

How Employee Satisfaction Influences Guest Experiences in German Hotels

Insights from an Analysis of Employer Reviews and Hotel Guest Feedback Data

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Executive Summary: Context and data

Amidst the changing landscape of the hospitality industry, our report tries to offer valuable insights into the link between employee morale and guest satisfaction. There is a pressing concern in the hospitality industry today: a significant **shortage** of skilled professionals. This shortage, coupled with historically high turnover rates, poses significant challenges.

At the heart of the study is an exploration of the **relationship between a happy workforce and a satisfied customer base**.

In spring of 2023, we launched an **extensive data collection exercise for a large sample in the German hotel market**, sourcing information from Kununu, Booking.com, TripAdvisor and the German Hotel

Association (IHA). The **Kununu data on job satisfaction of employees** in German hotels was provided directly by the company (we received initially a data set for 436 hotel companies), while the **Booking.com and TripAdvisor datasets on customer ratings** of these same hotels were manually collected.

Basic **socio-demographic data** for the hotel was provided by the IHA, and where gaps existed, we supplemented this with details extracted from individual hotel websites.

It's worth noting, however, that some of the data collected from Kununu, Booking.com and TripAdvisor was found to be outdated, missing or unreliable. In order to maintain the rigour and reliability of our study, we decided to exclude 12% of establishments from our sample.

Executive Summary: Descriptive Analysis Results

Drawing on data sources such as Kununu for the **employee perspective** and global platforms such as Booking.com and TripAdvisor for the **customer perspective**, the study paints a comprehensive picture.

The average total kununu score of 3.6 (on a scale from 1 to 5) encapsulates mixed bag of employee perceptions. While there are clear strengths in aspects such team dynamics and interpersonal relations, there's a pressing need to address foundational aspects like salary and communication to elevate the overall employee experience.

The median ratings from Booking.com reveal that **guests are generally satisfied** with their experiences in the sampled German hotels. While the overall experience, represented by the **general rating of 8.2** (on a scale from 1 to 10), is positive, there's a slight

room for improvement in aspects like quality-price value. The close clustering of median scores for different other aspects around the 8 to 9 range indicates a consistent quality of service across these establishments.

TripAdvisor reviews for German hotels indicate a **generally positive guest experience**. The TripAdvisor ratings for hotels in our sample indicate a generally favorable guest experience, with a **mean score of 4.1** out of 5. German hotels of our sample are generally well-regarded, especially for their cleanliness, service, and location.

Executive Summary: Correlation Analysis Results for TripAdvisor

Although most of the identified relationships seem to be small, our findings indicate that there's a positive link between how employees rate their satisfaction on kununu and the reviews guests leave on TripAdvisor. Simply put: when employees are happy, guests are more likely to be pleased. Specifically, the overall rating of the hotel by employees and factors such as interesting work, favourable working conditions, environmental awareness of the hotel, training opportunities and the overall image of the hotel are positively correlated with guest reviews on TripAdvisor in areas such as overall rating, cleanliness and service quality.



kununu 

- Overall rating
- Interesting tasks
- Work conditions
- Environmental awareness
- Equality
- Continuous education
- Image

**Pearson
correlations
> 0,2**



Tripadvisor

- TripAdvisor Overall Rating
- Cleanliness
- Service quality



Executive Summary: Correlation Analysis Results for Booking (I)

The correlation analysis suggests that across various dimensions of employee ratings on Kununu, there's a significant and positive relationship with guest perceptions of the staff, as reflected in Booking.com reviews.

kununu

- Overall rating
- Work atmosphere
- Cohesion among colleagues
- Interesting tasks
- Work conditions
- Environmental awareness
- Equality
- Treatment of older colleagues
- Continuous education
- Social benefits

**Pearson
correlations
> 0,2**

**BOOKING
HOLDINGS**

- Staff (quality)



Executive Summary: Correlation Analysis Results for Booking (II)

