

Research Article

Factors Affecting the Efficiency of Inventory Management of Janapriya Multiple Campus, Pokhara

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Abstract

Each and every organization needs inventories to perform day to day activities to achieve set objectives. This study entitled 'factors affecting the efficiency of inventory management of Janapriya Multiple Campus, Pokhara' is to assess the factors that affect on inventory management of the campus. Basically, the study is based on primary data including 21 sample out of total population 28. Stratified random sampling is used to select a sample size of 21 respondents. Structured questionnaire and other official documents are used to collect data from primary sources. Samples were three groups of office staff. Group wise distribution of sample was top level, middle level and assistant level. The collected data are tabulated and presented according to the needs and objectives of the study. Descriptive statistics of mean and standard deviation were used for data analysis. Factors related with proper record keeping of inventory, financial resources, skill possessed by store staff and bureaucratic procurement procedure positively affect on the effectiveness of inventory management. Proper inventory record, stock information and competent & qualified store employees are very important for the effectiveness of inventory management. Sufficient fund, skillful store clerks, training and development for store staff, few quality suppliers and easy process of budget release are inevitable for superior inventory management.

Keywords: Cost, inventory management, office supplies, over/under stocking, procurement, store record

Introduction

Inventories are current assets. These are tangible assets held by an organization. In manufacturing concerns, inventories include stock of materials, semi-finished goods, (work in progress), finished goods, packing materials, factory supplies and spares. Cost of unsold goods is inventories for trading concern. Service organizations like schools, campuses, hospitals etc also need in the form of office materials/supplies. All form of inventories hold some economic value. Thus the sum of raw materials, semi-finished goods, finished goods, spare parts, office supplies and other consumable stores is known as inventory.

A firm should determine its optimum level of investment in inventories and to do this, two conflicting requirement must be met. First, it must ensure that inventories are sufficient to meet the requirement of production and sales and second, it must avoid holding surplus inventories that are unnecessary because of the costs involved .The optimal inventory level lies somewhere between these extremes (Drury,2012,p.632).

Inventory management deals with eternal issue of howmuch to keep on hand as well as how much and how frequently to order. All organizations have to operate in dynamic environment. There exist uncertainty in demand and lead time. As a result organization needs inventory management. Hongren,Dater and Rajan (2015) defined “Inventory management includes planning, coordinating and controlling activities related to the flow of inventory into through and out of an organizations”(p.1042). Inventory management is a tool of management and it is concerned with planning, organizing and controlling the movement of stocks from their initial purchase to destination. Low level of inventory adversely affect on the day to day operation of an organization. On the other hand, high level of inventories increases losses, damages, opportunity cost and other holding cost. Therefore there should be optimum level of inventory. Maintaining the optimum level of inventory in any organization is inventory management. It is concerned with minimizing relevant inventory costs I.e. purchase cost, ordering cost and carrying cost.

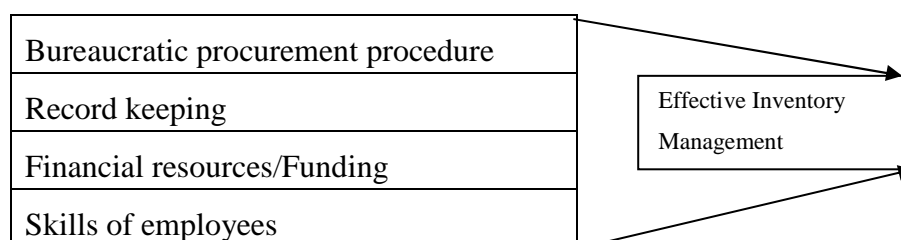
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Enterprise Resource Planning(ERP)implementation enhance accuracy of inventory management. The ERP provides speed and reduce cost in managing inventory (Nayakeri & ochiri, 2014).Documentation is crucial in ensuring efficient inventory management. Stock records provide the management with the information to ensure accountability through stock audit exercise (Ondari & Muturi, 2016).Internal inventory security procedural practices, inventory auditing and computerized inventory control individually and collectively have significant positive impact on procurement performance (Onchoke and Wanyoike, 2016). Inadequate forecasting of requirement, scheduled time for deliveries, inefficient staff, scheduled time for receiving, issuing and unorganized storage facilities affect information sharing between the customer and supplier are the causes of overstocking and under and affecting effective inventory management (Onkundi & Bichanga, 2016). Staff training, level of technology, stock evaluation and procurement policies had a significant connection on the efficiency of inventory management. Poor stock taking, outdated procurement system and long bureaucratic procedure had unfavorable impact on the effectiveness of inventory management(Fredrick, Mike & Zipporah, 2017). Previous studies are related with manufacturing company, trading stores and hospitals. There is not any study that has been done on inventory management of community campus like Janapriya Multiple Campus (JMC). Therefore the study certainly fulfills the gap. This study aims to examine the factors affecting the efficiency of inventory management. It will indicate the different factors that effect on the effective inventory management. Likewise, it will also help to formulate plans and policies regarding inventory management of JMC. It will also provide a base for the further studies to researchers on related topic.

