

**To Understand the Process of E-tendering and procurement
of medical Equipment in India**

Dissertation Submitted to



The IIHMR University, Jaipur
for the partial fulfillment for the award of the degree of
Master of Business Administration (MBA)

in
Pharmaceutical Management
by

Kritika Kapoor
Under the Supervision and Guidance of
Prof. Dr. Saurabh Kumar

2022

DECLARATION

I hereby pronounce that this paper named To Understand the process of E-tendering and procurement of medical equipment in India is the bonafide record of my unique exploration work. I pronounce that it has not been submitted to some other college or foundation for the honor of any degree or confirmation. Data got from the distributed or unpublished work of others has been appropriately recognized in the text.

Kritika Kapoor

CERTIFICATE

This is to certify that Kritika Kapoor in partial fulfillment of the requirements for the award of the degree of MBA (Pharmaceutical Management) from the IIHMR University, Jaipur has successfully completed her/his internship at Omega Surgical Industries during March 22, 2022 to May 14, 2022.

Place:
Date:

Preceptor/Head of the Organization
Name of the organization

CERTIFICATE

This is to certify that dissertation titled To understand the process of E-tendering and procurement of medical equipment in India is a record of the exploration work embraced by Kritika Kapoor in halfway satisfaction of the necessities for the honor of the degree of MBA (Pharmaceutical Management) from the IIHMR University, Jaipur under my guidance and supervision and her approach to the research study has been sincere, scientific, and analytical.

Faculty Guide
IIHMR University, Jaipur

Date

School Dean
IIHMR University, Jaipur

Date

ACKNOWLEDGEMENT

The dissertation opportunity I had at Omega Surgical Industries was a remarkable shot at learning and development. I view myself as a fortunate person as I appeared to be offered an opportunity to be a piece of it. I'm furthermore grateful for getting the opportunity to meet great specialists who drove me through this preparation.

I would like to offer my most significant thanks to the Omega Surgical Industries to guide me and keeping me on the correct way and allowing me to take care of my undertaking at his respected affiliation.

I pick this second to thankfully perceive their responsibility. I might likewise want to say thanks to Prof Dr. Saurabh Kumar for assisting me with the scholastic prerequisites of the venture. He was an incredible guidance for me for the conclusion of this project.

Last yet not the least; I might want to say thanks to IIHMR University for this magnificent learning. I consider this opportunity to be a significant accomplishment in my expert improvement. I will try to used the gained capacities and data in the best way and I will ward on breaking off at their improvement to accomplish my objectives.

I anticipate continue with support with all of you in future.

Sincerely

Kritika Kapoor

Student, MBA Pharmaceutical Management

IIHMR University

Jaipur, Rajasthan

TABLE OF CONTENTS

1. INTRODUCTION
2. REVIEW OF LITERATURE
3. METHODOLOGY
4. RESULTS
5. DISCUSSIONS
6. CONCLUSION
7. REFERENCES

CHAPTER 1: INTRODUCTION

With the hike in the need for healthcare in the past 2 years due to the pandemic, the India's Healthcare has taken various steps to strengthen healthcare facilities and decide to initiate various medical centers and hospitals. 49 new hospital projects by the government are to be initiated in 2022 to meet the medical need of the growing population.

On the other hand, the private healthcare sector has also experienced a huge rise through major investments made towards increase in the hospital facilities.

This initiation has given rise to business opportunity for the medical equipment market to grow and have experienced a huge surge in demand. In the past 2 years, the medical equipment market has experienced huge demand from both, the government and the private sectors.

On the other hand, the requirements of the healthcare centers have become specific, and their monitoring is difficult to keep up with.

The paradigm of the industry has also shifted from low-cost products to those which can deliver high value and long-term impact. Quality is now a priority.

The study aims to understand the medical equipment industry business in detail to understand the expectations of the healthcare industry from their vendors and the processes, requirements, shortcomings, advantages, etc.

The following study is conducted with Omega surgical Industries.

ABOUT THE ORGANISATION



Fig 1.1: Omega Surgical Industries Logo

Incepted in 2013, Omega Surgical Industries is involved in providing superior quality of Operation Tables, Operation Theatre Lights, Steam Sterilizers and Autoclaves, Delivery Tables and Beds, Hospital Bed, Examination Tables, Patient Transfer Trolleys, Ambulance Trolleys, OPD and Ward Equipment, Wheelchairs, Suction Apparatus, Scrub Station, Operation Theatre Equipment. Experts employ only best quality components and material to develop these products as per the global quality standards. The offered products are highly acclaimed for their robustness, less maintenance and

exceptional performance. Known for their accurate dimension and smooth operation, these products are widely known in hospitals, clinics, and nursing homes. Prior delivering to the patrons' end, quality executives rigorously test the quality of these products to assure the quality.

