

*Assessment of Warehouse Management Practices in Addis
Pharmaceutical Factory*

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Abstract: The main objective of the study is to assess the warehousing practice in Addis pharmaceutical factory. The study commonly based on primary source of data, this primary data was collected using questioner. And the researchers used purposive sampling technique because our target point is to collect data which is related to warehouse practice. Finally, the collected data would be analyzed, discussed and presented using tables, figures and percentages. As noted by respondents the organization face problems that is shortage of enough space in the warehouse and recommendation like, In order to enhance the problem regarding with the shortage of enough space in the warehouse it is better to expand the existing warehouse in the factory would be put for the identified problem.

Keywords: warehouse, warehouse management, store, material handling, Addis Pharmaceuticals factory.

I. INTRODUCTION

A. Background of the Study

In today's challenging and competitive world, success can be hinge on whether a warehouse operation is productive and effective enough to meet expectations of customers. One way to gauge how effectively the warehouse operations are meeting these expectations is to conduct a warehouse operations assessment: a systematic review of the warehouse functions looking for possible improvements in efficiency and service. A good operations assessment takes a quantitative look at the productivity and service levels of a warehouse operation; it enables to measure productivity and service and identifies patterns and trends; it tells exactly where companies are and what they need to do to meet their goals. It also allows companies to compare their measurements with their own in-house goals as well as industry benchmarks. (Barry et al, 2016).

A warehouse is a facility in the supply chain to consolidate products to reduce transportation cost, achieve economies of scale in manufacturing or in purchasing (Bartholdi and Hackman, 2006) or provide value-added processes and shorten response time [Gong et al, 2008]. Warehousing has also been recognized as one of the main operations where companies can provide tailored services for their customers and gain competitive advantage.

B. Statement of the problem

In many developed organizations the benefits of warehouse management is crucial for the attainment of its goals and objectives, However, in most of the developing countries including our country have a little awareness and poor implementing planned tasks especially concerning the benefits of warehousing over management due to these many companies couldn't implement its proposed dreams that could hinder the expansion performance of the organization which in turn result inefficient and below expected results of warehouse management system.(Desalew 2004).

Assessing warehouse management has been largely ignored in research literature (Ginnis, 2010).

Since the field of supply chain management specifically modern warehouse (store) management is relatively new to Ethiopia, there is an apparent shortage of documented evidences that sufficiently depict the practice of assessing warehouse performance.

Effective assessment of Warehouse management and practices can potentially affect the overall supply chain activities of the enterprise and directly contributed to the productivity of the company as a whole.

A crucial component of Pharmaceuticals Supply Chain activities is the efficient and effective warehousing and distribution System. The Ethiopian pharmaceutical supply chain has several problems including non-availability, unaffordability, poor storage, lack of stock management and weak distribution system including weak fleet management. Health Facilities have problems to get right products; right quantity and right quality are not available at the right time, right place, for the right cost due to poor distribution system (PFSA, 2105). However, APF currently is not able to effectively assess the warehouse management and practices. It is absolutely imperative to manage warehouse effectively so as to avoid unnecessary cost, ensure high level of customer service. Considering the aforementioned gaps, this study attempted to assess the warehouse management practices in APF.

The researchers raise the following research questions so as to come up with the solution for the stated problem.

What are the major problems in the organization related to Warehouse management?

What type of warehouse control system the organization used?

What are the warehouse policies and procedures that the organization follows?

How is the awareness of APF staff on ware housing activities?

C. *Objective of the study*

General objective

The general objective of this study is to assess the warehouse management practice in case of Addis pharmaceutical factory (APF).

Specific objective

To identify the possible factor that affect warehouse practice in the factory.

To identify the warehouse management policies and procedures that the organization follows.

To assess the awareness of APF staff on warehousing practices.

To identify the type of warehouse control system that the organization used.

