

VENDOR SATISFACTION: AN EMPIRICAL STUDY OF VENDORS OF ENGINEERING COMPANIES IN PUNE INDUSTRIAL AREA

Mr. Nishant Wasatkar*

Mr. Rahul Mali**

Abstract:

In the present competitive market manufacturing companies will always look for more market share by satisfying customers to their expectation. In today's market situation, customer will buy the product if it is worth & value for money. Now to create value for customers companies have to concentrate on their manufacturing so that expected quality should be manufactured in minimum possible cost. For cost effective manufacturing one of the important resource, materials has to optimize. Now for reliable sources of material company should develop reliable vendor base, which will help the company to compete in market, by using materials as a strategic tool. Company will always look for synchronize and well coordinated supply chain which is impossible without healthy relationships between suppliers and manufacturer.

Vendor satisfaction is one of the crucial point which is utmost important for such a coordinated supply chain which will ultimately ensure the continuous source of materials with shared benefits between suppliers and manufacturer. If vendors are happy with the kind of trade they are having with the manufacturers, only then they will fulfill the manufacturer's expectation which will lead ultimately to customer satisfaction.

This paper will help to understand the relationship between the manufacturer and its suppliers in detail. For any manufacturing organization it becomes utmost important to satisfy all the stakeholders if they wish to run business in a long run. The paper will focus on impact of key issues between manufacturer and its suppliers like credit facility, technical & financial assistance, training programs, vendors get-together, inventory policies of manufacturer, inspection and rejections, sharing of information and so on.

Keywords: Engineering Companies, Pune Industrial Area, Vendor Satisfaction.

* *Asst. Professor, Sinhgad Institute of Technology & Science, Pune*

** *Sr. Engineer, GESTAMP Automotive India Pvt. Ltd. Chakan*

Introduction:

In today's globalized and competitive market every player in the market has to strive hard to sustain. Good marketing, purchasing, and production strategies are always assisting the companies to survive and grow. But now when companies are striving for cost reduction the material function plays an important role. Supplier plays a very important role in any manufacturing business to run the business in long run. For reliable source of material, company should develop reliable vendor base, which will help the company to compete in market by using materials as a strategic tool. Company will always look for synchronize and well coordinated supply chain which is impossible without healthy relationships between suppliers and manufacturer. For long term relationship with suppliers it is very much important that both the parties should engage in the business so that their will be win-win situation for both suppliers and manufacturers. For sustainability of the vendors it is very much important to keep all the suppliers always happy. As customer satisfaction is important for any business to enhance the business, vendor satisfaction is also equally important for reliable source of materials.

Vendor satisfaction is one of the important factors for coordinated supply chain which will ultimately ensure the continuous source of quality materials with shared benefits between suppliers and manufacturer. If vendors are happy with the kind of trade they are having with the manufacturer only then they will fulfill the manufacturer's expectation which will lead ultimately to customer satisfaction. Sharing of information is the key for improved relationship between vendors and manufacturer. If vendors are considered as the entity of manufacturer's business only where there is no communication barriers between both the parties, vendors will also start thinking in the same direction. The improved relationships between vendors and manufacturers is the result of coordination between both the parties with respect to reliable quality of the products and services provided by suppliers and the payment and other services provided by the manufacturer.

Considering present competition in the market every other manufacturer is concentrating on there own core competencies & trying hard to excel in that. While concentrating on core competency, lot of outsourcing of work is been made. Outsourcing of secondary task of any manufacturing company gives lot many advantages to manufacturers.

Now days, more and more companies are becoming dependent on their outsourcing suppliers. It is essential that the outsourcing suppliers have a good, sustainable relationship with the employer company and its stakeholders. A long-standing satisfactory relationship between the company and the suppliers requires that both parties are equivalently happy and satisfied with each other; satisfied employers dictate the degree of superior performance standard. Similar to any other human relationships, company-supplier satisfaction cannot be achieved if there is no mutual faith, trust, or openness in the relationship. To have a true partnership, companies have to satisfy the supplier's needs, and at the same time, suppliers have to fulfill the contractual obligations beyond the minimum benchmark set up in the contract.

In order to achieve the optimum satisfaction level, companies need to have a cooperative approach towards relationship building, rather than a transactional and reward-penalty based approach. When one party's needs are satisfied and well taken care of, it is likely that the other party will be more sensitive and willing to put more effort into achieving business excellence; hence, a strategic partnership will be formed.

The impact of technological innovation on supplier behavior sets the tone for setting up the modern marketing, and purchasing strategies that includes the study of suppliers' perception towards buyers, suppliers' satisfaction level, its needs and its development.

This paper will focus on studying vendor satisfaction level in pune industrial area with reference to vendors of engineering companies. The survey has been done on the basis of structured questionnaire which was intended to know the supplier's opinion about there respective manufacturers. The paper will help to understand the key drivers which will lead into vendor satisfaction. Several facilities are their which vendors expect from manufacturer like credit facility, training, operational assistance, appreciation, inspection & rejection, Etc. which ultimately affect the satisfaction level of suppliers.

Outsourcing satisfaction: 5 key dimensions



1) Reliability:

A supplier that delivers a level of performance identically equal to the amount desired is an important dimension of satisfaction as buyer wants supplier who can deliver consistently the basic level of performance. Consistent positive performance leads to reliability that sets up basic expectations.

2) Responsiveness:

This is most probably one of the critical dimensions of satisfaction. A supplier must have a proper channel of communication for interacting with the company management on a regular basis and responding to requests. Reduced costs and rapid cycle times will not be realized without a rapid response time from the outsourcing partner. Most of the complaints and dissatisfaction with the suppliers arises with regards to degree of supplier responsiveness.

3) Assurance:

The dictionary meaning of assurance is “promise or pledge; guarantee; surety”. ‘Assurance’ in outsourcing is a management process to provide an independent comfort to management that Outsourcing engagement processes are effective and efficient enough to provide the desired results envisaged at the beginning of the outsourcing engagement. This has impacts on various aspects of outsourcing and is one of the most important dimensions of all. It is also one of the most difficult to define. Understanding what assurance means to an organization in terms of

outsourcing relationships is quite challenging. This can span basic performance quality to strategy, planning, compliance, performance, innovation, access to skill sets everything.

4) Empathy:

Empathy has been described as a concept involving a cognitive as well as an affective domain. The cognitive domain of empathy involves the ability to understand another person's inner experiences and feelings and a capability to view the outside world from the other person's perspective. I would like to measure empathy based on the cognitive domain by asking suppliers and company employees to predict each other's thoughts, feelings, responsive behaviors regarding various relevant activities like project mgmt etc. and specific given crisis management scenarios.

5) Tangibles:

Previous research has suggested that customer perceptions of service providers may be influenced by the tangible components like the service outlet (e.g., presence of up to-date hardware and software, the appearance of the physical facilities) and the service staff (e.g., appearance of the staff).

What is Satisfaction?

The Confirmation/Disconfirmation Paradigm has been widely regarded as a standard process by which individuals develop feelings of satisfaction/dissatisfaction. In the context of satisfaction with suppliers, Confirmation is the case when actual supplier performance matches up to the standard expectation level; employee satisfaction is derived when actual supplier performance is better than the employee's preconceived notions; and finally, dissatisfaction generally arises when an employee's expectations far exceed the actual supplier performance.

Supplier Satisfaction

Supplier Satisfaction is as important as the employee and customer satisfaction. Suppliers of your products play a pivotal role in the prominence, popularity, and uniform growth enjoyed by your company in the highly competitive markets of the modern world. Suppliers sometimes behave as customers for improving the market size and image of your company.

