

Chateau de Montana: Applying Data Analytics to Simulate Room Price of a Repositioned Hotel

Introduction

Nicolas Dupont, the owner of Chateau de Montana, a struggling (and old) boutique hotel in Crans-Montana Ski Resort, Switzerland, wished to renovate and reposition his family-owned hotel to target higher room rates. Dupont commissioned Olga Mitireva and Yulia Belopilskaya as consultants to assess the proposition. The consultants had to extract cues for the room rate of the repositioned hotel from comparable hotels. However, the room rates varied significantly across similar hotels due to their differing characteristics and locations. It was a cognitive challenge to read the patterns from a few comparable hotels. They collected data of 200 hotels from similar locations and simulated room prices using hedonic regression models.

Background

It was the February of 2017. Crans-Montana, a beautiful ski resort region in Valais, Switzerland, was chilly (-3 °C), as is usual for the season. The Alpine skiing world cup event had attracted a good crowd filling up many hotels, restaurants, and bars. Dupont jogged around the Etang Grenon lake, occasionally glancing at the rooftop of Chateau de Montana, his ancestral hotel property. During the previous high season (August-September 2016), his business had struggled with subpar average daily (room) rate (ADR). During the low seasons, the ADR was barely CHF¹ 200, and it further fell as low as CHF 140 on some days. During high seasons, the prices went up marginally to CHF 200-230. These rates were not adequate to sustain the hotel operations. The tough Swiss labor laws and insurance requirements called for achieving higher ADR. “I need to renovate the hotel and ramp up the ADR: to CHF 250 during the low season and CHF 300-400 during the high seasons,” he resolved. The only way to do this was to invest in hotel renovation and reposition the hotel at a higher tier. This would attract a different customer base and increase the revenues, if the occupancy rates were to remain broadly unaltered and expense ratios were to remain the same.

The Repositioned Hotel

Dupont’s repositioning plan included rethinking the traditional room offerings. He was told that free wifi did not matter much to the guests as they would not mind paying a marginal fee for using the wifi. Further, from his past experience, typical guests in the region were neither too

¹ CHF (Confoederatio Helvetica franc) stands for Swiss francs. The currency is often at par with US dollars.

interested in the free breakfast nor did they use the minibar. So, these facilities were to be excluded from the proposed concept. Yet, several other factors also had to be considered.

Amenities: Including new amenities was integral to the new plan to attract higher room rates. Dupont thought that the guest pool was broadly similar to nearby ski locations including Zermatt, Verbier, Saas Fee and Satellite resorts, and it was good to study what other hotels were offering. After researching about similar hotels across the region (including and beyond Crans-Montana), Dupont devised a solution: To renovate the hotel for an upgraded positioning and allocate substantial budget to add new amenities. “Wellness and fitness are the in-things,” he thought based on his studies [See Exhibit 1]. He considered the following amenities to be added to the hotel:

1. Gym/Fitness room
2. Pool
3. Wet zone
4. Body treatments
5. Outdoor jacuzzi/Pool
6. Extra wellness activities

Due to structural limitations, pool and outdoor jacuzzi were quickly excluded from the plan.

Architectural Style: Dupont had seen two prominent architectural styles in the ski resorts of the region: Traditional/Chalet or Modern/Scandinavian. Most of the hotels could not be identified by a distinct style. He felt that going for something drastically different from these two styles would be a radical change and extremely experimental. However, he was split between the two prominent styles. A chalet hotel would have given a traditional Swiss feel to the hotel. But it depended on the guest profiles. As to the origins of the visitors, most of the Crans-Montana guests came from Switzerland (over 55%), followed by France (9%) and Germany (6.5%) [See Exhibit 2]. Would the guests be willing to pay more for Swiss (Traditional/Chalet) architecture, or would they prefer something different (Modern/Scandinavian)?

Food & Beverage (F&B): According to Tripadvisor.com, most of the 96 restaurants in Crans-Montana specialized in European or Suisse cuisine, but they served Italian and French food as well (establishments would often offer several cuisines to the guests). Dupont wondered if he should include a signature restaurant in the repositioned hotel.