II. REVIEW OF RELATED LITERATURE

A. *Concept of warehouse*

Warehouse is concerned with physical handling of raw materials and components parts until they are used in the production process and also storing finished goods until they are shipped to customers. Warehousing is an integral part of any logistics system. A large number of warehouses exist worldwide including state of the art professionally managed warehouses as well as company stores such as raw materials and component stores, finished goods stores etc. (Bhat.2011)

B. *Pharmaceuticals warehousing and storage system*

Warehouse is a central hub in the supply chain, where inventory is received from vendors/ suppliers and stored until it's eventually distributed to consumers. Store is a location where materials are preserved while storage is a means of organizing

and handling inventory in stores. In other words, storage is the management of storehouses and stockyards, the operation of holding and storage of pharmaceutical & related supplies and protection of such products. Warehouse Management is much broader and includes activities such as holding, quality control, training of stores staff, and clerical administration of warehouse operation. Despite today's just-in-time production mentality, with its efforts to eliminate warehouses and their inventory carrying costs, effective warehousing continues to play a critical bottom line role for companies worldwide. The primary purpose of a pharmaceutical warehouse is to receive, hold and dispatch pharmaceuticals. It ensures the physical integrity and safety of products and their packaging, throughout the various storage facilities, until they are dispensed to clients.

C. Functions of the Warehouse

The warehouse function is concerned with physical handling of materials and a point in the logistics system where a firm stores or holds raw materials, semi-finished goods or finished goods for varying periods of time. The warehouse serves several value-adding roles in a logistics system. Some of them are listed below :-(www.ciilogistics.com)

1. Receiving-This includes the physical unloading of incoming transport, checking, recording of receipts, and deciding where the received goods are to be put away in the warehouse. It can also include such activities as unpacking and repackaging, quality control checks and temporary quarantine storage for goods awaiting clearance by quality control.

2. Inspection- Quality and quantity check of the incoming goods for their required characteristics.

3. Repackaging- Incoming lot may be having non-standard packaging which may not be stored as it is in the respective location. In those cases these materials have to be pre packed in unit loads/pallet loads suitable for storage.

4. Put away – Binning and storing the goods in their respective locations including the temp locations from the receiving docking area.

5. Storage – Binning the approved material in their respective locations.

6. Order-Order picking / selection –Goods are selected from order picking stock in the required quantities and at the required time to meet customer orders. Picking often involves break bulk operations, when goods are received from suppliers in, say, whole pallet quantities, but ordered by customers in less than pallet quantity .order picking is important for achieving high levels of customer service; it traditionally also takes a high proportion of the total warehouse staff complement and is expensive. The good design and management of picking systems and operations are consequently vital to effective warehouse performance

7. Sortation – This enable goods coming into a warehouse to be sorted into specific customer orders immediately on arrival. The goods then go directly to order collation.

8. Packing and shipping – Picked goods as per the customer order are consolidated and packed according to customer order requirement. It is shipped according to customer orders and respective destinations.

9. Cross-docking –Move products directly from receiving to the shipping dock – these products are not at all stored in the specific locations.

10. Replenishing – This is the movement of goods in larger order quantities, for example a whole pallet at a time , from reserve storage to order picking, to ensure that order picking locations do not become empty. Maintaining stock availability for order picking is important for achieving high levels of order fill.(www.ciilogistics.com)

D. Warehouse policies and procedures

Warehouse policies are the rules and regulations around which your warehouse operates. While procedures may differ between businesses, most policies focus on common areas. These include Health and safety, Security, Maintenance and cleaning, Quality control, Record keeping and reporting, Disposing of obsolete and damaged merchandise.

In contrast, procedures are step-by-step, best-practice instructions for carrying out daily warehouse activities. Each set of instructions also include internal controls designed to protect your business. Health and safety, maintenance, and cleaning policies and procedures are rigid and inflexible instructions that comply with Occupational Safety and Health Administration regulations (Jackie Lohrey, 1995).

E. Store verification

Store verification the process of physically counting measuring or weighting the entire range of items in the stores and recording the results in a systematic manner, In other words it is also means testing or checking the stores records with the actual items stocked in store. This is as certain any discrepancy of actual store when compared with record.(M. Bixby cooper 2010)

F. Materials handling

Material handing is the science of moving materials from one place to another materials includes raw materials finished components finished goods packing materials operational supplies, fools figs and fixtures scrap etc. material handling is closely connected with the storage of materials in any store organizations one of the major problems to which considerable though should be given is material handling. A good deal of labor and money can be saved by using the right method and proper equipment in the movement of materials.