The 'image' dimension perceived by employees on Kununu shows a **positive** relationship with several guest rating dimensions on Booking.com, including overall rating, staff, comfort, service quality and cleanliness. This alignment is not only evident in our exploratory findings, but it is also supported by academic research. Such research suggests that **perceived employer brand plays** a key role in increasing employee satisfaction. In turn, this increased employee satisfaction has a positive impact on the customer experience.



kununu

- Image

**Pearson
correlations
> 0,2**

**BOOKING
HOLDINGS**

- Overall grade
- Staff
- Confort
- Service quality
- Cleanliness



Executive Summary: Implications

The conclusions are clear: a **happy workforce is significantly related to a positive guest experience**. The research also dispels the notion that investing in employee satisfaction may not bring tangible benefits. In fact, the wider scientific evidence suggests that such investment leads to increased customer loyalty, improved profitability and a competitive edge in the marketplace.

The implications for the hospitality industry are many:

- **Prioritising employee well-being and job satisfaction** is not only an ethical imperative, but also a business imperative.
- **Training programmes, growth opportunities and a supportive work culture** can have a direct

impact on the guest experience.

- The findings serve as a clarion call for the industry to **re-evaluate its HR policies and align them not only with employee expectations**, but also with broader business objectives.

In essence, this report highlights the symbiotic relationship between employee satisfaction and guest satisfaction. It serves as a roadmap for hospitality companies, highlighting the intertwined nature of internal HR practices and external customer perceptions.

Visual Summary



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1. Context

The hospitality industry is facing a **severe shortage of skilled staff**, which has a direct impact on customer satisfaction. While the sector has historically been characterized by high staff turnover, today's scenario presents a more acute challenge.

The **purpose of this study is to highlight the possible link between employee satisfaction and customer satisfaction**. Numerous studies confirm this positive correlation. In service-driven sectors such as hospitality, employee satisfaction is paramount. A conducive work environment fosters employee loyalty and superior service, which should translate into customer appreciation, loyalty and, indirectly, increased profitability.

Despite significant investment in ensuring employee and customer satisfaction, doubts remain about the direct benefits. Achieving customer satisfaction in hospitality and tourism isn't enough to ensure business success. Organizations need to outperform the competition by delivering satisfying experiences for both their employees and customers. This research explores the complex dynamics between employee satisfaction and customer satisfaction.

Context: Evaluation platforms

Kununu is an employer review platform that merged with the Xing business platform. Catering primarily to employees from Germany, Austria, and Switzerland, Kununu offers a confidential space for them to assess and share insights about their workplace conditions. This not only empowers employees with a voice but also serves as a potent tool for companies to enhance their employer branding, drawing attention to their strengths and areas for improvement.

Booking Holdings is the world's leading provider of online travel and related services, including hotel reservations. It owns and operates a number of popular travel websites, including Booking.com, Priceline, Kayak, and Agoda. Hotel reviews play an important role on Booking Holdings' websites. Travelers can read and write reviews of hotels they have stayed at, and these reviews can be used to inform other travelers' booking decisions.



TripAdvisor is a platform that provides travel reviews and recommendations. Users can find reviews of hotels, restaurants, tourist attractions and other travel-related aspects. TripAdvisor collects reviews and ratings from travelers around the world.

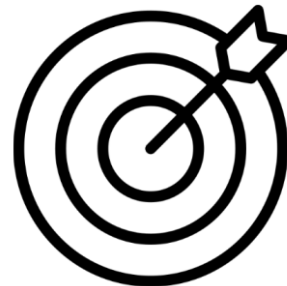
2. Research objectives

This research is anchored in the **hypothesis that there exists a strong correlation between employee satisfaction and customer satisfaction** in the accommodation industry.

The primary aim of this study is to **investigate the relationship between employee satisfaction and customer satisfaction** in depth, considering key factors such as service quality and various indicators of employee satisfaction.