Hiring the Experts

After some initial musings, Dupont needed to develop a concrete concept for the repositioning of the hotel and, more importantly, get an expert opinion on whether these upgrades would help achieve the target ADR. He hired two consultants for the job: Olga Mitireva and Yulia Belopilskaya. Mitireva and Belopilskaya were both lawyers with impressive analytical skills and a penchant for numbers. After being commissioned for the consulting project, they visited Crans-Montana several times.

About the Consultants

Mitireva was a Geneva-based entrepreneur and consultant. She earned her LLM from New York University School of Law and EMBA from EHL Lausanne, Switzerland. She had been involved in hospitality and F&B project opportunities in Geneva. She enjoyed a successful legal career, first as the in-house counsel in a major US oil & gas corporation and then as a specialist on the international matters for a Geneva-based trust company working with family offices and high net worth individuals (HNWIs). Mitireva worked closely with Belopilskaya on the project. Belopilskaya worked in hospitality, development, real estate, healthy lifestyle and wellness sectors from Manchester, UK. She earned her EMBA from EHL Lausanne, Switzerland. She had represented leading investors, developers, occupiers and financial institutions on complex and multi-layered real estate transactions. She was involved in the sale of a major office complex in Russia which had been the largest single asset office deal seen in the Russian market.

About Chateau de Montana

Hotel Chateau de Montana was in the city center close to shops, bars & restaurants and bus stops. The hotel had no private territory or a private parking; however, there was ample sidewalk area for an outside dining. The hotel faced the main street - at night that side was noisy due to snow removal vehicles and public transport. The other side of the hotel faced the back yard but had no view. The Hotel was built in the mid-1940s and was in a rather poor condition, especially the basement, common areas and engineering. Hotel had four floors and 48 rooms. On the ground floor there was a large space facing the main street for a restaurant and a smaller space for a bar; both had an excellent visibility from the main street. The basement had ample space (1,500-2,000 sqm) suitable for a gym and a “wet zone.”

Chateau de Montana remained open seven days a week starting from December 25th until March, as well as in July and August. In the months of April, May, June, as well as September, October, November and the beginning of December, the hotel remained open from Friday to Monday only.

About Crans-Montana

Crans-Montana was a well-known Swiss ski and golf resort region. As many ski resorts, it was exposed to seasonality. High season took place from December until January 5th, then in February until April 15th and from July 15th until end of August. It had its low season in the months of April (second half), May and June, as well as September, October and November, with few hotels closing completely during this period.

Tourists expressed mixed opinions on the positioning of the location.² Some visitors believed that Crans-Montana had a luxury, high-end resort location. Crans-Montana had indeed been long perceived as a luxury destination – and still featured appealing luxury accommodations, contemporary glamour casino building and a modern five-star hotel-restaurant on the slopes.

² As observed by the protagonists

However, some other visitors and local entrepreneurs felt that the resort got ‘stuck in past glorious times.’

The Experts Get in Action

In March 2017, the consultants conducted a field-survey in Crans-Montana and collected 41 responses. The survey confirmed the official statistics regarding the visitor profile [See Exhibit 3]. There were three restaurants near hotel Chateau de Montana that were worth mentioning as competition for the future F&B offering. All three establishments were in the moderate price category (average dinner check equivalent to CHF 40). The consultants dined in all of them and were clear that a signature restaurant would add value to Chateau de Montana. The consultants’ survey of local hotels also ascertained the popularity of wellness offers [See Exhibit 4]. They were, however, unable to correlate these amenities with room pricing.

Mitireva thought to stack comparable hotels against each other and visually see the pricing pattern. They made sure that the prices were collected for the same date, for an apples-to-apples comparison. The exercise turned out to be futile [See Exhibit 5]. Hotels were hardly comparable to each other on more than 2-3 criteria. Each hotel had a unique set of attributes. When the prices across them changed, one could not tell which attribute/s contributed to the difference in pricing. More importantly, they were not even sure if the attributes they listed even mattered with regards to room pricing, let alone allocating the price differentials concretely to these factors.