The huge infrastructure facility of the organisation assists in meeting the huge demands of the customers. The infrastructure is divided into dissimilar units like administration, development, quality controlling, sales and warehousing department. All these units are directed by experienced workers, who have huge experience in this realm. Promised to the customers that all products are delivered to the clients in promised time, with the dedication and hard work of workers, we have become the most preferred choice by the clientele.

Omega Surgical Industries has arisen as one of the conspicuous producers, merchant and provider of an extensive variety of medical equipment. Their endeavours of offering quality reach to our clients have procured them a colossal customer base the nation over.

They have had the option to draw in countless clients because of the accompanying reasons:

- Rich modern experience
- Perfect reach
- Cutting edge framework
- Customization
- Convenient delivery

Omega Surgical Industries follow the steps from receiving the orders to execution to maintenance of their products. The full process explained below:

- Generation of sales orders through continuous leads and tender tracking
- Execution of orders (production)
- Post- Production inspection
- Delivery
- Installation and demonstration
- Post installation maintenance till 12 months from the date of installation

AIM: The study includes clients of the organization to understand their experiences, their expectations while procuring the medical equipment and to use their responses for the betterment in products of the company to deliver value-based products.

CHAPTER 2: REVIEW OF LITERATURE

An examination of the figures on Covid-19 health facilities by the Union Ministry of Health recommends that in most recent one month, there has been an increment of 22% in the healthcare centers that are implied solely or chiefly just for severe cases of Covid-19 across India.

There is significant expansion in interest in Health Infrastructure and the Budget cost for Health and Wellbeing is Rs 2,23,846 crore in BE 2021-22 as against the ongoing year's BE of Rs 94,452 crore, an addition of 137 %.The significant expansion in the spending plan designation towards wellbeing foundation has made a way for extensive variety of chances of business for careful and clinical hardware industry.

As per one gauge referred to in a report by the Confederation of Indian Industry (CII) the clinical gear market in India was esteemed at US\$2.75 billion of every 2008, assessed to arrive at US\$5 billion by 2012 with a yearly development pace of almost 15%.

As per a concentrate by Ernst and Young, the size of the Indian clinical gear industry was \$2.16 billion starting around 2006 (Rs. 9500 crores) and expected to reach \$3.2 billion by 2009 (Rs. 14,080 crores) and \$4.5 billion by 2012 (Rs. 19,800 crores).

India is among the main 20 business sectors for medical equipment around the world. The market is supposed to increment at a 37% CAGR to arrive at US\$ 50 billion of every 2025, from US\$ 10.36 billion out of 2020. The medical equipment area in India contains enormous multinationals and little and fair sized organizations.

