

PRICING STRATEGIES OF CHEMICAL INDUSTRIES: WORKS BEST FOR EFFECTIVE MARKETING WITHIN PUNE DISTRICT

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ABSTRACT

The chemical industry is among the fastest growing ones in India. In India the chemical companies produced chemicals which consist of either upstream/upper products, intermediates products or sometimes downstream products which go into a variety of manufacturing applications including fertilizers, pharmaceuticals, textiles, plastics, agrochemicals, paints and dyes. Price setting is an important area in marketing mix decisions of a company. It is the element that generates revenue for the company and all others involve only costs. It is the only marketing mix element that can be changed quickly to respond to changes in demand or competitive moves. Pricing should never be seen as an isolated component of a company's marketing decision making. Companies spend large amount of money on product development, promotion, and distribution and face risks. Sometimes, price is the only marketing mix that can be changed quickly to respond to changes in demand or competitive moves. Developing new products or modification of existing products, any changes in promotional program or distribution system involves much time and efforts. A pricing strategy is a course of action framed to affect and guide price determination decisions. These strategies help realizing pricing objectives and answer different aspect to how price will be used as a variable in the marketing mix, such as new product introduction, competitive situations, and government pricing regulations, economic conditions or implementation of pricing objectives. More than one pricing strategy may be selected to address the needs of different markets or to take advantage of opportunities in certain markets. Low prices can be used as a buildup to form market share. Prices that undercut competitors attract new customers and allow for greater utilization of facilities. But low prices squeeze margins and often reduce net profits. Thus an ideal pricing strategy should be the one that balances the need for sales growth against market demand for profits. The eight steps which are essentials for setting strategies for product or service pricing are: (i) To assess the customers' expectations on a product or service, (ii) To identify the variations in the product category, (iii) To assess customer's price sensitivity, (iv) To identify an optional pricing structure, (v) To consider competitor's reactions, (vi) To monitor the prices realized at the transaction level, (vii) To assess customers' emotional response and (viii) To analyze whether the returns are worth the cost to serve. The basic determinants for the pricing of products and services are production costs, competitive factors, and break-even analysis and demand considerations. Domestic price is affected by the considerations on pricing objectives, cost, competition, customer, and state regulations. In addition to the conventional considerations on pricing, multiple currencies, trade barriers, and longer distribution channels make the pricing decisions more difficult. The pricing objectives should be closely associated to marketing objectives, which in turn need to be derived from overall corporate objectives. In determining the prices, the nature of competition plays a key role. The competition in an industry is analyzed with reference to such factors as the number of firms in the industry, product differentiation and ease of entry. The competitive analysis reveals the position of global and domestic competitors in the particular market in reference to the price they charge for their products. It is essential for a company to conduct breakeven analysis of the current or proposed business. A breakeven analysis examines the interaction among fixed costs, variable costs, prices and unit volume to determine that combination of elements in which revenue and total costs are equal. In determining the pricing strategy, the customer demand for a product is a key factor. The considerations, which are necessary for price setting, are the ability of customers to buy, their willingness to buy, propensity to consumer, the place of the product in the customer's lifestyle, prices of the substitute products, the potential market for the product and the consumer behavior in general. **Purpose**— This paper aims to explore the challenges faced by chemical industries especially located at rural areas. This paper also aims at understanding the pricing strategies adopted for them to have effective marketing. **Research Methodology**— This is descriptive paper based on questionnaires and personal interviews with chemical manufacturer and their distribution channel. **Findings**— This research paper highlights importance of the pricing strategies adopted by the chemical industries but have significant contribution to increase the economy and profitability of the company. **Research implications** — The study mainly focused on small scale chemical industries located in Kurkumbh MIDC areas. The observed importance of information is sharing merit further investigation. **Originality**— This paper, by combining marketing strategy related information concepts into one model, offers new insights into the pricing strategies adopted by the chemical industries.

Keywords: Pricing strategies, Competitor, innovation.

Introduction

The Indian Chemical industry, twelfth biggest in production in the world, is developing at average rate of 12.5%, hence modernization of existing technology through innovation or foreign collaboration could encourage improve development and growth.

Increasing local production requires global competitiveness to withstand imports as well as for export surplus, the success factors are availability of feedstock at competitive cost, access to advanced technology, low cost capital, investment in Research and Development and talent development.

The boost demand of the chemical products, there is necessary for chemical companies to grow. The Government is ensuring that this demand be met through domestic production.