The underlying premise is that employee and customer satisfaction are profoundly linked, and that a **satisfied workforce can significantly contribute to positive customer experiences**.

Through this research, we aim to gain insights that can be used to improve various aspects of company performance.



3. Methodology

In **spring of 2023**, we launched an extensive data collection exercise for the **German hotel market**, sourcing information from Kununu, Booking.com, TripAdvisor and the German Hotel Association (IHA):

- The **Kununu data on job satisfaction of employees** in German hotels was provided directly by the company (we received initially a data set for 436 hotel companies, details are provided in the following slides), while the **Booking.com and TripAdvisor datasets on customer ratings of these same hotels** were manually collected.
- Basic socio-demographic data for the hotel was provided by the IHA, and where gaps existed, we supplemented this with details extracted from individual hotel websites.

To maintain the standards of data integrity and reliability, we implemented **quality checks**. During our preliminary analysis, we identified and corrected any discrepancies, such as inconsistent or missing entries.

Given the manual nature of data collection from Booking.com, TripAdvisor and hotel websites, we placed a high priority on ensuring data consistency and reliability. We conducted multiple rounds of validation to ensure the accuracy of each data point.

It's worth noting, however, that some of the data collected from Kununu, Booking.com and TripAdvisor was found to be outdated, missing or unreliable. In order to maintain the rigour and reliability of our study, we decided to exclude 12% of establishments from our sample.

3. Methodology: kununu data

Approach: Kununu collects data from employee reviews that are submitted to its website. The reviews are verified to ensure that they are from real employees. Kununu also uses algorithms to identify and remove fake reviews. Kununu uses a 5-star scale to rate employers. The scale is as follows:

Data used: Kununu has over 9 million reviews of employers from all over the world. The reviews cover a variety of topics, including company culture, working conditions, salaries, and career opportunities.

Value added: Kununu provides valuable insights into the employee experience at different companies. This information can be used by job seekers to make informed decisions about where to work, and by employers to improve their workplace culture and employee satisfaction.

Limits: Kununu is a self-selection platform, so the reviews may not be representative of all employees at a given company. Additionally, the reviews may be biased towards employees who have had either very positive or very negative experiences.

3. Methodology: kununu data - variables

- **Average Tol Score:** Overall score given by employees.
- **Work Atmosphere:** Employee rating on the work environment.
- **Supervisor Behavior:** Feedback on the behavior of superiors.
- **Colleague Cohesion:** Rating on teamwork and camaraderie among colleagues.
- **Interesting task:** Feedback on the variety and interest level of tasks.
- **Communication:** Rating on internal communication within the company.
- **Working Conditions:** Feedback on the conditions and environment of work.
- **Environmental / Social Awareness:** Rating on the company's commitment to environmental and social issues.
- **Work-Life Balance:** Feedback on the balance between professional and personal life.
- **Equality:** Rating on equal treatment and opportunities within the company.
- **Treatment of Older Colleagues:** Feedback on interactions with and treatment of senior colleagues.
- **Career / Further Training:** Opportunities for career growth and continuous learning.
- **Salary / Social Benefits:** Feedback on compensation and additional benefits.
- **Image:** Overall perception or reputation of the company among employees.

3. Methodology: Booking and TripAdvisor review data

Approach: Booking.com and TripAdvisor collect data from traveler reviews that are submitted to their websites. The reviews are verified to ensure that they are from real guests who have actually stayed at the hotel or used the service being reviewed. Booking.com and TripAdvisor also use algorithms to identify and remove fake reviews.

Data used: Booking.com has over 240 million reviews of hotels and other accommodations, while TripAdvisor has over 1 billion reviews of hotels, restaurants, and attractions. The reviews cover a variety of topics, including the quality of the accommodations, the cleanliness of the rooms, the friendliness of the staff, and the value for money.

Value added: Booking.com and TripAdvisor reviews provide valuable insights into the traveler experience at different hotels and other accommodations. This information can be used by travelers to make informed decisions about where to stay, and by hotel owners and managers to improve their properties and services.