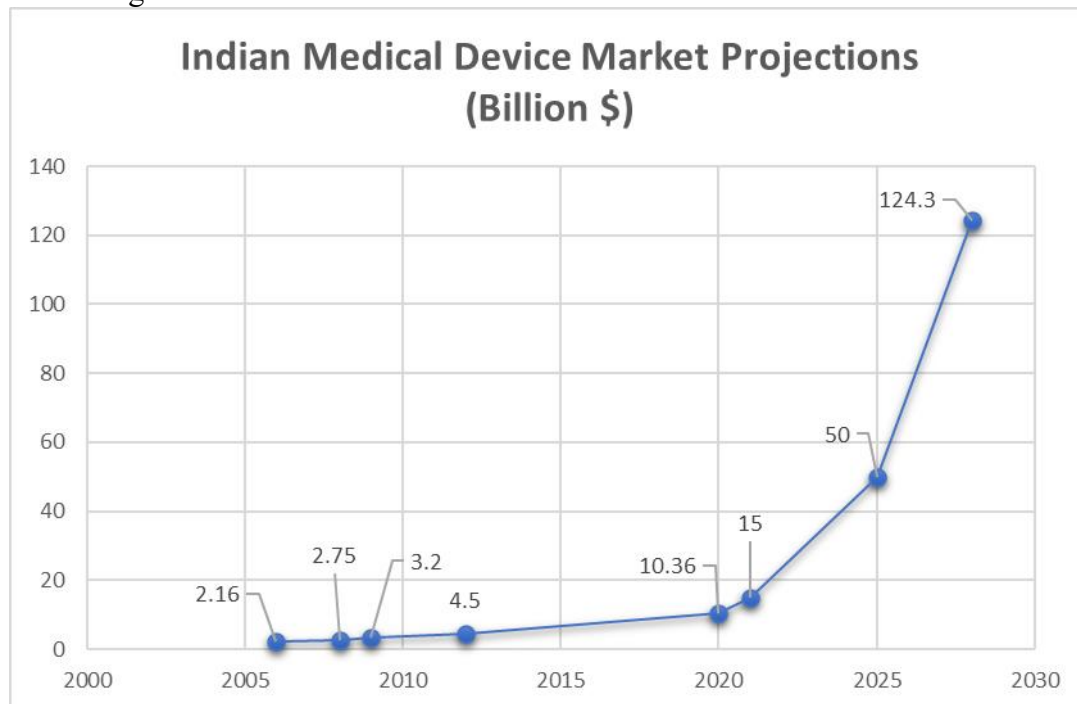


Fig 2.1: Indian Medical Equipment Market Projections from 2005 and expected growth

With increasing market size of the medical equipment industry, the expectations of healthcare facilities in terms of quality of the products procured. high pace of equipment disappointment influences patient results, wellbeing framework productivity, and the responsibility of medical care suppliers. Therefore, focus has shifted from procuring the products with low price to investing in products that will give long term benefits through their superior quality.

Value based procurement (VBP) is the act of assessing expected new items, administrations, and serves for an objective of value for money (VFM), as opposed to lowest price practice. With regards to medical equipment obtainment, VBP approaches expect that acquisition groups fill in as a component of a wellbeing health tach management (HTM) framework to completely assess clinical hardware, administrations, or elective arrangements, meaning to expand VFM.

ORDER TO CASH PROCESS OF MEDICAL EQUIPMENTS

The organization is currently involved with two types of clients-

- a. Private hospital, clinics and other healthcare centers
 - b. Government hospitals, medical colleges, and other healthcare centers
-
- a. Process of order to cash in government entities: Government entities float their orders on the GEM (government E-marketplace) portal for the requirement as tenders. After the tenders are floated, they are monitored till the bid opening date and then suitable prices are bid. Generally, the tenders are awarded on L1(lowest price) basis, or T1(technicality) basis. After the tender is awarded, production takes place and is to be completed within the CRDD (customer required delivery date) as in the tender. Postproduction and prior to CRDD, a government inspection take place to validate the product and determine its suitability in accordance with the tender. Post inspection, amendments, if any are made and the order is shipped and installed by the organization.
 - b. Private entities: With private entities, a simple procedure of lead generation and order execution is followed. Leads are generated by either through existing clientele or tracking the new projects in development. Past performance of the products plays an important role in repeat orders.

CHAPTER 3: METHODOLOGY

- AIM: The study includes clients of the organization to understand their experiences, their expectations while procuring the medical equipment and to use their responses for the betterment in products of the company to deliver value-based products.
- OBJECTIVES
 - To understand the processes for E-tendering and procurement of Medical Equipment in government and private hospitals and other healthcare centers.
 - To understand the perspective of the clientele of the medical equipment industry in terms of the requirements in their products.
 - To identify the challenges of the medical equipment that healthcare service providers experience and their expected solutions to the same.
 - To understand the additional needs in terms of the products that are procured from the healthcare service providers apart from procurement.
- RESEARCH DESIGN: observational (cross sectional) study.
- STUDY SETTING: Qualitative research
- STUDY POPULATION: the study conducted includes clients (both government and private setting) of the organization who have procured the products from the organization.
- SAMPLE SIZE: 50
- SAMPLING TECHNIQUE: non probability (convenience sampling)
- SAMPLING INSTRUMENTS: Questionnaire
- KEY RESEARCH QUESTIONS

Following were the questions asked during the study:

 - Which medical equipment are most frequently procured out of the following:
 1. Examination Tables
 2. Patient Transfer Trolleys,
 3. Ambulance Trolleys
 4. OPD and Ward Equipment
 5. Wheelchairs
 6. Operation Theatre Equipment.
 - What are the most common criteria for selection of an organization for procurement of medical equipment?
 1. Low cost
 2. Technicalities
 3. Visual appeal
 4. Good quality

