Application of Hospitality Inventory Distribution Models in Healthcare - Part I

In a scenario where you are planning a vacation to your favorite getaway or you are traveling on business. You would compare travel and hotel prices on multiple Online Travel Agencies (OTA) websites. You would review feedback from fellow travelers for a hotel, clarify, and repeat this process and book your itinerary in a few clicks. Now imagine you doing something similar for a non-urgent or elective medical procedure such as an angioplasty or hysterectomy, or a facelift. You would be shrugging your shoulders at this comparison that doesn't seem a plausible scenario for now. And there is a good reason for this.

Traditionally, healthcare has been viewed through a prism of Hippocratic principles of philosophy and medicine. This is considered as a noble enterprise and far away from consumerism of other industries. Capitalistic standards of profit-making and operational efficiency have never been strictly applied to the healthcare industry. Inefficiencies have been largely ignored or even at times considered important to deliver quality care. For example, in US, the ratio of healthcare workers per physician has grown from 1:14 to 1:16 over the last two decades, while productivity has shown marginal decrease!

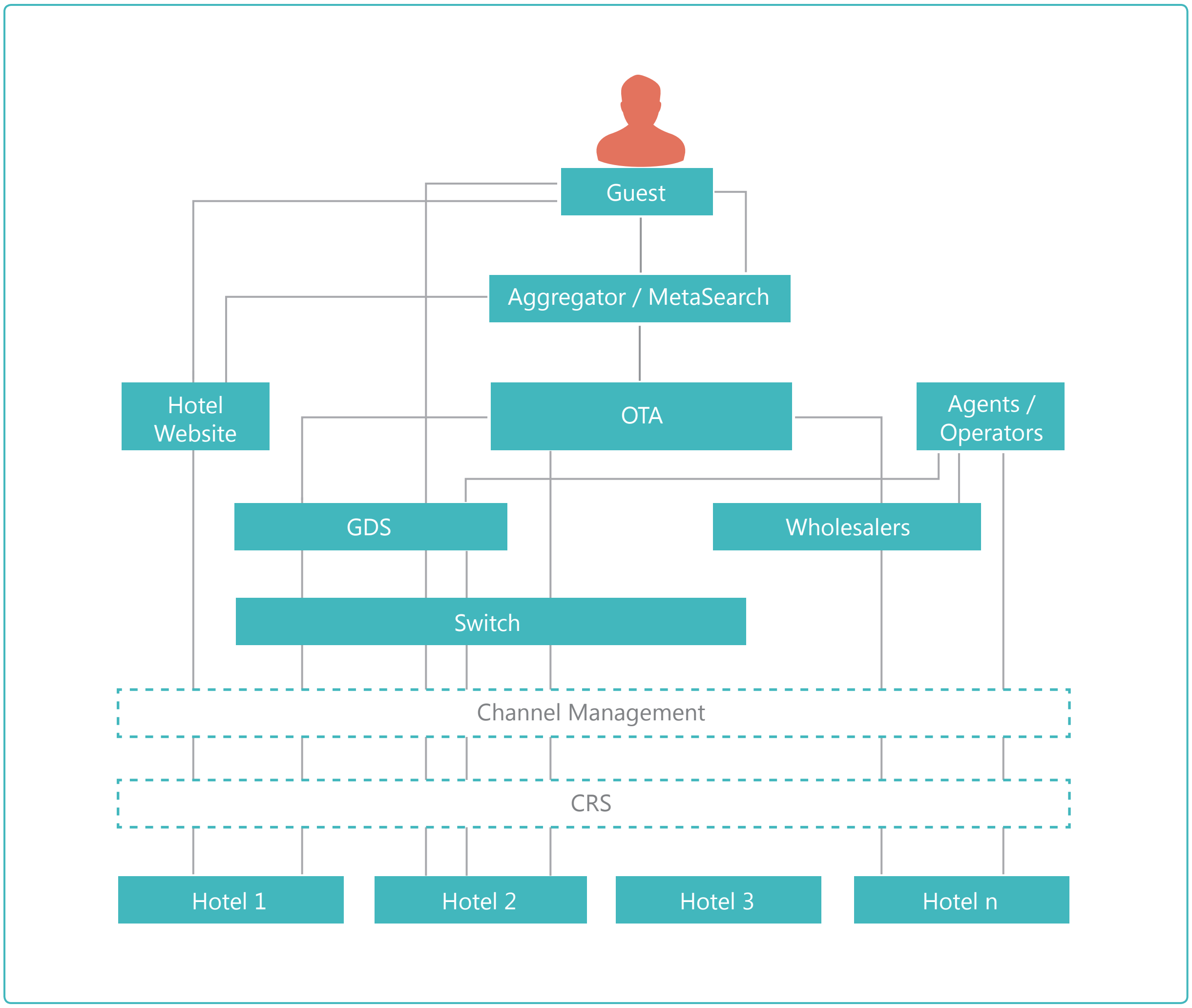
So, will the status quo remain? Will inefficiencies continue to be accepted and patient expectation and behavior remain unchanged? Not likely. Things are changing and rapidly. There is an intense pressure on healthcare service providers to pull up their socks and improve efficiency. Patients are gradually changing their behavior and approach towards healthcare services.