Limits: Booking.com and TripAdvisor reviews are a self-selection platform, so the reviews may not be representative of all guests who stay at a given hotel or use a given service. Additionally, the reviews may be biased towards guests who have had either very positive or very negative experiences.

3. Methodology: Booking.com data

- variables

- **Overall Rating** : Represents the cumulative rating given by guests for the hotel on Booking.com.
- **Staff Rating** : Score specifically focused on the performance, hospitality, and service quality of the staff.
- **Comfort Rating** : Indicates the comfort level of the rooms and amenities provided by the hotel.
- **Wi-Fi Rating** : Dedicated to the quality, speed, and reliability of the hotel's Wi-Fi service.
- **Equipment Rating** : Reflects the adequacy and functionality of the equipment and facilities available in the hotel.
- **Value-for-Money Rating** : Represents guests' perception of the worthiness of their stay relative to the price they paid.
- **Cleanliness Rating** : Signifies the cleanliness and hygiene standards maintained by the hotel.
- **Location Rating** : Indicates the hotel's location convenience, accessibility, and proximity to key attractions or transport hubs.
- **Sustainability Rating** : Reflects the hotel's commitment to sustainable and eco-friendly practices.
- **Tot Reviews** : The aggregate number of reviews or feedback entries submitted by guests on Booking.com for the hotel.

3. Methodology: TripAdvisor data

- **Overall Rating** : Represents the cumulative rating given by travelers for the hotel on TripAdvisor.
- **Location Rating** : Score indicating the hotel's location convenience, accessibility, and proximity to key attractions or transport hubs.
- **Cleanliness Rating** : Signifies the cleanliness and hygiene standards maintained by the hotel.
- **Service Rating** : Score specifically focused on the performance, hospitality, and service quality of the staff.
- **Value Rating** : Represents travelers' perception of the worthiness of their stay relative to the price they paid.
- **Traveller Choice Awards** : Indicates any "Traveller Choice" awards the hotel has received on TripAdvisor, which are given to accommodations, attractions, and restaurants that consistently earn great reviews from travelers.
- **EcoLeaders Award** : Reflects any "EcoLeaders" awards the hotel has received on TripAdvisor, which recognize eco-friendly hotels that are committed to green practices.
- **Total Reviews** : The aggregate number of reviews or feedback entries submitted by travelers on TripAdvisor for the hotel.

3. Methodology: Hotel Socio-Demographics

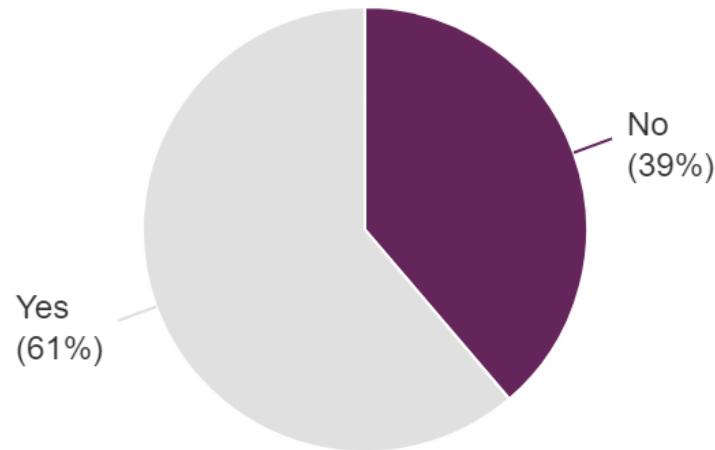
- **Company Name:** Name of the hotel or hotel chain.
- **Hotel Type:** Specifies if the hotel operates independently (Individual) or is part of a larger brand (Branded Hospitality).
- **Number of hotels** under of a larger brand.
- **Company City:** City where the hotel or hotel chain is based.
- **Category:** Sr rating of the hotel.
- **Number of Rooms:** Tol rooms available in the hotel.
- **Eco-label:** Indicates if the hotel has an eco-label certification.