For Indian companies marketing mix strategies are important as the Indian economy is now a part of the global economy and Indian companies need to complete globally.

Presently Indian chemical industry holds a perceived position in the worldwide; however there are few elements which impedes the development of the business it incorporates:

a) Lack of cheaper raw material availability

Chemical industry utilizes either regular gas or raw petroleum as feedstock for assembling process. Feedstock and force are basic inputs for both organic & inorganic chemicals industry. Expenses of these crude materials are high in India when contrasted with nations like China, Middle East, Thailand and Indonesia, likewise the variances in oil costs influence on the expense of item and the development gauge of the organization.

b) Fragmented Small Scale Industry

The Indian chemical industry is having a splitting structure with more number of units in small-scale sectors spread in various parts of the country. The installed capacities in most of the small-scale units are smaller as compared to global scales. The limitation in capacity in the small scale industries put them in unfavorable position while tapping export opportunities with large volume.

c) Low levels of Research & Development (R&D)

The level of R&D investments in the Indian chemical sector is low at around 2% of net sales. The regions for consolidation of R&D in chemical industry include improvements in manufacturing process for reduction in cost of production, application development to diversify demand, and new product development.

d) Low Level of Brand Development

Indian chemical manufacturers, excepting a few large producers, generally sell their products as generic products without brand development. There is also low level of interest amongst small scale producers for brand development, product development and also for market development.

e) Focus on Core Competence

Innovation in the marketing, select the marketing area becoming an important factor to focus on core competence and to become a leading player in specialty products. In the above context, it is important for the Indian chemical manufacturers to focus on select business segments / target the specific area where competitive advantage exists.

f) Strengthening Technological Development

Indian chemical industry ought to strive for constantly enhancing its generation procedures and items by propelling assets in innovation advancement. In the mass items section, the chemical business ought to attempt process advancement and in addition operational development with the target of decrease in expense of creation. What's more, the industry needs to put resources into innovative assets that would prompt particular item advancement.

Problems of Chemical Industry

Indian Chemical area has grown a small scale segment to multi-dimensional division, which is going up against the difficulties of globalization. Presently, compound industry holds a perceived position in the worldwide guide, notwithstanding, there are few elements, which obstruct the development of the business, and these include:

1. The Chemical industry is showing the declining marginal stage, Profit after tax (PAT) is decline also decline in profitability which is

due to non-availability of finance for capital reinvestment.

S. No	Year	PAT (%)
1	1995	9
2	1998	2.8
3	2001	0.4
4	2010	0.08
5	2014	0.02

2. Globally companies spend averagely 18.5 % of Net sales on Research and Development (R&D), but Indian companies spend only 2% of Net sales on Research and Development, this indicates the less focus on R & D.

Source: KPMG research

3. Cost and profit build up is unattractive, higher in Indian context as compare to the International competitors, below given data shows:

S.,No	Particulars	India	Int. Competitors
1	Raw material	65%	45%
2	Energy cost	8%	3%
3	Total fixed cost	10%	8%
4	Profit margin	8%	40%

Source: KPMG research

4. Cost disadvantages:

Cost such as financial rate of interest, local taxes such as VAT, Sales tax, Excise duty also

the import duties are much higher than the other county.

S, No	Particulars	India	China	Thailand	Indonesia
1	Rate of Interest	12%	6%	4%	10%
2	Local taxes	18%	16%	8%	9%
3	Import duties	36%	10%	10%	5%

Source: KPMG research

Review of Literature

Lee G. Cooper¹ (1983), the domain of this review includes the development and application of multidimensional scaling (MDS) in product planning in decisions concerning pricing and branding; in the study of channels of distribution, personal selling, and the effects of advertising and in research related to the fact finding and analysis mission of marketing research. In the research for goods planning specific attention is given to market structure analysis to the development of a key conformation of product perceptions to the role of individual differences, to signifying consumer preferences to issues in market segmentation and to the use of uneven MDS to study market structure. Author deals with issues in data collection such as the response rate, time, and accuracy of judgments the validity, reliability and stability of judgments

and the robustness of data collection techniques and MDS algorithms.

Doyle, P² (1987), "Marketing and the British Chief Executive", Journal of Marketing Management, Vol-3, No-2, PP- 121, The success of business mainly depends on identifying changing customer needs and wants and then designing, producing the products according to the needs and wants of the customers and customer prefers the products of good quality, reasonable price and the timely delivery.