The Analytical Challenge

An even bigger challenge was the low level of confidence in the pricing patterns derived from a small sample of few observations. But as the exercise with just three observations had already failed, they were double-minded about collecting more data. Sticking to fewer observations was, on the other hand, a travesty. “Data is the new oil,” murmured Mitireva. “We should be able to find a way to make sense of more data.” So, they decided to collect as much relevant data as possible.

Indeed, there was a lot of data available on similar hotels in the region (across all the locales mentioned above: Zermatt, Verbier, Saas Fee and Satellite resorts). Mitireva and Belopilskaya collected room pricing information from 194 hotels in the region using an online travel agency (OTAs) for two different (future) dates: One each in the low and peak seasons. They made sure that the hotel pool that they surveyed encompassed all the amenities proposed by Dupont. Rooms’ rates were collected on May 12, 2018. Based on local managers’ feedback, they considered the low season as the period from May 30 to July 15, 2018; and high season as the period from August 15 to September 2, 2018. While collecting data on room pricing, they also collected the data that characterized these hotels. [See Exhibit 6 for the list of data headings].

The challenge was to simulate room pricing of the proposed hotel with the following characteristics based on the pricing pattern derived from comparable hotels:

PRICING SPECIFICATION

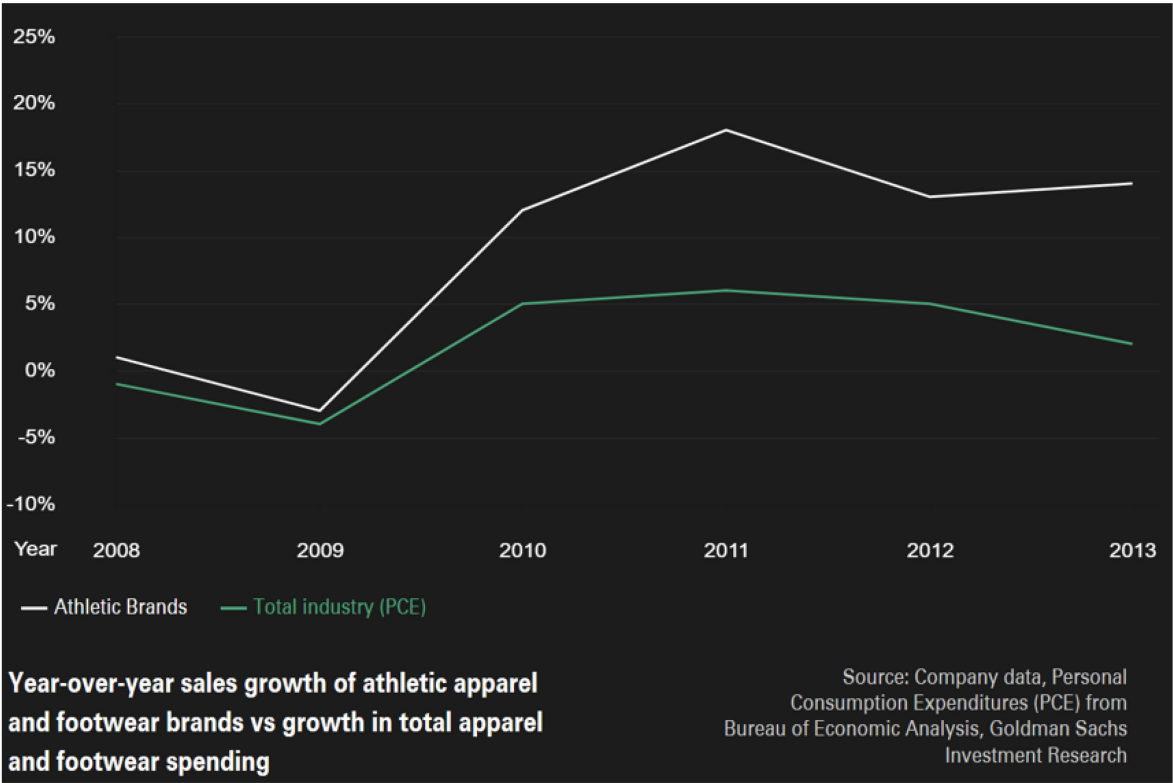
Attribute	Details
Location: Crans-Montana	Crans-Montana
Booking.com stars	4
Booking.com guests rating	8
Distance from ski lifts (km)	0.5
Distance from train station (km)	10
Minibar	No
No. of floors	4
City center location	Yes
Room size (sqM)	19 AND 24
Recently renovated	Yes
Architectural Style	[Modern / Scandinavian] OR [Traditional / Chalet]
Signature restaurant	Yes
Free Wi-Fi	No
Breakfast included in base rent	No
Gym / fitness room	Yes
Pool	No
Wet zone	Yes
Body treatments	Yes
Outdoor jacuzzi/pool	No
Extra wellness activities	Yes