4. Sample: Type of hotels

Hotel chain

Effective responses: 405

Response rate: 100%



Upon analyzing the entire sample of establishments, we found that a noble 61% are affiliated with hotel chains like Martim, Linder, or Dorint.

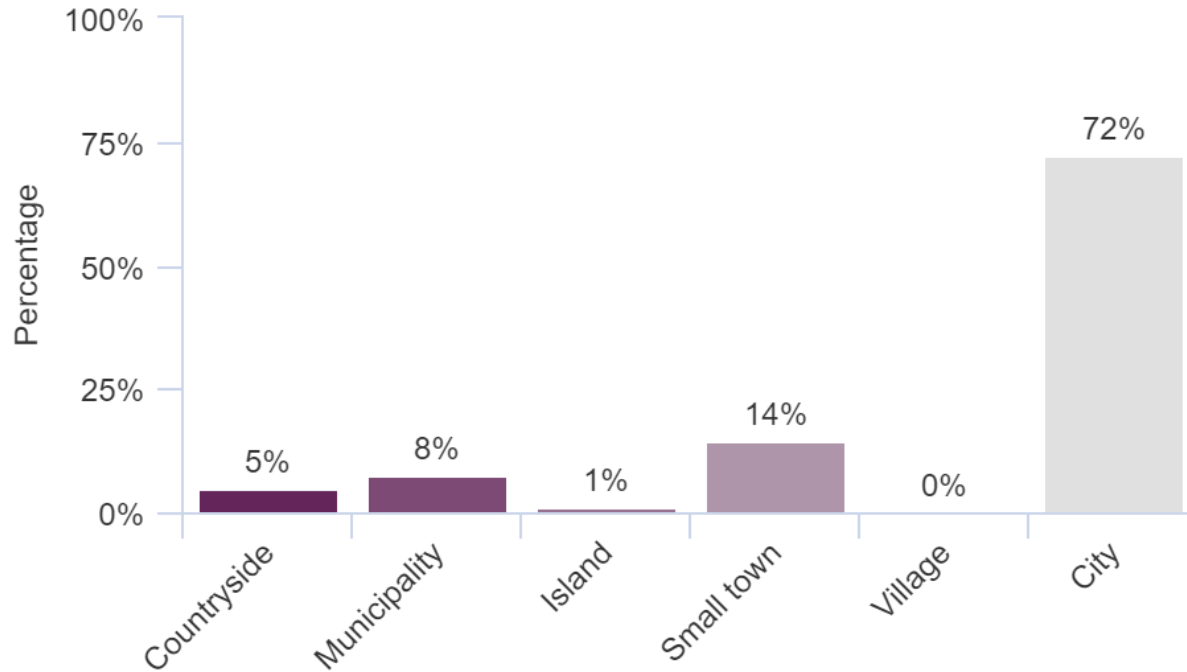
According to the German Hotel Association, approximately 57% of hotels in Germany are affiliated with hotel chains. This means that the percentage of hotels in your sample (61%) that are affiliated with hotel chains is slightly higher than the national average.