- Do majority of organizations offer post installation maintenance?
 1. Yes
 2. No
 3. Often
 4. Rarely
- What is the typical warranty period given by the organizations for the medical equipment?
 1. No warranty
 2. 0-6 months
 3. 6-12 months
 4. 12-24 months
 5. More than 24 months
- How often are the mentioned specifications not met in the products
 1. Most often
 2. Rarely
 3. Always
 4. Never
- How often are organizations willing to meet the modification requirements if any?
 1. Most often
 2. Rarely
 3. Always
 4. Never
- What is the common delivery period mentioned in the purchase orders for medical equipment?
 1. On immediate basis
 2. Within 1-2 weeks of order
 3. Within 2-4 weeks of order
 4. Withing 4-8 weeks of order
 5. Withing 8-12 weeks of order
 6. As per the volume of the order
- Do purchase orders include price variation clauses?
 1. Yes
 2. No
 3. Sometimes
- Does past performance record play a role in selection of the vendor for the purchase?
 1. Yes
 2. No
 3. Sometimes

CHAPTER 4: RESULTS

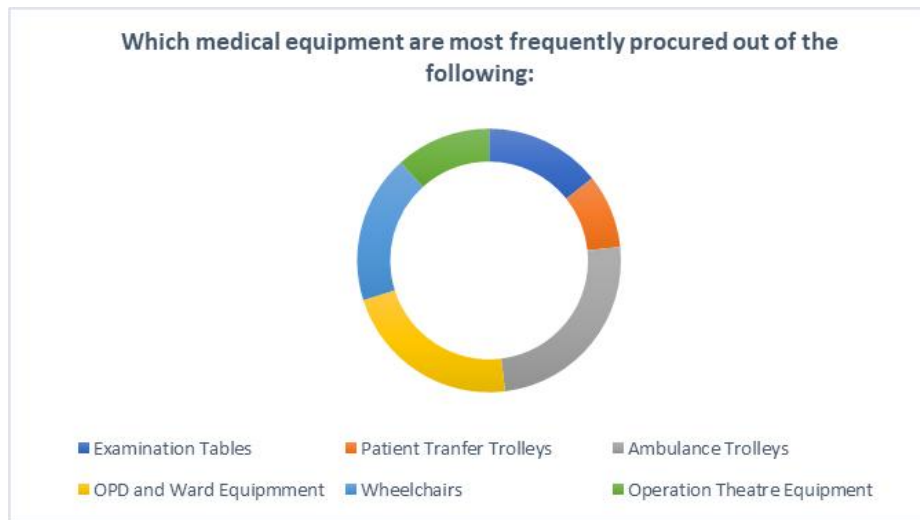


Fig 4.1: According to the responses, most frequently procured equipment include ambulance trolleys, OPD and ward equipment, and wheelchairs.

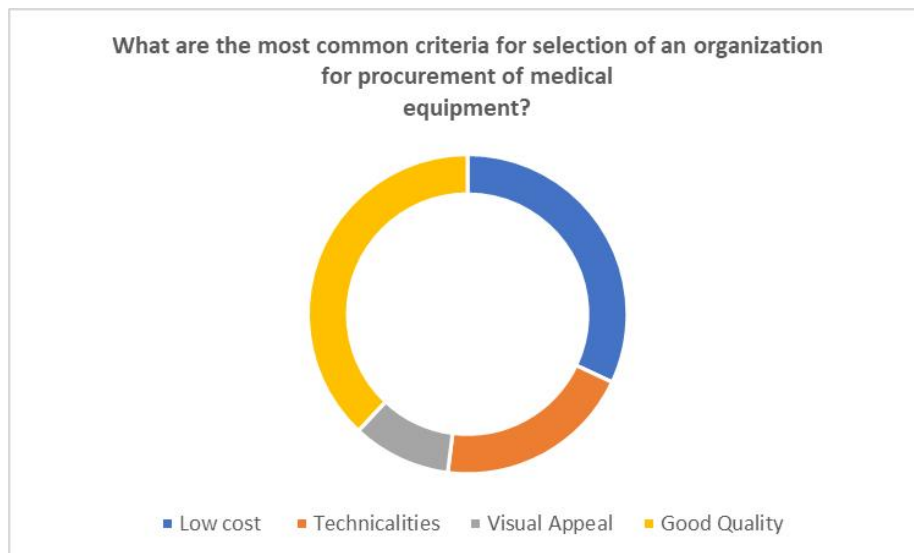


Fig 4.2: Good quality is the most important factor for selecting an organization for procuring its products, followed by low cost.

