

The Economic Impact of Ski Lift Proximity: An Analysis of Hotel Room Pricing

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I. INTRODUCTION

The pricing strategies of ski resort hotels are influenced by a combination of location-specific attributes and customer preferences. Among these factors, proximity to ski lifts plays a pivotal role, as it enhances convenience for guests and often translates into higher Average Daily Room Rates (ADR). Previous studies have demonstrated that proximity to key attractions like ski lifts significantly impacts pricing, with guests willing to pay premiums for convenience and accessibility (Lixăndroiu, Radu & Lupsa, Dana, 2023).

Other attributes, such as room size, guest ratings, and wellness facilities, also contribute to variations in ADR. Larger rooms and high guest satisfaction ratings have been shown to positively influence pricing by meeting the preferences of premium-paying customers (Li, Hongxiu & Liu, Yong & Tan, Chee-Wee & Hu, Feng, 2020). Similarly, wellness facilities enhance the overall guest experience, particularly in ski resorts where relaxation after skiing is a priority (Hongxiu & Liu, 2020).

This study investigates the determinants of ADR in Swiss ski resorts by evaluating two hypotheses: (1) that proximity to ski lifts negatively correlates with ADR, and (2) that this relationship is moderated by the hotel's location in the city center. The analysis incorporates control variables such as room size, guest ratings, wellness facilities, and location to isolate the effects of ski lift proximity and the city-center variable. The findings aim to provide actionable insights for optimizing pricing strategies in ski resort markets.

II. HYPOTHESES

This section presents two hypotheses aimed at understanding the determinants of ADR (Average Daily Room Rate) in ski resorts. Specifically, it investigates the impact of proximity to ski lifts and how this relationship varies across different locations. These hypotheses are rooted in the established importance of convenience and accessibility in tourism pricing, as outlined in the introduction. To ensure a comprehensive analysis, the hypotheses are supported by logical reasoning, real-world observations, and academic literature. The following hypotheses have been formulated to address the research questions and guide the analysis:

Primary Hypothesis (H1):

Proximity to ski lifts (DistanceSkiLift_KM) negatively impacts ADR (Average Daily Room Rate).

Proximity to ski lifts is a critical factor influencing ADR, as tourists value the convenience of easy access to slopes. Hotels closer to ski lifts allow guests to save time and reduce transportation challenges, enhancing their overall experience. This convenience justifies higher rates, as evidenced by premium prices charged by properties near ski lifts on platforms like Booking.com.

Well-known hotels such as *St. Regis Aspen Resort (USA)* or *Le K2 Altitude (Courchevel, France)* located near ski lifts often advertise features like "ski-in/ski-out" access or short walking distances to slopes as a key selling point, emphasizing their competitive advantage. This strategic marketing appeals to travelers seeking convenience, particularly affluent skiers willing to pay premium rates for reduced effort and more skiing time.

Reviews on platforms like TripAdvisor consistently emphasize the added value of such proximity, often correlating higher customer satisfaction and ratings with these features. For instance, hotels with direct access to ski slopes are frequently praised for their convenience, reinforcing the connection between location, customer preferences, and pricing strategies.

To give an example, *The Ritz-Carlton, Bachelor Gulch (Avon, CO)*, a ski-in/ski-out property offering direct slope access, charges an average nightly rate of \$1,300 during peak ski season and holds a high customer rating of 92/100. In comparison, *The Lodge at Spruce Peak (Stowe, VT)*, which is not ski-in/ski-out but provides shuttle access to the slopes, averages \$800 per night with a slightly lower rating of 88/100. Reviews for the latter often highlight transportation logistics as a minor inconvenience, further illustrating the premium customers are willing to pay for immediate slope access.

These observations are supported by academic theories on consumer behavior and market competitiveness. For instance, one of the theories of consumer behavior — the resource-based view (RBV) — suggests that unique and location-specific resources, such as direct ski-in/ski-out access, provide hotels with a competitive advantage. This advantage allows these properties to attract more customers and charge premium rates, reinforcing the importance of location in pricing strategies. Proximity to ski lifts represents a distinctive, inimitable resource that enhances a hotel's value proposition. As mentioned in the study by Miragaia and Martins (2015), tourists prioritize attributes that maximize convenience and satisfaction, especially in winter sports destinations, where accessibility to ski facilities is a critical determinant of destination attractiveness.

Moreover, the research underscores that satisfaction with destination attributes directly influences consumer willingness to pay a premium. The ease of access to ski slopes not only improves the guest experience but also generates higher perceived value for accommodations, enabling hotels to command higher ADRs. This relationship is evident in competitive markets where properties leverage proximity to ski lifts as a marketing differentiator, fostering increased demand and justifying elevated pricing structures.

While the proximity to ski lifts has a direct effect on ADR, this relationship may vary depending on other factors. One such factor is whether the hotel is located in the city center. Hotels in city centers often attract a diverse clientele, including business travelers or tourists prioritizing urban amenities over ski-related convenience. In contrast, non-city-center hotels typically cater to skiers, where proximity to slopes becomes a stronger determinant of pricing. This interaction effect forms the basis for the second hypothesis.

Interaction Hypothesis (H2):

The effect of proximity to ski lifts on ADR is moderated by whether the hotel is located in the city center.

