



**Topic : Effectiveness of Procurement Systems of the Colleges**

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**Introduction**

Effectiveness is the extent to which an activity fulfils its intended purpose or function. Whereas, the Cost effectiveness is giving the most profit or advantage in exchange for the amount of money that is spent.

Things are changing; increasing awareness that on average, a manufacturing company spends 50 to 60 percent of its revenues to buy materials and supplies has made procurement function a promising area to hunt for facing global competitiveness. This fact has been already realized by some of the progressive companies in India and they have started placing best people in their purchasing functions.

Educational Institutions should not lag behind in this changing scenario as skillful contract negotiations could extract price discounts of between 1 and 5 percent from suppliers easily. As we know, since centuries procurement systems are perceived as an important function, with a significant impact on effectiveness of administration of any institution. The procurements made by the colleges, are financed by the government and /UGC and hence college procurements are to be more organized, and executed in fair, honest and impartial manner, and also should appear to be so. The sense of public accountability is very important when volume of procurements is large. It is expected that the colleges should have well planned and properly coordinated procurement policy, so that it can make use of available funds in a most effective manner.

The system should cover wide range of controls relating to selection of materials, source of supply, the follow-up to insure timely deliveries, a complete inspection for quality and quantity, well-planned procedures. All of these should be free from many formalities. It should result in the development of up-to-date methods of procurement and procurement techniques of highest standard. These types of controls would reveal efficiency of procurement policy and its cost effectiveness.

In the present study titled "**Effectiveness of Procurement Systems of the Colleges**" the hypothesis "the

present procurement systems of the colleges are less cost effective" is tested.

**Objectives of the study**

Objectives of the study are-

1. To analyze the cost effectiveness of the purchase systems of the colleges.
2. To identify opportunities for increasing procurement efficiency and effectiveness of the colleges, especially through service enhancement, improved co-operation and coordination.
3. To discuss procurement related issues, and conclude on the need to improve, in particular the procurement system in the colleges as a means of reducing cost in the changing scenario.
4. To provide a conceptual framework for college procurement, that would be useful for those government, university and college policymakers who are interested in assessing and/or reforming college procurement systems.

**Importance of study**

Importance of this study is unique as no parallel work is found on the said topic done by any researcher. After more than six decades of independence, a reasonable duration of time has passed which demands a meaningful evaluation of how colleges have performed in the changed liberalized policy environment. It is necessary to study the performance of the procurement system of the colleges to check the improvements since the setting of said systems. Firstly, it is important to know whether the objectives of performance, quality, suitability, delivery and service factors have been fulfilled and secondly to know how much cost effective the procurement systems of the colleges are at present. Though a large number of studies, evaluating the performance of business systems in the last decade have come up, certain important aspects of performance have remained untouched. By and large these studies are confined to specific aspects of their performance. In most of these studies, analysis is based upon very limited number of indicators. In order to be more effective it is important to add

sufficient number of indicators to evaluate the performance of the system. Therefore, one such study, which analyses procurement system of the colleges on the basis of additional parameters than the traditional five rights of buying.

#### **Scope of the Study**

1. The present study aims at analyzing the cost effectiveness of the procurement systems of the colleges affiliated to university of Pune. In order to study the impact of new changes it is necessary that the performance of college systems in the present context should be compared with that of the traditional procurement system in the colleges and in the industries, so that conclusions can be drawn.

2. The University of Pune is known for its quality education and good governance. Therefore, it is selected for the present study. The selected colleges affiliated to university of Pune till date (1-4-2005) are included in the study. The jurisdiction of the university is three districts. Therefore the colleges from the district Pune, Ahmednagar and Nasik are included in the study.

#### **Research Methodology**

##### **Sample:**

1. Selection of the University University of Pune
2. Selection of Districts 3 districts Pune, Ahmednagar and Nashik
3. Selection of the Colleges 221 (60%) colleges out of 368 colleges (1-4-2005)
4. Selection of Respondents Principal, Vice Principal, Registrar, Members of Procurement Committee.
5. Method of sampling 60 % colleges selected at random from each district.

##### **Data Collection:**

1. Primary data is collected with the help of questionnaire
2. Questionnaire includes 30 questions on the procurement system and procedure. Most of the questions are close-ended.
3. Secondary data is collected from reference books, web material, research articles, PhD. theses, M.Phil. Dissertations.

