ST. MARY'S UNIVERSITY
FACULTY OF BUSINESS
DEPARTMENT OF ACCOUNTING

AN ASSESSMENT OF INVENTORY CONTROL SYSTEM IN
THE CASE OF BGI ETHIOPIA

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JUNE, 2014
SMU
ADDIS ABABA
AN ASSESSMENT OF INVENTORY CONTROL SYSTEM IN
THE CASE OF BGI ETHIOPIA

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FACULTY OF BUSINESS
DEPARTMENT OF ACCOUNTING

APPROVED BY THE COMMITTEE OF EXAMINERS

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Department Head                                  Signature

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Advisor                                                 Signature

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Internal Examiner                                  Signature

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External Examiner                                 Signature
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DECLARATION

We, The Undersigned, Declare that this senior essay/project our original work, prepared under the guidance of Ato. _________________. All source of materials used for the manuscript have been dully acknowledged.

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This paper has been submitted for examination with my approval as an advisor.

NAME: _____________________________

SIGNATURE: ______________________

DATE: ____________________________
CHAPTER ONE

1 INTRODUCTION

1.1 Background of the Study

Inventories are goods held in stock for sale or materials, components and supplies to be used for production of other goods. In manufacturing sector inventories appear in different forms such as direct material inventory, work in process inventory and finished goods inventory. (Horngren et al, 2011)

1. Direct material: - direct material in stock and waiting for the use in the manufacturing.
2. Work in process inventory: - goods that are partially processed but not fully completed.
3. Finished goods: - goods that are fully completed but not yet sold.

Managing inventory is a big part of profit planning for manufacturing company. Material cost account for more than 40% of total costs of manufacturing companies. Inventory accounting can play a key role in inventory management, since inventory costs cover the significant portion of the company’s total cost it is important for a company to manage its inventory in well-organized way using the information provided by the accounting system. (Horngren, 2011; 134)

Inventory accounting is the process of accounting for inventory costs, physical flow of inventories from purchasing of materials to the final sales point. The purpose of inventory accounts is to collect and store all costs that can be attached to the product- that’s why they are called product costs. Then, in the period when the product is sold, total product. Cost is released against income as cost of goods sold. Then, and then, is the cost deducted from revenue (Charles, 2003; 236).

In contrast, all non-product costs are related immediately. That’s because they can’t be associated with specific products. Because non-product costs are realized in the time period for which they are incurred, they are commonly referred to as period cost. Period costs are never found in inventories (Charles, 2003; 245).

1.2 Background of the Organization

In 1992 Addis Ababa was just beginning to see the first sparks of technology when St. George, the nation’s first brewery was founded. The brewery was set up with modest premises to produce the country’s first bottled beer. When the brewery began operation, the machineries were manually operated and not more than 200 bottles were produced daily. One could also see the challenges to popularize the product, as beer drinking was not an established habit in our country. (St. George’s 80th anniversary issue, 1995 E.C)
The founder of St. George Brewery is Mussie Dawit Hale who is a Belgian, who lately sold it to a German company. (St. George’s 80th anniversary issue, 1995 E.C)

Some unauthentic sources say that the Brewery was closed during the five years of Italian occupation. The company resumed its work after the occupation and according to some reports there arose problems related to ownership.

The exact nature of the argument stood unclear. Eventually an Ethiopian company took over the brewery in 1952/3. This company was said to have been organized as shareholding entity, the larger share of which was owned by Emperor Haile Selassie.(St. George’s 80th Anniversary issue, 1995)

Generally, St. George Brewery could be said as having scored good result in the 1940s and 1950s. Toward the end of the 1950s the annual production of the Brewery had reached 50,000 hectoliters. According to the review made on” The Ethiopian Trade Journal” the Brewery had 53 silos, which had the capacity of 100-hectoliters each. There were about 300 employees who worked in two shifts for 24 hours. (St. George’s 80th Anniversary issue, 1995)

Slowly, but steadily, St. George Brewery continued to grow. In the early years of the 1970’s the Brewery was in the good shape in terms of its machineries, physical buildings, vehicles, marketing network, etc. It even had a plan to open a new plant for the production of soft drinks. In 1974 the Brewery was nationalized. Even this created some obstacles the Brewery pulled through with some improvement particularly with regard to manpower development and betterment in works management. It also started to produce draught beer that enjoyed popularity and big sales. (St. George’s 80th Anniversary issue, 1995)

On the other hand, the Brewery was lacking the finance it needed to introduce new technologies that came in the 1970s. The name of the Brewery was also changed as “Pilsner Brewery” and later as “Addis Ababa Brewery”. (St. George’s 80th Anniversary issue, 1995)

St. George Brewery is once again privatized. The factory is now owned by BGI, an internationally acclaimed Brewing Company that operates in many countries. It has excellent reputation in producing quality beer and brought St. George to the same standard. Today, St. George is the oldest beer in Ethiopia and is certainly also the youngest with fresh dynamism (St. George’s 80th Anniversary issue, 1995).
1.3 Statement of the Problem

As St George brewery factory carries different types of raw materials, incur many indirect costs and the complexity of production process may affect the company’s inventory accounting system such as, determination accurate cost of product which in turn may lead the company to undesirable economic outcome. The weakness of purchasing, cost accounting and other departments which are related to inventory accounting may lead the management to take poor decision which may affect the company’s business strategy such as price decision, optimal product mix decision, etc. Thus, by taking the above and similar facts into consideration the research paper try to give an insight and whether or not the inventory accounting system of the company under investigation is providing the relevant information for managerial control and decision making.

Based on the preliminary study performed by the student researchers the following problems has been found; on the inventory control system, on the assessing of the major factors that influence the inventory control system, on the inventory handling system during the manufacturing process, on the using of idle inventory for manufacturing process and on the purchasing process.

1.4. Research Questions

1. What does the current inventory control system of BGI Ethiopia?
2. What are the major factors that influence on inventory management control system of BGI Ethiopia?
3. What kind of inventory system does BGI Ethiopian use during the manufacturing process?
4. How does the company performance on the using of idle inventory for manufacturing process?
5. To what extent the purchasing process influence on the productivity of BGI Ethiopia?

1.5 Objective of the Study

1.5.1 General objective

In general, the objective of this research is to investigate the general inventory management and control systems of the organization so as to provide some suggestions on that should look like.

1.5.2 Specific objective

- To identify the factors that influences the inventory management system.
- To evaluate the inventory control that the company use during manufacturing process.
- To evaluate and suggest the way that employees follow to use idle inventory.
➢ To identify the procurement problem and it’s solution.

➢ To assess the influence of the purchasing process on the productivity of BGI Ethiopia.

1.6 Significance of the study

Inventory accounting system plays an important role in achieving organizational goal such as profitability and effective and efficient use of resources by providing accurate and timely information about inventories which covers a significant portion of company’s asset.

This research work had a significant importance to improve the efficiency of inventory accounting system of the organization such as:

➢ It improves productivity and enhance just in time purchasing and manufacturing.
➢ It helps the company to effectively manage its costs and to earn desirable profit and to get competitive advantage.
➢ To avoid the effect of improper allocation of costs on the organization’s pricing decision.
➢ To reduce material wastages and improve efficiency.
➢ It will identify major challenges for the application of inventory accounting system and list out alternative course of actions to overcome those challenges.
➢ It initiate and provide direction to conduct further research and development works.