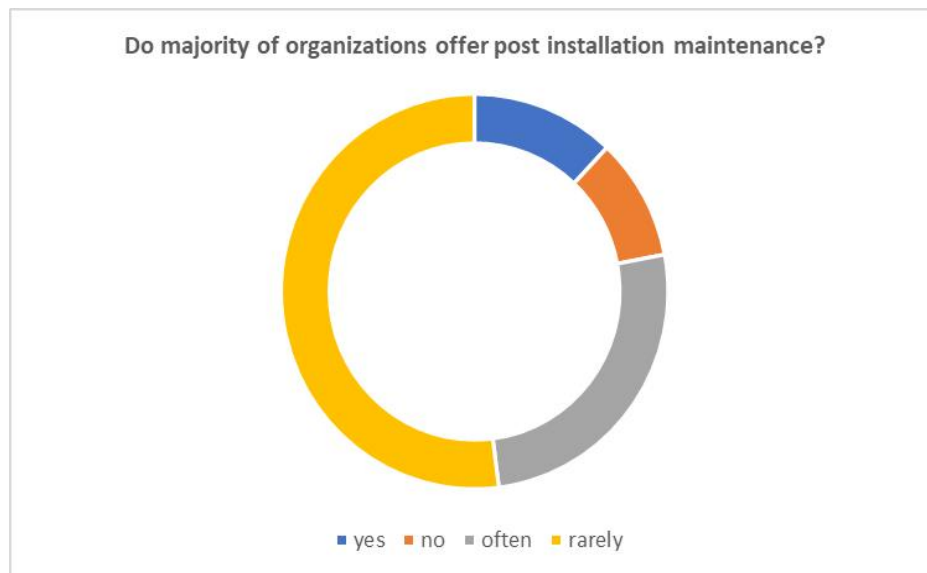


Fig 4.3: Majority of organizations rarely offer post installation maintenance.

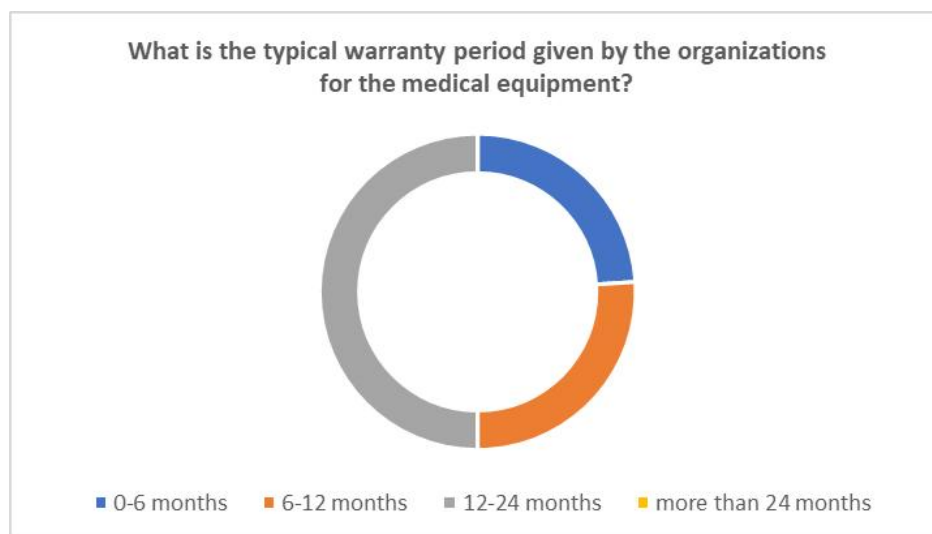


Fig 4.4: Typically, organizations offer 12-24 months of warranty period for their products