Parameters used for checking effectiveness of procurement system include competitive opportunity to all

vendors, suitability, value for money, delivery time, quality, quantity, service factors, transparency, code of conduct and accountability. Limitations of the study include-The study concentrates on the analysis of descriptive data. The quantitative aspects of effectiveness of colleges' procurement systems have not been abundantly emphasized for want of detailed information from the colleges. The study of effectiveness of colleges' procurement systems is based on the certain parameters as mentioned above. Colleges affiliated to University of Pune after 1-4-2005 is not covered in this research, as most of them are still in the process of setting college financial and other systems. The colleges not selected for the survey may have better or less cost-effective procurement systems than the colleges studied.

#### **Review of Literature**

Review of literature done for the purpose of this research paper is as follows:

- 1832: Charles Babbage, wrote a book 'On the Economy of Machinery and Manufactures' (London: Charles Knight, Second edition) - which provides evidence that purchasing was established as a separate industrial function well over 175 years ago. This book referred to the purchasing function in two places- in discussing the duties for a mining concern, one of the ten officers responsible for operating the mines was "a materials man, (who) selects, procurements, receives and delivers all articles required." Later he mentioned, "It will have been found necessary to establish an accountant's department...and this department must be in communication with the agents who procurement the raw produce..." and while describing the importance of the division of labour he further noted that "a great reduction in the cost of the article which is brought to market" can be accomplished by utilizing "the precise amount of skill...necessary for the execution of each process...(and) throughout every stage...from that in which the raw material is procured, to that in which the finished produce is conveyed into the hands of the consumer ..."
- 1887: Marshall M. Kirkman, 1887, wrote a book 'The Handling of Railway Supplies-Their Procurement and Disposition' (Chicago: Chas. N. Trivess.) The book explains the importance of the purchasing function to the management of a railroad. His

- observation enabled him to point out those most likely to lessen expenses or add to the efficiency of a property. He also commented on the lack of attention often given to the selection of personnel to fill the position of purchasing agent.
- 1900: Prof. Er. Hugo Diemer, 1900, Functions and Organization of the Purchasing Department," The Engineering Magazine, Vol. XVIII (March, 1900)-The article includes several comments concerning to the functions of purchasing department. He wrote on - Qualifications necessary for performance of the purchasing job -Unnecessary expense, Most desirable delivery, Technical versus business knowledge, Courteous attention to salesmen, desirable workload for a buyer, Realistic material specifications, Engineer's responsibilities in specifying materials, and Guidelines for value analysis.
- 1905: H.T. Kett, et. al. 1905, Book on Buying, The Business Man's Library, Vol. V (New York: The System Company). This book contained 18 chapters. Introduction of this book starts with the remark, "too little attention had been paid to the purchasing function in the past". The book explains the purchasing agent's duties as follows: (1) Purchasing of raw material, (2) Storing of raw material, (3) Stocking of finished components.
- 1911: H. C. Pearce, 1911, The Supply Department (New York: Railway Age Gazette. - The books states that last ten years have brought great consolidation, new methods and economics, particularly as to the system of buying from manufacturers on specifications. This necessitated a more thorough and complete supply organization, and today, with one exception, there is not a system of any importance that has not a supply department, the business of which is to provide, distribute and account for all materials.
- 1915: H.B.Twyford, 1915, Purchasing and Storing, Factory Management Course, Vol. IV (New York: Industrial Extension Institute) In the book author says, purchasing agent must have good judgment, be well balanced, shrewd, sagacious, and well fortified with the knowledge which he can scientifically accumulate; this broadened and improved by a close study of local and national conditions will make a purchasing agent a valuable asset to any concern.
- 1915: C.S. Rindsfoos, 1915, Purchasing (New York: McGraw-Hill Book Company, Inc.) - In this book, the author states, 'there are many reasons why the ideal purchasing department will be in the form of a separate company, in near future'.
- 1922: Albert E. Bull, 1922, Buying Goods: The Commercial Buyer and His Work (London: Sir Isaac Pitman & Sons, Ltd.)-The book attempted to cover the work of the buyer in all lines: retail, wholesale, manufacturing, import and export. His comments on the position of the buyer, relative to the salesman, are important.
- 1922: Helen Hysell, 1922, The Science of Purchasing (New York: D. Appleton and Company) - This is the only purchasing book written by a woman author Mrs. Helen Hysell, published in 1922. In her book she commented on the increasing recognition of the purchasing manager within the organization structure, and analysis of individuals.
- 1922: John C. Dinsmore, in his book 'Purchasing: Principles and Practices' (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1922), states the procedures for performing the purchasing function and had several chapters devoted to the procurement of specific types of commodities.
- 1924: H.D. Murphy, 1924, in his book, The Fundamental Principles of Purchasing (New York: Purchasing Agent Company, Inc), explained the principles of purchasing and duties of the purchasing agent.
- 1927: William N. Mitchell, in his book, Purchasing (New York: Ronald Press Company)- provides a general discussion of all phases of activity of an industrial purchasing department.
- 1928: Norman F. Harriman, in his book, Principles of Scientific Purchasing (New York: McGraw-Hill Book Company, Inc) said, the science of buying is recognized more clearly in its proper perspective today than ever before. Increasing consideration is being given not only to the first cost but also to the longer range factors of fitness, interchangeability, renewals, replacements, general maintenance, wearing qualities, and cost per unit of utility. The