4. Sample: Geographic location

Region

Effective responses: 405

Response rate: 100%



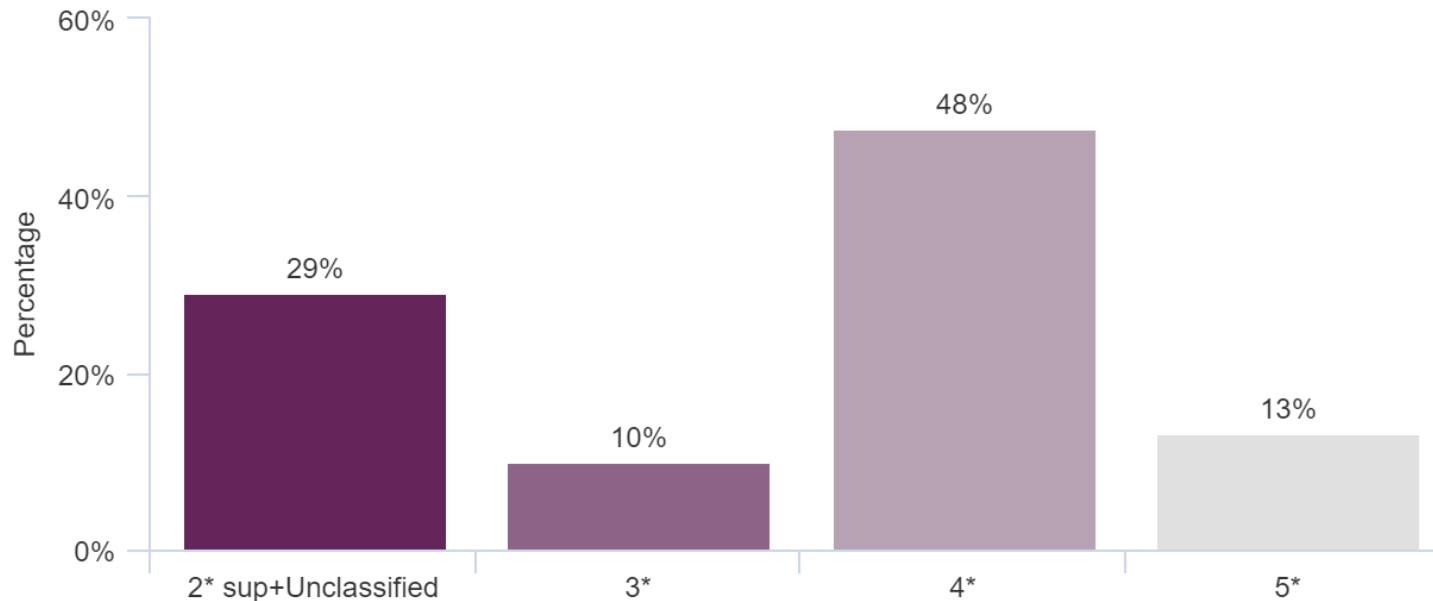
In our sample, a significant 72% of the hotels are situated in prominent German cities like Berlin, Frankfurt, and Hamburg. The remaining 28% are spread across the countryside, nestled in quaint towns or positioned along the scenic North Sea coast.