One of the biggest catalysts is the advent of consumerism in healthcare which is complex and varied. The prime suspect though is increase in share of high deductible health plans in the insurance market. A phenomenon further encouraged by Obamacare. An environment where a patient has USD 1000 or more of deductibles, coupled with high price variation across the segment and a patient increasingly connected socially through digital channels is a ripe ground for a consumeristic behavior. Such a patient is more likely to 'shop' for most cost effective and quality healthcare service. This behavior of the patient shopping healthcare services forces care delivery organizations to make their services more attractive. Thereby, causes a ripple effect of optimizing internal operations.

Healthcare industry as a whole is gradually moving towards a value-based payment model. A shift is accelerated by provisions in Affordable Care Act. The care model itself is changing which focuses more towards ambulatory and 'hospital

at home' models. Market forces are making survival of inefficient healthcare organizations increasingly difficult. For example, the 27 hospitals which closed in 2013 had an occupancy rate of 32%. Overall Industry average remains at 51 %. All these factors have put the market in flux, with players trying to deal with it through mergers, acquisitions, strategic partnerships, super specializations and so on. Jonatthan Bush in his book, Where Does it hurt? Says that "Even in an industry as strange from market forces as healthcare, people still want to make a buck. And that's fueling Darwinian process in which lots of players are after someone else's lunch."
Two key things which healthcare service providers will have to do is increase the utilization and improve patient acquisition and outreach models. It might be a good idea to look at other industries on how they have handled this problem. Hospitality industry, for example, has perfected this art into a science. Will it be possible to adopt this model into healthcare? Let's take a closer look at what hospitality industry does to improve utilization and customer outreach.

Below are the key components of a typical distribution flow involved in the hospitality industry.



- **CRS:** A Central Reservation System (CRS) is used to manage rates, packages, availability of rooms or services into one system. A Property Management System (PMS) is used to track the room inventory, reservation, and guest transactions of a single property. A CRS is typically used for all properties of a given hotel chain. A CRS could potentially interface with multiple external systems including Global Distribution System (GDS), OTA sites, and Switches. Modern CRS have channel management and content management functionalities implemented with them. Channel management revolves around managing price, availability, and contracts cross multiple distribution channels. Content management involves managing marketing content across multiple distribution channels.

- **GDS:** GDS is one of the oldest and fundamental building blocks in travel and hospitality inventory distribution ecosystem. It was created to track flight availability, schedule, and prices in 1960. The idea was to make airline inventory available to travel agents in real time. GDS systems could be regarded as pioneers in e-commerce space facilitating business-to-business (B2B) transactions. Based on the legacy technology GDS systems are one of the most important hospitality inventory distribution channels. All GDS systems have well-defined standard Electronic Data Interchange for Administration, Commerce and Transport (EDIFACT) and XML interfaces leveraged by participating players.

  The four major global GDS systems include Worldspan, Sabre, Galileo, and Amadeus. There are other smaller or regional GDS systems including TravelSky (China), TOPAS (Korea, now part of Amadeus), Axess (Japan), Abacus, and Fantasia.

- **Switch:** Switches were created to reduce the complexity of integrating individual GDS systems. A switch typically connects to all GDS systems available and a hotel CRS is connected with a switch. Once the hotel CRS is connected its inventory becomes available through any GDS platform. With evolution of hospitality industry, switches are also connected to all OTA players. This shields the hotel CRS systems from the complexity and overhead of interfacing with individual OTA players. Leading players in this segment include WizCom and UltraSwitch, owned by Pegasus.