- tendency to buy at so much per unit of quality or utility, instead of per unit of quantity, is one that will increase. The idea is fundamentally and economically sound. Harriman's book recommended the scientific, systematic collection of data, by specialists, as a basis for purchasing decisions. Specifically, he noted and recommended use of individuals called "Procurement Engineers" to aid the buyers in investigating potential areas of cost reduction.
- 1928: Gushee and Boffey, in their book, *Scientific Purchasing* (New York: McGraw-Hill Book Company, Inc.)- have emphasized proper timing of procurements based on analysis of data and stated: There are some purchasing agents who believe, or profess to believe, that to buy successfully demands a sixth sense- a sort of intuition or "hunch" as to the trend of general business and the tendency of specific markets. That belief is utter nonsense. As a matter of fact, the purchasing agent who claims that he follows a "hunch" in a particular transaction will find, on self-analysis, that his action is really based on what he has read or heard." Market studies, economic analyses, graphic charts accurately and regularly revised, established policies of purchasing to take the utmost advantage of prevailing conditions- these are facilities which are essential to enable the purchasing agent to time his buying most effectively, providing he has the wisdom to interpret business conditions and the courage to act in conformity with the interpretation.
- 1963: Harold A. Berry, in his book, "Purchasing guide" states in the preface that purchasing is an essential function of all types of business and non-profit organizations, is often not understood by business people. Therefore the purpose of this book is to inform management men in all fields of business activity as to the function, organization and operations of a purchasing department.
- 1965: Airan, J W, in his book titled "College administration" ( Asia Publication House, Bombay) explains the intricacies of the college administration.
- 1976: Higgins, L. R. et al in their book titled "Cost reduction from A to Z" , Published By Tata Mcgraw-Hill explain the techniques of cost reduction in various sectors of the economy.
- 1979: Ph. D. thesis titled "Effective Organization for Regional Management in Punjab National Bank" written by Awasthi S. K. explained the place of procurement function in the organisation structure of the banks.
- 1980: Ramesh Chandra Srivastav, wrote a book titled "College administration" Published by the Metropolitan Book Co. New Delhi, explain various trends and intricacies of the college administration.
- 1983: Ph. D. thesis titled "Designing a Management Information System (MIS) for Union Bank of India, Bombay", explains the design of management information system (MIS) and design of procurement system related MIS procedure.
- 1985: Prem Lal, in his book titled "Cost management a case study of some aspects of Indian railways", Anupama publishers, Delhi takes a review of cost management of various aspects of Indian railways.
- 1985: Ph. D. thesis titled "Computerization of bank of Baroda, Pune", written by Chandar J Kumar explains as to how the computerization has improved the effectiveness of the services rendered by the Bank of Baroda.
- 1985: Ph. D. thesis titled "Cognitive Dissonance: A Study on the Post Procurement Consumer Behaviour" written by Shri Pradeep Badvekar, under the guidance of Dr. Dilip Sarwate, explains the theory of consumer behaviour after the procurement decisions.
- 1986: MHRD, National Policy on Education, 1986, has given a thought to cost effectiveness and to promote excellence. It also highlights the process of achieving the better educational results.
- 1991: Ph. D. thesis titled "Cost reduction techniques in procurement management with special reference to power sector" written by Shri Vyankatesh Kadajirao Sawant, under the guidance of Dr. A. B. Rao explains the various cost reduction techniques used in power sector, in the country.
- 1992: V. Chalapatirao, in his work titled "College teachers and administrators, a handbook", Published at Hyderabad by Book links Corporation