Marker Research Consultancy provides easy and expedient measures for deriving and improving supplier satisfaction.

Dimensions of supplier satisfaction.

Prior work in satisfaction has measured perceived service quality that traditionally follows five dimensions. These five dimensions should serve as a good basis to test company-supplier relationship satisfaction in the outsourcing field.

Customer Relationship with Supplier

For a positive growth of business all customers have to depend, directly or indirectly, on good and reliable suppliers. Apart from their expectations from the supplier the customers also need to be loyal to them so as to strengthen their relationship. Therefore customers should work on building a strong and long-lasting supplier relationship as they do with their own customers. And it is not a complicated process. The positive customer-supplier relationship begins with the initiative of the supplier to demonstrate his sensitivity to the customer's needs. A customer always vouches for the conditions of his business deal with the supplier and likes to be honest with them to have a smooth flow of business. But many non-serious suppliers sabotage the deal in the beginning only by making the customer struggle to even getting a relationship started. The lapses and diversions on the part of the suppliers can affect their relationship in many ways as given below:

1) Satisfaction:

The customer expects overall attention and convenience in all departments to ensure smooth fulfillment of his needs. This includes quality, timeliness, and ease of access and commitment of conditions. He wants to believe that the supplier cares for him.

2) Competitiveness:

Customers assess the supplier through competition based on the pricing and quality of their products, its reliability, and its technological background and industry trends. These factors affect the deal.

3) Innovation:

It is difficult for the supplier to divert the customer from their quality assessment. Customer knows and lives the products more than the supplier does, as he is working on them and is in a position to suggest innovation and development for the products.

4) Finance:

Suppliers have to be ready for providing financial advantages as loan, extended terms on purchases and postponement of debt when demanded by their loyal customers particularly at their growth stage or when they are into a financial crisis.

Supplier relation with Customer

On the other hand suppliers also have a right to get their needs met as they are ultimately motivated by profit. They want to be known as the best in their deals so they count on customer loyalty and satisfaction at all levels which translate into direct benefit of both of them. Therefore it is only win-win relationships between them in all stages of the customer-supplier chain to produce total satisfaction. It should be remembered that a customer assumes his name only in relation to his supplier. As such in order to be a valued customer to suppliers, here are a few things he should do:

1) Payments always on time.

The customer should always negotiate for favorable payment terms before the deal is initiated. But once the order is placed, the commitment should be honored. Any problems arising in this regard should be properly dealt with to maintain the goodwill and benefits to earn.

2) Provide adequate flexibility.

The customer should try to give suppliers as much flexibility as possible for them unless there is a compelling, competitive reason not to do it. Unreasonable demands should be avoided. This tendency also connects to quality production.

3) Personalize the relationship.

The customer should always be in contact with the supplier and visit him frequently, not necessarily only when it is needed. He may also be invited to attend and give suggestions in some of their strategy meetings. Methods of improving business may also be discussed. Sharing of knowledge, opportunities, service benefits, software compatibility etc. would be beneficial for both.

4) Share information.

The customer should be communicative by keeping the suppliers aware of what is going on in their organization. He may share some of the key strategic information with them. Frequent and open communications are important in understanding each other's expectations. All relationships begin with self.

5) Be a demanding but a valued customer.

Being a demanding customer can just be fair. The customer should state his demands clearly and tell his supplier to hold his agreements. At the same time as a valued customer he must always cooperate with him to keep up his commitments without embarrassment. Sharing knowledge, service benefits, media exposure opportunities, software compatibility, efficiencies etc. would add to enhance relationship. These essential factors are important for the customers to create and maintain a healthy relationship with the suppliers.

Research Methodology

Objectives

- To study vendor satisfaction with respect to vendors for Engineering Companies in Pune Industrial area.
- To study expectation areas of vendors from manufacturers.
- To study various kind of assistance provided by manufacturers to respective vendors & its impact on vendors satisfaction level.
- To find out the most prominent area of dissatisfaction from the vendors point of view.

Hypothesis

Hypothesis Statements:

- 1) Vendors of engineering companies in pune industrial area are not satisfied with their respective manufacturers.
- 2) Satisfaction of vendors is largely influenced by prompt payment from manufacturers.
- 3) Satisfaction of vendors of engineering companies in pune industrial area is irrelevant of any kind of assistance provided to vendors by the manufacturers.

Sampling:

For the study of vendor satisfaction, “Probability” sampling technique is used. Sample size is 50. The survey is carried out around Pune city. As the numbers of vendors for engineering companies are very exclusive sample size is considered only 50.

Sampling technique: Probability, Convenience Sampling Technique

Sample size: 50

All the vendors of engineering manufacturers are located nearby Pune city. They are mainly located in areas like Mundhva, Vadgaon Sheri, Sinhagad road, Hadapsar, Kharadi.etc. The survey is carried out with the help of structured questionnaire.

Research Instrument: Structured Questionnaire.

Statistical Methods Used

For the analysis of data, following statistical methods were used;

- a) Bar Graphs
- b) Pie Charts
- c) Weighted average method
- d) Correlation

Methods of Data Collection

Primary Data:

Primary data is fresh data collected by the researcher for the first time. Researcher has collected primary data through direct interview, structured questionnaires and telephonic interview.

Secondary Data:

Secondary data pertains to those data that is already available in various reports, diaries, letters, books, periodicals etc. Also it is that data, which has been used previously for some research and is now in use for the second time.

The review of literature i.e. the research carried out by others on this subject is collected from secondary data source. It was collected online from research journals that publish similar works. The researcher has collected the secondary data from the articles, reports published online.

Data Analysis and Interpretation

1. Vendors’ association with manufacturer.

Options	Less than 1 year	1 to 3 yrs	3+ to 5 yrs	5+ yrs	TOTAL
Number	0	4	9	37	50
Percentage (%)	0	8	18	74	100%

Table No. 1: Vendors’ association with manufacturer

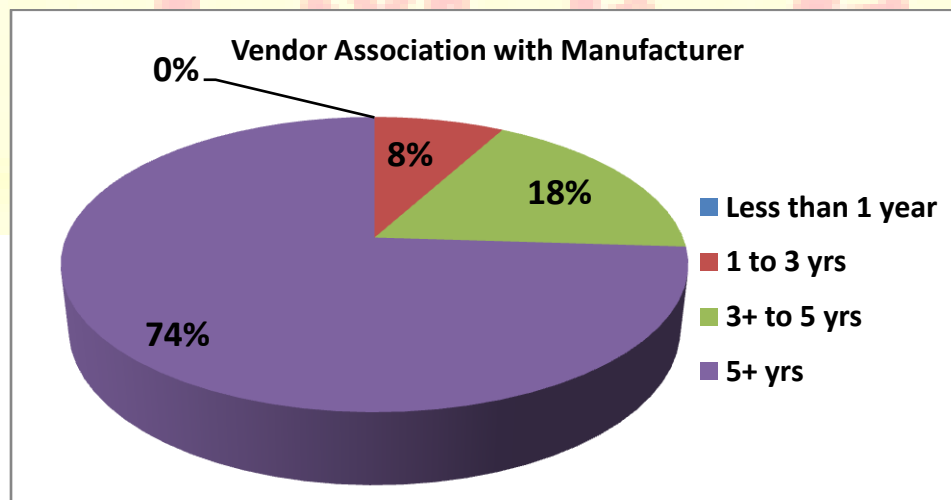


Chart No 1: Vendors’ association with manufacturer

Interpretation

- There are only 4 members who are associated with their manufacturer more than 1 year but less than or equal to 3 years.
- There are 9 members associated with their manufacturer between 3 to 5 years.
- There are 37 members associated with their manufacturer more than 5 years.
- There is not a single member associated with their manufacturer in the range less than a year.

