

I. Introduction

The hospitality industry is in a unique position for the creation of an automated supply Chain. Most hospitality organizations function with two units, franchise locations and corporate owned locations. Currently most corporate-owned hotels procure their goods through the headquarters, and franchise hotels procure goods independently. If hotels integrated the entire spend of every hotel, franchise or corporate, they would stand to save substantially on purchases. However, hotels must make the procurement process simple and cost-attractive to the franchises in order to ensure their participation. Of the hotel chains that currently do this, virtually all use horribly outdated business practices, intensive manual labor, and time-wasting paperwork and processes. These can be easily replaced today with automated, electronic processes.

In hospitality organizations (hotels, casinos, resorts), the overall emphasis has been moving towards automating the purchasing and receiving process. In fact, many hotels are now electronically ordering directly to corporate offices and regional purchasing centres. The centralized system creates a purchase order and sends the order via integrated facsimile to vendor supplier. Once the order has been created in the system, an electronic copy of the purchase order is transmitted back to the unit level so that orders can be reconciled electronically as they are received. Another operation generates a "market list" from the ship and electronically sends the list to the corporate central purchasing system, which issues a purchase order and then transmits a copy of the purchase order back to the ship. The ship, like the hotel described above, also reconciles each purchase order based on receipt of goods.

1. Just in time

The characteristics of JIT purchasing differ from the traditional purchasing strategies. JIT purchasing principles, the main objectives are to achieve reduced inventory holding costs, increased quality levels and increased utilization among many others. JIT sourcing, in theory, provides many benefits to the buyer, but many buyers in practice are not implementing the requisites that are generally considered to be essential and resulting in a number of problems for their suppliers, which in turn affect the buyer. The JIT purchasing philosophy only leads to increased costs for the suppliers due to the fact that buyers tend to move the problems to the upstream of the supply chain. In other words, the gain of some parties is a result of redistribution of costs among the members. The problem is therefore to examine the benefits and the costs of JIT purchasing from both the suppliers' and buyers' point of views. The next is to improve constantly in time. Improve in manufacturing and service, and to do it one at a time rather than more at a time. When a problem comes along, the JIT believes that this is a challenge for improvement and does not try to cover it all up. This concept also aims to make sure that there is a good design control in order to avoid problems at a later stage. Simplicity of the manufacturing, instalment and usage of the product is also an aim for the "just in time" concept.

Shortly mentioned but not least important are also visual control of package, focus on customer's needs, production to customer demand and respect for the individual as a whole.

There are some rules adopted by the "just in time" concept in order to make it work. The first and major one is to eliminate waste as a whole. By this I mean that if something does not add value to the product or service, as far as the customer is

concerned is a waste. An example may be too many unnecessary advantages in a machine or equipment, as some people find it hard to get used to things. Such wastes can be of overproduction, waste of waiting for raw materials, waste of movement, waste of inventories, motion, making defects, waste of process itself. And hence what the JIT strategy is, is to eliminate all wastes and this can be done by refraining from small inventories in the system and at a later stage to aim to eliminate more, always comply with the customer's expectations for a better design and functioning of each product, be flexible at manufacturing, be a team player etc. Most of the large firms apply JIT purchasing for most of their outsourced products, subassemblies and raw materials. JIT purchasing is beneficial for most of the firms that implement all the prerequisites of JIT philosophy fully.

A. Housekeeping

It would seem obvious that an organized and uncluttered work place is conducive to efficient and effective manufacturing. Visiting some plants reveals that not everyone is sufficiently convinced. Poor housekeeping includes random location of tools, dirty equipment, poorly lighted areas, and cutting oil, material remnants, and chips on the floor. In general, poor housekeeping sends the message that: "What takes place here is not important." The effect of this message on effective operations may be greater than just the physical obstacles of poor work place organization. Few would argue that good housekeeping is a prerequisite to JIT. A few basic rules for housekeeping include:

1. Keep tools clean, lubricated, calibrated, sharp, and in there designated location.
2. Clean, inspect, and repair tools during or immediately after teardown
3. Classify tools, jigs, attachments, and supplies on the basis of the frequency of their use and store accordingly.
4. Store materials and supplies in designated locations Mark each location so that what belongs there is clearly visible, both when the spot is empty and when it is occupied. Visibility is crucial for identification of parts, tools, and supplies.
5. Avoid the "Call Housekeeping" syndrome. Let each employee or small group be responsible for the order and cleanliness in an area. This motivates everyone to keep things clean and in order and also raises the importance of housekeeping.