1.7 Scope of the Study

Inventory accounting is a broad concept and it is applicable in all business organizations and not for profit organizations which carry inventories for different purposes. Though efficient inventory accounting system is necessary for all organization the scope of this research is limited to assess the application of inventory accounting in St. George Brewery in Addis Ababa branch.

1.8 Research Design and Methodology

1.8.1 Research design

This research was a descriptive type by its nature because the study was provides a solution for the existing problem. As well as indicate the area that need improvement related with inventory management and control system of the company.
1.8.2 Population and sampling technique

The population of this study was included inventory department employees of BGI Ethiopian which consists of 58 employees and 4 managers. This study also used stratified sampling technique by using 50% (29) as a sample size. since the technique will give equal chance for the population element & it avoids personal bias & sample representativeness .The sampling technique will be made as follows:-

<table>
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<th>NO.</th>
<th>DEPARTMENT</th>
<th>POPULATION</th>
<th>PERCENTAGE</th>
<th>SAMPLE</th>
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<tbody>
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<td>Finance &amp; administrative</td>
<td>28</td>
<td>50%</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>Sales &amp; Marketing</td>
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<td>50%</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>Purchasers And Storekeepers</td>
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<td>50%</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>58</td>
<td>50%</td>
<td>29</td>
</tr>
</tbody>
</table>

1.8.3. Types of Data Sources

The research relies on primary and secondary data sources. Primary data, physical observation and questionnaire are carried out. The physical observation will give more reliable information since the researcher will able to directly investigate and evaluate .This part targets officials in the finance department, Sales and Marketing department and production control department. The questionnaires were distributed to heads in the finance department and production control department.

Secondary date, sources were the documents from finance department, and it report, related books, Internet and the company manual. The study was conducted on the head office.

1.8.4 Methods of Data Collection

The methods of data collections that were employee this study is both qualitative and quantitative. In using qualitative data collection method the research method that is employed in the study is descriptive survey method. This enables the study to identify problems on inventory management and control system in BGI Ethiopia.
1.8.5 Methods of Data Analyses

The available data was explained in simple descriptive and ratio analysis forms. The problems encountered were extracted from the discussion, which is recommended on. Facts collected is simply analyzed and interpreted qualitative and quantitative by comparing the control procedures of the company with practice and procedures of related information.

1.9 Limitation of the Study

Any type of research may have its limitation. The degree of limitation is depending on the situation that the student researchers were involved or the willingness of respondent about the student researchers needed. The student researchers were face different problem that makes hard to conduct the study. Therefore, the following problems were the majors;

- Lack of sufficient time and information
- Financial constraint may
- Willingness of employees at time of data collection

1.10 Organization of the study

The study had four chapters. The first chapters discussed the back ground of the study, statement of the problem, research question, objective of study, significant of the study, research design and methodology and limitation of the study. Chapter two deals with review of related literature and the theory. Chapter three discusses data presentation and analysis of data. Chapter four discusses summary, conclusions, and recommendations.
CHAPTER TWO

2 REVIEW OF RELATED LITERATURE

2.1 Nature of Inventories

Inventories consist of goods held for sale to customers, partially completed goods and material and supplies to be used in production. Inventory items are acquired and sold continuously by a merchandising enterprise or acquired, placed in production, converted to finished product, and sold by a manufacturing enterprise (Horngren, 2011; 122).

The sale of merchandise or finished product is the primary source of revenue for most non service business enterprise (Horngren, 2011; 177).

In retail or merchandising operation, inventories consist principally or products purchased for resale in their existing form. A retail enterprise also may have an inventory of supplies such as wrapping paper cartons and stationery. A manufacturing enterprise has several types of inventories: material, parts, and factory supplies, goods in process; and finished goods (Horngren, 2011; 233).

Material and parts are basic commodities or other products obtained directly from natural resources or acquired from other, which will be incorporated physically into the finished product, but their relation to the end product is indirect. Goods in process consists of partially completed products and includes the cost of direct material, direct labor and factory overhead. Finished goods are items that are complete and ready for sale and include the same cost elements as those in goods in process (Horngren, et al, 2011; 236).

2.2 Inventory Procedures

Two methods may be employed to ascertain the inventory quantities on hand. The periodic system and the perpetual system. Both systems may be employed simultaneously for various inventories, such as material, finished goods and goods in process. (Mosich, 1989; 178)

2.2.1 The periodic inventory system: relies on a physical count of the goods on hand as base for control, management decisions and financial accounting. Although this procedure may give accurate result on a specific date, there is no continuing record of the inventory (Mosich, 1989; 179).
2.2.2 The perpetual inventory system: requires a continuous record of all receipts and withdrawals of each items of inventory. The perpetual record sometimes is kept in terms of quantities only. This procedure provides a better basis for control than is obtained under the periodic system. When the perpetual system is used, a physical count of the goods owned by the business enterprise must be made periodically to verify the accuracy of the inventories reported in the accounting records. Any discrepancies discovered must be corrected so that the perpetual inventory records are in agreement with the physical count. (Mosich, 1989; 180)

2.3 Types of Inventory

There are two types of inventory

- Merchandising and
- Manufacturing

Manufacturing is further divided into three more components: Raw material, work in process and finished goods.

2.3.1 Merchandise Inventory: if you buy items from other artists and Crafters to sell in your own gallery of shop, you will have a merchandise inventory; remember though – any items in your shop on consignment are not part of your inventory.

2.3.2 Manufacturing inventory: if you make your own arts and crafts, you will have a manufacturing inventory. The term manufacturing might not seem to fit a hand craft type of business, but a quick review of the classification within the term, will make the relationship clearer.

A manufacturing inventory consists of three different parts: raw materials, work in process and finished goods. Using leather crafting business as my sample craft company, here are definitions and example of the three.

1 Raw materials: everything the crafter buys to make the product is classified as raw materials. That includes leather, dyes, snaps and grommets. The raw material inventory only includes items that have not yet been put into the production process.

2 Work in process: this includes all the leather raw materials that are in various stages of development. For the leather crafting business, it would include leather pieces cut and in the process of being sewn together and the leather belts and purse etc. that are partially constructed.
The work in process inventory includes the cost of the labor directly doing the work and manufacturing overhead. Manufacturing overhead is costs that are indirectly related to making the product.

3 **Finished goods**: items those are ready to sell. The finished goods inventory also consists of the cost of raw material, labor and manufacturing overhead, now for the entire product.