- took review of administration of the college.
- 1996: Murphy David J., has published the article entitled Evaluating performance of the purchasing department using data envelopment analysis. Central focus of this book is how cost accounting helps managers make better decisions. This books also explains the rewards and challenges that we are facing in the professional cost accounting world both today and tomorrow.
- 1997: M. M. Ansari, wrote a book titled "Cost effectiveness of higher education a critical assessment", published by Concept Publishing Company, 1st Edition, New Delhi, . The book takes the review of the procedure of assessing cost effectiveness of higher education in the country.
- 1999: Ph. D. thesis titled "Economic Problems of Higher Education: A Case Study of Raigad District", written by Kulkarni V.S., explains the economic problems of higher education.
- 2002: Cut your costs before they hit your profits, is a reference book of Mr. Naresh Jand and Mr. Naveen Jand reveals numerous cost reduction/value creation ideas in different functional areas such as Procurement, Manufacturing, Personnel, Marketing, Finance, Forex, Administration, Project Implementation, Insurance etc. The book is very reader friendly as it facilitates random reading and easy grasp to all executive from CEO to supervisor.
- 2004: Chhaya Shukla, in her Book on 'Financing of Higher Education', states that funding and financing of every education system is vital to its functioning. Administration salary equipment book procurement etc. depends or provision of finance by the government agencies. It also states that an educational system has become quite stagnant. In these days of modernization globalization and information revolution it has become more important to continuously reform the education process. This book also offers various suggestions and areas of reforms in higher education.
- 2004: The book titled "Procurement management" is written by Zamb, L. C., is a comprehensive work with lucid and systematic presentation of the subject matter. Each concept relating to materials management is explained in simple language supported with number of examples, illustrations and diagrams for easy understanding.
- 2006: E.T. Mathew,, in his book Higher Education in North-East India: Unit Cost Analysis, Mittal Publications., New Delhi (2006) explains the system of higher education in India. According to him the system of higher education in India has witnessed tremendous expansion and transformation during the past five decades. Since resources for higher education are at best limited, it is crucial to ensure their efficient use. Educational cost analysis provides a powerful tool in the hands of decision-makers to evaluate the efficiency of educational institutions in terms of resource allocation and productivity.
- 2006: Brian R. Robinson, CPA, UK, wrote an article titled "Purchasing Best Practices", Ten Keys to Effective Purchasing, published by "Cost Containment Strategies" on their website. Those ten keys are: Improve your vendor relationship, Develop a scoreboard for keeping track of vendors' service, quality, and delivery and pricing, Obtaining the right information, Cerate and train the purchasing staff with necessary skills, Get the executive team behind purchasing 100%, Enforce a preferred vendor list. Structure centrally led, but locally implemented teams, Develop strong negotiation skills Use technology to propel yourself ahead of your competition and Design an incentive programme that actually profits the individual and the company.

#### **Procurement System: Procedure**

Steps /activities involved in the standard procurement procedure include:

1. Procurement budget
2. Requisition slip in standard format
3. Sanction of expenditure by the Trust or government or University
4. Preparing the list of vendors
5. Inviting quotations from the registered vendors for all procurements of Rs 5,000/ or more
6. Confirming that the vendors are registered under sales tax act

7. Ensuring that quotations / price lists are submitted only original Letterheads
8. Opening of the quotations before the principal / procurement committee
9. Preparation of comparative statement in a particular format
10. Submission of the procurement requisitions file to the committee
11. Meeting of procurement committee for recommendation on the mode of procurement and resolution of the committee
12. Confirming that procurement order is prepared according to enquiry letter, price / rate list and comparative statement
13. Procurement order properly filled up in the approved format
14. Procurement order is prepared according to the directives by the funding authority
15. Delivery period is specified
16. Validity date specified in rate list for placing order is not over
17. Provisions of Income Tax Act (TDS), Excise Act, Octrio other taxes and concessions are confirmed before placing an order.