2. Satisfaction among the vendors in terms of Prompt Payment by manufacturers.

	Highly Satisfied (4)	Satisfied (3)	Partially Satisfied (2)	Not Satisfied (1)	TOTAL
Number	20	14	8	8	50
Percentage (%)	40	34	16	16	100%

Table No. 2: Satisfaction of vendors' with respect to Prompt Payment

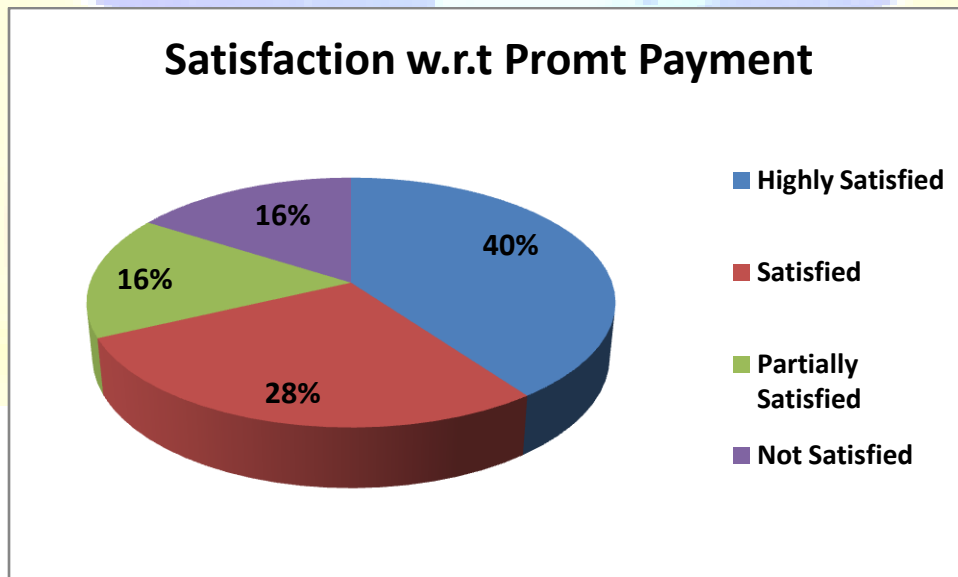


Chart No 2: Satisfaction of vendors' with respect to Prompt Payment

Interpretation

- Around 74% of vendors are satisfied with the prompt payment from manufacturer, where 16% of vendors are partially satisfied because all the time they did not receive t prompt payment & 16% vendors are there those who never get payment on time.

3. Credit period offered by vendors to manufacturers.

Options	Less than 30 days	31 to 60 days	61 to 90 days	91 + days	TOTAL
Number	8	36	4	2	50
Percentage (%)	16	72	8	4	100%

Table No. 3: Credit period offered by vendors to manufacturers

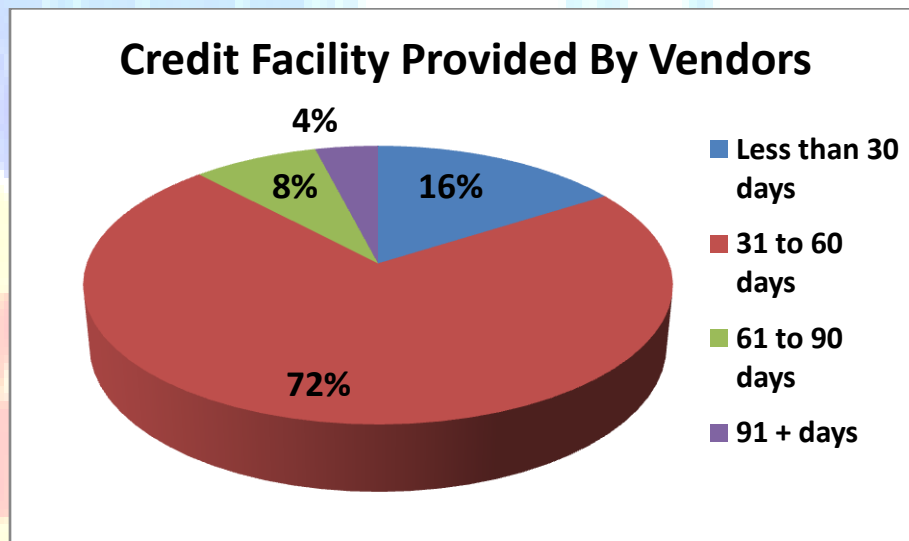


Chart No 3: Credit period offered by vendors to manufacturers

Interpretation

- Around 16% of the vendors offer less than 30 days credit period.
- Majority of vendors i.e. 72% of the vendors offer 31 to 60 days credit period.
- Very few vendors i.e. 8% of the vendors offer credit period ranging from 61 to 90 days and 4% vendors offer credit period of more than 91 days.

4. Satisfaction about inventory policies of manufacturers with respect to vendor's products.

	Highly Satisfied (4)	Satisfied (3)	Partially Satisfied (2)	Not Satisfied (1)	TOTAL
Number	20	14	9	7	50
Percentage (%)	40	28	18	14	100%

Table No. 4: Satisfaction related to inventory policies of manufacturers

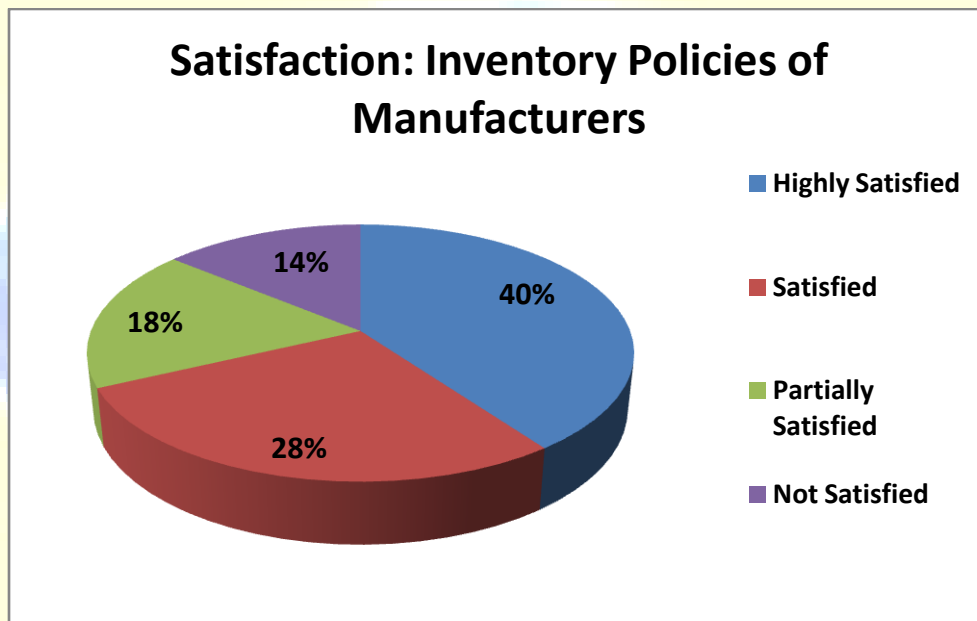


Chart No 4: Satisfaction related to inventory policies of manufacturers

Interpretation

- Around 68% of the vendors are satisfied with the inventory policy of respective manufacturer regarding their products while 18% of the vendors are partially satisfied with the same.
- 14% of vendors are not satisfied at all with the inventory policy of their manufacturer regarding their products.