(Source: MaireLoughran/Art leraftbusiness guide. arts and crafts. about.com/ed/...at/fourtypesinventory.htm)

### 2.4 Cost and Cost Terminology

Accountants define cost as resource sacrifices or forgone to achieve a specific objective. A cost (such as direct materials or advertising) is usually measured as the monetary amount that must be paid to acquire goods or services. An actual cost is the cost incurred (a historical cost), as distinguished from a budgeted (or forecasted) cost. (Horngren. etal, 2011; 312)

To guide their decisions, managers want to know how much a particular thing (such as product, machine, service or process) cost. We call this “things” a cost object, which is anything for which a measurement of costs desired. (Horngren. etal, 2011; 312)

A costing system typically accounts for costs in two basic stages accumulation followed by assignments. Cost accumulation is the collection of cost data in same organized way by means of an accounting system. For example, publisher that purchases paper rolls for printing magazines collects (accumulate) the costs of individual rolls brought in any one month to obtain the total monthly cost of paper. Beyond accumulating cost, managers assign costs to designated cost objects (such as the different magazines). Managers assign costs to cost object for many purposes costs assigned to department facilitate decisions about department efficiency. Costs assigned to products help in pricing decisions and in analyzing how profitable different products are. Costs assigned to customers help managers to understand the profit earned from different customers and to make decisions about how to allocate resources to support different customers. Cost assignment is a general term that encompasses both (1) tracing accumulated costs that have a direct relationship to a cost object and (2) allocating accumulated costs that have an indirect relationship to cost object. (Horngren. etal, 2011; 333)
2.5 Elements of Costs

2.5.1 Direct costs: these are costs that are specifically traceable to or caused by a specific project or production. Two major direct costs are direct labor cost and direct materials. (Horngren. etal, 2011)

1 Direct material cost: is the cost of materials which can be identified with, and allocated to, cost centers or cost units. Direct material is that material which becomes a part of the product. There are some materials which become a part of a product, but are used in comparatively small quantities and have very negligible costs.

Under such circumstances, instead of making a futile effort to make an analysis of them for the purpose of a direct change, they are conveniently grouped under indirect material as part of overhead. (Horngren. etal, 2011)

2 Direct labor cost (direct wages): is the wages which can be identified with and allocated to cost centers and cost units. Payment of direct labor and in some cases payment of indirect labour fall within the definition of direct wages. Direct labour is labour expended in altering the condition, conformation or composition of the product. There are some cases where wages of indirect labour may be treated as direct wages. (Horngren. etal, 2011)

2.5.2 Indirect cost (overhead): these are costs that are associated with or caused by two or more operating activities “jointly” but are not traceable to each of them individually. The nature of an indirect cost is such that it is not possible (or practical) to measure directly how much of the cost is attributable to a single operating activity. Indirect costs can be fixed or variable, depending on their behavior. (Horngren. etal, 2011)

The following groups of indirect items fall within the category of factory overhead.

1 Indirect material: in the strict sense, indirect material is the material that cannot be traced in the finished products such as consumable stores, e.g., lubricants, cotton waste, grease, oils, small tools, belt fasteners and works stationary. All indirect materials costs relating to factory become part of factory overhead. (Horngren. etal, 2011)
2 Indirect wages: wages that are not changed directly are indirect wages. In general, salaries or wages of the following are treated as indirect wages: foremen, supervisors, charge hands, inspectors, general labour, maintenance labour, works clerical stuff, watch and ward, indirect labour in drawing and design office, internal transport, tool room and other service.

3 Indirect expense: expenses (other than indirect material and labour) that are not charged directly to production are indirect expenses. (Horngren. etal, 2011; 343)

The following are treated as indirect factory expenses:

- Rent, rates and insurance in relation to factory.
- Depreciation, power and fuel; repair and maintenance of plants, machinery and building.
- Sundry expenses for other services including employment office, first aid, rewards for welfare, etc.(Horngren. etal, 2011; 355)

2.6 Purpose of Cost Allocation

Indirect costs of particular cost object are costs that are related to that cost object but cannot be traced to it in an economically feasible (cost effective) way. This costs often comprises a large percentage of the overall costs assigned to such cost objects as products, customer and distribution channels. The allocation of a particular cost need not simultaneously satisfy all for purposes. Consider the salary of an aerospace scientist in a central research department of air bus industries. This salary cost:

- May be allocated to a product as a part of central research of costs to satisfy Purpose 1(an economic decision such as pricing),
- May or may not be allocated to a product to satisfy purpose 2(motivation, such as reducing future R&D costs of the product),
- May or may not be allocated to a government contract to satisfy purpose 3(cost reimbursement, in which the terms of the contracts will guide the allocation decision), and
- Cannot be allocated to inventory under generally accepted accounting principles (GAAP) to satisfy purpose 4 (income and asset measurements for reporting to external parties). (Horngren. etal, 2011; 411)
Classification basis for overhead costs

1. **Cause and effect.** Using this criterion, managers identify the variables that cause resources to be consumed. For example, manager may use hours of testing as the variable when allocating the costs of quality-testing area to products. Cost allocations based on the cause-and-effect criterion are likely to be the most credible to operating personnel. (Horngren et al., 2011)

2. **Benefits received.** Using this criterion, managers identify the beneficiaries of the outputs of the cost object. The costs of the cost object are allocated among the beneficiaries in proportion to the benefits each receives. Consider a corporate which advertising rather than an individual product, the costs of their program may be allocated on the basis of division revenues; the higher the revenues, the higher the divisions allocated cost of the advertising program. The rationale behind their allocation is that division’s with higher revenues apparently benefited from the advertising more than divisions with lower revenues and therefore, ought to be allocated more of the advertising costs. (Horngren et al., 2011; 389)

3. **Fairness of equity.** This criterion is often cited in government for contracts when cost allocations are the basis for establishing a price satisfactory to the government and its supplier. Cost allocation here is viewed as all “reasonable” or “fair” means of establishing a selling price in the minds of the contracting parties for most allocation decisions, fairness is a difficult to achieve objective rather than an operational criterion. (Horngren et al., 2011; 396)

4. **Ability to bear.** This criterion advocates allocation costs in proportion to the cost object ability to bear costs allocated to it. An example in the allocation of corporate executive salaries on the basis of division operating income. The presumption is that the more profitable division have a greater ability to absorb corporate headquarters costs. (Horngren et al., 2011; 398)

### 2.7 Cost Flow Assumptions

The term flow refers to the inflow of costs when goods are purchased or manufactured and to the outflow of costs when goods are sold. The cost remaining in inventories is the difference between the inflow and outflow of costs. During a specific accounting period, such as a year or a month identical goods may be purchased or manufactured at different costs. Accountants then face the problem of determining which costs apply to items in inventories and which apply to items that have been sold. (Mosich, 1989)
A major objective of accounting for inventories is the proper determination of income through the process of matching appropriate costs against revenues. (Mosich, 1989; 199)

Cost for inventory purpose may be determined under any one of several assumptions as to the flow of cost factors (such as first-in, first-out, average and last-in, first-out); the major objective in selecting a method should be to choose the one which, under the circumstance, most clearly reflects periodic income. (Mosich, 1989; 203)

The assumed flow of cost to be used in the assignment of costs to inventories and to goods need not conform to the physical flow of goods. Cost flow assumptions relate to the flow of costs, rather than to the physical flow of goods. The question of which physical units of identical goods were sold and which remain in inventories is not relevant to income measurement and inventory valuation (Mosich, 1989; 223).