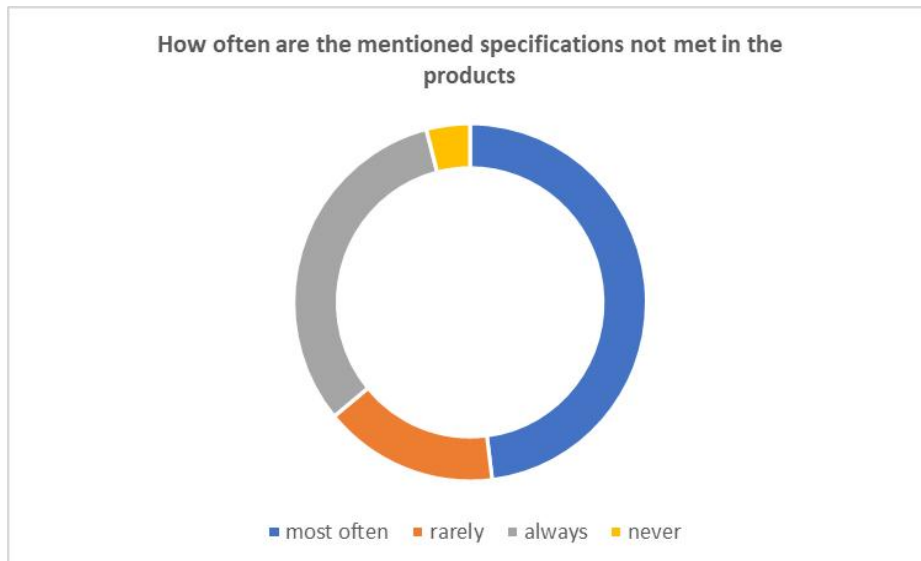


Fig 4.5: Most healthcare facilities claim that the specifications mentioned by them are not met in the products that are received.

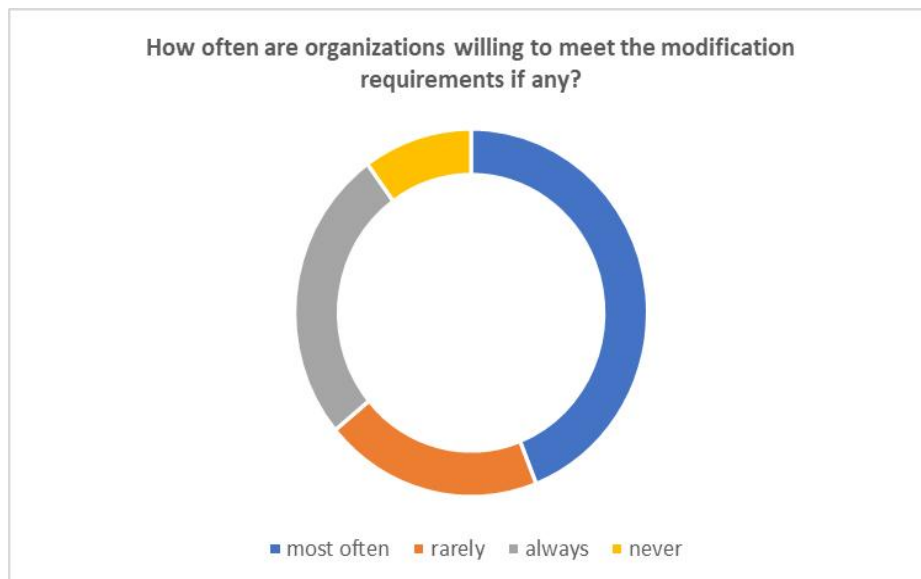


Fig 4.6: Most often, medical equipment manufacturers are open to modifications, if any, as and when requested by the purchase department.