City-center hotels that offer easy access to ski lifts often benefit from the combination of urban attractions and ski facilities, appealing to both business travelers and ski enthusiasts. For example, in major ski destinations like Aspen, Colorado, where urban amenities and skiing are both prioritized, The St. Regis Aspen Resort charges premium rates for its central location and close proximity to Aspen Mountain's ski lifts. Its ski-in/ski-out access not only enhances the guest experience but also attracts high-paying visitors who want the convenience of enjoying both city life and skiing. Similarly, The Ritz-Carlton, Lake Tahoe (located in the heart of the

Northstar resort) combines proximity to ski lifts with upscale shopping, dining, and entertainment, justifying a higher ADR due to the added urban appeal. These hotels appeal to affluent travelers who are willing to pay more for the convenience of accessing both skiing and city amenities seamlessly.

In contrast, non-city-center hotels typically cater primarily to skiers, and while proximity to ski lifts is crucial, the same location advantages may not significantly boost ADR beyond the skiing clientele. For instance, a more remote ski lodge may offer ski-in/ski-out access but lacks the added urban attractions that can justify higher rates in city-center properties.

These observations are supported by academic research highlighting the economic and strategic advantages of integrating diverse amenities with proximity to skiing infrastructure. For instance, Moreno-Gené (2018) found that the most profitable ski resorts in Austria, France, and Italy were those that offered comprehensive services and amenities, catering to both local and international clients. The study revealed that larger resorts, often combining urban and ski-related facilities, are better positioned for future investments and achieving high economic returns. Similarly, Bender and Bidault (2020) emphasize that urban-like infrastructure within ski resorts not only enhances the overall guest experience but also allows for tailored strategies to maximize profitability while addressing sustainability. These findings underline the potential interaction effect where urban locations enhance the value proposition of proximity to ski lifts, thereby supporting higher ADR in city-center hotels.

To test these hypotheses, a regression model incorporating control variables will be used. These controls ensure that the estimated effects reflect the true relationship between proximity to ski

lifts, city-center location, and ADR. The next section provides details on model specification and variable inclusion.

III. STATISTICAL MODEL

To test the stated hypotheses, we employ a regression model that examines the effect of proximity to ski lifts on ADR and its interaction by the city-center location. The model incorporates key control variables—BookingComRating, RoomSize, and WellnessActivities—to ensure reliable results. By including these controls, the analysis isolates the primary explanatory variable (DistanceSkiLift_KM) and the interaction term, providing an accurate estimation of their effects on ADR.

The regression model is specified as follows:

1. $ADR = \beta_0 + \beta_1 (\text{Distance from Ski Lift}) + \beta_2 (\text{Booking Rating}) + \beta_3 (\text{Room Size}) + \beta_4 (\text{Wellness Activities}) + \beta_5 (\text{Location}) + \epsilon$
2. $ADR = \beta_0 + \beta_1 (\text{Distance from Ski Lift} \times \text{City Center}) + \beta_2 (\text{Booking Rating}) + \beta_3 (\text{Room Size}) + \beta_4 (\text{Wellness Activities}) + \beta_5 (\text{Location}) + \epsilon$

Dependent Variable (Y)

ADR (Average Daily Room Rate) is our outcome continuous variable that is calculated in CHF, which is the abbreviation for the Swiss franc. The number in our data set ranges from 88 to 711, while the mean is 212. ADR is a key measure of hotel performance and pricing strategy.

Independent Variables (X)

Our primary independent variable is the DistanceSkiLift_KM. Distance from the ski lift in kilometers, representing proximity to slopes.

CityCenter: Dummy variable indicating whether the hotel is located in the city center (1 = city center, 0 = non-city center).

DistanceSkiLift_KM \times CityCenter: Interaction term that measures how the relationship between proximity to ski lifts and ADR is moderated by city-center location.

Control Variables:

BookingComRating (Guest rating): Captures customer satisfaction and service quality on a 10-point scale. Higher ratings indicate better quality, which can justify higher ADR.

We believe this control variable will work effectively because guest ratings directly reflect the perceived quality of a hotel, which is a significant driver of ADR. Higher guest ratings typically indicate superior service, customer satisfaction, and an overall better experience, making these properties more desirable and justifying premium pricing. For example, a study by Cornell University's Centre for Hospitality Research found that for every single point increase (on a 1-5 scale) in a hotel's online reputation score, there can be an 11.2% increase in price without changing occupancy rates. Real-world examples support this, as hotels rated 9+ on Booking.com often charge higher rates compared to those rated 7 or below, even in similar locations. By controlling for this variable, we ensure that any observed effect of proximity to ski lifts on ADR is not mistakenly attributed to differences in guest satisfaction, but rather isolates the true impact of location and amenities.

RoomSize: Larger rooms, measured in m², typically command higher rates due to increased comfort and capacity.

We think this control variable will work effectively because larger rooms typically command higher rates due to the increased comfort, capacity, and luxury they offer. More spacious rooms are perceived as more desirable, especially for families, business travelers, or guests seeking extra comfort. Research by Du Xiaoning and Jellna Chung (2020) identified room size as one of the interior features affecting hotel room prices, supporting the idea that larger rooms are typically more expensive. Real-world examples show that hotels offering more spacious rooms often charge 20-30% higher ADR compared to standard room sizes. For instance, properties like The Ritz-Carlton, Four Seasons frequently use the size of their rooms as a marketing tool, with their luxury suites commanding premium rates. By including room size as a control variable, we can be sure that the effect of ski-lift proximity on ADR is not mixed up with the impact of room size, and we're accurately measuring the influence of location and other amenities.

WellnessActivities: A dummy variable for the availability of wellness facilities that add perceived value and allow for premium pricing.