Stanton, W.J. Etzel, M.J.Walker³(1994), "Fundamentals of Marketing ,"Mc-Graw Hill, Inc 10th edition, P.6.In marketing mix the product planning, pricing, promoting, and distribution are well planned to achieve organizational goals. It comprises all the activities from the time a product is conceived to the time it reaches the consumer.

Boonghee Yoo, Naveen Donthu and Sungho Lee⁴, (2000), The study explores the relationships between selected marketing mix elements and the creation of brand equity. It suggests marketing origins are related to the dimensions of brand equity that is perceived quality, brand loyalty and brand associations combined with brand consciousness, these magnitudes are then related to brand equity. The experimental tests using an operational equation model support the research hypotheses. Price transactions are related to low brand equity whereas high advertising spending, high price and high distribution intensity are related to high brand equity. The pricing structure of the products are decided to take into consideration of the product quality, discount offered by the manufacturer and the competitor's pricing policy.

Objectives

1. To study the marketing mix strategy of Chemical Industries in Pune district.
2. To understand the Pricing strategy of the small scale chemical companies.
3. To analyze the impact of Pricing strategy on efficiency of the marketing of chemical companies

Hypothesis

- 1) There is no significant relationship between price consideration and impact on sales.
- 2) There is no significant relationship between the variation in the price and profit.

Research Methodology

Sources of Data: To get information for study, it has been collected from the various sources that are -

a) Primary Data Sources

Primary sources are unique sources from which the researcher specifically gathered information that has not been beforehand gathered. Primary sources empower the researcher to get as close as could reasonably be expected to what really happened and are hands on. A primary source mirrors the individual perspective of a member or eyewitness. The primary information are those which are gathered a new and interestingly, and in this way happen to be unique in character for the particular destinations and requirements spelt out by the

researcher. The realness and relevance is sensibly high. The Real wellsprings of primary information through the survey. There are different techniques for gathering primary information especially for this study perception strategy, meeting, telephonic meeting, mail and poll strategy is chosen.

i) Observation method

This strategy for information accumulation is a standout amongst the most proper techniques to use, if there should be an occurrence of spellbinding research. The occasion being watched may include a live perception and reporting or includes review and recording people, gatherings, associations in an investigative way with a specific end goal to gather important information identified with the point under study.

The method of perception institutionalized and organized organization, the nature of elements is to be recorded and the configuration and the expansive territories of recording are foreordained. Along these lines, the eyewitness' inclination is diminished and the genuineness and unwavering quality of the development gathered is higher.

The perception technique is the most generally utilized strategy particularly as a part of studies identified with behavioural sciences. Perceptions turns into a logical instrument and technique for information gathering for the researcher, when it fills a figured research needs, is efficiently arranged and recorded and is subjected to checks and controls on legitimacy and dependability. Under the perception strategy, the data is looked for by method for examiners own immediate perception without asking from the respondent.

ii) Questionnaire method

With a specific end goal to make the survey compelling and to assured quality to answers got, researcher had paid consideration on the inquiry succession in get ready poll. The inquiry arrangement must be basic, clear and smooth moving significance in this manner that the connection of one inquiry to another ought to be promptly evident to the respondent, with inquiries that are less demanding to answer being placed at the outset. In this strategy a survey is sent to the people concerned with a

solicitation to answer the inquiries and return the poll. The polls were separated into one and only segment, the survey was not pertinent to client on the grounds that the last result of one organization is the crude material of other organization. The layout of the polls can be clarified as under

Secondary information are what have as of now been gathered and investigated by another person and which has been gone through the measurable procedure.

The secondary distributed information is:

- a) Various periodical of the central, state and local governments,
- b) Various periodicals of foreign governments or international bodies.
- c) Technical and trade journals,
- d) Books, magazines, newspaper,

e) Financial reports and publication of various associations connected with business and industry, banks, stock exchange etc.

f) Information prepared by research scholars, universities, economists etc.

g) Internet, which was helpful for preliminary planning of the sample.

h) Public records and statistics, historical documents, and other sources of published information.

The data are collected with the help of Primary data as well as Secondary data. The Primary data are collected with the help of Questionnaire method, Personal interview method, Telephonic interview method, while secondary data are collected with the help of Govt. published report, Magazine, Journal, Chemical weekly & Web site.