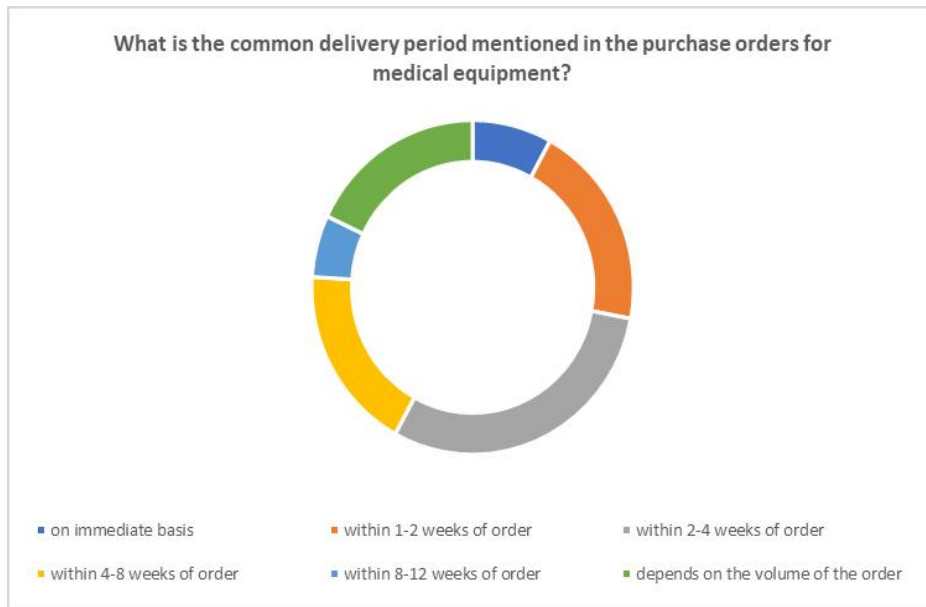


Fig 4.7: Most organizations offer 2-4 weeks of customer required delivery date.



Fig 4.8: Price Variation Clause (PVC) clauses are many a times not included in the purchase orders.

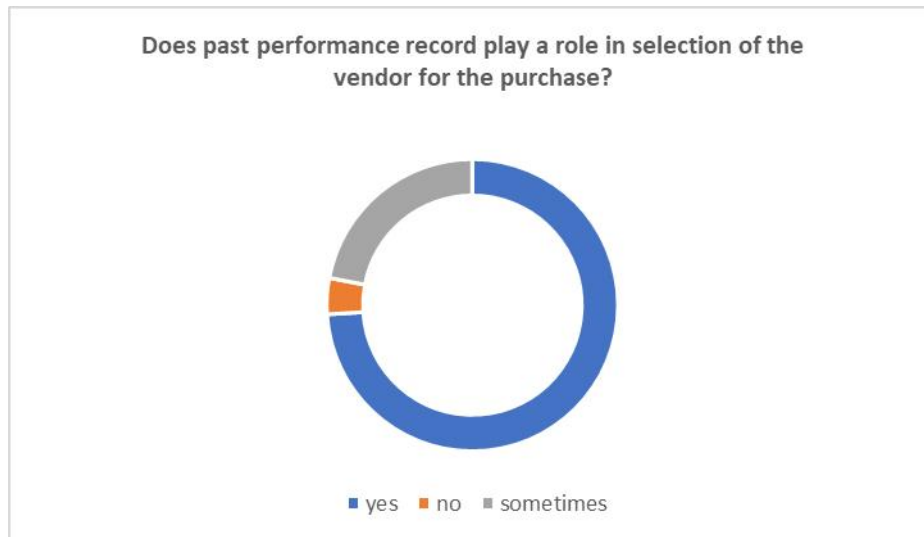


Fig 4.9: Past performance of the organizations play a major role in repeat orders by the customers

CHAPTER 5: DISCUSSION

Through the study, following conclusions can be drawn:

- OPD and ward equipment and wheelchairs are frequently used and thus, are prone to breakage, wear offs. Therefore, it can be one of the reasons for frequent procurement. And as these equipment have a higher demand, they can be stocked prior to any order, so that an edge over the competitor can be gained in terms of required delivery time.
- Most hospital and healthcare organizations now prioritize better quality over lower price. Customers now implement Value Based Procurement (VBL) which is the act of assessing likely items, administrations, and obtain value for money (VFM), as opposed to obtaining products at lowest possible price. Delivery of good quality products can ensure customer retention and satisfaction. No compromise should be done in terms of quality of the products.
- Majority of organizations rarely offer post installation maintenance. This observation can be used as a window of opportunity to enter service-based business by providing maintenance services for the products.
- Typically, organizations offer 12-24 months of warranty period for their products.
- Most healthcare facilities claim that the specifications mentioned by them are not met in the products that are received. There is very little difference in the product specifications, which can sometimes be confusing to the manufacturers. It is necessary to get clarity on the requirement of the customer rather than delivering the wrong product.
- Most often, medical equipment manufacturers are open to modifications, if any, as and when requested by the purchase department. Most healthcare facilities desire customised products with detachable parts for multi purposes. Instead of having pre-defined SKUs, modifications as per customer's requirements are offered to gain customer satisfaction.
- Most organisations offer 2-4 weeks of customer required delivery date. It is advisable to accept orders basis the capacity of the business and manpower. If the manpower and capacity is not sufficient, the manufacturers should either make arrangements for advance payments for facilitation of the orders or not accept them.
- Price variation clauses (PVC) protect the manufacturers against the increasing prices of the raw material procured. Price variation clause protects the supplier from increase in raw material prices at the time of delivery as compared to prices at the time of bidding for tender in case of government hospitals. It was observed that PVC is many a times not included in the Purchase orders. It is advisable to explore the possibility to include PVC clauses to reduce the financial burden to the manufacturers while executing the orders.
- Past performance of the organizations play a major role in repeat orders by the customers. Continuous performance leads to customer retention. Constant delivery of high-quality products increases the business relations, thereby increasing business.

