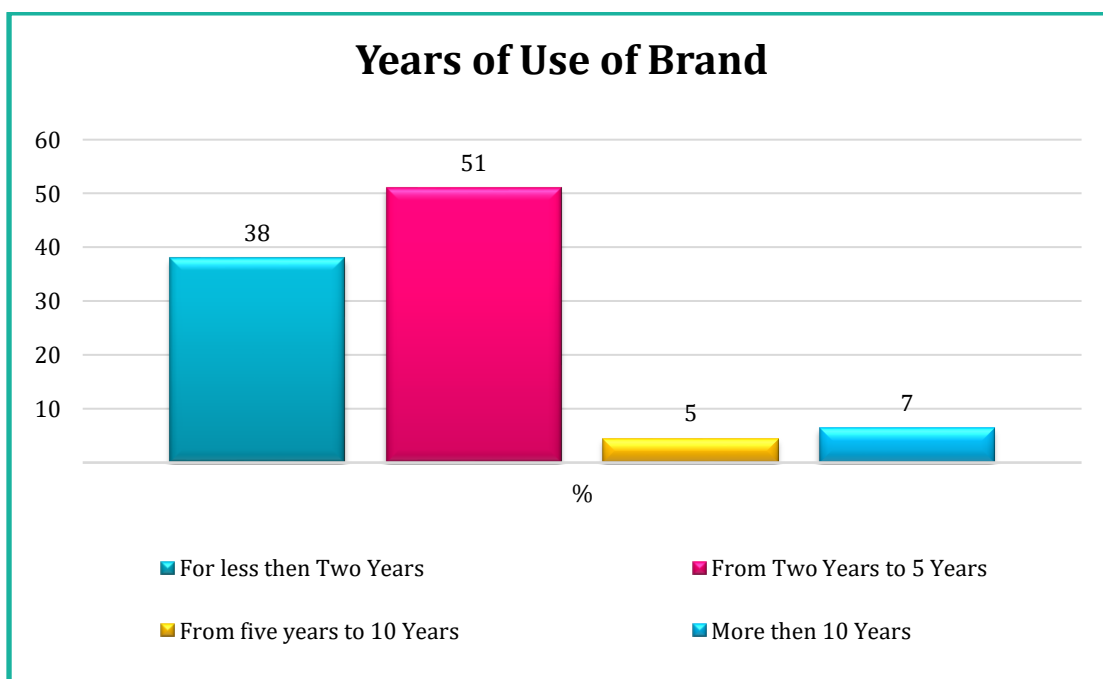


Chart: 2

38% respondents are using respective calcium brand for less than two years. Nearly one half of the respondents or farmers are using calcium for animal feed for more than two years but less than five years. Only 5% respondents are using calcium for more than five years but less than ten years. 7% respondents are using calcium for more than ten years.



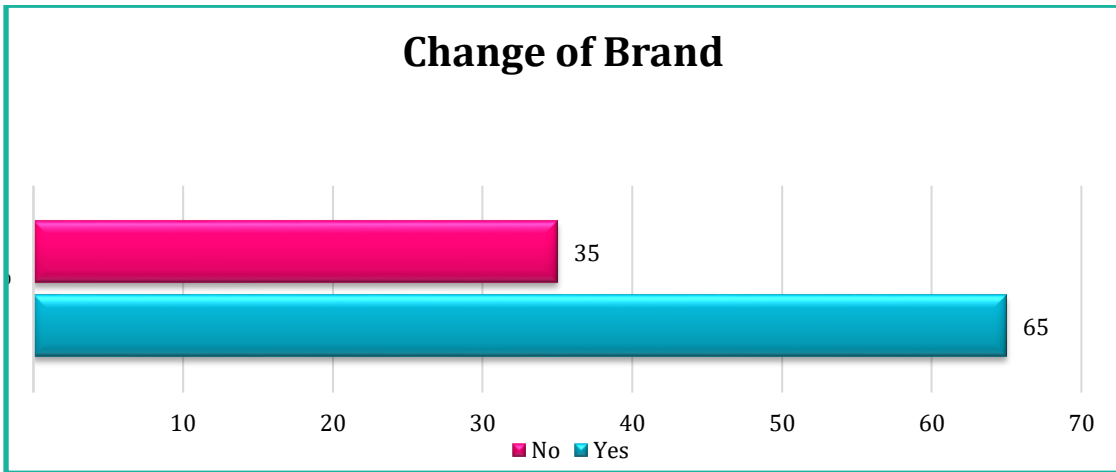


Chart: 3

Brand Loyalty level is significantly lower in the Calcium Brand preferred for animal feed. One third of the total respondents are loyal. Two third of the total respondents have changed their brand.