All method of inventory valuation are based on the cost principal, no matter which method is selected, the inventory is stated at cost. In selecting an inventory valuation method (or cost flow assumption), accountants are matching costs with revenue, and the idea choice is the method that “most clearly reflects periodic income.”(Mosich, 1989; 247)

The most widely used method of inventory valuations are:

1. First-in, first-out method (FIFO)
2. Last-in, first –out method (LIFO)
3. Weighted-average method
4. Specific identification method

A recent survey of 600 corporate annual reports indicates that LIFO was used by 366 companies; LIFO was used by 480 companies; average cost was used by 235 companies and 52 companies applied a variety of other method to the valuation of inventories. Obviously, many of the companies include in the survey used more than one method (Mosich, 1989; 250).

1. **First-in, first out method**

   The first in first-out method assumes a flow of costs based on the assumption that the oldest goods on hand are sold first. This assumption about cost flow generally conforms to reality, management usually finds it desirable to keep the oldest good moving out to customer in order to keep fresh or new goods on hand. The method is systematic and is easy to apply it adheres to the
cost principle and the cost assigned to inventories likely to be in close harmony with the current prices being paid for inventory replacements. (Mosich, 1989; 279)

2. Last in first-out method

The last-in first-out method assume a flow of inventory costs based on the assumption that the most recently purchased goods are sold first, because current costs are incurred to make current sales and to maintain adequate inventories on hand. Under this view, the latest costs are most closely associated with current revenues thus, the latest costs are most closely associated with current revenues thus, and the matching principle of income measurement is carried out. In the balance sheet, inventories under the LIFO method are valued at the earliest costs incurred. (Mosich, 1989; 290)

3. Weighted-average method

The weighted-average method of inventory valuation is based on the assumption that all goods are commingled and that no particular batch of goods is retained in the inventories. Thus the inventories are valued on the basis of average prices paid for the goods. Weighted according to the quantity purchased at each price. (Mosich, 1989; 342)

This method produces a result, for both inventory valuation and income measurement that lies between the results achieved under fifo and those achieved under lifo. The weighted-average method does not produce on inventory value consistent with the current cost of the items in inventory, by its nature it lags behind market prices. During a period of rising prices the inventory costs tends to be below replacement costs during a period of falling prices it tends to be above replacement cost. (Mosich, 1989; 344)

When the perpetual inventory system is used, the weighted-average method gives the result of a moving weighted average under the perpetual system, anew weighted-average unit costs is computed after each purchase and for their reason is known as the moving-weighted-average method. Unit sold are priced at the latest weighted average unit cost (Mosich, 1989; 351)
4. **Specific identification method**

At first thought one might argue that each item of inventory should be identified with its actual cost and that the total of these among should constitute the inventory value. Although such a technique might be possible for a business enterprise handling a small number of items. For example, an automobile dealer, it becomes completely inoperable in a complex manufacturing enterprise when the identity of the individual item is lost. Practical considerations this makes a specific identification in an appropriate in most cases (Mosich, 1989; 366).

Even when specific identifications a feasible means of valuation, it may be undesirable from a theoretical point of view. The method permits in some manipulation when there are identical items acquired at varying price. By choosing to sell the item that was acquired at a specific cost, management may cause material distortions in income (Mosich, 1989; 383).

2.8. **Job Costing and Process-Costing Systems**

Two basic types of costing systems are used to assign costs to products or services.

2.8.1 **Job-costing system.**

In this system, the cost object is a unit or multiple units of a distinct product of service called a job. The product or service is often a single unit. Job costing is also used to cost multiple units of a distinct product (Horngren. etal, 2011; 371).

This method is applied where the items of prime cost are traceable to specific jobs or orders, as house-building; ship-building; engine and machinery construction and repair; constructors’ work, e.g. Making reinforced concert structure; garage and repair shops (Horngren. etal, 2011; 259).

Job costing may include the following terms:-

1) Contract costing: in building trade, a contract is treated as a whole job and is coasted in total.

2) Terminal costing: this method emphasizes the essential nature of the job costing, i.e., the cost can be properly terminated at some point and related to a particular job.

3) Department costing: if the output of or service performed by a department sufficiently uniform, a cost per unit of output may be established. This departmental rate is applied to all jobs passing through that department.

4) Batch costing: a batch of similar products is regarded as one job, and the cost of this complete batch is collected. It is then used to determine the unit cost of articles produced. *(B.K. Bhar)*
2.8.2 Process-costing system. In this system, the cost object is masses of identical or similar units of a product of service. In each period, process-costing systems divide the total costs of producing an identical or similar product of service by the total number of units produced to obtain a per-unit cost. This per unit cost is the average unit cost that applies to each of the identical or similar unit produced. (Horngren. et al., 2011; 267)

These two types of costing system are best considered as opposite ends of a continuum; in between, one type of system can be into the other to some degree (Horngren. et al., 2011; 272).

Many companies have costing systems that are neither pure job costing nor pure process costing but have elements of both (Horngren. et al., 2011; 288).

In a processing- costing system, the unit cost of a product or service is obtained by assigning total costs to many identical of similar units. In a manufacturing process-costing setting each unit receives the same or similar amounts of direct material costs, direct manufacturing labor cost, and, indirect manufacturing costs (manufacturing overhead). Unit costs are then computed by dividing total costs incurred by the number of units of output from the production process (Horngren. et al., 2011; 290).

The main difference between process costing and job costing is the extent of over going used to compute unit costs of products or services. In a job-costing system, individual jobs use different quantities of production resources; so it would be incorrect to cost each job at the same average production cost. In contrast, when identical or similar units of products or services are mass-produced, not processed as individual jobs, process costing is to calculate an average production cost for all units produced (Horngren. et al., 2011; 301)

Process costing systems reflect work organized and collect by continuous processes rather than by batches and jobs. Process costing can be characterized as follow:

- Work is organized around process.
- Costs are collected by processes. Direct materials are issued and direct labor is traced to specific process. Manufacturing overhead is assigned to a process using an overhead rate.
- The cost of goods completed and transferred from work in process to finished goods is based on equivalent “whole” units of work performed. Total cost is divided by equivalent whole units to determine unit cost. Cost of good transferred from work in process to finished goods at the equivalent whole-unit cost.
• The cost of completed units is maintained in finished goods at the equivalent whole-unit cost until the product is sold (Charles, 2001; 168).

2.9 Inventoriable and Period Costs

• The purpose of inventory accounts is to collect and store all costs that can be attached to the product- that’s why they are called product costs. Then, in the period when the product is sold, total product. Cost is released against income as cost of goods sold. Then, and then, is the cost deducted from revenue.

• In contrast, all non-product costs are related immediately. That’s because they can’t be associated with specific products. Because non-product costs are realized in the time period for which they are incurred, they are commonly referred to as period cost. Period costs are never found in inventories (Charles, 2001; 197).