WellnessActivities is a good way to structure as a control variable in this regression model, because spas, fitness centers, and wellness programs add significant perceived value to a hotel. Especially, in the context of ski resort hotels, where guests often seek relaxation after a day on the slopes, these amenities add considerable perceived value. The Wellness Real Estate Report 2024 by RLA Global supports the idea that wellness activities can justify higher prices, showing that hotels with wellness offerings experienced positive growth in Average Daily Rate (ADR) and Revenue Per Available Room (RevPAR) in 2023, compared to 2022. The report categorizes

hotels into three groups—major wellness, minor wellness, and no wellness—and finds that all categories, including those with wellness offerings, showed growth in both ADR and RevPAR, highlighting the strong link between wellness facilities and higher hotel prices. By including WellnessActivities as a control variable, we can ensure that the model correctly isolates the effects of location and proximity to ski lifts on ADR. This approach helps us avoid mixing up the effects of proximity to ski lifts with the higher prices that often come with wellness services in ski resort hotels.

Location (Categorical Variable for Zermatt, Saas Fee, Vervier, Crans Montana):

Captures regional differences in hotel pricing based on destination.

Ski resorts differ significantly in terms of luxury, exclusivity, and the target demographic, all of which influence the pricing strategies of hotels in these areas. Geographic and regional factors impact hotel pricing since, for example, urban ski resorts tend to have higher ADRs due to their central locations, which offer easy access to both ski facilities and amenities like restaurants and shopping. In contrast, more remote resorts, while still popular for skiing, generally have lower room rates, as they attract a broader customer base, including families and budget-conscious travelers. This regional difference in pricing underscores the need to control for Location when analyzing ADR. The research paper by Benneyan (2019) offers arguments into how proximity to ski resorts impacts property values, which can be applied to hotel pricing. While the study focuses on home prices, it shows that mountain resorts' presence significantly affects property values. Although this study doesn't directly address hotel prices, it highlights that ski resort locations influence pricing dynamics, supporting the idea that hotels in such areas can also charge higher rates due to demand. By controlling for regional differences, we ensure the model

isolates the effects of ski-lift proximity and city-center location on ADR, without confusing these factors with regional pricing strategies.

IV. ANALYSIS - EDA

This section conducts exploratory data analysis (EDA) to examine the characteristics of the dependent variable (ADR), the primary independent variable (DistanceSkiLift_KM), and control variables like BookingComRating, RoomSize, WellnessActivities, and Location. We will use numerical summaries and visualizations to identify patterns, relationships, and potential issues. Also, bivariate analyses, including the interaction between DistanceSkiLift_KM and CityCenter, assess the relationships central to the hypotheses. The findings guide necessary adjustments, such as transformations or diagnostics, to ensure the validity of the regression model.

Summary Statistics for Quantitative Variables

Variable	Mean	St. Dev	Min	Max
ADR	212	98	88	711
Distance	0.84	1.24	0	7
Booking Rating	8.83	0.52	6.7	9.8
Room Size	22.05	7.77	8	65

Table 1.

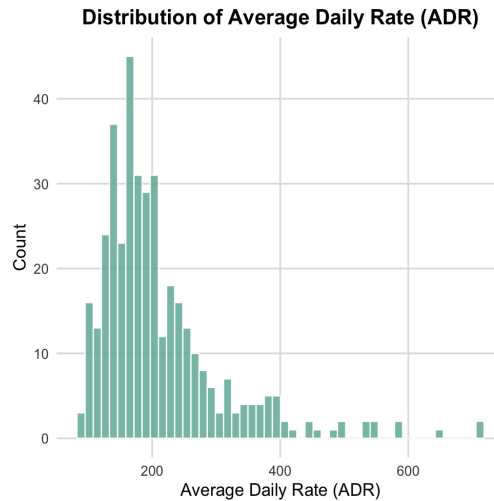
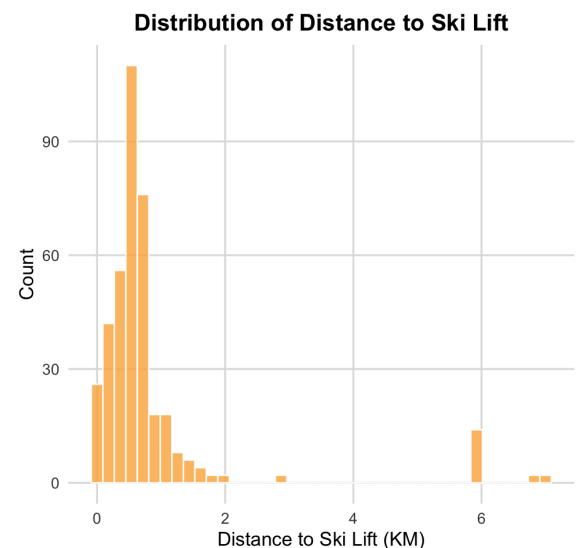


Figure 1.

As shown in **Table 1**, the **Average Daily Room Rate (ADR)** has a mean of 212 CHF with a standard deviation of 98 CHF, indicating considerable variation in room rates across the hotels. The ADR ranges from 88 to 711 CHF, suggesting a wide range of pricing from budget to premium accommodations. The histogram of ADR (Figure 1) reveals a right-skewed distribution, with most hotels clustered in the 150-250 CHF range and a long right tail extending to higher prices. This variability implies that some hotels are outliers in terms of pricing, which may impact the results of the regression model.

