Tighten Central Storage Control Using Perpetual Inventory Approach

by Bill Schwartz

The term "perpetual inventory" is widely used to describe a method of accounting for inventory by keeping a running total of the amount in stock at any given time. While the concept sounds simple, it becomes highly problematic and lacks sufficient accuracy when used for food and beverage inventories. Calculating perpetual inventory levels when recipes are involved causes most of the problems, but using it just for storeroom control is feasible and can be highly accurate, leading to greater control of some of the most critical inventory areas.

For those not familiar with the concept, perpetual inventory is calculated by starting with a beginning inventory amount and keeping a running total by adding every time more of the item comes in, then subtracting every time quantities of the item goes out. For example, if we start with 10 cases of lemons, then receive 10 cases the next day we would have 20 cases total. If we then transfer 3 cases out the day after, we should have 17 cases left at that point. The amount "17 cases" would be our perpetual inventory value at that point in time. Purchases and incoming transfers are the events that trigger an addition to the amount on hand, while sales and outgoing transfers are the events that trigger a subtraction.

Recipes Make It Rough

Tracking purchases and transfers in either direction is typically not hard, but dealing with sales is another story. In order to properly subtract the correct amount, it first needs to be clear what the correct amount would be. Since most food and beverage sales involve recipes, it becomes necessary to break the recipes down to component parts to determine how much to subtract of a specific item. For simple recipes (ex: scoop of ice cream) and simple items (ex: 8oz filet), this may not be an issue. But what about complex recipes (ex: buffets), recipes which include sauces and other prepared ingredients (ex: Lasagna), or recipes which offer choices of sides or dressings? If all we cared about were the 8oz filets, we would have less of a problem determining what to subtract. But if we care about an ingredient such as lettuce or cheddar cheese, both of which are used in numerous recipes in varying quantities, we are faced with a much different level of difficulty. In addition to these challenges, we have not even touched upon the effect of yields or the issues associated with converting between units of measure.

All perpetual inventory approaches require good food and beverage inventory software. Spreadsheets are not the appropriate tool for inventory control due to the complexity required and the amount of labor needed to keep them current. But even with the best inventory software available, operators will have trouble keeping accurate perpetual inventory values for some areas of casino food and beverage. In fact, any profit center or outlet that sells products requiring recipes is probably going to be difficult to handle. On the other hand, areas of the operation that do not sell products are relatively easy to control using perpetual inventory techniques. Food and liquor storerooms fit this description very well.

Isolate the Central Storage Areas

Not all casino operations have the ability to separate the food and liquor storerooms from the rest of the operation, and in those cases, the perpetual approach will be difficult to use. However, for those who can isolate the storage areas, accurate perpetual inventory will be fairly simple to implement. Isolation requires that no sales take place from the isolated area. Instead, the only transactions affecting the area would be purchases and transfers.

Consider the example of a liquor storeroom. Purchases would arrive on a routine basis and be checked into the storeroom. Once there, the outlets can requisition liquor from the storeroom, and the storeroom can transfer the liquor out. In cases where liquor in the outlets must be returned to the storeroom, inbound transfers are used. A running total is kept for each item stored in the storeroom, and it becomes possible to know at any given time exactly how much of any item should be on the shelves.

Compare and React

The practice of keeping the perpetual inventory is essentially a waste of time unless the comparisons are made between perpetual and actual inventory levels. Even more critical is the requirement that some action is taken to resolve discrepancies when they occur. Only with action does control take place, and if the objective is to improve control, action is essential.

Control is achieved by comparing the amount reported by the system to be on the shelf with the actual amount on the shelf. This comparison could take place as frequently as desired. In the event the amounts differ, action is taken to determine the cause and correct the problem. For example, if the system indicate 20 bottles of Grey Goose should be in the storeroom and a physical count reveals only 18 bottles, it is clear that 2 bottles are missing. The next step would be to determine if all the transfers were recorded, and if so, the likelihood is that either a transfer took place without documentation, the invoice stated

more than were actually delivered, or the bottles were broken or stolen. It may be possible to trace the last few transfers of Grey Goose to see if the right number of bottles are present in the transferred locations, but that is made more difficult as time passes and drinks using the vodka are sold.

Timing is Everything

Assuming the casino can isolate these storage areas and is willing to take action to resolve discrepancies, the next considerations are timing of transaction data entry and the frequency of comparison. The greater the frequency, the tighter the control becomes.

The perpetual will not be correct between the time the goods arrive and the entry of the purchase transaction. The perpetual will show less on the shelf than actually should be there. The same is true for transfers. Between the times a transfer takes place and the transfer is recorded, the perpetual will show more on the shelf than it should. For these reasons, it is important to enter the transactions as they happen.

By the same token, if comparisons are made once a week between actual and perpetual values, things can get out of hand early in the week and be difficult to track down and resolve. Running the comparison on key items at shift changes would provide the best possible control.

Summary

Starting with a strong food and beverage inventory system, separate the central storage areas as cost centers first. Be sure the only transaction activity for those areas are purchases and transfers. Be sure to record transactions as they occur, with as little lag time as possible between movement of goods and recording of associated transactions. Compare the numbers generated by the perpetual system against the actual counts on the shelf on a daily basis, especially for more expensive key items. And finally, react to any variance immediately in order to minimize current and future losses.

In the final analysis, perpetual inventory for central storage areas may be the best shot casino operators have at tight food and beverage inventory control, even with a sophisticated inventory system. At the very least, it should be the first thing implemented upon acquisition of the inventory system, with the individual outlet control along with the recipe side of the system scheduled for later. ♣

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