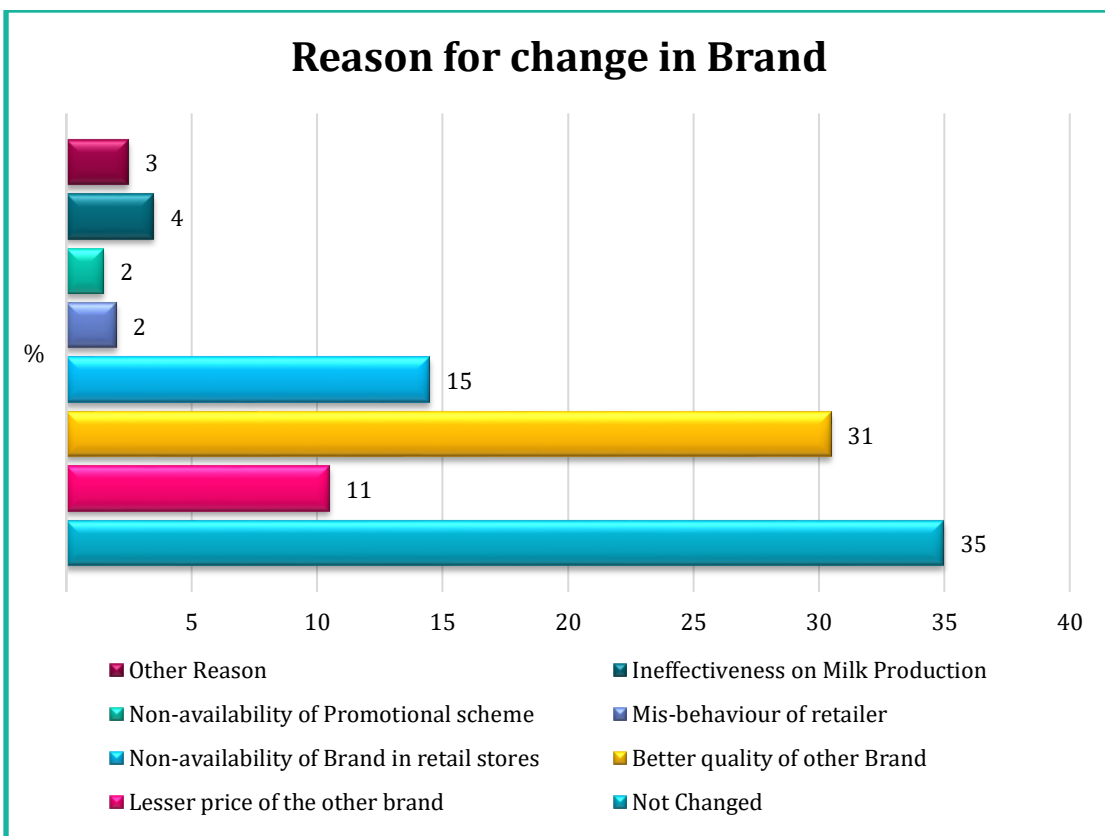


Chart: 4

Out of total respondents 2% have switched due to “Mis-Behaviour” of retailer. 31% respondents are attracted towards better quality of other available brand and switched to other brand. 15% respondents have changed their brand due to non-availability of Brand in the retailer’s stores. 4% respondents have observed that their existing Brand is



not effective at all. Non-availability of promotional offer affects 2% respondents for the switching of brand. 3% respondents have changed their brand due to other reason.