Data and Methods

Janapriya Multiple campus (JMC) is a QAA certified public campus affiliated to Tribhuvan University ,Nepal. JMC was established in 1991A.D/(2048 B.S.).The campus is nonprofit social organization generating needed financial resources locally. At present JMC is adopting the strategy to accept grants provided by Nepal Government through University Grants Commission(UGC). However the main source of income

to meet its operating and other cash outlay is fee from the student. Therefore, the campus needs to minimize cost as far as possible. Inventory management helps to minimize cost of office supplies used. There are different factors that contribute to proper functioning of inventory management. Some of the variables on which the effectiveness of inventory management depends include bureaucratic procurement procedure, inventory records, financial resources and skills of employees. The variables under this study are presented as:



In this study, descriptive research design is used to achieve the stated objective. The population of this study was 28 including all the non-teaching staff of JMC except office helpers or peon. The target population is stratified into top level, middle level and assistant level. This study applies disproportionate stratified random sampling technique to select sample size of respondents. Sent percent of top level staff, 72.72% of middle level staff and 55.56% of assistant level staff were collected as sample size. The selection of the sample size is as follows.

Table 1
Target Population and Sample Size

Categories	Target population	Sample size
Top level	8	8(100%)
Middle level	11	8 (72.72%)
Assistant level	9	5 (55.56%)
Total	28	21 (75%)

Source: Annual report, JMC (2073)

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The study is based on primary data. Primary data were collected by using self administered questionnaires distributed personally at the respondent's place of work by the researcher. Closed ended and scaling questionnaires were collected. The data gathered from the questionnaire was edited to ensure completeness, consistency and accuracy. Collected data were analyzed through the use of statistical packages for social sciences(version 22) software. Mean and standard deviation of descriptive statistics have been used to explain the finding of the study.

Results and Discussion

This section deals with the analysis of factors affecting on inventory/office supplies management of JMC. Three fourth (75%) of total population were selected as sample to draw proper conclusion from this study.

Table 2
Effects of Bureaucratic Procurement Procedure Factors on the Effectiveness of Inventory Management

Factors	1	2	3	4	5	Mean	Standard deviation
Management should try to avoid long procurement process	18	3	0	0	0	4.86	0.37
Rigid rules and policies for procurement should be eliminated	1	3	0	1	16	1.67	1.28
There should be procurement committee to acquire inventory	16	4	0		0	4.67	0.71
Bureaucracy forces on conformity rather than performance	6	10	0	4	1	3.76	1.19
Management should try to keep good relation with fewer quality suppliers as opposed to many suppliers	17	4	0	0	0	4.81	0.39

Source: Field survey, 2017

Table 2 shows responses of respondents towards the factors related with bureaucratic procurement procedure. Most of the respondents strongly agreed on the view that management should try to avoid long procurement process and management should have good relation with few suppliers rather than many suppliers as shown by mean and standard deviation 4.86(0.35) and 4.81(0.39). Majority of the respondents focused on provision of procurement committee to acquire inventory indicated by mean 4.67 and S.D.0.71. The mean and standard deviation for the elimination of rigid rules and regulation is 1.67 and 1.28 respectively. Bureaucracy forces on conformity rather than performance has not significant effect on the effectiveness of office supplies management as compared to other bureaucratic factors.