5. Technical assistance to vendors by manufacturers.

Options	Always	Sometimes	Never	TOTAL
Number	9	18	23	50
Percentage (%)	18	36	46	100%

Table No. 5: Technical assistance to vendors by manufacturers

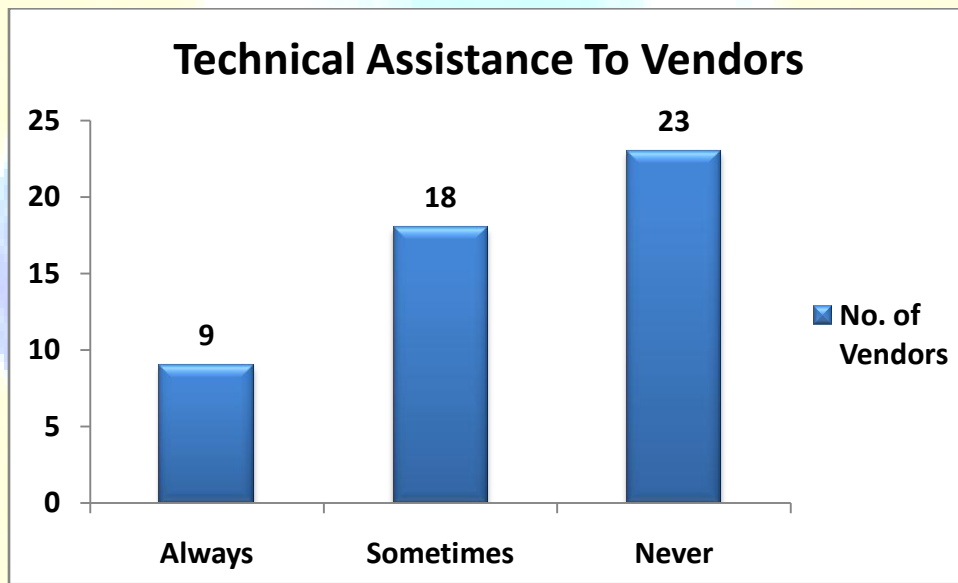


Chart No 5: Technical assistance to vendors by manufacturers

Interpretation

- Around 50% of vendors always get technical assistance from their manufacturers. Around 40 % vendors get technical assistance sometimes & 9 vendors said they never get any technical assistance from their respective manufacturers.

6. Financial assistance provided to vendors by manufacturers.

Options	Always	Sometimes	Never	Total
Number	0	8	42	50
Percentage (%)	0	16	84	100%

Table No. 6: Financial assistance provided to vendors by manufacturers

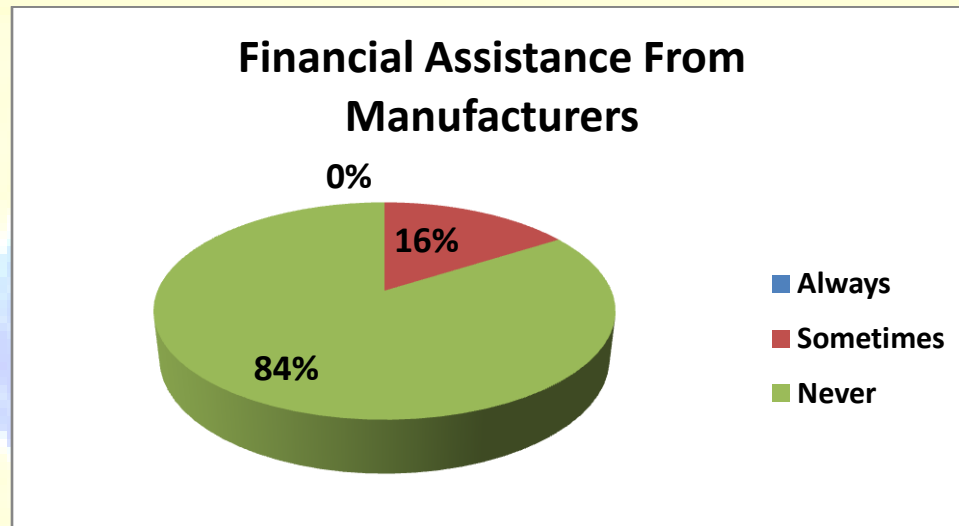


Chart No 6: Financial assistance provided to vendors by manufacturers

Interpretation

- Majority of vendors said they never get any kind of financial assistance from their manufacturers & only 16% vendors shared that they got such kind of financial assistance sometimes based on project.

7. Vendor’s satisfaction regarding quality checks and inspection by manufacturers.

Options	Highly Satisfied (4)	Satisfied (3)	Partially Satisfied (2)	Not Satisfied (1)	Total
Number	7	27	8	8	50
Percentage (%)	14	54	16	16	100%

Table No. 7: Vendor’s satisfaction regarding quality checks and inspection

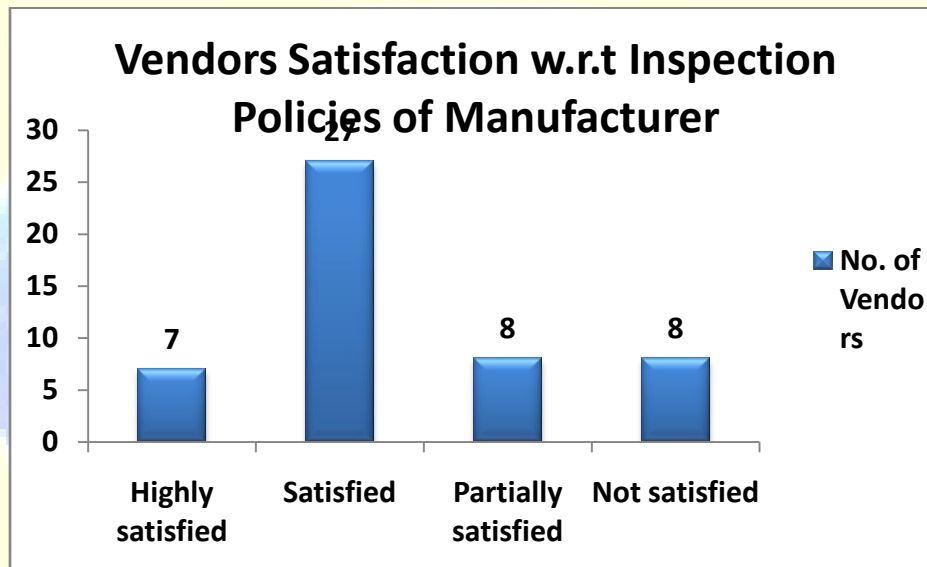


Chart No 7: Vendor’s satisfaction regarding quality checks and inspection

Interpretation

- 7 vendors are highly satisfied while 27 vendors are satisfied with the quality checks and inspection performed by their respective manufacturers.
- 8 vendors are partially satisfied & 8 vendors are not satisfied with the quality checks and inspection performed by their respective manufacturers.