2.9.1 Inventoriable costs

Inventoriable costs are all costs of a product that are regarded as assets when they are incurred and then become costs of goods sold when the product is sold. For manufacturing sector companies, all manufacturing costs are inventoriable costs. Costs of direct material issued to production from direct material inventory, direct manufacturing labor costs, and indirect manufacturing costs create new assets, beginning as work in process and becoming finished goods. Hence manufacturing costs are included in work-in-process inventory and in finished goods inventory (they are “inventoried”) to accumulate the costs of creating these assets. When finished goods are sold, the cost of manufacturing the goods sold is matched against the revenues from the sale. The cost of goods sold includes all manufacturing costs (direct materials, direct manufacturing labor, and indirect manufacturing costs) incurred to produce the goods sold. Finished goods may be sold during a different accounting period than the period in which the goods were manufactured. Thus inventorying manufacturing costs during the period when they were manufactured and expensing the manufacturing costs of goods sold later when revenues are recognized achieves matching of revenues and expenses (Horngren. etal, 2011; 212)

1 Prime costs and conversion costs

Two terms used to describe costs classification in manufacturing costing system are prime costs and conversion costs. Prime costs are all direct manufacturing costs. As information gathering technology improves, companies can add more and more direct-cost categories. For example, power costs might be
metered in specific areas of a plant that are dedicated totally to the manufacture of separate product. In this case, prime costs should include direct materials, direct manufacturing labor, and direct metered Power (assuming there are already direct materials and direct manufacturing labor categories). Computer software companies often have a “purchased technology” direct manufacturing cost item. This item, which represents payments to suppliers who develop software algorithms for product, is also included in prime costs. Conversion costs are all manufacturing costs incurred to convert direct materials costs (Horngren. et al, 2011; 144).

Some manufacturing companies use conversion costs to simplify the accounting. They have only two classifications of costs: direct material costs and conversion costs. For these companies, all conversion costs are indirect manufacturing costs. An example is costing systems in computer integrated manufacturing (CIM) plants. CIM plants have very few workers. The workers role is to monitor the manufacturing process and maintain the equipment that produces multiple products. Costing system in CIM plants do not have a direct manufacturing labor cost category because direct manufacturing labor costs are small and because it is difficult to trace these costs to products. (Horngren. et al, 2011)

2.9.2 Period cost
Period costs are all costs in the income statements other than costs of goods sold. Period costs are treated as expenses of the period in which they are incurred because they are expected to benefit revenues in the current period and not expected to benefit revenues in future period (perhaps because there is not sufficient evidence to conclude that such benefit exists). Expensing these costs in the current period matches expenses to revenues. (Horngren. et al, 2011; 319)

For manufacturing-sector companies, period costs (for example, design costs and distribution costs). For related to the cost of goods purchased for resale. Example of period costs are labor costs of sales floor personnel and marketing costs. Because there are no inventoriable costs for service-sector companies, all their costs in the income statement (Horngren. et al, 2011; 209).

2.10 Scrap Materials
These are rejections from production process, which cannot be used anymore and are to be thrown away. Similarly, old, broken parts, rejects, cut pieces of iron sheets, angle iron, gaskets, insulation materials etc., are generated during maintenance and repair works. These materials are removed from the place of work and dumped in the scrapyard. Some of these materials are very useful for small jobs or can be reprocessed for other works. (Psaxena, 2003; 58)
For example, damaged tyres are a good source of heat generation as they can be burnt in a furnace. Batteries, rejected or damaged, can be a useful source; its battery case can be taken out for making the re-conditioned battery. Similarly, shafts can be recovered from scrapped pumps. They are likely to be in good condition for uses in repair of other pumps are period costs.(J. Psaxena, 2003)

**Accounting for scrap**

Scrap is material left over when making a product, it has low sales value compared with the value of the product no distinction is made between normal and abnormal scrap because no cost is attached to scrap. The only distinction made is between scrap attributable to specific job and scarp common to all jobs. (Horngren. etal, 2011; 89)

There are two aspects of accounting for scarp:
1. Planning and control, including physical tracing.
2. Inventory costing including when and how it affects operating income.

Initial entries to scrap records are commonly in physical terms. In various industries, items such as stamped out of metal sheets or edges of molded plastics parts are qualified by weighting, counting or some other expedient means. Scrap records not only help measure efficiency, but they also help keep track of scrap and so reduces the chances of theft. Scrap reports are prepared as source documents for periodic summaries of the amount of actual scrap compared with the budgeted or standard amounts. Scrap is either sold or disposed or quickly or stored for later sale, disposal or reuse a careful tracking of scrap often extends into the accounting records. Surveys indicate that 60% of companies maintain a distinct account for scrap costs somewhere in their accounting system (Horngren. etal, 2011; 93).

1 **Recognizing scraps at the time of its sale**

When the dollar amount of scrap is immaterial, the simplest accounting is to make annotation at the quantity of scrap returned to the store room and to regard scrap sales of a separate line item of other revenues in the income statement. The only journal entry is:

\[
\begin{align*}
\text{Sale of scrap} & \quad \text{Cash or Account Receivable} \quad \text{xxxx} \\
& \quad \text{Scrap Revenues} \quad \text{xxxx}
\end{align*}
\]
When the dollar amount of scrap is material and the scrap is sold after it is produced, the accounting depends on whether the scrap is attributable to specific job and common to all jobs (Horngren. etal, 2011; 178).

2 Recognizing scraps at the time of its production
In this situation, the company inventories scrap at a conservative estimate of its net realizable value so that production costs and related scrap revenues are recognized in the same accounting period (Horngren. etal, 2011; 182).
CHAPTER THREE

3. DATA PRESENTATION ANALYSIS AND PRESENTATION

3.1 Introduction

This section includes the analysis, interoperation and discussion of the data obtained from sample respondents. Data gathered from employees of BGI Ethiopia and the data were obtained brought questionnaires.

Out of the employees of BGI Ethiopia head office in Addis Ababa, 29 employees were selected as a sample respondents using stratified sampling technique. Twenty nine copies of questionnaires were distributed to employees. All of them cooperate in filling out and returning the questioners.
### 3.2 Analysis of the finding of the study

#### Table 1 the general Profile of the respondent

<table>
<thead>
<tr>
<th>No</th>
<th>Item</th>
<th>No of respondent</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A. Male</td>
<td>25</td>
<td>75.86</td>
</tr>
<tr>
<td></td>
<td>B. Female</td>
<td>7</td>
<td>24.14</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>29</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Age A. Below 20</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B. 21-30</td>
<td>15</td>
<td>51.72</td>
</tr>
<tr>
<td></td>
<td>C. 31-40</td>
<td>11</td>
<td>37.93</td>
</tr>
<tr>
<td></td>
<td>D. 41-50</td>
<td>3</td>
<td>10.34</td>
</tr>
<tr>
<td></td>
<td>E. above 50</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>29</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>Education qualification</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A. 12th Complete</td>
<td>4</td>
<td>13.79</td>
</tr>
<tr>
<td></td>
<td>B. Certificate</td>
<td>7</td>
<td>13.79</td>
</tr>
<tr>
<td></td>
<td>C. Diploma</td>
<td>12</td>
<td>41.38</td>
</tr>
<tr>
<td></td>
<td>D. Degree</td>
<td>6</td>
<td>20.68</td>
</tr>
<tr>
<td></td>
<td>E. MA</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>29</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>Work Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A) Below 1 Years</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B) 1-5 Years</td>
<td>3</td>
<td>10.34</td>
</tr>
<tr>
<td></td>
<td>C) 6-10</td>
<td>16</td>
<td>55.17</td>
</tr>
<tr>
<td></td>
<td>D) above 10 Years</td>
<td>10</td>
<td>34.4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>29</td>
<td>100</td>
</tr>
</tbody>
</table>

(Source: Primary data)
According to the above data in table 1. The majority of respondents are male that is 25(75.86) of the respondents, the remaining are female elated 24.14% of 29 respondents, this indicated that the organization considered males are competent enough for the job and also the staff member of females are less than males from the total population.