The distribution of Distance_Ski_Lift demonstrates a strong right-skewed pattern, as shown in Figure 2, with a mean of 0.84KM and a standard deviation of 1.24KM. The histogram shows that the majority of hotels are concentrated within the first kilometer from ski lifts, with the highest frequency occurring in the 0-0.5 KM range, where approximately 90 hotels are located. While the



distances range from 0 to 7 KM, there is a clear clustering of properties at shorter distances, which is a representation of a strong preference for Swiss hotels to minimize their distance from ski lifts.

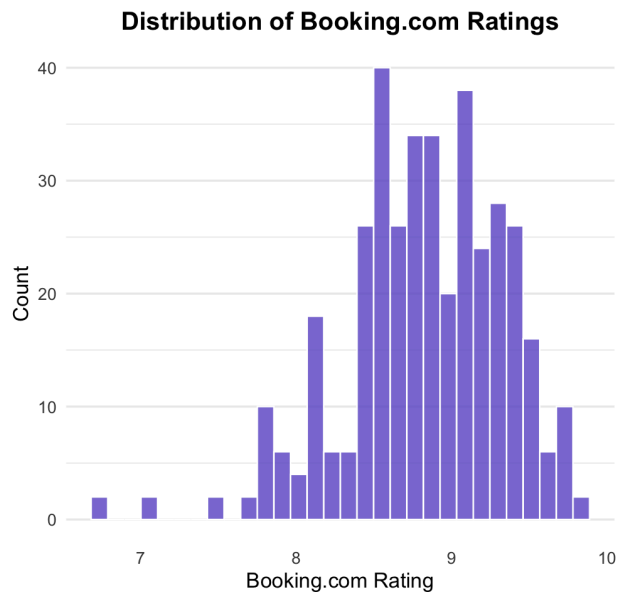


Figure 3.

The BookingComRating distribution, with a mean of 8.83 and a standard deviation of 0.52, shows an interesting pattern in our dataset. As shown in Figure 3, the histogram demonstrates a left-skewed distribution with the majority of hotels receiving ratings between 8.5 and 9.5. While ratings range from 6.7 to 9.8, very few hotels score below 8.0, with only isolated cases appearing in the 6.7-7.5 range. This concentration of high ratings suggests that our dataset predominantly includes well-performing hotels that maintain strong guest satisfaction. The relatively narrow spread of ratings, particularly dense in the 8.5-9.2 range, indicates a competitive market where maintaining high service standards is crucial. This pattern of consistently high ratings might also reflect Booking.com's selection bias or the generally high standards of Swiss ski resort hotels.

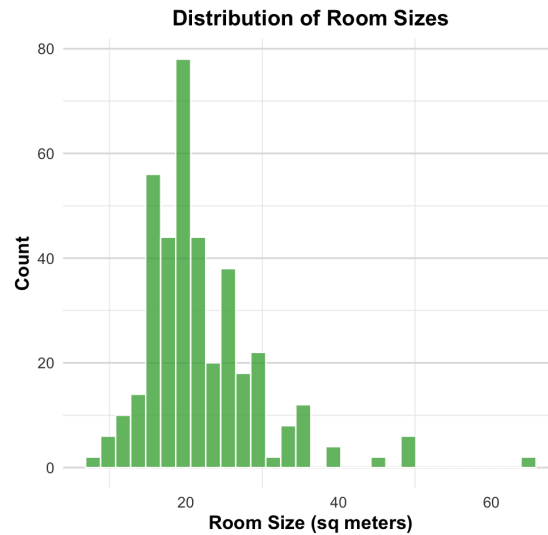


Figure 4.

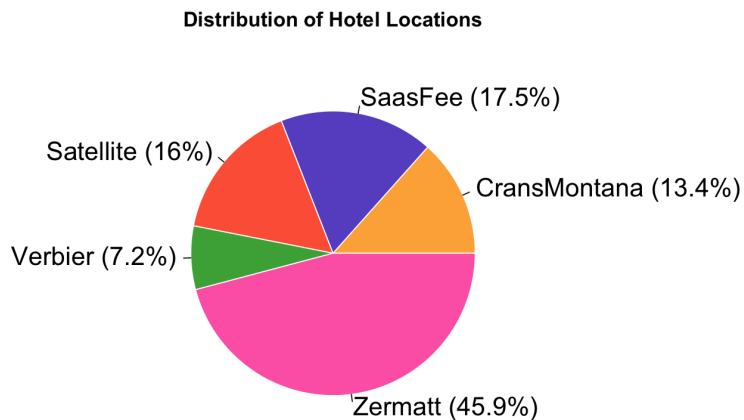
The Room Size, as shown in Table 1 and visualized in the histogram, shows a high distribution around smaller sizes. The mean room size of 22.05 m², with a standard deviation of 7.77, highlights moderate variability. The histogram shows that most rooms fall within the range 15-25 m², with a peak around 20 m². This variability necessitates including room size as a control variable in the regression model to ensure that its influence on Average Daily Room Rates (ADR) is accounted for, isolating the effects of other independent variables such as proximity to ski lifts.