Sample size

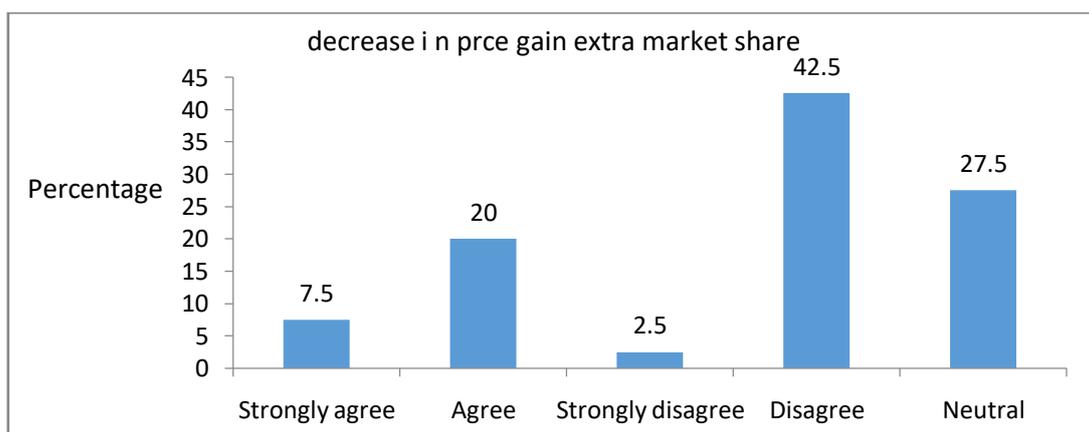
Total 80 companies are selected.

Data Analysis

Q. 1-Table 1. Small decrease in price gain extra market share-

S. No	Small decrease in price gain extra market share	No. of Respondent	Percentage (%)
1	Strongly Agree	6	7.5
2	Agree	16	20
3	Strongly disagree	2	2.5
4	Disagree	34	42.5
5	Neutral	22	27.5

Graph 1.decrease in price gain extra market share



Interpretations –

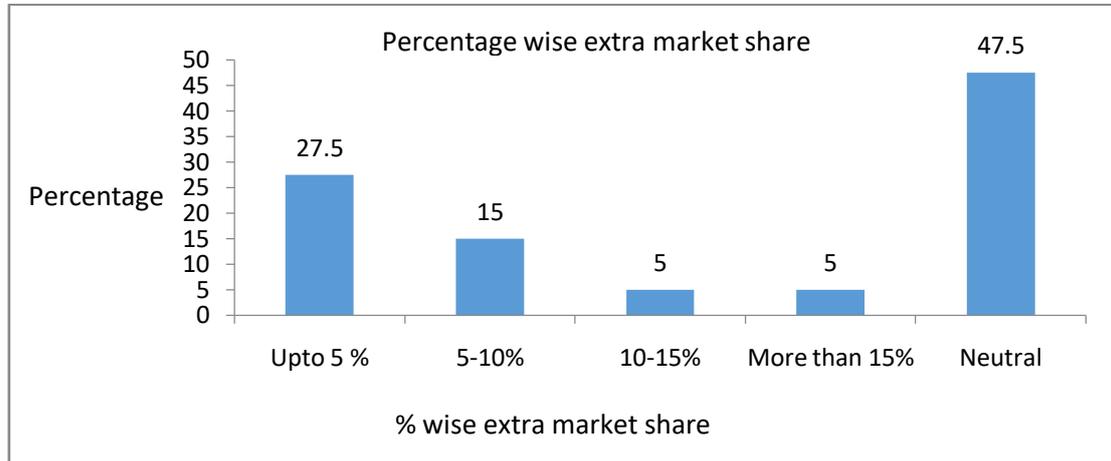
The above table shows that 7.5 % respondents are “Strongly Agree” with Small decrease in price will gain extra market share, 20 % respondents are “Agree “with small decrease in price will gain extra market share, 2.5%

respondents are “Strongly disagree” with small decrease in will gain extra market share, 42.5% respondents are “Disagree” with small decrease will gain extra market share and 27.5 % respondents are not given their opinion (Neutral

Q. 2-Table 2. Percentage wise extra market share due to small decrease in price

S. No	% wise extra market share	No. of Respondent	Percentage (%)
1	Up to 5 %	22	27.5
2	5-10 %	12	15
3	10-15 %	4	5
4	More than 15 %	4	5
5	Neutral	38	47.5