III. RESEARCH METHODOLOGY

A. Research approach

In this study the researchers have used quantitative research approach for obtaining information from the respondents. The reason for the selection of quantitative approach was the data we obtain from the respondents require accurate measurement in order to get meaningful findings. For this study the researchers wants to describe warehouse management in detail. So the researchers used descriptive statistics research method.

B. Population and Sampling

Population size: The target population for this study is general manager of the organization, warehouse department employees, Quality management department employees, Finance department and Production department employees because these department employees are closely related with the warehouse department and the researchers think that those employees can provide better information than other department employees for this research purpose.

Sample size and sampling technique: The researchers have used judgmental (purposive) sampling because that involves selecting elements based on researchers intention about which elements can facilitate his or her investigation the respondents select more knowledge about the study than the other employees. The target population is 62 from this population the researchers had taken all target population as research participants. Thus, the sample size was 62 employees out of 62 employees and this presented in the table below:-

C. Instruments and data collecting techniques

For this study data was collected by using primary source of data. Primary source of data were collected through questioners, which consist close ended and open ended questions. Questioners were distributed to the General Manager, Quality management department, Production department, for warehouse department workers and for Finance department. Both Close ended questions and Open ended questions help the researchers to analyze and interpret the response.

To make the respondents easily understand and fill questionnaires were prepared in Amharic and distributed for all of the respondents. Andin order to free from any kinds of mistakes and unclearness questionnaires were checked.

D. Data analysis and interpretation

After the collection of data from primary source the researchers analyzed the data by using simple descriptive statistics of quantitative approach such as tables, figure, frequency and percentage.

IV. DATA PRESENTATION, ANALYSIS AND INTERPRETATIONS

Response of respondents on warehouse practices related questions

Table 1 Data describe regarding to warehousing policy and procedure

Does the company have specified warehousing procedure?		
Response	frequency	Percent
Yes	31	74%
No	11	26%
Total	42	100%

Table 1 describe that majority 31 (74%) of the respondents responded that the organization has well specified warehouse policy and procedure. The remaining 11 (26%) of the respondents responded that the organization has no specified warehouse policy and procedure.

Table 2 Data describe regarded with receiving section

Do you think the receiving sections checking the incoming materials at the right time and place?		
Response	Frequency	Percent
Strongly agree	10	24%
Agree	18	43%
Neutral	8	19%
Disagree	6	14%
Strongly disagree	-	-
Total	42	100%

As presented in the above table 2, item 7, 18(43%) of the respondents are agree that the receiving section check incoming materials at the right time and place. 10(24%) of the respondents are strongly agree, 8(19%) of the respondents are neutral. The remaining 6 (14%) of the respondents are disagree.

Table 3 data described regarded with finished products

Does finished products are properly packaged at the right time and place?		
Response	Frequency	Percent
Yes	30	71
No	12	29
Total	42	100%

As indicated in the above table 3, 30 (71%) of respondents replied that Addis pharmaceutical factory properly packaged finished products at the right time and place. The remaining 12 (29%) of the respondents response that the organization is not properly packaged finished products at the right time and place. Figure 1 data described regarded with recording system