8. Satisfaction with respect to Training and development programmes provided by manufacturers to vendors.

Options	Highly Satisfied (4)	Satisfied (3)	Partially Satisfied (2)	Not Satisfied (1)	TOTAL
Number	6	13	19	12	50
Percentage (%)	12	26	38	24	100%

Table No. 8: Satisfaction with respect to Training and development programmes

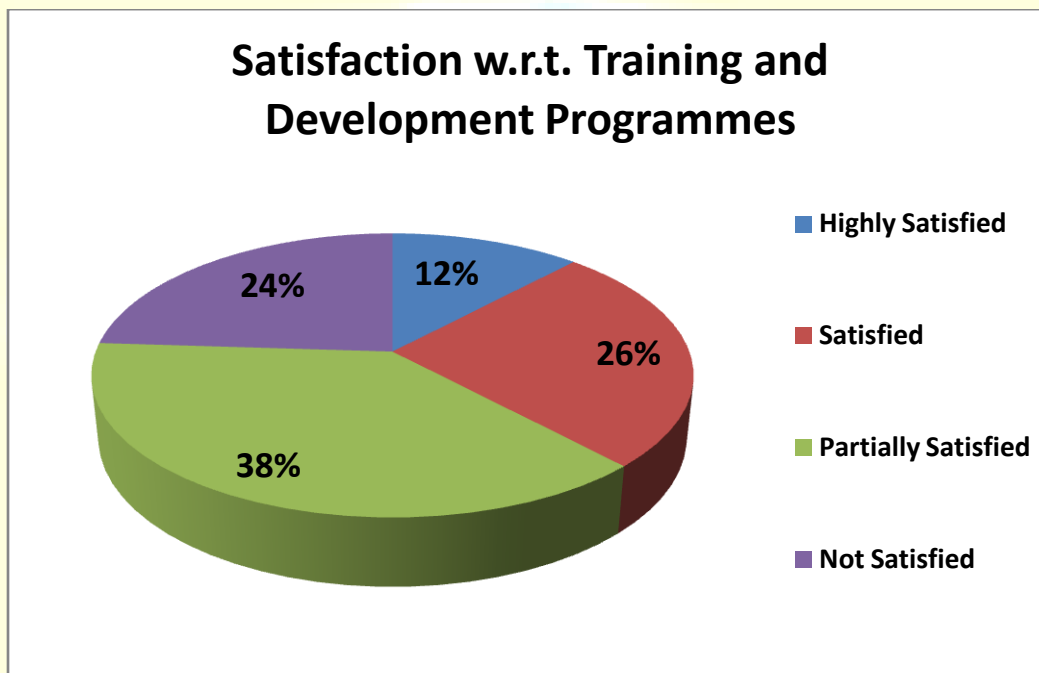


Chart No 8: Satisfaction with respect to Training and development programmes

Interpretation

Out of 50 vendor’s majority of vendors said that they get training programmes very occasionally whenever there is any change in process. Whether 9 vendors said that they get training from manufacturers on a frequent basis and 10 vendors told that they never get as such training from manufacturers.

9. Appreciation rewards from manufacturers on achieving defined targets.

Options	Always	Sometimes	Never	Total
Number	12	4	34	50
Percentage (%)	24	8	68	100%

Table No. 9: Appreciation rewards from manufacturers

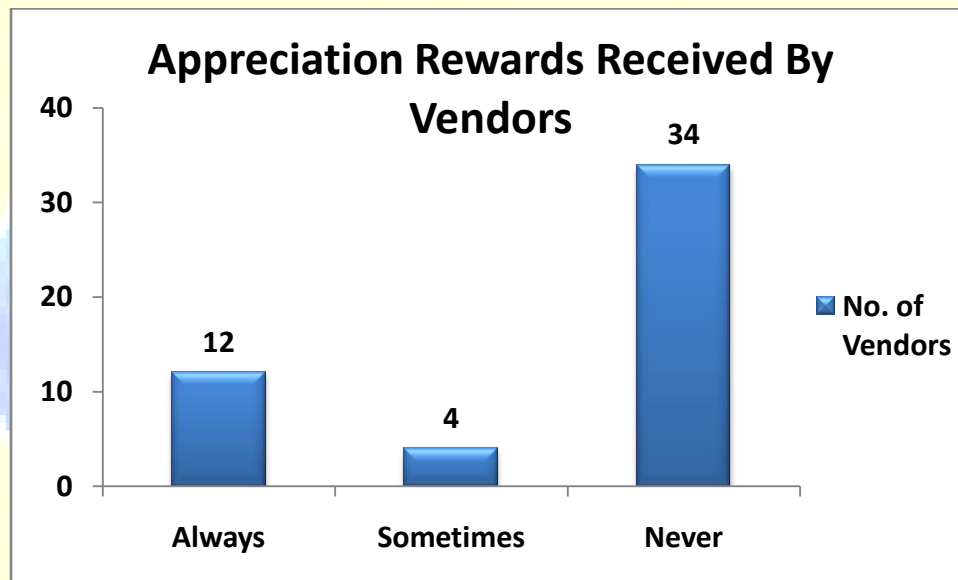


Chart No 9: Appreciation rewards from manufacturers

Interpretation

- Amongst 50 vendors of engineering companies in pune, 68% vendors never got any appreciation rewards from manufacturers where 24 % vendors are fortunate enough to get such appreciations & 4 vendors share that they get such kind of rewards very rarely.

10. Sharing of production plan to vendors.

Options	Always	Rarely	Never	TOTAL
Number	32	10	8	50
Percentage (%)	64	20	16	100%

Table No. 10: Sharing of production plan to vendors

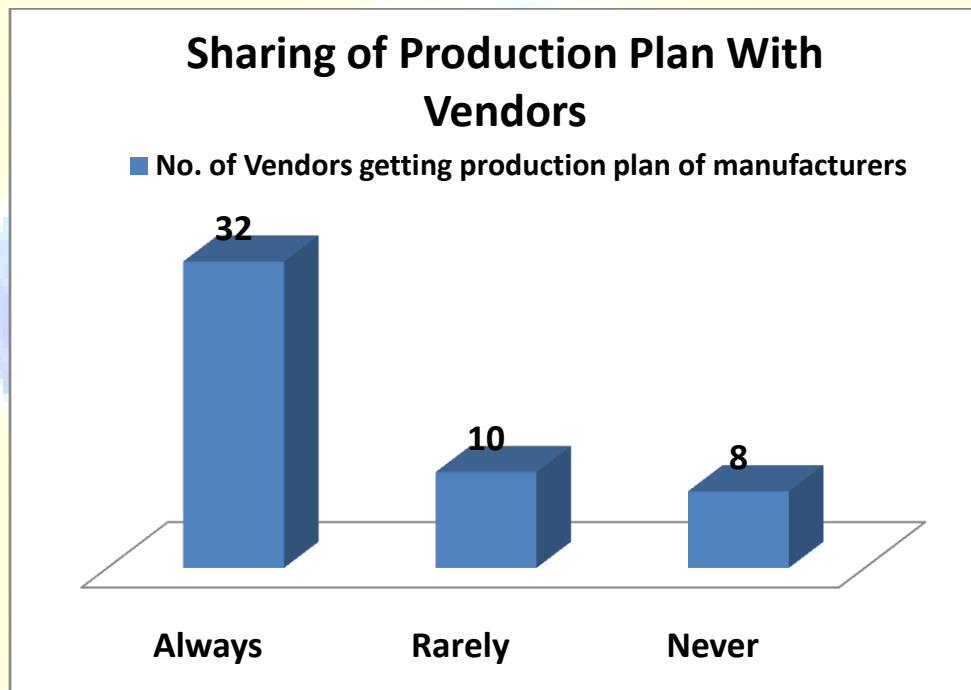


Chart No 10: Sharing of production plan to vendors

Interpretation

- Almost 64 % manufacturers share their respective production plans with suppliers where 10 manufacturers are reluctant to share always and 8 manufacturers never share any kind of information related to their production planning.