The following study has helped gain knowledge of the perspective of the purchase department in terms of their needs and expectations while procuring medical equipment.

CHAPTER 7: REFERENCES

1. Medical Devices Industries in India [internet] [Medical Devices Industry in India – Market Share, Reports, Growth & Scope | IBEF](#)
2. Asking Hospitals To Make Emergency Procurement Of Medical Equipment [internet] <https://www.bing.com/ck/a?!&&p=d0cf15e10282cbc7a61e8cc1b1c3ebdc8b21deb92ad95f2190a5b8a358edf56fJmltdHM9MTY1NjIzNDElOCZpZ3VpZD0zNjQ4MmNlZC1jZjRjLTQ5NWltYmMzMCM0NmJmNDZkMWZiMTAmaW5zaWQ9NTMlOQ&ptn=3&fclid=b9e89e0e-f52e-11ec-a62b-1405b5bf4016&u=a1aHR0cHM6Ly93d3cubmR0di5jb20vZGVsaGktbmV3cy9jb3Jvb mF2aXJlcylpbmRpYS1kZWxoaS1hc2tzLWhvc3BpdGFscyl0by1tYWtlLVVtZXJn ZW5jeS1wcm9jdXJlbWVudC1vZi1tZW RpY2FsLWVxdWlw bWVudC0yMjQ5NjE2Izp-OnRleHQ9VGhlJTlwRGVsaGklMjBnb3Zlcm5tZW50JTIwb24lMjBTYXR1cmRheS UyMGFl dGhvcm l zZW QIM jB tZWRp Y2Fs JTIwc3VwZXJpb n Rlbn Rlbn Rz LGVm Z m VjdGl2 W x5 J TI w Z G Vhb C U y M Hdp d Ggl M j B0 a GUIM j Bzd XJ n Z S U y MGlu J TI w Y 29yb25hdml yd XMIM j B j Y X Nl cy 4 & ntb = 1>
3. India Medical Devices Market- Industry Trends & Forecast Report [internet] <https://www.bing.com/ck/a?!&&p=f71e14af15b63c620d6d0dd8cd97480803c706ec5c79f7f4b386e01c7e8e24f2JmltdHM9MTY1NjIzNDYxMiZpZ3VpZD04MWlyMzY0YS0xNjlyLTQ0YzQtYjlkNS03ZjYyNDIxNjhlnWYmaW5zaWQ9NTM4MA&ptn=3&fclid=c87af9ad-f52f-11ec-8cb4-79dd7cd1c5ef&u=a1aHR0cHM6Ly93d3cuYmx1ZXdlYXZIY29uc3Vs dGlu Zy5jb20v cmVwb3J0L2luZGhl LW1lZGljYWwtZGV2aWNlcy1tYXJrZXQjOn46dGV4dD1Jb mRpYSUyMG1lZGljYWwlMjBkZXZpY2VzJTIwbWFya2V0JTIwd2FzJTIwd29yd GglMjBVU0QIMjAxNSxhJTIwQ0FHUiUyMG9mJTIwMzUuNDAlMjUlMjBkdXJp bmclMjB0aGUIMjBmb3JIY2FzdCUyMHBlcm l v ZC4 & ntb = 1>
4. Value Based Procurement [internet] [VBP-Guide-EN-June2020.pdf](#)
5. Medical Devices [internet] <https://www.bing.com/ck/a?!&&p=50ac851b10a39db409f0f72bbe9531a899dcc7a6d81def364dd3eddb84c036aJmltdHM9MTY1NjIzNDI3OSZpZ3VpZD0yYzhhZWNIY y0xZjIzLT Rm MGMtOTRj OS05NmJhMDcwYj E0ZTkmaW5zaWQ9NTIwMg&ptn=3&fclid=01e900cc-f52f-11ec-ba50-bccb90d6a7b3&u=a1aHR0cHM6Ly93d3cuaW52ZXN0aW5kaWEuZ292LmluL3NIY 3Rvc i9t ZWRp Y2Fs L WRldml j ZXM & ntb = 1>