Graph 2. Percentage wise extra market share



Interpretation –

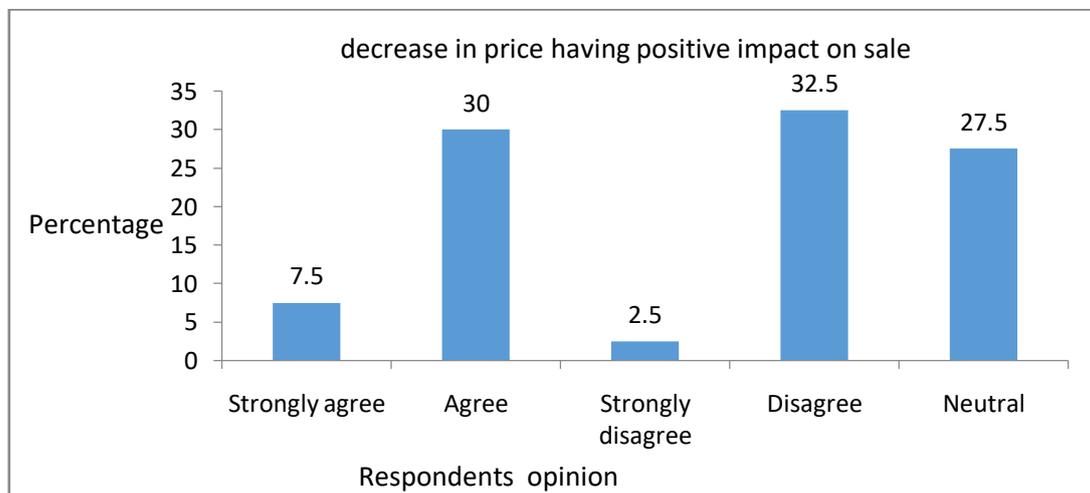
The above table shows that 27.5% respondents are agree that due to small decrease in price (up to 3%) will gain a 5% extra market share. 15 % respondents are agree that due to small

decrease in price (up to 3%) will gain a 5-10 % extra market share, 5% respondents are agree that due to small decrease will get 10-15% extra market share and 47.5 % respondents are neutral of this opinion.

Q.3-Table 3. Small decrease in price having positive impact on sale

S. No	Small decrease in price having positive impact on sale	No. of Respondent	Percentage (%)
1	Strongly Agree	6	7.5
2	Agree	24	30
3	Strongly disagree	2	2.5
4	Disagree	26	32.5
5	Neutral	22	27.5

Graph3. decreases in price having positive impact on sale



Interpretation –

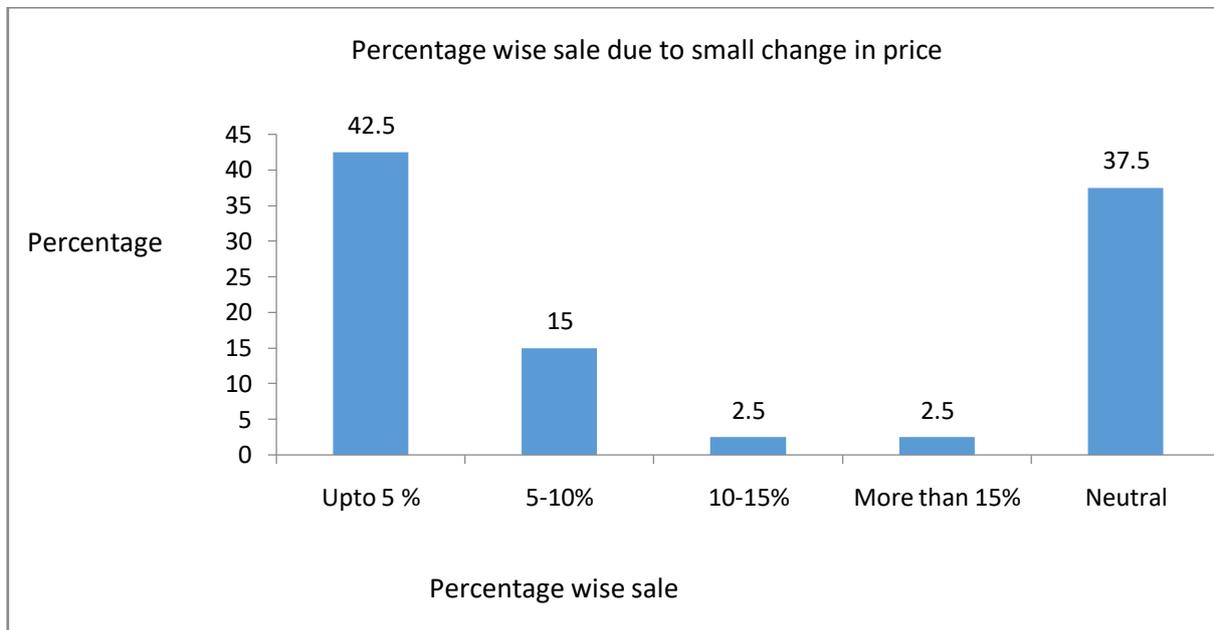
The above table shows that 7.5 % respondents are “Strongly agree” that small decrease in price (up to 3%) having positive impact on sale. 30% respondents are “Agree” that small decrease in price (up to 3%) having positive