On the item 2 of the same table, shows that 15(51.72%) of the respondents are between the age of 20-29, 11 (37.993%) of the respondents are between the age of 30-39 and the rest of respondents 3(10.34) are b/n the age of 40-49. This shows that majority of the respondents are Young and on the age of productivity. It enables the organization to increase the performance of work force as well as the productivity of the organization.

On the item 3 of the same table presented, 12(41.38%) of the respondents have college diploma, 7(24.14) have certificate and the rest of 6(20.68%) the respondents have first degree. This indicates that the company has well educated employees and it helps them to know the important inventory management system. On the top of this the company can easily organized employees based on their education level.

As can be seen from item 4 table 1, 16(55.17) of the respondents have between 6-10 years of work experience, 10(34.48) of the respondent also have above 10 years working experience. Based on the data majority of the respondents have an experience of above six year. This implies that the respondents have had good knowledge to evaluate the company performance.

**Table 2 The type of inventory that the company had**

<table>
<thead>
<tr>
<th>Item</th>
<th>Alternative</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>What Kind of inventory does your organization holds?</td>
<td>A. Raw material</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>B. Working process</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>C. Finished goods</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>D. Maintained Repair oper</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>E. All</td>
<td>29</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>29</td>
<td>100%</td>
</tr>
</tbody>
</table>

(Source primary data)
As can be seen on the table 2, all of the respondents for the type of inventory that the company uses Raw materials, working process finished Maintained, Repair, operating supply to operate their activities. To continue the production process having those type of inventory is minimize the risk of scarcity.

**Table 3 Inventory controlling department of the company**

<table>
<thead>
<tr>
<th>Item</th>
<th>Alternative</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>In what section does the organization inventory and control system take place?</td>
<td>A. Purchasing dep’t</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>B. operating dep’t</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>C. Logistics dep’t</td>
<td>29</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>D. If any other section please specificity</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>29</td>
<td>100</td>
</tr>
</tbody>
</table>

(source primary data)

As can be seen on the table 3 all of the respondents implies that the logistics department of the organization performs inventory controlling practice. This implies that the inventory controlling and recording practice mainly performed by the logistics department.
Table 4 the objective of inventory management and control system

<table>
<thead>
<tr>
<th>Item</th>
<th>Alternative</th>
<th>Respondent</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>what is the objective of inventory management and control system...</td>
<td>A. Having large amount of inventory</td>
<td>3</td>
<td>10.35</td>
</tr>
<tr>
<td></td>
<td>B. Maintaining the required inventory</td>
<td>17</td>
<td>58.6</td>
</tr>
<tr>
<td></td>
<td>C. Reducing the level of inventory</td>
<td>5</td>
<td>17.24</td>
</tr>
<tr>
<td></td>
<td>D. Medium level of inventory</td>
<td>4</td>
<td>13.8</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>29</td>
<td>100</td>
</tr>
</tbody>
</table>

(source primary data)

About the objective of the inventory management and control system, 17, (58.6%) of respondents said that maintaining the required inventory. As we know the inventory requirement of a product may vary with demands of very. Thus maintaining a required level of inventory is the only operation to cope with change in demand. 5 (17.24%) of the respondents said that reducing the level of inventory. It is better to reduce the inventory carrying cost, but not be a first option for a company 3 (10.35%) and 4 (13.8%) of the respondents said that having large amount of inventory of inventory and medium level of inventory. Two options is not advisable for a company which products required sustainable flow in operation.
Table 5: the contribution of inventory management and control system for the success of the company

<table>
<thead>
<tr>
<th>Item</th>
<th>Alternative</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent does inventory management and control system of the contract for the success the company</td>
<td>A. To A very High extent</td>
<td>18</td>
<td>62.06</td>
</tr>
<tr>
<td></td>
<td>B. High extent</td>
<td>8</td>
<td>27.6</td>
</tr>
<tr>
<td></td>
<td>C. To moderate</td>
<td>3</td>
<td>10.34</td>
</tr>
<tr>
<td></td>
<td>D. To low extent</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>E. To less extent</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>29</td>
<td>100</td>
</tr>
</tbody>
</table>

As can be seen from table 6 it has shown that 62.06% of the respondents believe the contribution of inventory control system is high. In addition 27 of the respondents also said that inventory management control system has high contribution and the rest 10.34% of the respondents claim that there is moderate contribution of inventory management & control system. The implication of this fact is that How much of inventory management and control system is needed for success. Moreover, not only the system itself plays a vital role but also the skilled force.

Properly and facilitate section is responsible work unit to control& manager the inventory. Using stock cards the inventory report is needed this section are take place inventory control management system though stores.
Table 6. The characteristics of supplies affect the inventory and control system.

<table>
<thead>
<tr>
<th>Item</th>
<th>Alternative</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the sources of your raw material to produce the products?</td>
<td>A. Imported goods</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>B. Locally available goods</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>C. Imported and locally available</td>
<td>29</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>D. Supplied by there organization</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>29</td>
<td>100</td>
</tr>
</tbody>
</table>

As can be seen from table 7 it is indicated that 29(100%) of the respondents said that imported and locally available raw materials are used as a source to produce the products. Based on the data all of the respondents implied that imported and available raw materials take a major role in production process. This implies that the company used both imported and locally available raw materials.

The source of supplies plays a great role to achieve the goal behind on the inventory management and control system as well as operation activity of the raw materials of the company is importers.

It tells as the cost of inventory the information in available of inventory as well as quality and searching other markets to estimate comparative price is a challenge.
Table 7 the availability of raw materials in time

<table>
<thead>
<tr>
<th>Item</th>
<th>Alternative</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the raw material reach in time when it is needed to the production processes?</td>
<td>A. S. Agree</td>
<td>7</td>
<td>51.72</td>
</tr>
<tr>
<td></td>
<td>B. Agree</td>
<td>25</td>
<td>34.48</td>
</tr>
<tr>
<td></td>
<td>C. Neutral</td>
<td>10</td>
<td>13.70</td>
</tr>
<tr>
<td></td>
<td>D. disagree</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E S. disagree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>29</td>
<td>100</td>
</tr>
</tbody>
</table>

As can be seen from table 8 indicating the availability of raw material in the right time of production is determined the operation as well as the utilization of machine. As it is shown in the above data, 25(51.72%) of the respondents were Neutral from any of comment, 10(34.48%) of them disagreed, 7(13.7%) and 4(%) of them agreed and disagreed respectively.