Table 3
Effects of Record Keeping Factors on the Effectiveness Inventory Management

Factors	1	2	3	4	5	Mean	St. deviation
Lack of advance technology or use of manual inventory system increase storage cost	13	8	0	0	0	4.62	0.49
Accuracy of inventory records is necessary to provide effective service	15	6	0	0	0	4.71	0.45
Perpetual stock taking is essential to determine replenishment of individual stock item	18	3	0	0	0	4.86	0.35
Proper inventory record is necessary to overcome overstocking and under stocking.	21	0	0	0	0	5.0	0
Stock information is very important for effective inventory management	20	1	0	0	0	4.95	0.21

Source: Field survey, 2017

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It could be seen from Table 3 that JMC non teaching staff strongly agreed on record keeping of inventory for the effectiveness of inventory management as the mean responses of all five factors is more than 4.0 which is the midpoint signifying indifferent. It could be seen that the highest response with zero S.D. is 4th item with mean 5. This is followed by the 5th and 3rd items which are stock information is very important and perpetual stock taking is essential to determine replenishment of individual stock items with mean and S.D. 4.95(0.21) and 4.86(0.35) respectively. Then, these factors are followed by accuracy of inventory records is necessary to provide effective service and lack of advance technology or manual inventory system increase storage cost as shown by mean and S.D. 4.71(0.45) and 4.62(0.49) individually.

Table 4
Effect of Funding Factors on the Effectiveness of Inventory Management

Factors	1	2	3	4	5	Mean	St. deviation
There should not be lengthy process of budget release for the procurement of inventory	18	3	0	0	0	4.86	0.35
Sufficient fund for inventory contribute for efficient service of an organization.	12	9	0	0	0	4.57	0.49
It is necessary to provide some petty cash to store keeper (not more than Rs 2000)	8	10	0	2	1	4.05	1.09
Sufficient fund is necessary to maintain sustainable relation with quality suppliers	14	7	0	0	0	4.67	0.47
It is necessary to allocate sufficient fund to take insurance policy of office supplies/stock	9	10	1	0	1	4.24	0.92

Source: Field survey, 2017

Table 4 shows that all the respondents agree on the effect of funding factors on the effectiveness of inventory management. The sequence of the agreement are: There should not be the lengthy process of budget release for procurement, sufficient fund is necessary to maintain sustainable relationship with suppliers, sufficient fund for inventory contribute for efficient service of an organization, allocation of sufficient fund for stock insurance and petty cash not more than Rs 2000 needed for store keeper with mean and S.D. 4.86(0.35),4.67(0.47),4.57(0.49), 4.24(0.92) and 4.05(1.09) respectively.

Table 5
Effect of Skill Possessed by Store Staff Factors on the Effectiveness of Inventory Management

Factors	1	2	3	4	5	Mean	St. deviation
Competent and qualified employees helps to minimize cost of inventory management	20	1	0	0	0	4.95	0.21
Qualification should be matched with job requirement	16	5	0	0	0	4.76	0.43
Training and development program is necessary for effective inventory management	19	2	0	0	0	4.90	0.29
Knowledge of stock taking is inevitable for store staff	18	2	1	0	0	4.81	0.31
Store staff should have organizational, communication and problem solving skills	19	2	0	0	0	4.90	0.29

Field survey, 2017

It is clearly shown by Table 5 that most of the respondents agree that competent and qualified employees help to minimize cost of inventory management with mean 4.95 and S.D. 0.21. This is followed by 3rd and 5th factors having same mean and standard deviation of 4.90 and 0.29. As per

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Table 5, majority of JMC staff agree that knowledge of stock taking is inevitable for store staff and qualification should be matched with the job requirement along with mean and standard deviation 4.81(0.31) and 4.76(0.43) respectively.

Conclusion

Inventory management is very important since it enables to avoid high investment upon office supplies and other cost associated with inventory. According to the above result and discussion of collected data, it can be concluded that the factors related with proper record keeping of inventory, financial resources(funding), skill possessed by store staff and bureaucratic procurement procedure positively affect on the effectiveness of inventory management. Proper inventory record, stock information and competent & qualified store employees are very important for the proper functioning of inventory management as well. Documentation is crucial to ensure efficient inventory management. There should be sufficient fund, skillful store clerks, training and development for store staff, few quality suppliers and easy process of budget release for the effectiveness of inventory management.

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