Summary Statistics for Qualitative Variables

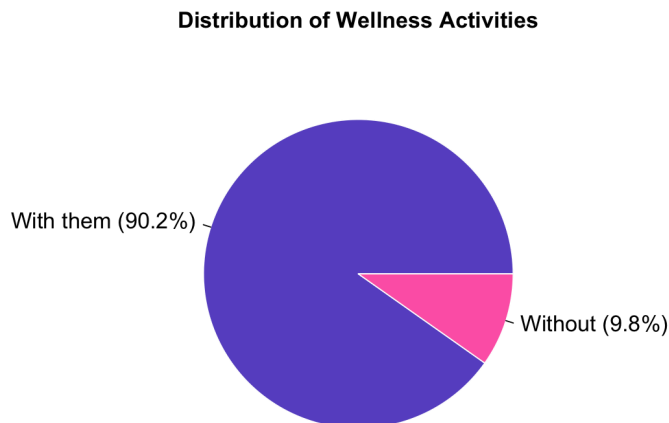
Have Wellness Activities	10% (38)
Location	
CransMontana	13,4% (52)
SaasFee	17,5% (68)
Satellite	16% (62)
Verbier	7% (28)
Zermatt	46% (178)

Table 2.

As observed in Table 2 and visualized in the pie chart, the distribution of hotels across locations demonstrates significant variation. Zermatt dominates the dataset, accounting for 45.9% of the hotels (178), suggesting it is a main



destination for visitors. SaasFee represents the second largest proportion at 17.5% (68), followed by Satellite with 16% (62), and CransMontana at 13.4% (52). Verbier is the smallest segment, with only 7% (28) of the hotels. This distribution suggests a geographical skew towards Zermatt, potentially due to its reputation, amenities, or popularity among tourists. The lower representation of Verbier and CransMontana might indicate niche markets or less-developed infrastructure compared to Zermatt and SaasFee.



The **Wellness activities** - is a binary categorical variable representing the presence or absence of wellness facilities in hotels. The pie chart visualization reveals that a vast majority of hotels, specifically 90.2%, do not offer wellness activities, while only 9.8% provide such facilities. While this distribution is highly skewed, it actually represents a realistic picture of our

population parameter, as wellness facilities are typically considered a premium amenity in the hotel industry. This uneven distribution could impact our model stability since it might be affected by having fewer data points with wellness activities across different distances from ski lifts. However, since this distribution reflects the actual market conditions, our findings will still provide valuable insights into the real-world relationship between these variables.

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	219.7	5.98	36.74	<2e-16 ***
DistanceSkiLift_KM	(9.2)	3.99	(2.3)	0.022 *

Table 3.

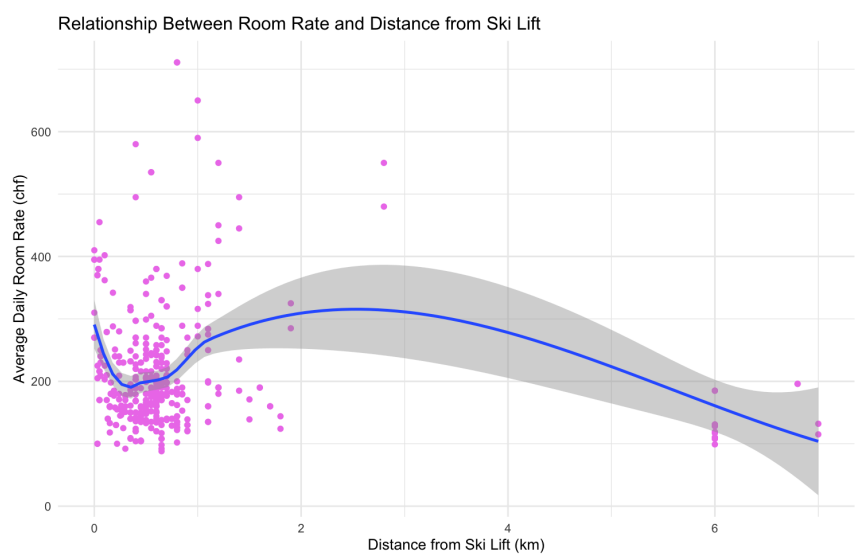


Figure 7.

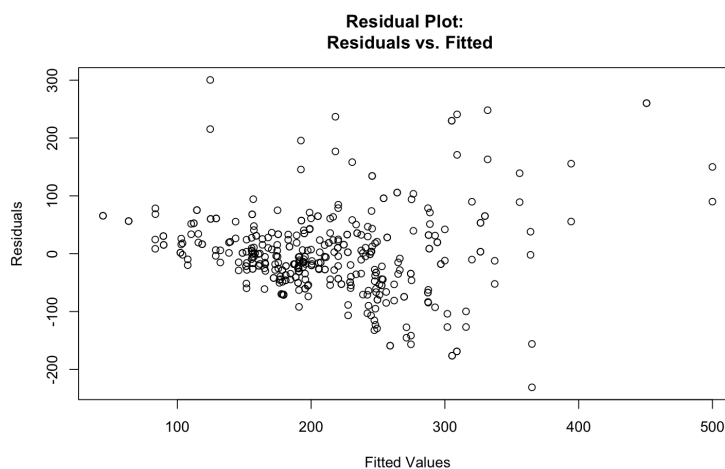
This analysis shows several important insights about the relationship between average daily room rates and distance from ski lifts. The scatter plot (Figure 7) demonstrates a clear non-linear pattern, as shown by the smoothed blue line with its confidence interval. Room rates exhibit distinct behavior across different distance ranges: initially high values for properties closest to

ski lifts (0-0.5km), followed by a sharp decline, then a gradual increase between 1-4 km, and finally another decline beyond 4km. This non-linear relationship suggests that our initial linear model, which showed a significant negative coefficient (-9.192), may be too simplistic to capture the true relationship. The wide spread of points, particularly evident for properties near the ski lifts, indicates potential heteroscedasticity, with more price variation for properties closer to lifts. The very low R-squared value (0.01358) from our linear regression suggests that distance alone explains only about 1% of the variation in room rates, indicating the need for a more complex model that might include control variables.