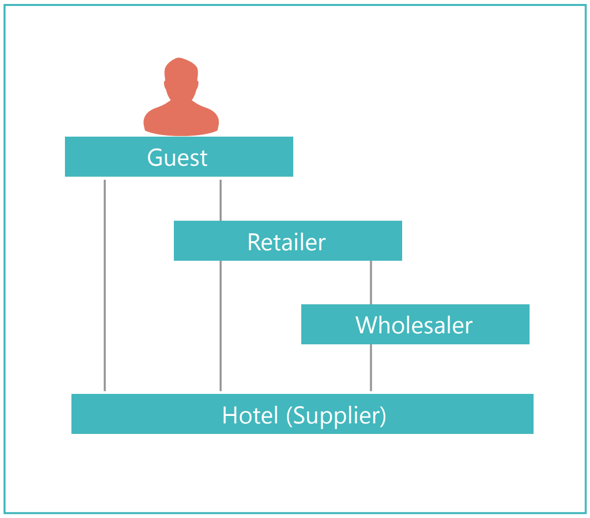
- **OTA:** OTA are web-based travel reservation systems, covering all facets of travel, which includes airlines, hotels, and car rentals. The idea was to allow guests or travelers to make their reservations directly, bypassing the need of travel agents. In fact, the rise of OTA industry since 1990 has been touted as one of the biggest reasons for demise of travel agencies. OTAs, which were started by GDS companies, initially linked only to GDS platforms. However, with the evolution of industry, OTAs now often link directly with hotel CRS and switches. Prominent global players in this space include Expedia, Travelocity, Orbitz Worldwide, and Priceline with Expedia acquiring Travelocity and Orbitz.

- **Aggregator or Metasearch:** Aggregators or Metasearch engines collate rate and availability of hotel inventory and services from various sources including OTA and hotel websites. This search is based on location and other contextual information provided by the traveler or guest. Aggregators often collate reviews from various sources or allow users to review hotel properties on their portals. This combined availability of comparative prices, services, hotel media content, and feedback allow users to make an informed decision. These Metasearch engines redirect the user to respective hotel or OTA website to complete the booking. This has interesting implications for the distribution channels. Prominent players in this space include TripAdvisor, Google hotel finder, Trivago, and Skyscanner.

For the sake of brevity, we haven't discussed aspects such as use of extended or direct connection protocols. However, it is evidently clear that with the evolution of the industry, almost all entities interact with each other. Let us take a closer look at the business implications of these distribution channels.

Distribution channels and business implications.

In terms of revenue sharing, a simplified version of the previous illustration can be depicted as below.



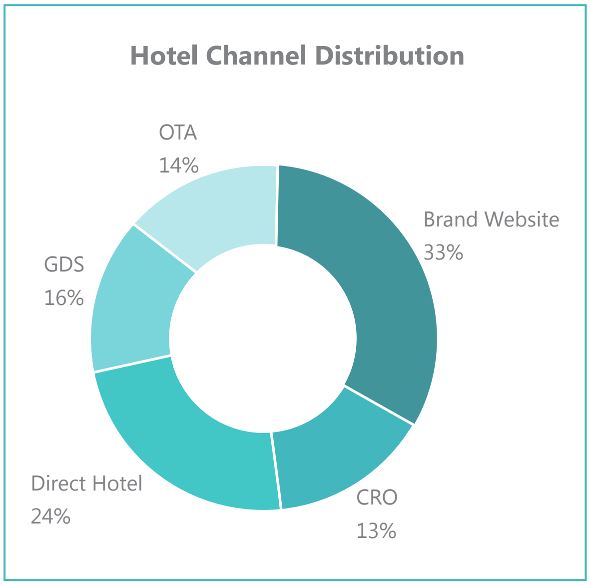
All available distribution strategies can be broadly classified as following models:

- **Agency model:** In the Agency model the retailer acts as an intermediary and passes on the reservation information to the relevant hotel, either directly or through the participating GDS or switch. This retailer could be a traditional brick and mortar travel agency or a modern OTA. Similarly, a retailer might directly deal with the supplier (hotel) or it might have an arrangement with a wholesaler who would have purchased inventory blocks from the supplier. Here the hotel continues to be the merchant of record. Pricing is usually transparent, and controlled by the supplier. The retailer receives a fixed commission for its services. There could also be a commission override model in place where in commissions is increased on a sliding scale based on bookings or total revenues. A typical commission in the Agency model is around 10% of the booking revenue.