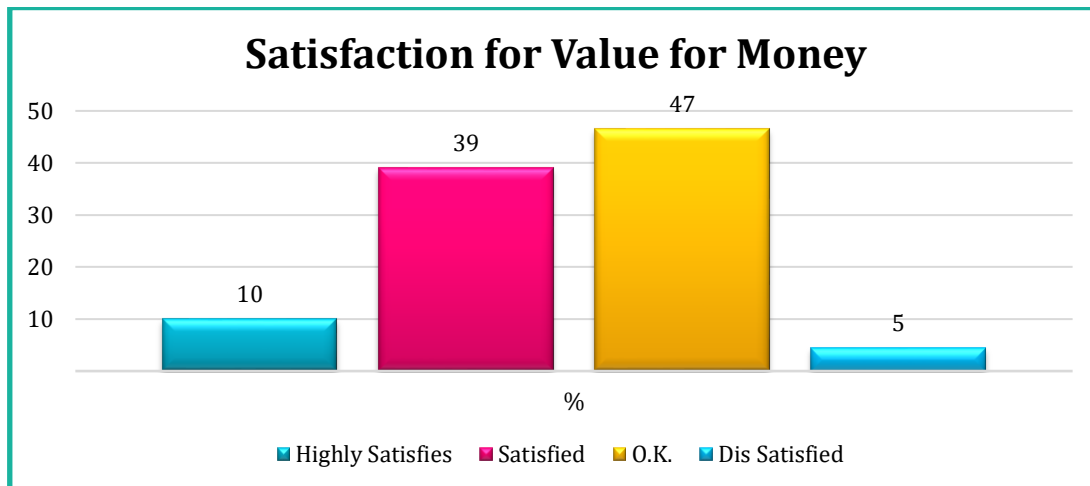


Chart: 5

Farmers or users of additive in the feed of animal is always looking for return on investment of calcium. Farmers consider price paid for calcium as additional cost for maintenance of animals. 39% respondents are of the opinion that they have obtained more benefit as to what they have paid for calcium as additive. As well as 47% respondents are of the opinion that they get more benefit as to what they paid for calcium. One tenth of the respondents are of the opinion that they get significantly higher benefit as to what they pay for the calcium liquid.

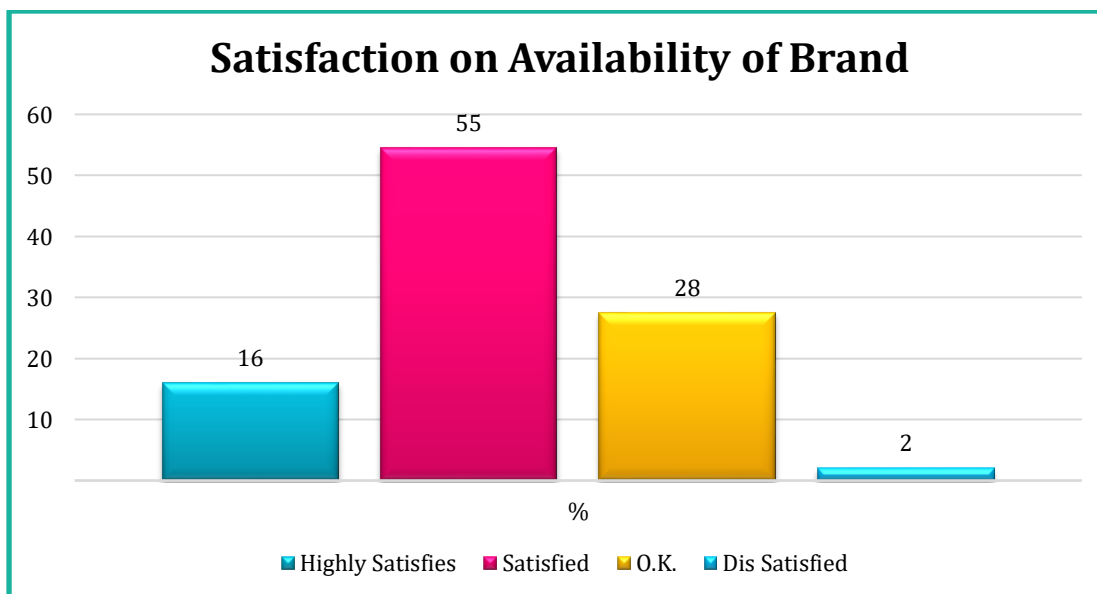


Chart: 6

One of the most important reason for highly acceptance of brand amongst the customers is constant availability of brand in market. 16% respondents are “Highly Satisfied” for the constant availability of brand. 55% respondents are “Satisfied” for the availability of Brand. 28% respondents are find availability of brand just “O.K.”. 2% respondents are dis-satisfied for the availability of Brand in market.