11. Frequency of supply from vendors to manufacturers.

Options	Less than or equal to 1 month	More than 1 but less than or equal to 4 months	More than 4 but less than or equal to 8 months	More than 8 but less than or equal to 12 months	TOTAL
Number	44	6	0	0	50
Percentage (%)	88	12	0	0	100%

Table No. 11: Frequency of supply from vendors to manufacturers

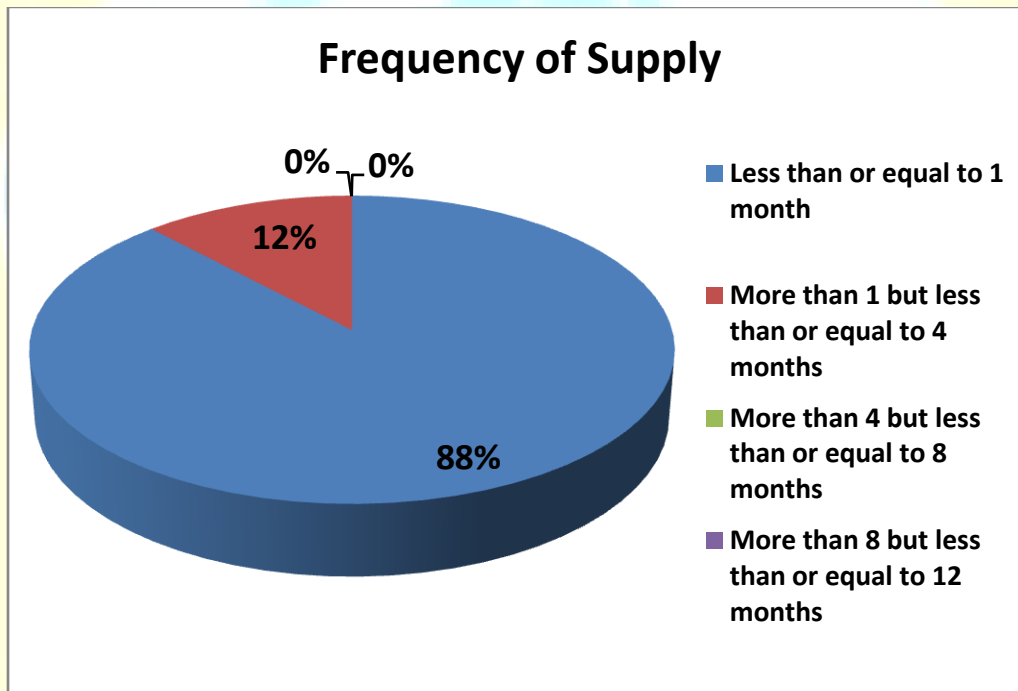


Chart No 11: Frequency of supply from vendors to manufacturers

Interpretation

- Majority of vendors do supply materials to manufacturers frequently in every month. 88% vendors use to deliver material in every month. Only 6 vendors amongst 50 deliver the material once in 1-4 month span. So, as far as frequency of supply is concerned all manufacturers are working on very good inventory turns.

12. Cost of reverse logistics.

Options	Reverse Logistics cost beard by Vendor	Reverse Logistics cost beard by Manufacturer	Both (By mutual understanding)	TOTAL
Number	18	4	28	50
Percentage (%)	36	8	56	100%

Table No. 12: Cost of reverse logistics

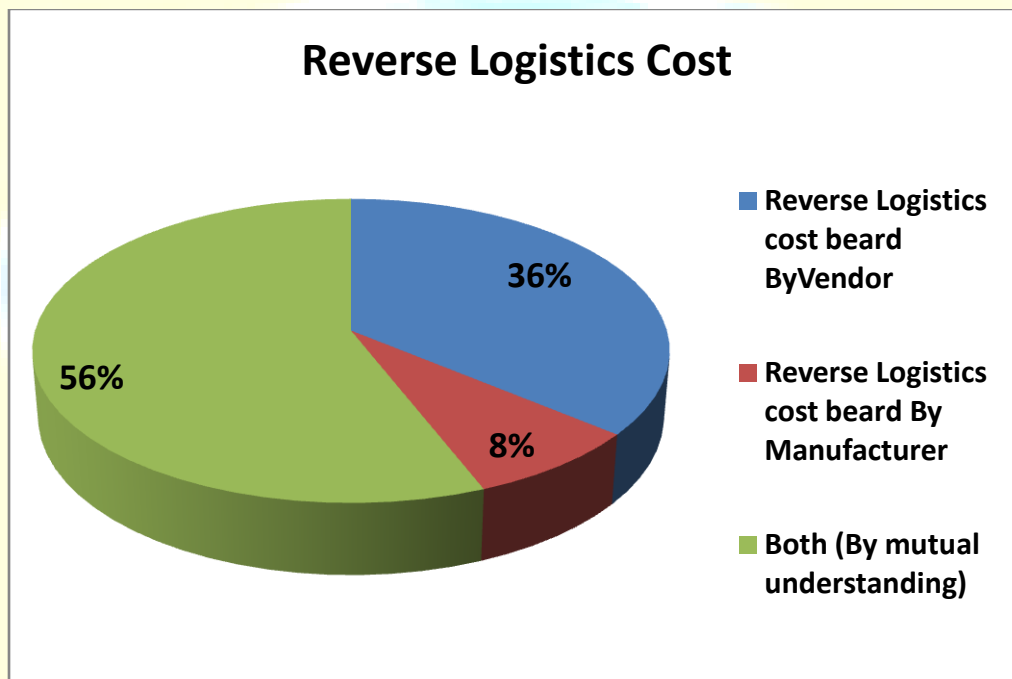


Chart No 12: Cost of reverse logistics

Interpretation

- 36% of the vendors say that they bear the cost if the product is rejected by manufacturer. Where only 8% manufacturers bears complete cost of reverse logistics & around 56% manufacturers shares reverse logistics cost with vendor.

13. Justification Provided by Manufacturer regarding rejection of material.

Options	Always (without asking)	Yes (If asked for)	Sometimes if issue is critical	Never	TOTAL
Number	7	15	12	16	50
Percentage (%)	14	30	24	32	100%