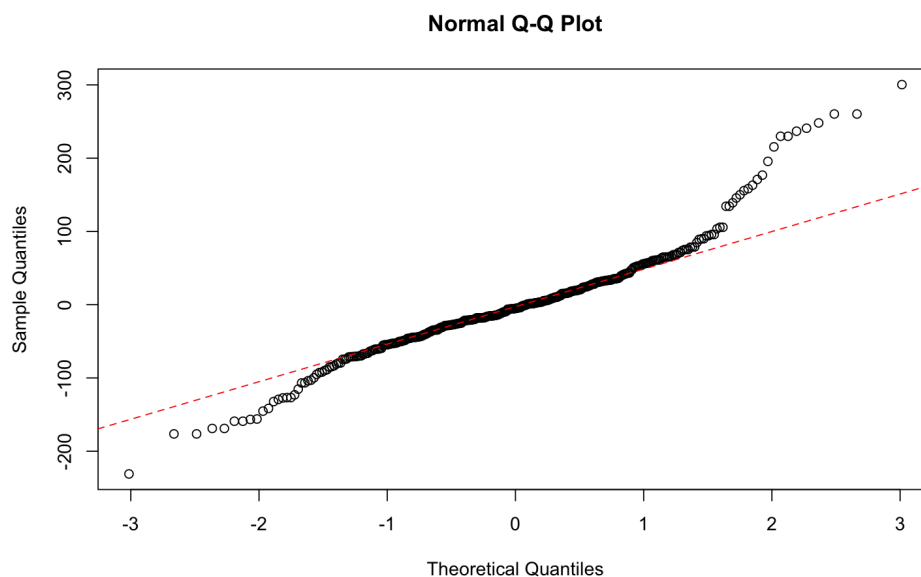
V. HYPOTHESES TEST RESULTS

In this section, we analyze the relationship between the average daily room rate and the distance from the ski lift using regression diagnostics and hypothesis testing. The goal is to evaluate whether the assumptions of linear regression are met, identify any potential violations, and address them if necessary. We also interpret the regression results, examining the significance, direction, and magnitude of the relationship, as well as the overall fit of the model. These analyses will provide valuable insights to our hypothesis.

Regression Diagnostics



The residual plot reveals several concerning patterns that violate key regression assumptions. The plot shows residuals against fitted values ranging from 100 to 500, with residuals from approximately -200 to 300. There is a clear non-random structure, with a dense concentration of points around fitted values of 200-250. The spread of residuals is notably uneven, showing a fan-shaped pattern that widens as fitted values increase, particularly evident in the range of 200-300. This heteroscedastic pattern suggests that our model's predictive accuracy varies with the price level, despite our attempts to improve the specification through adding controls variables. The presence of several extreme residuals at both ends of the fitted values range indicates that there might still be important nonlinear relationships or interactions that we haven't captured.



The Q-Q plot demonstrates substantial violations of the normality assumption. While the middle portion of the residuals (between -1 and 1 theoretical quantiles) follows the reference line quite well, suggesting reasonable normality for moderate price levels, both tails show significant shifts. The upper tail shows a dramatic upward curve away from the Q-Q line, with points

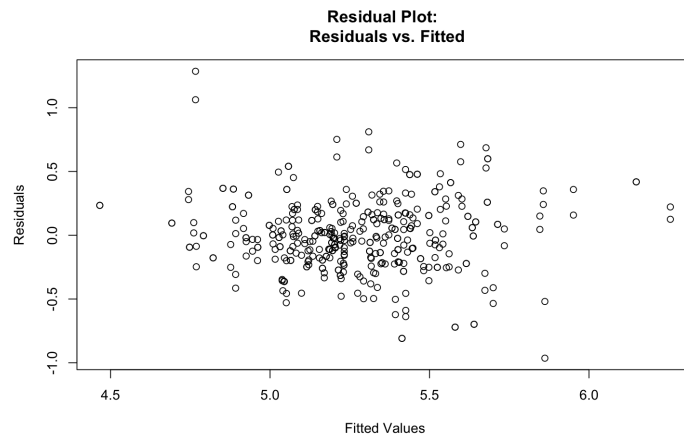
deviating substantially above the reference line beyond the 1.5 theoretical quantile. The lower tail shows a similar but less severe deviation below the line around -2 theoretical quantiles. This pattern indicates that our residuals follow a distribution with heavier tails than normal, even after controlling for room size, booking rating, wellness activities, and location. The non-normality suggests that there might be other underlying factors or complex interactions affecting room prices that our current model specification doesn't capture, particularly for hotels with extremely high or low prices relative to their characteristics.

	GVIF	Df	$GVIF^{1/(2 \cdot Df)}$
DistanceSkiLift_KM	1.31	1	1.145
RoomSize	1.07	1	1.035
BookingComRating	1.236	1	1.112
WellnessActivities	1.17	1	1.08
Location	1.45	4	1.05

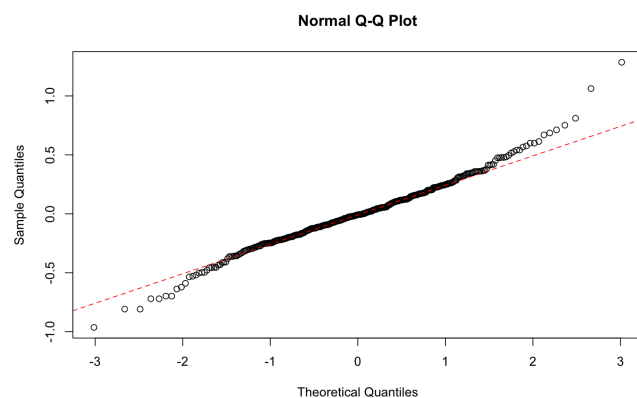
Table 4.