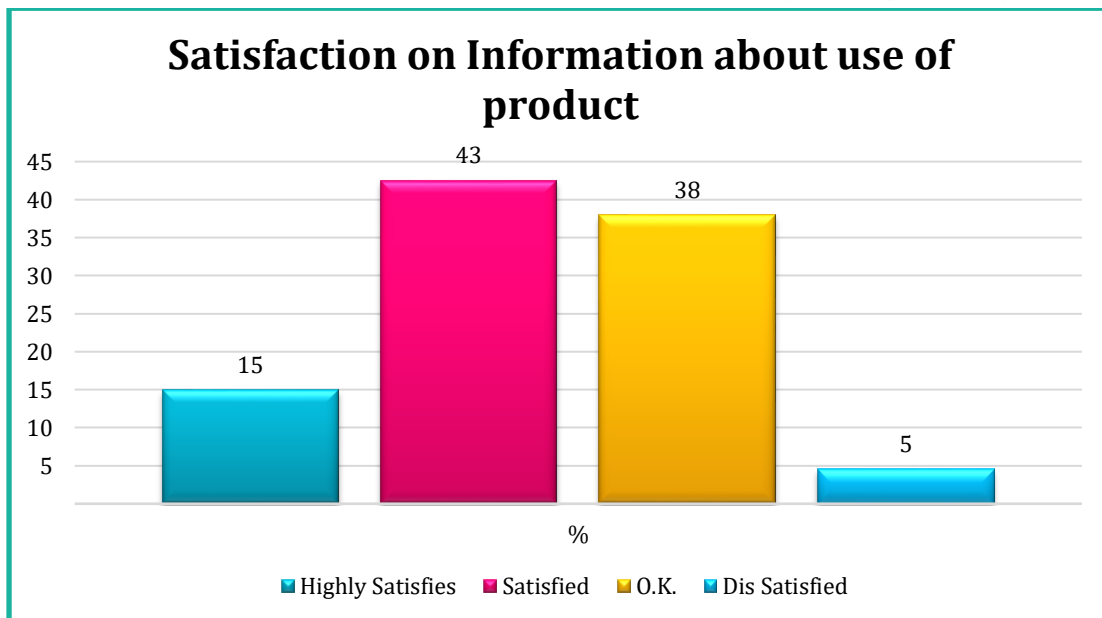


Chart: 7

Informational about usage of product, quantity of calcium to be given in the additive in the animal feed is necessary for the farmers. Right information about usage of product to the consumer is necessary for getting expected result of product. 43% respondents are satisfied with the availability of information for usage of calcium. 38% respondents are of the opinion that they can get just bare minimum information about the usage of product. 15% respondents are of the opinion of that they get right information about usage of product.

**Hypothesis Test:**

H<sub>0</sub>: Brand preferred for calcium has no significant influence on satisfaction for **increase in production of milk**

H<sub>1</sub>: Brand preferred for calcium additive has significant influence on satisfaction **for increase in production of milk.**

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	37.065 <sup>a</sup>	12	.000
Likelihood Ratio	40.102	12	.000
Linear-by-Linear Association	20.800	1	.000
N of Valid Cases	200		

**Conclusion:**

As P value chi-square is 0.00 we can conclude that there is significant influence of Brand for satisfaction of production of milk. Thus we can conclude that H<sub>1</sub> is accepted.





## Findings:

- Findings reveals that Ostovet and Calshakti are most preferred calcium brands by farmers' followed by Bovical and Merical.
- More than 1/2 of the farmers are using branded calcium in animal feed since more than 5 years, whereas a large group of farmers (about 1/3 of total respondents') is new to use branded calcium in animal feed.
- Findings reveals that 65% of respondents changed their calcium brand and miss-behaviour by retailer is prime cause behind it. Other reasons include better quality available in market, non-availability of preferred brand, and low price of other brands.
- Research reveals that around 1/2 of respondents rate ok (Average) to calcium brands companies on value of money. Whereas 39% are satisfied with this.
- More than 1/2 of the Respondents' are satisfied with the availability of preferred calcium brand in marker, where 16% are highly satisfied. But around 30% are rating average to availability of brand.
- On "information to use a brand" 43% of respondents are satisfied, but around same number of respondents rating it average. Whereas 15% are highly satisfied.
- Findings from hypothesis test reveals that brands do not influence or affect the milk production.

## Conclusion:

Calcium is an important component of animal feed and required by various channels. Researchers began this research with the objective to know the satisfaction of farmers towards calcium brands. From the above data analysis, researchers come to know that many customers (farmers) are satisfied with the calcium brands, however there are certain group of farmers which is expecting better services or quality from calcium companies. India is world largest milk producer and to compete with the world, various institutes need to work collectively for the betterment and production of milk.

## Suggestions, Limitation and scope for future research:

On the basis of above data analysis, researchers would like to suggest to animal feed calcium brands that:

- Companies need to increase brand promotions, so that more farmers can come to know about brand and products, for this companies can use salesmen team.
- Companies need to create awareness about the benefits of using calcium brands, so more farmers start using it.
- Calcium companies need to conduct training programme for retailers as well, so they can understand customers' need and demand in better way, it will help to enhance brand loyalty.

- Calcium companies need to offer quality products at lower prices so that customers feel that they have received value for money. It will increase customers' satisfaction.
- More outlet or retailers need to add by companies, especially in rural areas, so farmers can get their preferred brand easily.
- Companies also need to arrange seminars or workshops for farmers, where information on usages of calcium need to be discussed so more farmers can understand the right usages of products.
- Packing can be done in regional language with instruction to use to make it easier to understand by farmers.

### **Limitation and future research:**

This research is limited to Gujarat farmers' only, and only covering satisfaction on few criteria. Further research can be done in different area of country and can cover other aspect of animal feed business and marketing.