### **Documentation**

Importance of documentation in procurement procedure include: There are many activities connected with procurement of materials. These activities are done in different departments of the organization. Obviously, there is some exchange of information and important data between these departments in respect of materials to be procurement. For avoiding confusion and ambiguity, naturally, it is required to do all correspondence and communications through written documents. For this purpose many forms have been developed. Transmission of information from one department to another department is done through these specific forms. Each document is prepared by the respective department and copies are given to the concerned department and each document has some specific purpose and is used for taking necessary actions. Documents generally used in procurement procedure are - Bill of Materials, Material Requisition Note, Quotations, Schedule of Quotations, Procurement Order, Delivery Challan, Material Inspection Note, Goods Received Note etc.

### **Data Analysis and Interpretations**

The study is based upon primary information and all the relevant information is collected from the colleges with the help of detailed questionnaire, which included 10 questions on the college administration, 33 questions on existing procurement procedure and 9 questions on computerized procurement procedure. In addition to this some information is also collected from the cost accountants, particularly to check cost effectiveness. Statistical tables are used to present the data, whereas graphs to represent the tabulated data. However, the graphs are not included in the paper.

**Question wise analysis of the questionnaire is given below:**

1. **Selection of the college:** The details of the selected colleges are given below.

**Table No. 1 Selected Colleges**

Sr. No.	District	Total No. of colleges	No. of selected colleges	%
1	Pune	200	120	60%
2	Ahmednagar	83	50	60%
3	Nashik	85	51	60%
	Total	368	221	60%

**Source:** Primary Data

Table 1 show that 221 colleges (60%) are selected for the purpose of study.

1. **Procurement Committee:** The information is collected from the respondents in respect of the existence of the procurement committee, to check the awareness about the statutory requirements relating to procurement committee. It is observed from the data collected that all the 221 (100%) colleges have constituted procurement committee.
2. **Constituents of Procurement Committee:** Constituents are the members of procurement committee. These members are the respondents in this study. The procurement committee consists of General Body member, Principal, LMC member, One / two / three/ or more faculty members and Accountant. Details of them are given below.

**Table 2 Constituents of Procurement Committee**

Constituents	No. of Respondents	Percentage
Principal	78	35.29
HOD/ Reader/ Lecturer	118	53.39
LMC Members / Accountants / Senior Clerk / Registrar / Librarian	25	11.31
<b>Total</b>	<b>221</b>	<b>100</b>

**Source: Primary Data**

It is observed from the above table that maximum number of 118 HOD's and faculty members has been selected for the purpose of study. They are in majority as their number exceeds the total number of colleges because various streams in the college and they are the main stakeholders in procurement decisions making process. Some members who are in this category are simultaneously the members of the general body. It is followed by 78 respondents (35.29%) holding the post of principal / vice principals. Next to it is the number of respondents from the administrative staff i.e. 25 (11.31%).

- 1. Instance of no procurement committee:** The information is collected from the respondents in respect of the existence of the procurement committee, to check the awareness about the statutory requirements relating to procurement committee. It is observed from the data collected that all the colleges have constituted procurement committee. Therefore the question of making decision by someone independently in place of procurement committee doesn't arise.
- 2. Nature of Procurement needing approval of parent body:** The respondents were asked as to whether the college needs any approval from the society / trust level procurement committee, it was observed from the responses that all the colleges need approval of their parent body for the procurements involving capital expenditure irrespective of the quantum of amount involved.
- 3. List of approved suppliers:** The respondents were asked as to whether the college has maintained list of vendors approved by the suppliers as such procurements are needed frequently. The responses are recorded in the following table.

**Table3 Maintaining list of approved vendors**

Sr. No.	Districts	Maintaining	Percentage	Not Maintaining	Percentage	Total
1	Pune	94	78%	26	22%	120
2	Ahmednagar	44	86%	7	14%	51
3	Nashik	42	84%	8	16%	50
Total		180	81%	41	19%	221

**Source: Primary Data**

It is observed from above table that 78% of the colleges from Pune district, 86% colleges from Ahmednagar district and 84% of the colleges from Nashik district have approved vendors list which is followed very strictly while making the

required procurements.

**1. Written procurement procedure:** It is observed from their responses that all colleges follow the procedure laid down by the government circular in this regard. The Circular No. NGC 1995 / 381296/9-a Dated 3.6.1995, issued by the Director of Education (Higher Education) Maharashtra State, Pune 411 001, which states that all non-government colleges have to follow the procurement procedure as explained in it.