Table 8 The characteristic of supplies affect the inventory management and control system

<table>
<thead>
<tr>
<th>Item</th>
<th>Alternative</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent the characteristics of supplies affect the inventory management and control system?</td>
<td>A. To A very High extent</td>
<td>5</td>
<td>17.24</td>
</tr>
<tr>
<td></td>
<td>B. High extent</td>
<td>15</td>
<td>51.72</td>
</tr>
<tr>
<td></td>
<td>C. To moderate</td>
<td>9</td>
<td>31.03</td>
</tr>
<tr>
<td></td>
<td>D. To low extent</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E. To less extent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>29</td>
<td>100</td>
</tr>
</tbody>
</table>
As can be seen from table 10 for manufacturing business, supplies are considered as the part of its operation. As it is indicated in the above data, 15(51.72) and 5(17.24) of the respondents said the characteristic of supplies affect the inventory management and control system to a very high extent and high extent respectively whereas the remaining 9(31.03) of the respondents said that the characteristics of supplies have a moderate effect on inventory management and control system. Based on the data majority of the respondents implied that inventory management and control system is highly sensitive to the characteristics of supplies. This implies that Supplies are determinant factor that directly or indirectly affect the manufacturing process of a company it also limits the company to have adequate inventory on hand.

**Table 9  employee’s response on the re-use of scrapped materials**

<table>
<thead>
<tr>
<th>Item</th>
<th>Alternative</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the organization re-use scrapped materials?</td>
<td>A. Yes</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B. Some-how</td>
<td>9</td>
<td>31.03</td>
</tr>
<tr>
<td></td>
<td>C. No</td>
<td>20</td>
<td>68.97</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>29</td>
<td>100</td>
</tr>
</tbody>
</table>

As can be seen from table 11, concerning the re-use of scrapped materials, 20(68.97) of the respondents said the organization does not use scraped materials by choosing no and on the other hand 9(31.03) claim the company somehow process or re-use specific materials. Based on the data, majority of the respondents implicated that the company does not process or re-use scrapped materials.
Table 10: Employees’ perception on Procurement process influence on inventory and control system.

<table>
<thead>
<tr>
<th>Item</th>
<th>Alternative</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Procurement process of the organization negatively affect the</td>
<td>A. S. Agree</td>
<td>4</td>
<td>79%</td>
</tr>
<tr>
<td>inventory management and control system.</td>
<td>B. Agree</td>
<td>3</td>
<td>10.34</td>
</tr>
<tr>
<td></td>
<td>C. Neutral</td>
<td>22</td>
<td>75.86%</td>
</tr>
<tr>
<td></td>
<td>D. disagree</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E S. disagree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>29</td>
<td>100</td>
</tr>
</tbody>
</table>

As can be seen from table 12 showing the perception of employees on the procurement process it is implicated that 22(75.86%) of the respondents claimed that the procurement process does not negatively affect the inventory management and control system 4(13.79%) and 3(10.34) of the respondents are agree with that of negative impact and Neutral for many of comment respectively. Based on the data majority of the respondents implicate that the procurement process didn’t affect the inventory management and control system.

Table 11: the company has enough store place to keep the inventory

<table>
<thead>
<tr>
<th>Item</th>
<th>Alternative</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the company have enough store places to keep the inventory?</td>
<td>A. S. Agree</td>
<td>23</td>
<td>79.31</td>
</tr>
<tr>
<td></td>
<td>B. Agree</td>
<td>6</td>
<td>20.69</td>
</tr>
<tr>
<td></td>
<td>C. Neutral</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>D. disagree</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E S. disagree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>29</td>
<td>100</td>
</tr>
</tbody>
</table>
As can be seen from table 13 showing employees response on if the company have enough storing place to keep the inventory, that 23(79.31%) of the respondents strongly agreed and the rest 6(20.69) of them also agreed regarding the company has enough store place to keep its inventory. Based on the data obtained above majority of the respondents believe that the company to have enough warehouse in order to keep its inventory.

**Table12:- Skilled labor force to**

<table>
<thead>
<tr>
<th>Item</th>
<th>Alternative</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the organization have skilled man power in the management and control system of the organization?</td>
<td>A. S. Agree</td>
<td>7</td>
<td>24.13</td>
</tr>
<tr>
<td></td>
<td>B. Agree</td>
<td>10</td>
<td>34.48</td>
</tr>
<tr>
<td></td>
<td>C. Neutral</td>
<td>12</td>
<td>41.37</td>
</tr>
<tr>
<td></td>
<td>D. disagree</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E S. disagree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>29</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: primary data

As can be seen from table 14 considering the skilled labor force of the company 12(41.37) said that the company does not have enough skilled management & control system, 10(34.48) of the respondents were Neutral and on the other hand 7(24.13%) of the respondent claim that the organization have enough skilled labor force. Based on the figure, majority of the respondents implied that the organization does not have the appropriate skilled man power in the management and control system of the organization. This implies that the company does not give enough attention to the treatment of developing or acquiring well experienced and educated labors so as to manage and control the organization in a systematic manner.
CHAPTER FOUR

4 SUMMARY, CONCLUSION AND RECOMMENDATION

For the problems identified on the inventory control system, on the assessing of the major factors that influence the inventory control system, on the inventory handling system during the manufacturing process, on the using of idle inventory for manufacturing process and on the purchasing process of the company. By using stratified sample technique and probability sample approach of descriptive research design. The data about the current application of inventory accounting system in St. George brewery that are obtained through questionnaire, physical observation and review of documents, and the analysis made on them based on the theory of inventory accounting system for manufacturing companies.

Finally based on the major findings of the analyzed data the following summarization were given;

- On the background of majority of respondent 25(75.86%) were male, majority of the respondents are young and on the age of productivity and majority of the respondents have an experience of above six year
- 29(100%) All of the respondents for the type of inventory that the company uses raw materials, working process finished maintained, repair, operating supply to operate their activities.
- 29(100%) All of the respondents imply that the finance department of the organization performs inventory controlling practice.
- About the objective of the inventory management and control system, 17(58.6%) of respondents said that maintaining the required inventory.
- Based on the data 29(100%) of the respondents implied that imported and available raw materials take a major role in production process.
- The source of supplies plays a great role to achieve the goal behind on the inventory management and control system as well as operation activity of the raw materials of the company is importers.
- Majority of the respondents indicating that the availability of raw material in the right time of production is determined the operation as well as the utilization of machine.
- Based on the data majority of the respondents implied that the inventory management and control system highly sensitive to the characteristics of supplies.
Majority of the respondents (68.97%) implicated that the company does not process or re-use scrapped materials.

22 (75.86%) of the respondents implicate that the procurement process does not relate with the inventory management and control system.

23 (79.31%) of the respondents believe that the company to have enough warehouse in order to keep its inventory.

Majority of the respondents implied that the organization does not have the appropriate skilled man power in the management and control system of the organization.