impact on sale. 2.5% respondents are “Strongly disagree” that Small decrease in price (up to 3%) having positive impact on sale. 32.5% respondents are “Disagree” that small decrease in price (up to 3%) having positive impact on sale and 27.5 % respondents are Neutral.

Q. 4-Table 4. Percentage wise sale increases due to small change in price.

S. No	Percentage wise sale due to small change in price	No. of Respondent	Percentage (%)
1	Up to 5 %	34	42.5
2	5-10 %	12	15
3	10-15 %	2	2.5
4	More than 15 %	2	2.5
5	Neutral	30	37.5

Graph 4. Percentage wise sales increases due to small change in price



Interpretation-

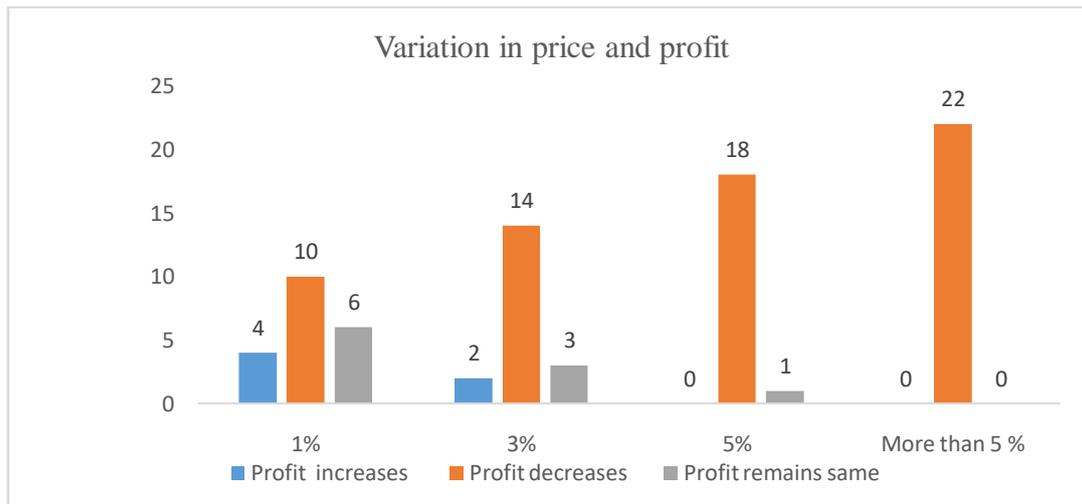
The above table shows that 42.5 % respondents are agree that up to 5 % sales increases due to small change in price. 15% respondents are agree that up to 5-10 % sales increases due to

small change in price. 2.5 % respondents are agree that up to 10-15 % sales increases due to small change in price and 37.5 % respondents are neutral regarding this opinion.

Q. 5-Table 5. Association between variation in price and profit.

Price decrease by	Profit increases	Profit decreases	Profit remains same
1 %	4	10	6
3 %	2	14	3
5 %	0	18	1
More than 5 %	0	22	0

Graph 5. Association between variation in price and profit.



Interpretation-

Price reduction is resulting into decrease in profit margin. Buyers are not ready to buy if there is no requirement, considering the storage issue. This means sale is marginally constant leading to net negative effect on profitability. It was observed that when the price decreases by 1% the profit decreases by 10% , when the

price decreases by 3% the profit decreases by 14% , when the price decreases by 5% the profit decreases by 18% , when the price decreases by more than 5% the profit decreases by 22%. Therefore it shows that there is significance association between variation in price and profit.

Q. 6-Table 6. Discount offered to trade customers

% of Discount	Number of Customers			
	Up to 25	25-50	50-100	More than 100
Upto 1 %	4	6	8	10
Upto 3 %	1	2	3	4
5 % & above	0	0	0	0
No discount	10	10	10	12

Interpretation-

Orders from the customers are small hence companies are not offering trade discount. Loyal customer who are placing bulk orders are less in numbers, indicating need for better marketing strategies particularly for promotion.