Now, Mitireva and Belopilskaya had to find an effective method to process the data and assess whether the target prices set by Dupont could be achieved given how the rooms had been priced in the market. Could they validate Dupont' assumption that adding these amenities could help improve the room rates as much as he had expected?

"Yes, Regression analysis is a solution," yelled Mitireva with excitement. In her real estate course during EMBA, their class had experimented with hedonic pricing models.

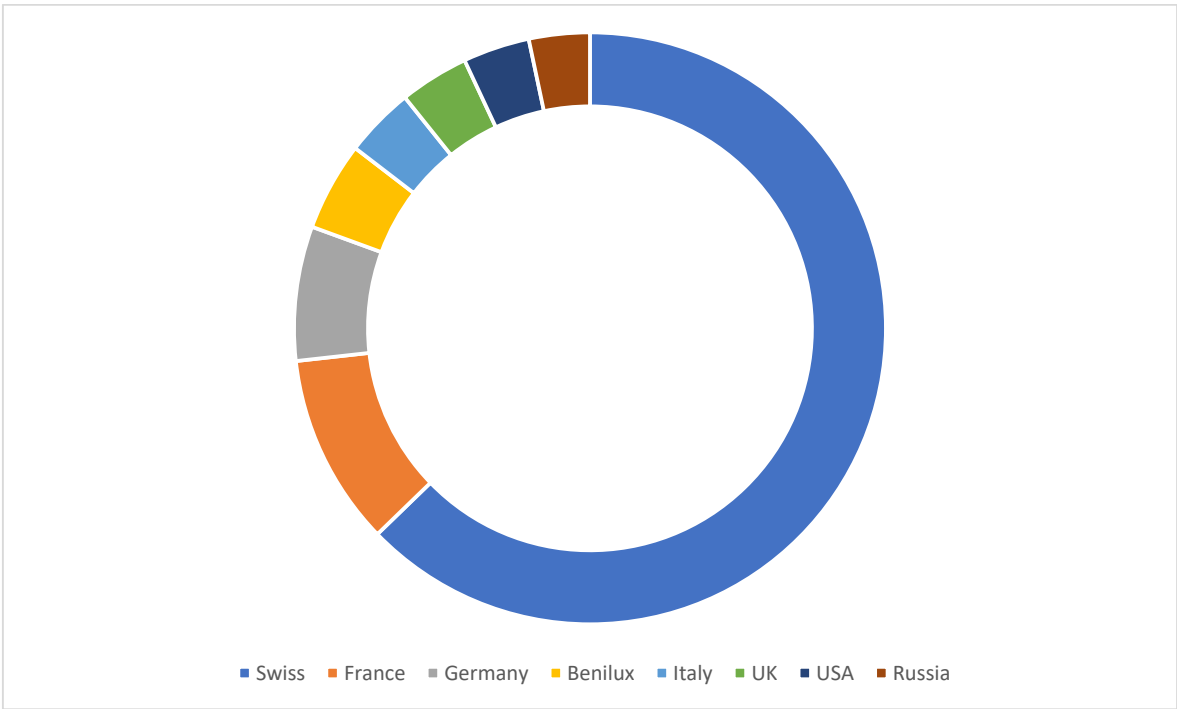
EXHIBITS

Exhibit 1: Focus on wellness



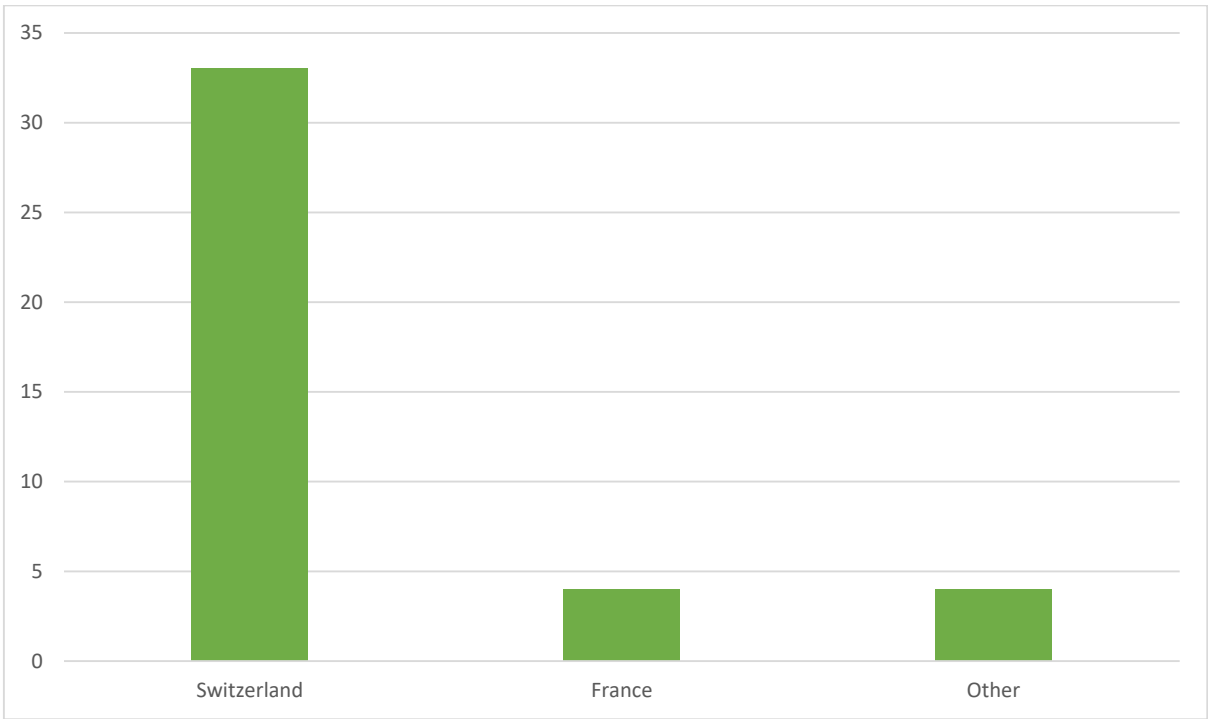
Source: Millennials coming of age, Goldman Sachs, retrieved from URL: <http://www.goldmansachs.com/our-thinking/pages/millennials/>