Although housekeeping is not the most exciting topic, the improved quality and productivity that often follow improved housekeeping can be very exciting.

2. Maintenance

The maintenance is to preserve and extend the life of a building. A relationship does exist between the adaptability of the original building design, maintenance cost and new construction costs.

A. The three main types of maintenance are planned, preventive and running. The first is Planned maintenance, which is organized and carried out with a forethought control, and records are kept as to when it should be done. The Preventive maintenance is the second one, which is done in certain periods of time or due to the recommendations of the manufacturer in order to prevent an eventual breakdown. The corrective one does also occur and this may really complicate things for the Management and the guests. This is when a break down occurs and the item has to be repaired or changed with another. The running maintenance is certainly the better alternative and it is being carried out while the item is still in service.

B. Planned and Preventative Maintenance (PPM):

As any property professional will vouch, prevention is better than cure when it comes to maintaining buildings and assets. The PPM module can lead to vast savings in time and capital as regular service and maintenance checks can be set against any part of a building, from a roof to a window, or against any individual asset, from a boiler to a photocopier.

The location of a given asset may be logged in the Asset Register to a particular location, and from there a set of works and maintenance checks may be assigned against it on a regular basis, time-scaled to your specification. These tasks may then be assigned to the responsibility of an individual, or a contractor, for whom works orders may be raised each time a task becomes due. The benefits of a structured PPM strategy are numerous, from the eventual economic benefits- less breakdowns and emergency repairs, through to contractor and asset performance monitoring and the foundation of a historical service record.

Planned Preventive Maintenance (PPM). The PPM philosophy is to foresee any breakdowns, to apply proper procedures for prevention and corrections, plan the possible outcome of a breakdown and search for alternatives for solving the eventual problem and take the appropriate action even for further problems that may occur. These are only part of the reasons why I believe that the PPM is most important.

For the PPM to work and be effective, the following needs to be. The system should be cost effective, to be legal, to reduce the running maintenance to a minimum, to meet operational needs and for the workmen to be more maintenance jobs than just inspectional ones.

In order for the PPM to go well, there also has to be a sufficient training of personnel. If that bit is being done properly, then there should not be a problem with the rest. Cleaning is also a category of the planned preventive maintenance and has to be done properly to ensure good presentation and disinfections for the prevention of contamination.

3. The Hotel's heating, cooling, ventilation system (HVAC)

Active heating and cooling is provided by a closed loop groundwater circulation system that brings water at ground temperature into the building for use in two types of heat pumps:

- Individual water-to-air heat pump units are used to heat or cool the classrooms, offices, and auditorium and conference room.
- A water-to-water heat pump heats water for circulation through pipes set in the atrium floor, supplying the space with radiant heating in winter months. This same heat pump circulates water through fin tubes and cabinet units to heat the Living Machine, kitchen, rest rooms and stairwells.

Passive heating:

The building is elongated on the east-west axis and contains a wall of windows on the south side to take full advantage of solar energy and natural ventilation.

- The atrium and Living Machine in particular are designed to collect sunlight.
- Dense materials with high "thermal mass", such as the concrete floors and exposed interior masonry walls, retain and re-radiate heat. This reduces the amount of additional heat necessary during times when the sun is not shining.