It was observed that 42 customers are new customers or placing small order, hence companies are not offering trade discount. The 38 customers are loyal customers & placing bulk and continuous orders, the companies offers the discount, hence it was observed that companies offered 1% discount for most of the customers.

Q. 7-Table 7.Deciding Pricing structure of product

S. No	Pricing structure of product	No. of Respondent	Percentage (%)
1	Product Quality	34	75
2	Discount offer	24	10
3	Required service	10	5
4	Competitor’s policy	12	10

Graph7. Deciding pricing structure of product



Interpretation –

The above table shows that 75 % respondents are agreed that product quality taken into consideration while deciding product price. 10 % respondents are agreed that discount offer taken into consideration while deciding product price. 5 % respondents are agreed that required service taken into consideration while deciding product price and 10 % respondents are agreed that competitor’s policy taken into consideration while deciding product price.

Hypothesis Testing:

Hypothesis 1

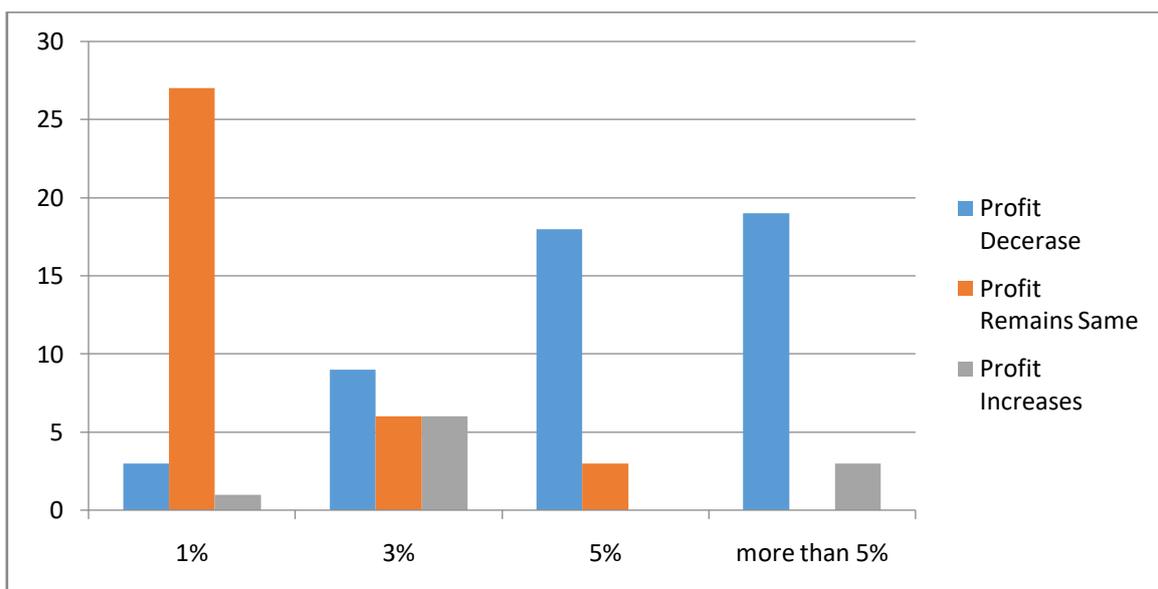
H0: There is no significant relationship between variation in price and profit.

H1: There is significant relationship between variation in price and profit.

Level of significance: 5 %

The test statistics used for testing this hypothesis is cross tabulation (**Chi-square test**).

Graph1 Association between variation price and profit



Variation in Price1

Interpretation –

It was observed that when the price decreases by the 1% then profit decreases by 9.7%, the

price decreases by the 3% then profit decreases by 42.9.7%, the price decreases by the 5% then profit decreases by 85.7% and when the price

decreases more than 5% then profit decreases by 86.4%, **Therefore it shows that there is**

Decision rule 1-

According to Chi2 test. The results of the test statistics indicate **to reject null hypothesis and accept alternative hypothesis**, as p value of the chi-square statistics -is 0.001 which is less than .05. **Therefore, we can conclude that statistically there is significant association between profit and variation in the price.** The figures of the count and expected count indicate that if there is more decrease in price then profit also decreases.

Decision rule 2.

For Chi-square test -Table value of 6 is (12.59) should be less than Calculated value (62.957) The result of the test statistics indicates **to reject null hypothesis and accept alternative. Hypothesis no 2.**

significant association between profit and variation in the price.