Exhibit 2: Crans-Montana Guest Demographics



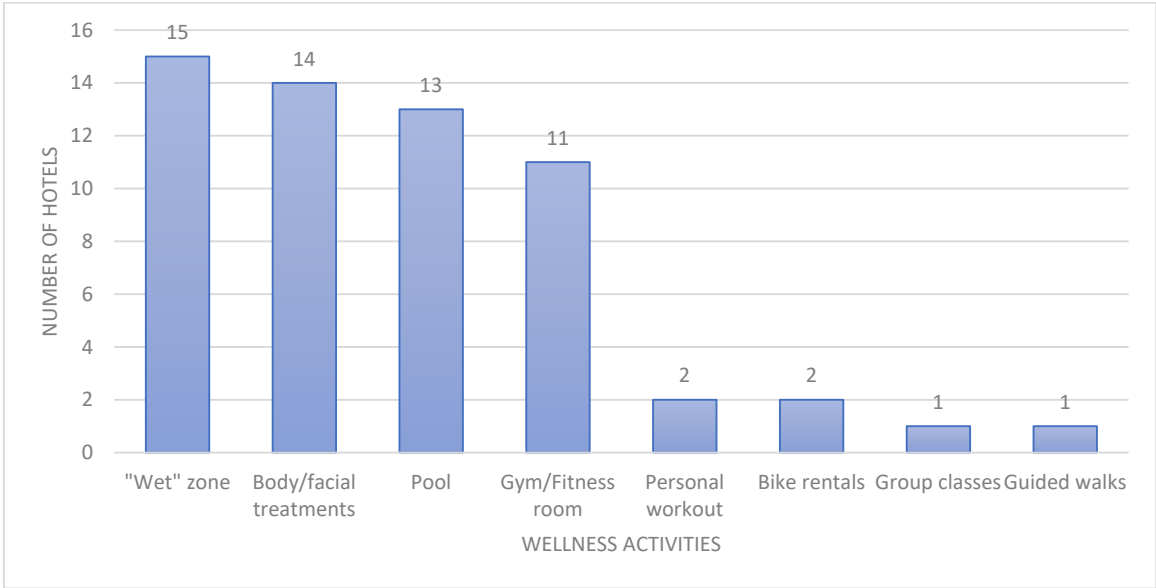
Source: 2016 Rapport de Gestion of the Crans-Montana tourism office

Exhibit 3: Country of origin of Crans-Montana visitors



Source: Protagonists of the case; based on a survey of 41 respondents in Crans-Montana, 2018

Exhibit 4: Crans-Montana Hotels' Wellness Offers



Source: Protagonists of the case

Exhibit 5: Room Price of Comparable Hotels During Peak season

	Hotel A	Hotel B	Hotel C
Location	City center, noisy	City center, noisy	Lake and promenade area
Private parking	No	No	YES
Walking distance to ski lifts	YES	YES	YES but further away
Dining area	Large, street view	Small, street view	Medium, panoramic view
Wellness area	No, but enough space to create	No	YES
Pool	No, but 'wet zone' is possible	No	Yes, including outdoor jacuzzi
Room Rate (CHF)	158	153	200

Source: Protagonists

Exhibit 6: Descriptive Statistics of the Hotel Room Pricing Data

	Minimum	Maximum	Mean	Std. Deviation
Room Rate (CHF per night)	88	711	212.01	98.076
High season (Yes=1, No=0)	0	1	.50	.501
Zermatt (Yes=1, No=0)	0	1	.46	.499
Verbier (Yes=1, No=0)	0	1	.07	.259
Saas Fee (Yes=1, No=0)	0	1	.18	.381
Satellite resorts (Yes=1, No=0)	0	1	.16	.367
Booking.com stars	1	5	3.36	.870
Booking.com guests rating	6.7	9.8	8.830	.5172
Distance from ski lifts (km)	.000	7.000	.84093	1.243331
Distance from train station (km)	.05	27.50	7.3358	9.71146
Minibar	0	1	0.23	0.423
Number of floors	1	8	3.66	1.080
Located at the City center (Yes=1, No=0)	0	1	.58	.494
Room size (sqm)	8	65	22.05	7.769
Recently renovated (Yes=1, No=0)	0	1	.67	.471
Style: Modern / Scandinavian (Yes=1, No=0)	0	1	.22	.412
Style: Traditional / Chalet (Yes=1, No=0)	0	1	.27	.446
Signature restaurant (Yes=1, No=0)	0	1	.63	.484
Free Wi-Fi (Yes=1, No=0)	0	1	.06	.241
Breakfast included in base rent (Yes=1, No=0)	0	1	.92	.275
Gym / fitness room (Yes=1, No=0)	0	1	.30	.458
Pool (Yes=1, No=0)	0	1	.33	.471
Wet zone (Yes=1, No=0)	0	1	.61	.489
Body treatments (Yes=1, No=0)	0	1	.37	.482
Outdoor jacuzzi/ pool (Yes=1, No=0)	0	1	.21	.409
Extra wellness activities (Yes=1, No=0)	0	1	.10	.298

Source: Protagonists