Table No. 13: Justification Provided by Manufacturer regarding rejection

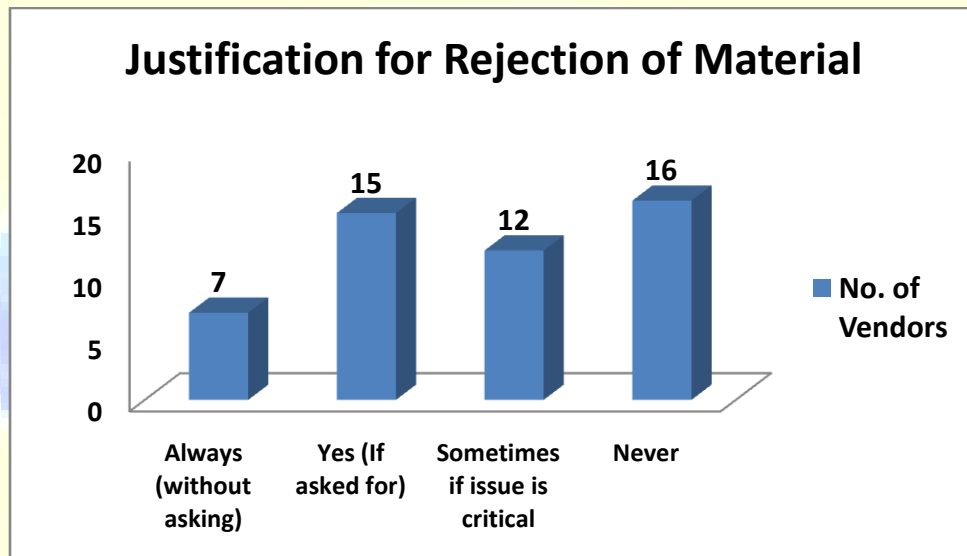


Chart No 13: Justification Provided by Manufacturer regarding rejection

Interpretation

- Amongst 50 only 7 manufacturers always clarify the reason behind rejection of material promptly where 15 manufacturer provides reasons if asked by the vendors where 12 manufacturers use to provide the reasons in case of any critical issue only & 16 refused to provide any such data.

14. Emphasis on use of technology by manufacturer.

Options	Yes	No	Sometimes	TOTAL
Number	23	2	25	50
Percentage (%)	46	4	50	100

Table No. 14: Emphasis on use of technology by manufacturer

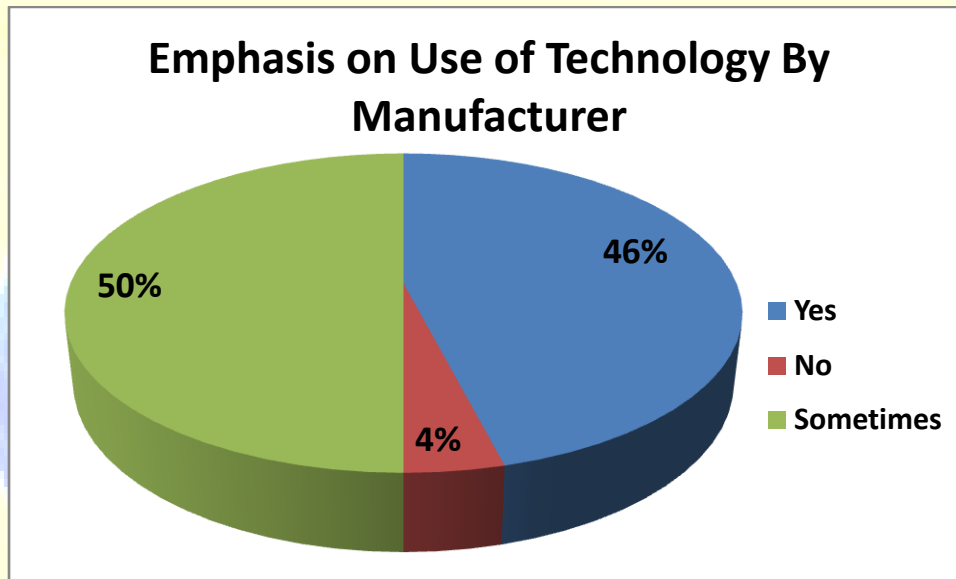


Chart No 14: Emphasis on use of technology by manufacturer

Interpretation

- Almost 50% of manufacturer always ask the vendors for enhancement and use of technology to match with the technical requirement of manufacturer on the other side 25 manufacturer emphasizes sometimes and 2 are least bothered about vendors technology.

15. Vendors relationship programmes (events, meetings, seminars) conducted by manufacturers.

Options	Always	Never	Rarely	TOTAL
Number	5	16	29	50
Percentage (%)	10	32	58	100

Table No. 15: Vendors relationship programmes conducted by manufacturers.

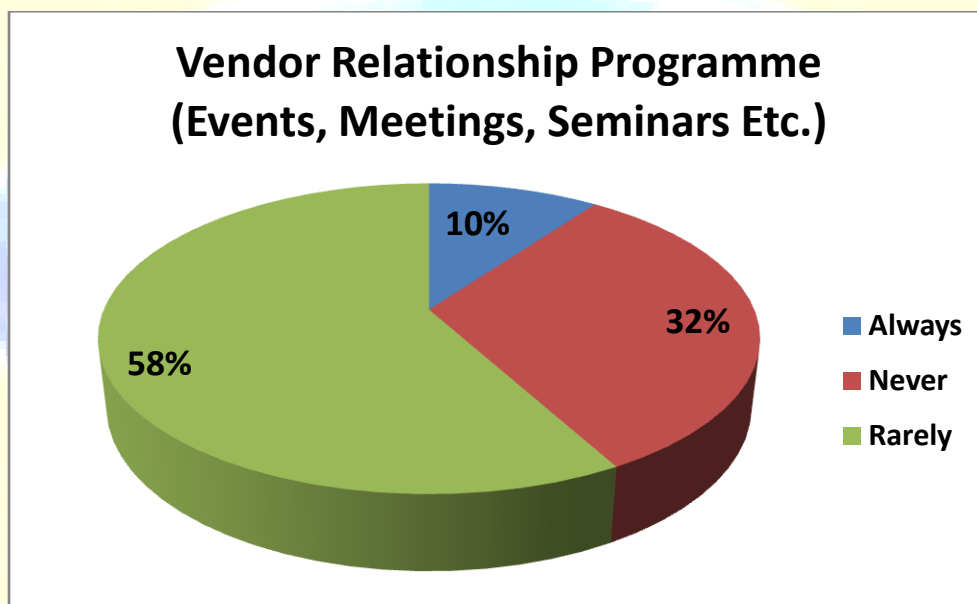


Chart No 15: Vendors relationship programmes conducted by manufacturers

Interpretation

- Only 5 manufacturers focus on healthy vendor relationship with help of vendor relationship programme like events, family get-together, regular meetings etc. While 16 manufacturers never conduct such kind of programmes. But majority of manufacturers, around 58% conduct such kind of programmes but very rarely and that to for selected star rated vendors.

16. Does a manufacturer involve vendors in Company’s decision making process?

Options	Always	Sometimes	Never	Total
Number	9	16	25	50
Percentage (%)	18	32	50	100

Table No. 16: Involvement of Vendors in Decision Making

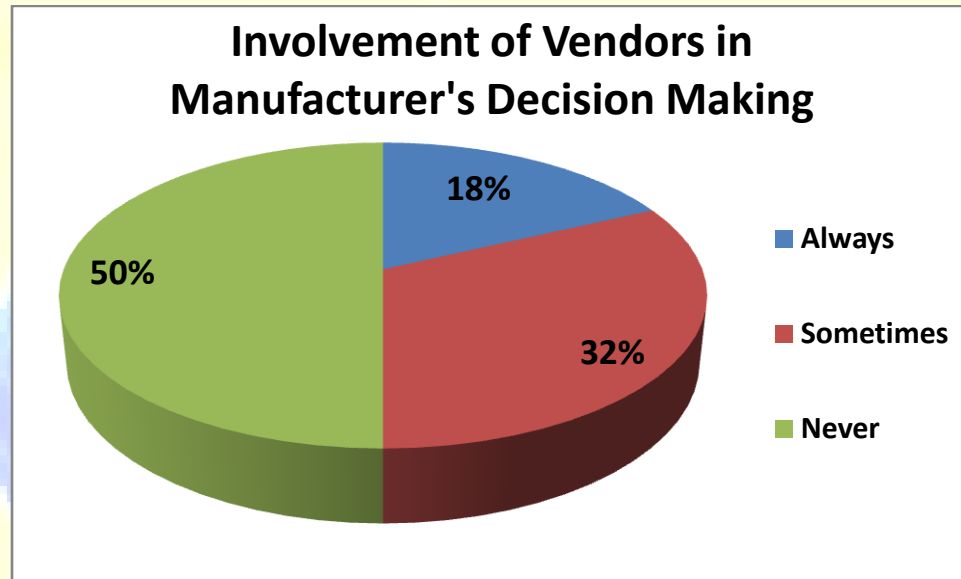


Chart No 16: Involvement of Vendors in Decision Making

Interpretation

- Only 18% manufacturers are interested to involve their vendors in important decision making process where 50% vendors never entertain their respective vendors in the process of decision making process. Where around 32% manufacturers are there those who used to involve there vendors in decision making of few cases where it is required, whose frequency is very less.