H0. There is no significant relationship between price consideration and impact on sales.

H1. There is no significant relationship between price consideration and impact on sales.

Level of significance: 5 %

The test statistics used for testing this hypothesis is cross tabulation (**Chi-square test**)

Researcher has tested this hypothesis by taking into account opinion of the respondents on decrease in price and its impact on sale. Out of 29 respondents 15 respondents are of the opinion (agree) that decrease in price has positive impact on the sale.

To test this hypothesis researcher has defined null and alternative hypothesis as follows:

H0: p=.60 (60 % people feel that decrease in price has positive impact on the sale)

H1: p<.60 (less than 60 % people feel that price has not positive impact on sales.

Graph2 Price consideration and impact on sale



Interpretation –

60 % people feel that there is association between price consideration and buying behavior and 40% people feel that there is no association between price consideration and buying behavior.

Decision rule

According to Chi2 test. The results of the test statistics indicate **to accept null hypothesis**

and reject alternative hypothesis, as p value of the statistics is .363 which is more than .05.

Therefore, we can conclude that there is no association between price consideration and impact on sale.

Findings

1) It was observed that, 7.5percent respondents are “Strongly Agree” with Small decrease in price (up to 3 percent) will gain extra market share, 20percent respondents are “Agree “with

small decrease in price (up to 3 percent) will gain extra market share, 2.5 percent respondents are “Strongly disagree” with Small decrease in price will gain extra market share, 42.5 percent respondents are “Disagree” with small decrease in price (up to 3 percent) will gain extra market share and 27.5 percent respondents are Neutral. Hence it can be seen that small decrease in price does not gain extra market share.

2) It was observed that, 42.5 percent respondents are agree that up to 5 percent sales increases due to small change in price. 15 percent respondents are agree that up to 5-10 percent sales increases due to small change in price. 2.5 percent respondents are agreeing that up to 10-15 % sales increases due to small change in price and 37.5 percent respondents are neutral regarding this opinion. Hence it can be seen that sales increases due small change in price.

3) The above table shows that 7.5 % respondents are “Strongly agree” that small decrease in price (up to 3%) having positive impact on sale. 30% respondents are “Agree” that small decrease in price (up to 3%) having positive impact on sale. 2.5% respondents are “Strongly disagree” that Small decrease in price (up to 3%) having positive impact on sale. 32.5% respondents are “Disagree” that small decrease in price (up to 3%) having positive impact on sale and 27.5 % respondents are Neutral.

4) The above table shows that 42.5 % respondents are agree that up to 5 % sales increases due to small change in price. 15% respondents are agree that up to 5-10 % sales increases due to small change in price. 2.5 % respondents are agree that up to 10-15 % sales increases due to small change in price and 37.5 % respondents are neutral regarding this opinion.

5) It was observed that when the price decreases by 1 percent the profit decreases by 10 percent, when the price decreases by 3 percent the profit decreases by 14 percent, when the price decreases by 5 percent the profit decreases by 18 percent, when the price decreases by more than 5 percent the profit decreases by 22 percent. Therefore, it shows

that there is significance association between variation in price and profit.

6) It was observed that, 42 customers are new customers or placing small order, hence companies are not offering trade discount. The 38 customers are loyal customers & placing bulk and continuous orders, the companies offer the discount, hence it was observed that companies offered 1 percent discount for most of the customers

7) It was observed that, 75 percent respondents agreed that product quality is taken into consideration while deciding pricing structure of product, 10 percent respondents agreed that discount offered is taken into consideration while deciding pricing structure of product, 5 percent respondents agreed that required service is taken into consideration while deciding pricing structure of product and 10 percent respondents agreed that competitor's policy is taken into consideration while deciding pricing structure of product. Hence it can be seen that the product quality is taken into consideration while deciding pricing structure of the product.

Suggestions

1. The company should focus on new products development and downstream product to support in the business sector.
2. Manufacturers should urge authorities to reduce tax burden for controlling cost of input.
3. Merger and Acquisition helps in cost reduction as well as reduction in overheads.

Conclusions

1. Negligence efforts towards increasing Research and Development expenditure, even after a long stay in business. The customers who are quality conscious, hence it is necessary to work on this area.
2. The shape and reshape the business the strategic market planning is essential for choosing the right products, for the growth of markets at the right time.
3. Customer could be happy for getting price discount; it is possible with significant efforts towards building quality infrastructure in the form of latest technology and equipment's.

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