Passive cooling:

- Windows on the lower south wall and upper north wall of the atrium create a natural convective cell that provides a light, interior breeze that cools the space during summer sun.
- Office spaces have operable windows.
- A trellis is planned for the east side of the atrium. During summer months deciduous plants will shade this wall. During winter months the plants will lose their leaves allowing nearly full light to penetrate.
- A roof overhang shades the south side of the building from direct sun during the summer months.
- The elongated corridor provides cross ventilation

Temperature control:

The use of separate heat pumps in each room allow for careful control of temperature and energy use. In the offices, climate is controlled with a simple thermostat that the occupant sets at a desired temperature. Climate in the classrooms is controlled by carbon dioxide and motion sensing devices so that rooms are only heated; cooled and ventilated when they are actively in use. The heat pump in the auditorium is programmed to provide a comfortable environment during all scheduled classes and events. Temperature in the atrium is also programmed to provide a comfortable environment during hours when the building is occupied. Windows in the classrooms and offices are operable. The building computer controls windows in the atrium.

Ventilation is also very important for the comfort of the users of a certain building. The air has to be dry, fresh and pure. This may be only done if the correct temperature is maintained. Dampness is a great factor for a good air, so the temperature has to be good enough to avoid it. The ventilation has to be a good supplier of oxygen for the

normal breathing levels, remove smells and combustions, refrain bacteria from entering the premises, remove excess heat and moisture and prevent condensations.

Types Of HVAC Systems

There are four basic types of HVAC systems used in commercial buildings. They are: all-air, air and water, all-water, and unitary. Water systems are also called hydronic systems. Hydronic is the term used for heating and cooling with liquids.

All-air-type systems provide heated or cooled air to the conditioned space through a ductwork system. The basic types of all-air duct systems are: single-zone, multizone, dual or double duct, terminal reheat, constant air volume, variable air volume (VAV), and combination systems. In the typical system, cooling and heating is accomplished by the mixed air (a combination of the return and outside air) passing over a refrigerant coil (cooling) or a heat exchanger (heating).

The basic air-water system (also called air-hydronic) is a central system similar to the all-air system with chilled water coils instead of refrigerant coils for cooling (with an air-cooled condenser) and hot water coils for heating. A variation of this system is the water-air (hydronic-air) system with refrigerant coils for cooling and a water-cooled condenser.

All-water (all-hydronic) systems accomplish space cooling by circulating chilled water from a central refrigeration system through cooling coils in air handling units (also called terminal units or fan-coil units). The units are located in the building's conditioned spaces.

Factors to consider when selecting unitary systems include:

- Heating and cooling capability can be provided at all times, independent of other spaces in the building but basic systems do not provide close humidity control. However, close humidity control is not needed for most applications. Close humidity control, if needed, in computer room applications or the like, can be accomplished by selecting special purpose packaged units. Only the one unit and one temperature zone is affected if a unit malfunctions. One drawback of unitary units is that the operating sound levels can be high.
- Another is that appearance can be unappealing. Other disadvantages are that air filtration options may be limited and outdoor air economizers are not always available to provide low cost cooling. Also, condensate can be a problem if proper removal is not provided.
- Individual room control (on/off and temperature) is simple and inexpensive. However, because temperature control is usually two-position, there can be swings in room temperature. The air distribution can be adjusted by the occupant, but is limited and airflow quantity is fixed by design. Ventilation air is provided whenever the conditioner operates but capabilities are also fixed by design. The size of the cooling and condenser coils is also fixed.
- One manufacturer is responsible for the final unit. Manufacturer-matched components have certified ratings and performance data and factory assembly allows improved quality control and reliability.

4. The methods used in booking, checking-in and servicing groups of guests

Guests themselves may also threaten each other's enjoyment. If a traveler turns up in a drunken state asking for a room a hotel is entitled to refuse him on the grounds that he is not a fit state to be received. This is true even if he already has a booking, as he has broken one of the implied conditions of the contract. Similarly if the guest misbehaves throughout his stay the hotel is not obliged to let him stay. When guests complain about being kept awake by a noisy couple or a drunkard next door, it is not good enough to tell a guest that "nothing can be done about that." One must employ considerable tact in dealing with such situations.

Guest bookings are more complicated than individual ones, because there are some factors that need to be considered and those are the payment methods, additional admin arrangements, courier arrangements etc.