**2. Instance of not having procurement procedure:** Written rules are provided by the government and the colleges have to follow all the rules very strictly. So, the colleges have the written procedures or they follow the procedure laid down in the above-mentioned circular. Procurement committee has exclusive powers to take any decision in respect of the procurements specified in the circular.

**3. Decision Making Authority:** The colleges make their procurements from the funds received from various sources. University grants commission and State Government make financial provision for the payment of pay and allowances of teaching and non-teaching staff, contingency grant, maintenance grant and library and laboratory grant. For capital expenditure the colleges rely on donations from the society. Capital expenditure is indispensable to the growth of any college. For example, mention may be made of the additional buildings to accommodate additional classes, extra curricular activities, laboratories, library sports ground etc. Many colleges, included in this study, have made this expenditure from the donations from the individuals. If the funds are made available by the parent body or self-generated by the colleges then the budget for such procurements is decided by the respective authorities. So far as, the procurements which are to be made from government funds the budget limit and conditions are laid down by the government. However, at college level to give equal benefit of such grants to the various departments of the college, the departments' wise requirements are assessed and accordingly the budget is prepared.

**4. College level committee's monetary limit:** The respondents were asked as to whether there is any monetarily

limit in respect of procurements. Such limit is fixed in connection with the powers for sanctioning the expenditure. Following Table indicates such budgetary limits.

**Table 4 Monetary Limit / Restrictions**

Monetary limit	No. of colleges	Percentage
1 – From Rs.100 to Rs.5000/-	40	18%
2 – From Rs.5001/- to Rs.10,000/-	74	33%
3 – From Rs.10,001/- to Rs.1,00,000/-	23	10%
4 – Rs.1,00,001 and Above	84	38%
Grand Total	221	100%

**Source:** Primary Data

It is observed from above table that in 40 (18%) colleges procurement committee can approve the procurements up to rupees 5,000. Further 74 (33%) colleges have stated that limit for procurement of procurement committee between Rs. 5,001 to 10,000 and 23 (10%) colleges have stated that this limit is between 10,000 to 1,00,000 only and 84 (38%) colleges enjoy full freedom to make required procurements subject to availability of funds for the said purpose. It leads us to conclude that the authority of procurement committee is controlled by the management council of the colleges.

**1. Procurement procedure:** The steps /activities involved in the standard procurement procedure, which of these steps are followed in your College.

- i) Procurement budget
- ii) Requisition slip in standard format.
- iii) Sanction of expenditure by the Trust or government or university
- iv) Preparing the list of vendors
- v) Inviting quotations from the registered vendors for all procurements of Rs. 5,000/ or more
- vi) Confirming that the vendors are registered under sales tax act.
- vii) Ensuring that quotations / price lists are submitted only Original Letterheads.
- viii) Opening of the quotations before the principal / procurement committee
- ix) Preparation of comparative statement in a particular format
- x) Submission of the procurement requisitions file to

the committee.

- xi) Meeting of procurement committee for recommendation on the mode of procurement and resolution of the committee
- xii) Confirming that procurement order is prepared according to enquiry letter, price / rate list and comparative statement.
- xiii) Procurement order properly filled up in the approved format
- xiv) Procurement order is prepared according to the directives by the funding authority.
- xv) Delivery period is specified
- xvi) Validity date specified in rate list for placing order is not over
- xvii) Provisions of Income tax act (TDS), Excise Act, Octrio and other taxes are confirmed before placing an order.
- xviii) All above

Pune University for its departments has developed above procurement procedure. Similar (more or less) procedure is followed in all the colleges affiliated to the University. For the purpose of this study, University's procurement procedure is taken as base.

**Table 5 Steps in Procurement procedure**

No. of steps followed	No. of Colleges	Percentage
All 17 steps are Followed	139	63%
Less than 17 steps are followed	82	37%
Grand Total	221	100%

**Source:** Primary Data

It is observed from the above table that 139 (63 %) colleges all 17 standard steps in the procurement procedure are followed. In the remaining colleges most of the steps in the procurement procedure are followed, (with different combinations) but their number is less than 17 steps.