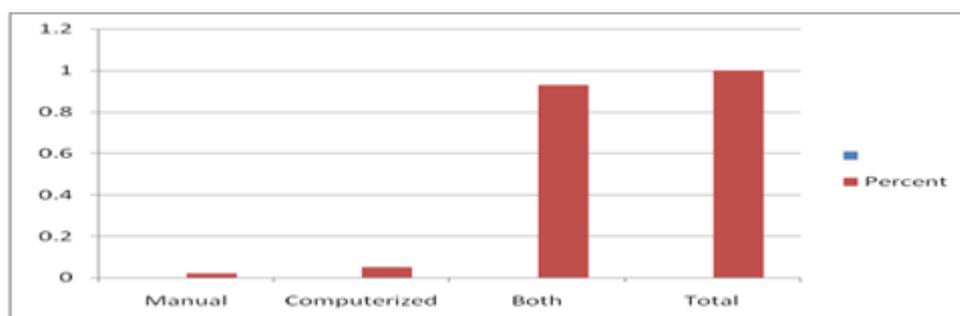


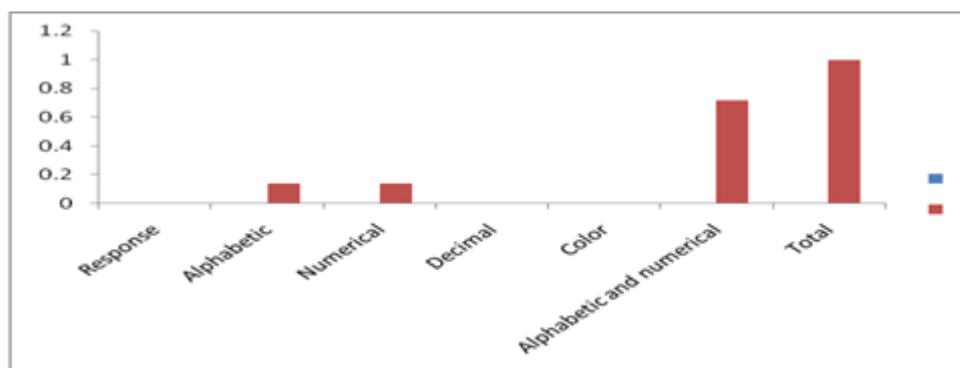
Figure 1 show that 39 (93%) of the respondents responds that Addis pharmaceutical factory used both manual and computerized recording system, other respondent 2 (5%) respondents that used computerized recording system and the remaining 1 (2%) respondents that of responds the organization used manual recording system.

Table 4 data describe regarded with codification system

Does the company use correct codification system?		
Response	Frequency	Percent
Yes	40	95%
No	2	5%
Total	42	100%

As indicate in the above table 4, majority 40(95%) of respondents were answered that there is correct codification system in Addis pharmaceutical factory, while the remaining 2(5%) of respondents were answered that there is no correct codification system.

Figure 2, If your answer for the above question is yes, which type of codification system the companies follow?



In The above figure 2 indicates that the majority 30 (72%) of the respondents replied the company use Alphabetic and numerical codification system. 6(14%) of respondents respond the company use numerical codification system. The remaining 6 (14%) of respondents replied that the company use Alphabetic codification system.

Table 5 data described related with stock checking system

Which type of stock checking system the company follows?		
Response	Frequency	Percent
Periodically	10	24%
Perpetual	-	-
Semi annual	2	5%
Annual	30	71%
Total	42	100%

Table 5 shows that 30 (71%) of the respondent responded that Addis Pharmaceutical Factory Follows the Annual controlling system. 10 (24%) of the respondents responded that the organization follow periodically controlling system and the remaining 2 (5%) of the respondents responded that Addis Pharmaceutical Factory follow semi-annual system.

Questions related with problems that face on the organization related with warehouse activities

Table 6 Data describe problems that face on the organization related with warehouse activities

Do you face any problem (difficulties) due to warehouse practice?		
Response	Frequency	Percent
Yes	9	21%
No	33	79%
Total	42	100%

Table 6 shows that 33 (79%) of the respondents responded that they didn't encounter any difficulty due to warehouse practice. The remaining 9 (21%) of the respondents responded that Addis pharmaceutical factory Encounters difficulty due to warehouse practices. So, from this we can understand that Addis Pharmaceutical Factory has problem since the respondents

mentioned in the open ended questionnaire, like recording and reporting problems and shortage of enough space in the warehouse.

Table 7 Data describe warehouse related training

Does your company give warehouse related training?		
Response	Frequency	Percent
Yes	4	10%
No	38	90%
Total	42	100%

Table 7 depicted that 38 (90 %) of the respondents responds that Addis pharmaceutical factory does not give warehouse related training to its employees. The remaining 4 (10%) of the respondents are responds that Addis pharmaceutical factory give warehouse related training to its employees.

Table 8 data describe integration problem

Does the warehouse department have integration problems with user departments?		
Response	Frequency	Percent
Yes	2	5%
No	40	95%
Total	42	100%

Table 8 describe that 40 (95%) of the respondents were responded that there is no integration problems with user departments. The remaining 2 (5%) say that there is integration problem with user departments.

Table 9 data describe obsolete materials

Does your company disposed obsolete or scrap material at the right time and place?		
Response	Frequency	Percent
Yes	17	40%
No	25	60%
Total	42	100%

As clearly indicated in the above table 25 (60%) of the respondents replied that there is no disposal system for obsolete or scrap materials at the right time and place. 17 (40%) of the respondents replied that there is disposal system for obsolete or scrap materials at the right time and place. Those respondents respond for open question the organization do have a gap in disposing obsolete items properly.