Payment is also a delicate matter, as the method has to be arranged – whether the group will pay as a whole or individually.

The hotelkeeper is required to keep a complete register of guests as prescribed by law.

When **checking in a group**, we have to know that it means that bookings are done as a unit, all members of it pay the same room rate and have some common purpose for their trip, e.g. excursion. What is also obvious is that they check in and out together. Of course there may be an exception, like businessmen coming to a conference, but their arrival will still be at a similar time of day. The group range is great, it varies from a dozen people to hundreds. Therefore it is very important how the booking and negotiations are being done.

The groups are often directed to a separate area for registration. The hotel should consider to what extent pre registration is possible. Ideally, it will have printed off an individual registration form, room key or key card for each guest. Group organizers are usually only too willing to co-operate with front office to smooth out the registration process.

The continuous process that runs through check-in (arrival and registration) to the guest's stay in-house and finally check-out. It includes the preparation of the guest's bill and the process of settlement. Manual system requires the completion of a number of different bits of paper, whereas computerized ones rely on a smaller number of keyboard entries.

Negotiating the room price with the groups is a very careful process and it should be handled with care, especially if it is with regulars. This is because there is a "clear conflict of interest between the two sides". The hotel wants the rooms to be sold at a bigger rate and the tour operators want a good deal for their tourists.

Since the group certainly guarantees more rooms sold than an individual, **Hotels check** them in with a great deal of consideration. What happens though, is that sometimes group organizers reserve too many rooms because they are not sure of the number of people attending. Therefore there are cancellation deadlines that are usually set out a month in advance and even the whole number is not fulfilled, the organizer stays liable for the rest of the people who didn't turn up and hence pay for the extra rooms

5. Room rates

The published retail price of a room is referred to as the rack rate. Few guests actually pay the rack rate, however, because hotels offer numerous discounting options. Some of the more common discounts include; corporate or commercial rates, AAA or AARP members, frequent travellers, government employees, advanced non-refundable purchases, hospitality industry professionals (including travel agents), and extended stay guests.

Determining the rate is as much an economic calculation as it is a marketing decision. From the standpoint of economics, the room rate needs to be high enough to cover fixed and variable costs and earn a return on investment. From the marketing view, the rate needs to be low enough to be attractive and competitive with other hotels in the region.

No matter how many **rate calculations** are performed, the job of selling rooms comes down to the front desk staff. A well-formulated room rate policy requires conscientious training of reservations and front office staff. Armed with good knowledge of the hotel's product as well as a repertoire of reasons why the guest should consider spending an extra \$10 dollars or so, the team works wonders with the hotel's average room rate.

Prices always vary according to the **type of room** (single, twin etc.) and its facilities. The decision of the room rate is helped by the determination of the so-called "weightings" those are usually a matter of judgment. For instance if a single person is occupying a double room, he should be paying more than just for a single because he is using up more space but on the other hand it wouldn't be fair for him to pay a double rate.

One type of room rates in hotel, especially resort ones, would be the seasonal rates. The philosophy here is that in off-peak times, the rate is always lower in order to attract clients and in the peak times the prices are considerably higher to maximize profit. It may happen that according to the type of room, the differences in rates may be greater.

The next type on our agenda is the weekday and weekends rates. Especially in the business hotels, the weekday occupancy is greater than in weekends. On the principle of seasonal rates, Hotels may differ the prices. The weighting has to be determined again and the technique is fairly similar.

It is impossible to attract customers at the weekend with prices that you give out during the weekdays; therefore the rack rate has to be reduced. Marginal cost is always about covering at least variable cost and contribute at least a little to the fixed costs. Marginal pricing is being used more for weekend breaks, off-season holidays, conferences and special events.

But in order to approach the determination of the inclusive term we have to look upon two things – the characteristics of the hotel and the guest. The type of tariff has to depend on the guest requirements such as length of stay, spending power, homogeneity and predictability. The hotel characteristics depend on its grade, size, and type of business, location and marketing considerations.