**1. Procurement control:** The respondents were asked as to whether there is any individual or department in the college which controls the procurement activity; the responses revealed that all procurement related activities are controlled by the principal, as directed by the procurement committee. In most of the colleges the concerned department heads maintain the stock registers and help the principal by providing necessary information for their decision making.

**2. Clerical Staff:** The respondents were asked as to



whether there is any clerical staff for procurement and stores control; the responses revealed that all procurement and stores related activities are carried by the principal on behalf of the procurement committee. However, the principal is assisted by the members of the committee and clerical staff whenever needed. Separate clerical staff is not appointed in any college to carry procurement and stores activities.

**3. Control of procurement and stores activities:** The requirement of procurement in various departments are consolidated and placed before procurement committee. The controlling authority also exercise the power is indicated in following table.

**Table 6 Controlling Authority**

Activity Control / Performed by	Clerical staff for procurement and store activities		
	Yes	No	Total
Principal	75	89	164
Concerned Department	5	8	13
Accounts Department	3	8	11
Stores Department	1	1	2
Others	20	11	31
Total	104	117	221
Percentage	47%	53%	

**Source:** Primary Data

It is observed from above table that procurement and store activities of 104 colleges (47%) required number of clerical and stores staff is available and these activities are looked after by them whereas there are 117 colleges (53%) where there is no or inadequate number of clerical and stores staff, these activities are looked after by the principal along with other members.

**1. Responsibility of control of procurement and control activities:** As shown in the above table, in 117 colleges (53%) where there is no or less inadequate number of clerical and stores staff. In these colleges' procurement and stores control activities are looked after by the principal along with other members.

**2. Lead Time:** The information collected in this respect from respondent is noted in the following table.

**Table 7 Lead time - Period Required for Completing Procurement Procedure**

Period	No. of Respondents	Percentage
1 - 30 days	123	56%
8 - 15 days	81	37%
3 - 7 days	9	4%
4 - Less than 7 days	8	4%
Total	221	100%

(Source: Primary Data)

It is observed from above table that 123 (56%) colleges complete procurement procedure within a period of 30 days and 98 (37%) of the colleges complete the same in the period of 15 days.

**1. List of the items to be procured:** It is expected that each college should have department wise list of items to be procured from the college funds for effective control by the college authorities. The details are given in the following table.

**Table 8 List of the items to be procured**

Sr. No.	List of items	No. of colleges	Percentage
1	Yes	190	86%
2	No	31	14%
	Total	221	100%

**Source:** Primary Data

It is observed from the above table that 190 colleges (86%) of the total colleges' possess the lists of items to be procured by each department. In the remaining colleges lists are either not maintained or incomplete or not updated. Such colleges (31, 13%) take pre-sanction by the Principal and afterwards it is ratified by Trust General Body in case of procurement of non-listed items.

**1. Item-wise budget for procurement:** It is expected that each college should have department wise list of items to be procured and the budget to procurement such items on time. It is observed from the survey that all the colleges prepare budget department wise and total budget. All the colleges control their purchase using budgetary control technique. However, they take pre-sanction by the Principal and afterwards it is ratified by the procurement committee and parent body in case of procurement of non-listed items, and not provided in the budget.

**2. Economic Order Quantity:** The concept is generally used in industries. It can be used in colleges too. It refers to the fact that each procurement quantity should be at normal level as exceeding procurements, or less procurements than this requirement may generate loss to the institution. The information is collected from the respondents in respect of the existence of system of calculating economic order quantity, to check the awareness about it in the colleges. It is observed from the data collected that in the commerce colleges there is some awareness about

the benefits of calculating economic order quantity. In fact, economic order quantity is not calculated in any college selected for this study. However, the researcher has explained the concept to the respondents. They immediately accepted it and suggested that they will practice it.

**3. Suppliers / Vendors:** The information collected in this respect from respondent is noted in the following table.

**Table No.9: Source of Supply of materials**

Sr. No.	Procurements from	No. of Colleges	Percentage
1	Manufacturer	34	15%
2	Wholesaler	100	45%
3	Retailers	11	5%
4	Agents	9	4%
5	All above	62	28%
6	Others	5	2%
	<b>Grand Total</b>	<b>221</b>	<b>100%</b>

(Source: Primary Data)

It is observed that 100 (45%) college's procurement the material from wholesaler. Further it is observed those 62 (28%) colleges, which procurement the material either from manufacturer directly, or the wholesaler or retailer or through agents or in combinations of all sources of procurement. It is observed that 34 (15%) college's procurement the material from manufacturer.