The multicollinearity test results using Generalized Variance Inflation Factors (GVIF) demonstrate that our model is free from multicollinearity concerns. All GVIF values and their adjusted versions ($GVIF^{1/(2 \cdot Df)}$) are well below 2, indicating minimal correlation between our predictor variables. These low values suggest that each variable contributes unique information to the model, and our coefficient estimates are not distorted by interdependencies between the explanatory variables. This confirms that our model specification provides reliable estimates for interpretation.

Transformation



To address issues in our initial model, we implemented a log transformation of the dependent variable (Average Daily Rate). This transformation dramatically improved our model's diagnostic plots. The residual plot now shows a much more controlled range of residuals, compressed between -1 and +1.5, with fitted values ranging from 4.5 to 6.0. The fan-shaped pattern has been substantially reduced, and the spread of residuals appears more uniform across all fitted values. This improvement suggests that the transformed model better meets the assumption of homoscedasticity.



The Q-Q plot of the transformed model also shows marked improvement in meeting the normality assumption. The middle range of the distribution now follows the theoretical line quite

closely, though there are still some minor deviations in the tails. These remaining deviations are much less severe than in the original model, where the points showed dramatic departures from the line. The overall pattern suggests that while perfect normality hasn't been achieved, the log transformation has substantially improved the distribution of our residuals.

These improvements in both the residual plot and Q-Q plot indicate that our transformed model provides a more reliable basis for statistical inference. The log transformation has effectively addressed the main violations of regression assumptions, making our coefficient estimates more trustworthy and our model more suitable for analyzing the relationship between hotel prices and their determinants. The more stable and uniform pattern of residuals suggests that our model is now better specified for capturing the underlying relationships in our data.

Results

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	2.6	0.266	9.76	< 2e-16 ***
DistanceSkiLift_KM	(0.04)	0.013	(2.8)	0.0056 **
RoomSize	0.02	0.002	9.4	< 2e-16 ***
BookingComRating	0.276	0.03	8.83	< 2e-16 ***
WellnessActivities	0.23	0.053	4.4	1.66e-05 ***
LocationSaasFee	(0.31)	0.054	(5.8)	1.45e-08 ***
LocationSatellite	(0.16)	0.06	(2.78)	0.006 **
LocationVerbier	(0.145)	0.067	(2.16)	0.03 *
LocationZermatt	(0.135)	0.048	(2.8)	0.0054 **

Multiple R-squared: 0.4681, Adjusted R-squared: 0.4568

Table 5.

The regression results provide insights into the factors influencing average daily room rates (ADR), with ADR being log-transformed.

For **DistanceSkiLift_KM**, the coefficient of -0.037 corresponds to a 3.6% decrease. In the context of ski resorts, where proximity to ski lifts is a key selling point, this reduction in ADR underscores the importance of location for guests seeking convenience and accessibility. A hotel located 2 km farther from the ski lift compared to a competitor could see an approximately 7.2% lower ADR, which could significantly impact revenue during peak seasons.

The impact of **RoomSize** (coefficient = 0.018) is relatively smaller but still meaningful. Each additional square meter of room size increases the ADR by approximately 1.8%. This suggests that larger rooms, often associated with greater comfort and luxury, can command slightly higher prices. For example, a 10 square meter increase in room size corresponds to an approximate 18.8% increase in ADR, reflecting the value that guests place on spacious accommodations, particularly in high-end markets.

BookingComRating has a coefficient of 0.276, indicating that each additional point in the rating increases ADR by 31.8%. This substantial effect highlights the importance of guest satisfaction and reviews in determining room pricing. A hotel improving its rating from 8.0 to 9.0 could expect a nearly one-third increase in ADR, showcasing the competitive advantage of maintaining excellent customer service and experiences.

WellnessActivities has a coefficient of 0.230, meaning that hotels offering wellness facilities see their ADR increased by 25.9%, compared to those without such amenities. This large effect reflects the growing demand for wellness-oriented travel and the premium that guests are willing

to pay for these features. For hotels, adding wellness facilities represents a significant opportunity to differentiate and increase pricing power.

The location variables reveal substantial differences in ADR depending on the region. For instance, the coefficient for **LocationSaasFee** (-0.314) implies that hotels in Saas Fee have an ADR that is 26.9% lower, compared to the **Crans Montana** location. Similarly,

LocationZermatt (-0.135) corresponds to a 12.6% lower ADR. These differences suggest that regional demand, reputation, and competition significantly influence room pricing. Zermatt's smaller reduction compared to Saas Fee likely reflects its prominence as a world-renowned ski destination, allowing hotels to maintain relatively higher rates.

Statistically, all coefficients are significant at the 0.05 level, with most being highly significant at the 0.01 level. This supports the reliability of the estimates and their importance in explaining ADR variability. The model's F-statistic of 41.69 ($p < 0.001$) confirms that the independent variables collectively have a significant impact on ADR. The adjusted R^2 value of 0.4568 indicates that 45.7% of the variation in log-transformed ADR is explained by the model. While this reflects a moderate fit, it also suggests that other factors not included in the analysis - such as marketing efforts, seasonal promotions, or macroeconomic conditions - could further explain variations in ADR.