- **Merchant model:** In the Merchant model the retailer, facilitates the transaction between the guest and hotel and acts as the merchant of record. To do this, the retailer acquires inventory from the supplier in block, and applies its margin before selling it to the customers. Please note that this acquisition does not necessarily amount to transfer of risk or any sale commitment, which is governed by individual contracts. Pricing here could either be transparent or opaque and retailers often package it with other services such as car rentals. The yield for retailers is usually much higher than the traditional Agency model.

Typically the markup is over the Best Available Rate (BAR) determines by the hotel. The resulting commission could be anywhere between 18-25%.

- **Direct model:** In the Direct model the sale happens directly from the hotel to the guest, either through the hotel website or Central Reservations Office (CRO), or directly at the hotel property by eliminating intermediaries. This is the most profitable channel for hoteliers. Though there are no publicly available numbers, major brand websites could cost hotels around USD 2-5, while a voice channel cost would be around USD 6-10. Costs for smaller independent hotels and resorts are much higher.



As with any other industry, the inventory distribution and monetization model in hospitality industry does have its own share of problems. Let's take a closer look at some of the problems or controversies around the current models.

- **Supplier IT Complexity:** As it is evident with figures in preceding sections, in the current distribution network almost all entities interact with each other. This creates unprecedented IT complexity for the supplier. A supplier has to maintain a band website, CRS, PMS, toll-free board line, integration with switches, and integration with OTAs and so on. Depending on the contract, integration mechanism with each OTA could differ. For some it could be through an extranet owned by OTA or there could be a direct integration with hotel CRS. Fragmented OTA landscape does not help either. Rates and availability across channel needs to be managed and so does the outreach content, necessitating need for comprehensive channel and content management systems. Hotels also have to invest in cutting edge analytics to help optimize channel utilization.

- **Issue with wholesaler strategy:** Wholesaling strategy traditionally involved selling a block of inventory to a wholesaler at a fair margin to markup. This inventory would be further sold to retailers, who in turn would sell it to end customers directly or as part of a package. Suppliers, however, would have no control as to whom this inventory would end-up and at what rate would the end-user be paying. In contracts where hotel is not the merchant of record, reliability of the endpoint retailer could be and operational concern. Add to this the advent of e-commerce and the price transparency introduced customers can now directly compare the hotel rate offered by retailer (OTA), and that offered by the hotel. As Niki Selimi, OTA sales manager at Valamar Hotels, Croatia, points out the impact has been huge: "Chains like ours lose credibility because we cannot guarantee the best price to guests and instead of securing direct bookings we are losing revenue to the OTAs". Conversely, for the retailers if the hotel decides to undercut the base price. It becomes a difficult sale for them. All this has led to “rate parity” agreements between hoteliers, wholesalers, and retailers, which has created an unexpected problem.

- **Resale Price Maintenance (RPM) and ”Rate Parity” controversy:** A typical rate parity agreement between a hotel and an OTA involves commitment between the hotel and OTA to maintain parity with the minimum rate set by the hotel. It also includes “most favored nation” clause, which essentially ensures that lowest rate offered to end customers. Hotels own website or other competing OTAs must also be made available to the participating OTA. This is also referred to as Resale Price Maintenance. Please note that the parity refers to rates of an individual room sold separately and not when packaged with other services in an open price arrangement. This has obvious advantage to both suppliers and retailers by allowing price control by the hotel, preventing brand evaluation, and assurance of a favorable competitive environment for OTA. This however has interesting flip sites too. It essentially means that all players cannot go below a minimum price and in a competitive environment the “best price” available to the consumer is in fact the “only price” available, leading to allegation of cartelization.

This “vertical price fixing” has come under increased scrutiny in both US and European geographies with interestingly different results. Approximately 30 lawsuits have been filed in US against major hotel chains and OTAs, which however were dismissed in 2014 as no evidence of explicit collusion or conspiracy was found. However, such RPM agreements would continue to be subject to “rule of reason” analysis. In Europe, however, results were different. After investigation by UK Office of Fair Trading (OFT) major OTA players including Expedia and booking.com and hotel chains have committed to change the RPM practices.

In the next whitepaper we’ll try to crystallize what should be salient attributes off an inventory distribution and monetization model in healthcare industry. We would then proceed to explore possible models and evaluate them in the current context.

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HQ: Cybage Towers, Survey No 13A/ 1+2+3/1, Vadgaon Sheri, Pune 411014 |

Tel: 91 20 6604 4700 | Fax: 91 20 6604 1701

Pune | Hyderabad | Gandhinagar | Redmond | New Jersey | California | Atlanta |

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