**1. Eligibility of the suppliers:** Generally, while selecting the supplier the college is expected to check Experience, Financial standing of the suppliers, Income tax clearance, Turnover, Rates, Terms and conditions, etc.,. From the data collected it is observe that more or less all the eligibility / conditions for eligibility are checked by the colleges while selecting the supplier for its regular requirement. Whereas, for the small procurements e.g. for the procurements of value less than Rs. 100 at a time, these things are not checked.

**2. Inspection of goods procured:** Most of the colleges are multi-faculty institutions such as arts, commerce, science where the principal with commerce or arts is not expert in procurement goods for science laboratory. The respondents were asked as to whether their colleges have any qualified technical expert to check the quality of goods procurement. The responses are indicated

in the following table.

**Table 10 Inspection of Quality of Goods**

Sr. No.	Inspection of Quality	No. of Respondents	Percentage
1	By Technical Experts	69	31%
2	By Others	152	69%
		221	100%

**Source:** Primary Data

It is observed from the above table that Principal of 152 (69%) colleges checks the goods as there is no qualified technical person. The qualified technical experts are available in 69 (31%) colleges.

**1. Payment of Bills:** The procurement of goods required by the college is regular process. The colleges may maintain vendors list for specific commodities. However for some items, new suppliers are to be located. The bill payment policy of the college is taken into account and responses of the respondents are noted in following table.

#### **Suggestions and Recommendations:**

Based on the findings and conclusions the researcher has made following suggestions and recommendations.

1. It is suggested that the government should improve the existing procurement procedure in line with best practices. According to my observations, the present procurement system in the colleges is quite cost effective. But it should be improved to attain the next higher step in effectiveness.

2. Procurement system is not defined in the university statutes. It should be defined based on the internationally accepted definitions of the procurement system.

3. Purchasing is one of the most important activities of any college. Therefore, there should be separate procurement officer to look after the procurement in the office of the each college.

4. The work of procurement system is entrusted to the procurement committee. However, in reality the principal of the college carries it. It should be carried out by the procurement committee and procurement and stores officers and not by the Principal.

5. The general body may set some monetary limit for procurement of goods or services by the college principal or procurement committee

6. The colleges should maintain list of approved suppliers of capital goods and revenue items, respectively.

7. To bring uniformity in the procurement procedure, procedures manual, should be developed for the colleges and shall be made mandatory.

8. Principal alone should not be decision-making authority in case of any procurements, including emergency procurements.

9. To complete the procurement procedure in a less time, number of steps in the procurement procedure, should be reduced.

10. The procurement committee should be held responsible for three major functions- buying, procurement system and records.

11. Period required for completing present procurement procedure in the Colleges should be reduced to 7 days.

12. There should be delegation of authority for direct procurement to the department heads and its ratification by the Principal, as it encourages the heads to take active part in the college administration.

13. The procurement committee should start using economic order quantity technique to calculate the quantity to be procured, before taking any decision regarding procurement of any item.

14. The college should hire experts' services, whenever required to inspect and check the quality of the goods.

15. The colleges should determine the different stock levels like re-order level, maximum level, minimum level, average level and danger level and confirm them before the new procurement orders are placed.

16. Centralized procurements are more cost effective than decentralized purchasing. Therefore centralized procurement should be preferred.

17. The colleges should go for forward buying to save funds during inflation conditions. However, during recession period just in time buying is advisable.

18. College level procurement committee meetings

should be held, as and when required. In any case, there should be one meeting in three months.

19. Computerization make management control easy, therefore there should be computerization of all departments of the colleges. Computerization and internet facility will help in providing online information about the procurement to the authorities.

#### **Conclusion:**

The above findings led me to conclude that the procurement system of the colleges is quite cost effective. But to attain the excellence the colleges have to improve in various aspects of procurement procedure. Increasingly, the internet is being used by the colleges; however this use is still restricted to sourcing purchasing information and not actual procurement. It is in this context that e-commerce has not yet taken off the way it has in western countries. The colleges today are unsure of the quality of various websites. This certainly affects their decision in buying their requirements from business websites. However, some initiative in this direction is necessary. The university and government have to take initiative to improve the existing procurement procedure in line with international best practices.

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