Overall, the results emphasize the importance of guest ratings, wellness amenities, room size, and location in determining room rates, while proximity to ski lifts remains an important factor for attracting customers. These insights provide actionable recommendations for hotel managers looking to optimize pricing strategies and invest in features that maximize revenue.

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	2.58	0.27	9.6	< 2e-16 ***
RoomSize	0.018	0.002	9.4	< 2e-16 ***
BookingComRating	0.277	0.03	8.83	< 2e-16 ***
WellnessActivities	0.23	0.053	4.36	1.70e-05 ***
LocationSaasFee	(0.31)	0.054	(5.8)	1.51e-08 ***
LocationSatellite	(0.157)	0.057	(2.74)	0.006 **
LocationVerbier	(0.145)	0.067	(2.15)	0.032 *
LocationZermatt	(0.134)	0.05	(2.76)	0.006 **
DistanceSkiLift_KM:CityCenter	(0.022)	0.05	(0.46)	0.65

Multiple R-squared: 0.4684, Adjusted R-squared: 0.4557

Table 6.

The interaction term **DistanceSkiLift_KM:CityCenter** provides insight into how the effect of distance from the ski lift on average daily room rates (ADR) varies based on hotel location. The coefficient of -0.035 indicates that for city-center hotels, each additional kilometer away from the ski lift decreases ADR by approximately 3.4%. This suggests that proximity to ski lifts is more critical for city-center hotels in maintaining higher room rates compared to non-city-center hotels, where the decline in ADR with distance may not be as pronounced. This relationship is statistically insignificant, with the p value 0.65. This means that we do not have sufficient evidence to conclude that the effect of distance from the ski lift on ADR significantly differs between city-center and non-city-center hotels. As a result, the interaction term may not

meaningfully contribute to the model's explanatory power, and its practical importance should be interpreted with caution.

The effect size of the interaction term, while moderate in absolute terms (-3.4% per kilometer), becomes substantively meaningful in the context of city-center hotels, where accessibility and convenience are highly valued by guests. For example, a hotel located 2 km farther from a ski lift in a city-center area would experience a cumulative ADR decrease of approximately 6.8% , which could significantly impact revenue, especially during peak seasons. This highlights the importance of proximity to ski lifts as a key pricing factor in city-center markets.

In addition to the interaction term, the coefficients for other variables remain consistent with expectations. Variables such as **RoomSize (0.018)**, **BookingComRating (0.278)**, and **WellnessActivities (0.230)** continue to have significant and substantive effects on ADR, with p-values below the 0.01 level. For example, the ADR is expected to increase by approximately 31.8% for each additional point in Booking.com rating and by 25.9% for hotels offering wellness activities. Location variables also show statistically significant effects, indicating meaningful ADR differences across regions, with Saas Fee exhibiting the largest decrease in ADR relative to the reference location - Crans Montana. (-31.3%)

The overall model remains statistically significant, with an F-statistic of 41.72 ($p < 0.001$), demonstrating that the independent variables collectively explain a significant amount of variability in the log-transformed ADR. The adjusted R^2 of 0.457 indicates that 45.7% of the variation in log-transformed ADR is accounted for by the model. While this represents a moderate fit, it highlights the explanatory power of the included variables and the interaction term in understanding room pricing dynamics. The inclusion of the interaction term slightly

improves the model fit, emphasizing its relevance in capturing the varying impact of ski lift proximity based on hotel location.

VI. CONCLUSION

Conclusion

This study confirms that proximity to ski lifts is a significant determinant of ADR in Swiss ski resorts. Hotels closer to ski lifts command higher rates as guests prioritize convenience and accessibility. This finding aligns with existing research highlighting the value of location-specific attributes in pricing strategies.

Additionally, the relationship between ski lift proximity and ADR is influenced by whether the hotel is located in the city center. The interaction analysis shows that city-center hotels benefit differently from proximity compared to non-city-center hotels. While proximity remains a key factor for both, the strength of its impact varies based on the hotel's context, emphasizing the importance of tailored strategies for different locations.

Control variables such as room size, guest ratings, wellness facilities, and regional location also play crucial roles in explaining ADR variations. Larger rooms, higher guest ratings, and the availability of wellness amenities positively influence ADR by enhancing the overall guest experience and perceived value.

Limitations

While this study provides valuable insights, there are limitations to consider. First, the dataset is limited to Swiss ski resorts, which may not capture regional differences in other countries or

markets. Future research could expand to include data from other ski destinations, such as those in Austria or North America, to validate these findings. Additionally, the control variable we investigated the reviews from came from a single platform (Booking.com) and covered a limited time frame. Expanding the scope to other platforms like Airbnb, Tripadvisor, Kayak and etc could give a more complete picture.

Finally, the study does not account for external influences like weather, local economic conditions, or marketing efforts that might also impact ADR. Future studies could include these variables to provide a more nuanced analysis.

Practical Implications

The findings offer actionable recommendations for hotel managers. Hotels close to ski lifts should emphasize this proximity in marketing strategies to justify premium pricing. For city-center hotels, leveraging the combined appeal of urban amenities and slope access can enhance their competitive edge. Non-city-center hotels should focus on proximity to ski lifts as their primary differentiator and consider investing in features like shuttle services or wellness facilities to further increase ADR. By understanding the nuanced relationship between location, proximity, and ADR, hotels can develop more effective pricing and marketing strategies tailored to their specific contexts.

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