

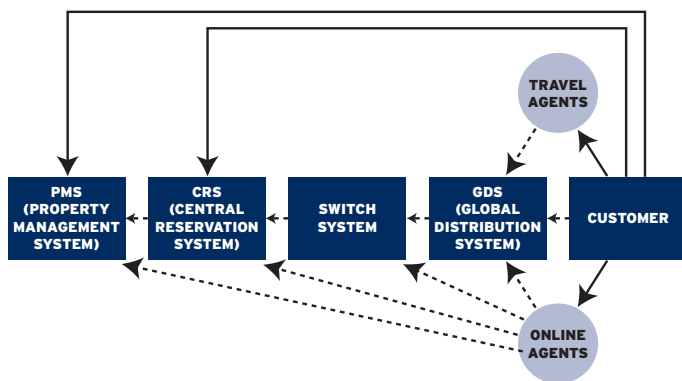
# REVENUE MANAGEMENT IN THE HOTEL INDUSTRY

The art and science of predicting real-time customer demand at the micro market level and optimizing the price and availability of products.

**Taking the definition from "Revenue Management" written by Robert Cross (1997);**

For the hotel/lodging industry, revenue management is the process of selectively accepting and rejecting customers by rate, length of stay and arrival date to maximise revenues (Vinod, B. 2004). Recognising that the distribution channels through which hotel organisations promote their offerings, the process of adequately pricing for demand is an important component for hotels to embrace.

## DIAGRAM OF TYPICAL HOTEL DISTRIBUTION SYSTEM BETWEEN GDS-CRS-PMS-HOTEL



Source: Cornell Hotel and Restaurants Administration Quarterly.

The hotel industry unlike the airline industry has a unique challenge to overcome being its fragmentation which adds to the complex nature of calculating the room rate and inventory distribution for maximised profits. As Bruce Mainzer wrote in Journal of Revenue & Pricing Management (2004), "although a hotel brand or a chain will provide the brand programmes to the franchised or managed hotels there has been a focus upon asset value of the hotel property rather than the upon establishing consistent pricing policies with the intent of delivering exceptional operational performance for the hotel." The delivery of consistently exceptional performance for the hotel through such approaches as RM demands a serious reconsideration of this practice.

## CURRENT FORECASTING METHODS:

Forecasting provides a systematic approach to the process of defining the demand for inventory of the hotel. There are two main methods that are

used predominately:

- 1) a forecast derived from the value of factors that drive the event- cause and effect
- 2) extrapolation of historical data

Data extrapolation is in prevalent use by the hotel industry due to the massive availability of data, whereas cause and effect requires detailed discover of the causes which may not always be apparent. Without a system of forecasting, hotels will base their room pricing on gut feel. Methods of forecasting frequently used are:

- Weighted Moving Average (WMA)
- Exponentially Weighted Moving Average (EMA)
- Holt-Winters Method (HW)

EMA currently is the most frequently utilised methodology in the time-series studies whereby the future is forecast by extrapolating the historical data. Care must be exercised not to confuse quantity of data with quality. Greater value attaches to fresher data - and the fresher - the better.

## NEEDS FOR THE NEW MILLENNIUM:

"Revenue management is changing the competitive dynamics of the hospitality business. All hotels can take advantage of revenue management to try to better manage supply and demand, maximise profitability and reduce shoulder periods" (Connolly, UoD School of Hotel, Restaurant and Tourism Management, 2007).

Revenue management in this millennium has moved towards selling the right product to the right customer at the right time so that consistent revenue management will eventually become standard for all the hotels whether, owned, managed or franchised. However, how much time do Revenue Managers really have available to study the continuous flow extrapolated data produced by the forecasting programme?

According to Professor Jeff Beck at Michigan State University the time allocation of a Revenue Manager involves varied evolving roles which often overlap other job functions.

## WITH THE TIME CONSTRAINTS IMPOSED UPON REVENUE MANAGERS, IS THERE REALLY ENOUGH TIME ALLOCATION ALLOWED TO REVIEW THE EXTRAPOLATIONS ACCURATELY TO CONDUCT INFORMED DECISIONS?

### RM TIME ALLOCATION



Source: Beck J.

Many of the major brand name hotel chains have established their own internal revenue management colleges to meet the demand for skilled human capital. However, as the data is ultimately only useful in digital form, it seems realistic to seek a solution to the problem of managing such vast and constantly modified data by digital means. A growing group of software developers who design databases that can overlay the extrapolated hotel demand information. These independent databases provide constantly updated chronological listings of events from small conventions to major sporting spectacles within the geographic region selected. Such software effectively 'adds time' to the Revenue Manager's day, absorbing and processing all relevant and current data to produce a series of key dates which can be entered into the in-house RM system.

This seems a perfect solution - using the data mining and processing power of dedicated software to enable increasingly precise structuring of prices. However, as is noted on the website of one of the software providers the information that the software provider utilises comes from a myriad of sources. As the reliability of the output of the software is contingent on the reliability of its input, the question arises: to what degree are these sources 100% reliable and 100% accurate.

### THE PROBLEM:

What if the Revenue Manager relies upon the software package which at some point in time fails to include some forthcoming events. By the same token, what happens if data is entered twice over, the slightly different methods of entry obscuring the fact that this is one and the same event?. An apparently trivial error can result in a hugely magnified error, under

such circumstances the room pricing will reflect either overpricing the inventory or underpricing the inventory.

### THE SOLUTION:

#### CYBER ASSET PROTECTION INSURANCE:

Property and Liability policies do not traditionally cover damage to or loss of intangible assets, which leaves companies vulnerable in the event of a major computer attack or accidental system failure.

Willis Cyber Asset Protection Insurance has been developed to protect intangible assets, reduce liability exposures. This cover includes Recovery Costs and Business Interruption Loss where no physical damage to systems occurs.

#### KEY POLICY COVER:

Loss of damage to electronic data and / or programmes:

- By malicious acts, unauthorised access / unauthorised use
- By malicious code, including viruses, worms and Trojan horses
- By operational error
- Resulting from electrostatic build up, natural disasters, support system (power, air-con, data-lines)

#### OUTSTANDING FEATURES:

- Includes third party outsourcing partners
- Covers income loss, interruption expenses and special expenses during restoration.

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