Questions related with warehouse security and material handling system

Table 10 Data describe material handling

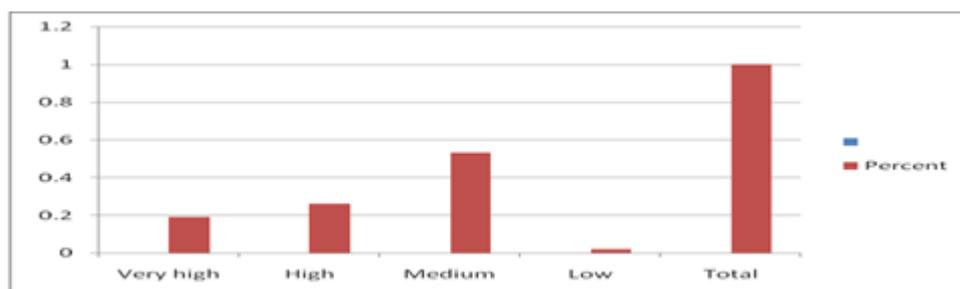
Do you think that the company has proper material handling methods?		
Response	Frequency	Percent
Yes	40	95%
No	2	5%
Total	42	100%
If your answer is yes which method of material handling your company follows?		
Response	Frequency	Percent
Manual	10	24%
Automatic	12	28%
Both	20	48%
Total	42	100%

Table 10 describe that 40 (95%) of the respondents responds that the organization has proper material handling method. The remaining 2 (5%) of the respondents responds that the organization has no proper material handling method.

In This table also can see 20 (48%) of respondents responds that the organization used both hand and automatic material handling method. 12 (28%) of the respondents responds that Addis pharmaceutical factory used automatic material handling

method. The remaining respondents 10 (24%) responds that Addis Pharmaceutical Factory used manual material handling method.

Figure 3 How do you evaluate the efficiency of your company on material handling?



The above figure 3 shows 22 (53%) of the respondents replied that the rate of material handling is medium. 11 (26%) of the respondents replied that there is high material handling method. 8 (19%) of the respondents respond that there is very high material handling method while the remaining 1 (2%) of respondents replied that the rate of material handling is low.

Table 11 data describe warehouse security

How do you evaluate your company on warehousing security practice?		
Response	Frequency	Percent
Good	22	52%
Satisfactory	15	36%
Low	5	12%
Total	42	100%

As shown in the above table 11 22 (52%) of the respondents replied that the rate of warehouse security is good. 15 (36%) of the respondents replied that the rate of warehouse security is satisfactory. While the remaining 5(12%) of the respondents respond that there is low warehouse security.

V. CONCLUSION AND RECOMMENDATIONS

A. Conclusion

Based on the analysis part of this study the researchers put the following points as a conclusion.

- Addis pharmaceutical factory follow well specified warehousing procedure.
- The receiving sections checking the incoming materials at the right time and place.
- The organization properly packaged finished products at the right time and place.
- Addis pharmaceutical factory used both manual and computerized recording system.
- The company use Alphabetic and numerical codification system.
- The organization has proper stock checking system or store verification.
- Addis Pharmaceutical Factory follows the Annual controlling system.
- The organization does not give enough warehouse related training to its employees.
- In the organization there is no integration problem with user departments.
- There is a gap in implementing the disposal system for obsolete or scrap materials.
- The rate of material handling in the organization is medium.
- The organization warehousing security practice is good.

- As noted by respondents from open ended question the organization face problems that is shortage of enough space in the warehouse.

B. Recommendation

Based on the above conclusion the researchers recommended the following points.

The rate of material handling in the organization is medium. So the organization should more work hard to improve continuously the warehousing practice in the organization.

The company should give to the employees warehouse related training to increase the skill of the employees.

Even though the organization follows the Annual controlling system. But it is better that the company should follow in additional to this controlling system which is spot checking system in order to gain advantages like, to check the accuracy of store record, to verify the physical counting case of doubt to confusion and to be ready for any inspection of stores.

In order to enhance the problem regarding with the shortage of enough space in the warehouse it is better to expand the existing warehouse in the factory.

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