17. Overall satisfaction rating with respect to association with manufacturer.

Options	Highly Satisfied (4)	Satisfied (3)	Partially Satisfied (2)	Not Satisfied (1)	TOTAL
Number	8	23	12	7	50
Percentage (%)	16	46	24	14	100

Table No. 17: Overall satisfaction of Vendors

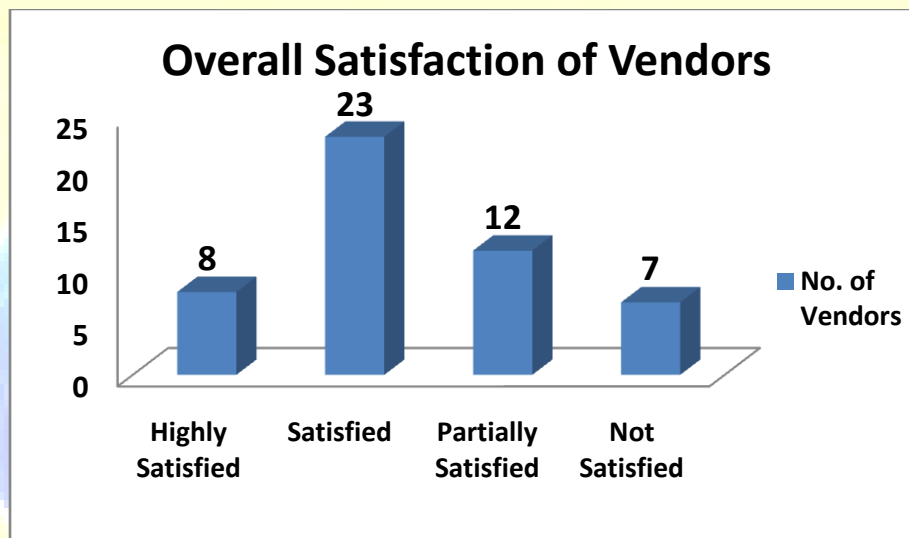


Chart No 17: Overall satisfaction of Vendors

Interpretation

- Amongst 50 vendors 5 vendors are very much satisfied with the kind of support they are getting from their manufacturer; even 23 vendors are satisfied with manufacturers. Only 12 vendors are not fully satisfied and 7 are completely dissatisfied with the kind of support they are getting from the manufacturers.
- With the help of weighted average method we can calculate overall satisfaction of vendors as:

Hypothesis Testing:

The hypothesis statements were:

- 1) Vendors of engineering companies in pune industrial area are not satisfied with their respective manufacturers.
- 2) Satisfaction of vendors is not influenced by prompt payment from manufacturers.

1) Vendors of engineering companies in pune industrial area are not satisfied with their respective manufacturers.

The above stated hypothesis can be tested with the help of weighted average method to find out overall satisfaction of vendors of engineering companies in Pune industrial area as:

$$\begin{aligned}
 \text{Overall Satisfaction} &= \frac{(8 \times 4) + (23 \times 3) + (12 \times 2) + (7 \times 1)}{(50 \times 4)} \times 100 \\
 &= \frac{32 + 69 + 24 + 7}{200} \times 100 \\
 &= 0.66 \times 100 \\
 &= \mathbf{66.00 \%}
 \end{aligned}$$

The above result shows that overall satisfaction calculated by weighted average method comes out to around **66%** which contradict our hypothesis statement and our hypothesis stands false.

2) Satisfaction of vendors is largely influenced by prompt payment from manufacturers.

To test this hypothesis statement we do have following responses from vendors as:

Satisfaction among the vendors in terms of Prompt Payment by manufacturers

	Highly Satisfied (4)	Satisfied (3)	Partially Satisfied (2)	Not Satisfied (1)	TOTAL
Number	20	14	8	8	50
Percentage (%)	40	34	16	16	100

Overall satisfaction rating with respect to association with manufacturer.

Options	Highly Satisfied (4)	Satisfied (3)	Partially Satisfied (2)	Not Satisfied (1)	TOTAL
Number	8	23	12	7	50
Percentage (%)	16	46	24	14	100

Weighted average mean of overall satisfaction of vendors = **66 %**

Weighted average mean of Satisfaction among the vendors in terms of Prompt Payment by manufacturers will be calculated as

$$\begin{aligned}
 &= \frac{(20 \times 4) + (14 \times 3) + (8 \times 2) + (8 \times 1)}{50 \times 4} \times 100 \% \\
 &= \frac{146}{200} \times 100\% \\
 &= \mathbf{73 \%}
 \end{aligned}$$

Now to test this hypothesis statement we need to use statistical tool of correlation.

To find out coefficient of correlation between overall satisfaction of vendors & satisfaction with respect to prompt payment we need to first find out the weights of the responses given by the respondents as:

	Overall Satisfaction		Prompt Payment	
	No. of Vendors	No. of Vendors X Weights	No. of Vendors	No. of Vendors X Weights
Highly Satisfied (4)	8	8 x 4 = 32	20	20 x 4 = 80
Satisfied (3)	23	23 x 3 = 69	14	14 x 3 = 42
Partially Satisfied (2)	12	12 x 2 = 24	8	8 x 2 = 16
Not Satisfied (1)	7	7 x 1 = 7	8	8 x 1 = 8

Correlations

		Overall Satisfaction	Prompt Payment
Overall Satisfaction	Pearson Correlation	1	.424
	Sig. (2-tailed)		.576
	N	4	4
Prompt Payment	Pearson Correlation	.424	1
	Sig. (2-tailed)	.576	
	N	4	4

(Source: SPSS 16.0)

Correlation coefficient between overall satisfaction & satisfaction with respect to prompt payment from manufacturers is 0.424.

$$\begin{aligned}
 \text{Coefficient of Determination} &= (\text{Coefficient of correlation})^2 \\
 &= (0.424)^2 \\
 &= 0.1797
 \end{aligned}$$

Interpretation:

Overall satisfaction is influenced by around 18% with respect to satisfaction related to prompt payment by the manufacturers.

Conclusion:

From the research survey conducted it has been observed that vendors of engineering companies are satisfied with the manufacturers/clients with few expectations for improvement in the area of prompt payment, quality checks policies, inventory policies, technical & financial assistance etc.

Though overall satisfaction of vendors is good but still vendors expect their manufacturers to be more cooperative in terms of training programmes & all kind of technical support.

The study unveils that the satisfaction of customer majorly depends on prompt payment, rejection policy & healthy relations maintained by the manufacturers.



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