### 4.1 Conclusions

- The factory classifies its inventories in their level of process in the production process starts from acquisition of materials and end up with finished good. Classifying inventories in different process stage helps the company to control the flow of inventories throughout the production process.
- Cost of raw material that are ends up as being part of the product and labor cost that are easily identified with a particular production department as kegging, bottling and fabrication considered as direct labor cost. Since departments are used as cost centers by the factory to accumulate costs it is appropriate to consider costs as direct, those can directly traced to a particular production unit.
- Costs that directly related with the production process, but cannot be identified with a particular production department are considered to be manufacturing over heads by the company.
- These costs first accumulated as manufacturing overhead and then will be allocated to production departments using cause - effect method of allocation. The cause - effect method of best enables accurate allocation of manufacturing overhead costs by associating costs with the activities make them to occur.
- The factory uses two cost flow assumptions in the valuation of inventory.
- Weighted average cost flow assumption is used to value shipments from store to the production floor and sale of finished goods. Last in first out cost flow assumption is used to record WIP inventories that are transferred from one department to the next.
Perpetual inventory system is used by the company. There is a continual record for each purchase of raw materials, transfer of WIP inventory from one department to next and sale of finished goods. Inventory balances are continually adjusted each time inventory related transactions are occurred, this facilitate internal control over inventory and generate information about balance of each inventory items at any point in time which in turn is useful to facilitate production, reduce inventory carrying cost and avoid stock out.

The company considers all costs that are incurred for the actual production of finished goods, starts from acquisition of materials to getting the final output produced as inventory cost which is in line with GAAP and enables to accurately determine inventory costs which in return affect pricing decision.

Materials, spare parts and finished goods are monthly counted and checked by purchasing, accounting and store room personnel’s. The monthly checking for inventories has significant importance to protect inventories from theft, obsolescence and damage.

The company uses process costing in which direct costs are accumulated by departments and manufacturing overhead costs are allotted to production departments. As the factory produces a mass of identical products it is best to collect costs by process.

Purchases are planned based on the annual production capacity of the factory. To determine annual materials requirement for production of the period with their respective quantity needed, and then deduct materials on hand at the beginning and add materials need to be on hand at the end of the period for safety purpose. Applying this procedure has a benefit of avoiding production interruption caused by shortage of materials and avoids obsolescence and inventory holding costs. The company does not include possible losses of inventories for a period in planning for purchase; this may enforce the company to incur unplanned purchase costs to replace obsolete and damaged materials and supplies.

Raw material inventories and supplies that are purchased on fob shipping agreement, but not yet received at the balance sheet date are reported as inventories of the company. Recognizing such inventories as inventories of the company goes in line with GAAP. Since ownership title is transferred at the time materials are shipped, any loss or damage occur while inventories are to be absorbed by the company it has to be recorded as inventories of the purchaser.
Scraps revenues generated from sale of a scrap material (spent) will be recognized at point of sale, this best enables the objective of recognizing revenues that actually earned and realized.

Cost plus markup pricing method is used by the factory to set product price. Since the company has a large demand for its quality products, it can generate sufficient profit by adding a desired markup percentage.

Though the factory has well experienced accounting staffs that are worked for many years their role is limited to routine application of an already established policies and procedure. They do not participate in establishment and implementation of new policies and procedures related to inventory, this limits the efficiency of inventory accounting system of the company.

4.2 Recommendation

Based on the data analysis and the conclusion drawn above the research team recommended as follows:

It is better to the factory to participate accountants in establishment and implementation of new policies and procedures related to inventory, since the most accountants have many years of experience in the factory they can do well.

It is better to the company to establish a separate cost accounting department that is responsible to control production costs and participate in product designing by estimating cost of each alternative product designs. Since the cost of production have a significant effect in the overall profitability by affecting the price of the product. Thus a separate cost department will help the company to manage its production costs effectively.

In allocating power costs to departments the company have try to create a cause-effect relationship that also consider power consumed for lighting and other purposes in addition to operating production machineries and equipment’s.

In planning for purchase the company has to consider estimated amount of possible obsolescence and damages in raw material and finished to avoid cost overruns above the planned purchase to replace such obsolescence and damages.
APPENDEX
BIBLOGRAPHY


St. Mary’s University
Faculty of Business
Department of Accounting

Questionnaire to be Filled by the Employee

This is a questionnaire prepared by the student researchers in the field of accounting in St. Mary’s University for a partial fulfillment of BA degree of a senior essay on the inventory management in the case of St George beer factory.

Please fill the questionnaire with honesty because the accuracy of the data to be collected and findings of this research paper is important for the company in adjusting its performance. Your response will be kept strictly confidential.

Remarks
A. Writing your name is not necessary.
B. Give your response by ticking in the box provided besides each choice.

1. Background of respondents

1) Gender  
A. Male ☐ B. Female ☐

2) Age  
A. 18-30 ☐ B. 31-40 ☐ C. 41-50 ☐ D. Above 50 ☐

3) Educational level  
A. Certificate ☐ B. Diploma ☐
C. BA degree ☐ D. Masters and above ☐

4) For how long have you been working with the bank?  
A. < 4 years ☐ B. 6-9 years ☐ C. 10-13 years ☐ D. Above 13 ☐

5. What kind of inventory does your organization hold?
6. The organization inventory control system takes place in
   - Purchasing department
   - Operation department
   - Finance department
If any other, please specify __________________________________________________________

7. What is the objective of inventory management and control system (2 answers?)
   - Having large amount of inventory
   - Maintaining the required inventory
   - Reducing the level of inventory
   - Medium Level inventory

8. There is proper inventory control system in organization?
   
   Yes ☐ No ☐

9. If you say yes, how the inventory controlled by the responsible department?

   __________________________________________________________
   __________________________________________________________

10. If you say No, how the operation department determines the required inventory?

   __________________________________________________________

11. The organization uses the materials that are
   - Locally available
   - Imported goods
   - Locally available and imported
   - All

12. Do the characteristics of suppliers influence on the organization inventory management and control system?
13. If you say yes. How suppliers influence on the inventory control system?
________________________________________________________________________
________________________________________________________________________

14. How the organizations select the right suppliers?
________________________________________________________________________
________________________________________________________________________

15. The inventory management control system is influenced by work style of the organization

☐ Strongly agree ☐ neutral ☐ strongly disagree
☐ Agree ☐ disagree

16. If you agree, how the working style of the organization influences the inventory management and control system?
________________________________________________________________________
________________________________________________________________________

17. The organization uses proper tools of inventory manage and control system?

☐ Strongly agree ☐ neutral ☐ strongly disagree
☐ Agree ☐ disagree

18. There is skilled man power in the organization to use the tools?
   Properly

☐ Strongly agree ☐ neutral ☐ strongly disagree
☐ Agree ☐ disagree
19. The staff members of the operation department have awareness of idle resources?

☐ Strongly agree  ☐ moderately agree  ☐ strongly disagree
☐ Agree  ☐ disagree

20. The organization reused the scraped materials?

☐ Yes  ☐ No

21. If you say No, how the employees avoid the scraped material?
______________________________________________________________________________
______________________________________________________________________________

22. The procurement process of the organization directly influence on having ad quit level of inventory?

☐ Strongly agree  ☐ neutral  ☐ strongly disagree
☐ Agree  ☐ disagree

23. The company has enough store places to keep the inventory.

☐ Strongly agree  ☐ neutral  ☐ strongly disagree
☐ Agree  ☐ disagree

24. The organization uses similar quality of raw materials?

☐ Strongly agree  ☐ neutral  ☐ highly disagree
☐ Agree  ☐ disagree

25. If you have additional comment or suggestion on the overall inventory management practice of the company please specify______________________________________________________________________________