4. Sample: Star rating

Simple categories

Effective responses: 398

Response rate: 98%



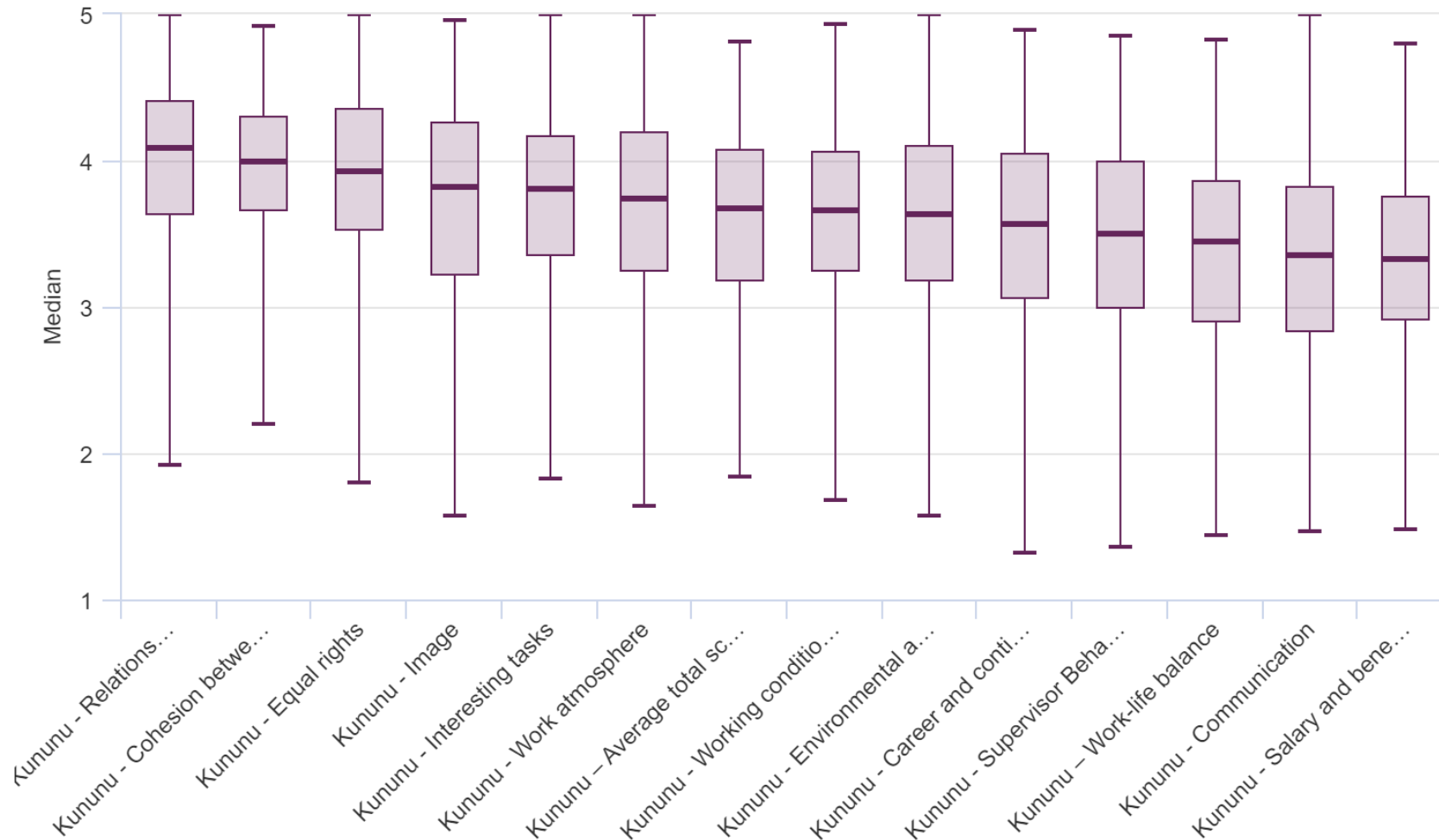
In our sample of German hotels, there's a noticeable distribution in ratings. Approximately 50% of the hotels in our sample are categorized as four-star establishments. Just over 20% are either rated as three-star or five-star. The remaining third comprises hotels that are either of a lower standard or lack an official classification. It's important to highlight that this distribution might not represent the entire hotel industry in Germany. The observed bias could be due to the fact that four-star hotels in our sample have used Kununu more intensively than other categories.

5. Analysis of kununu data

kununu

Let's make work better.

5. Analysis of kununu data: all scores (median, quartiles)



5. Analysis of kununu data: all scores (median)



5. Analysis of kununu data

At the higher end, with scores around 4.0, we see aspects like relations with colleagues and cohesion between colleagues. This suggests that interactions and overall team dynamics are strong suits for these companies. Such positive interpersonal relations often contribute to a harmonious work environment.

In the mid-range, around 3.7 to 3.8, factors like interesting tasks, work atmosphere, and the company's image emerge. While these scores are positive, they hint at potential variability in job roles and suggest that while the overall environment is constructive, there might be pockets of inconsistency.

However, as we move towards the lower end of the spectrum, scores dip to around 3.3 to 3.4, highlighting areas of concern. Communication and salary/benefits stand out here. These scores indicate potential gaps in internal communication strategies and suggest that compensation packages might not be meeting employee expectations or industry standards.

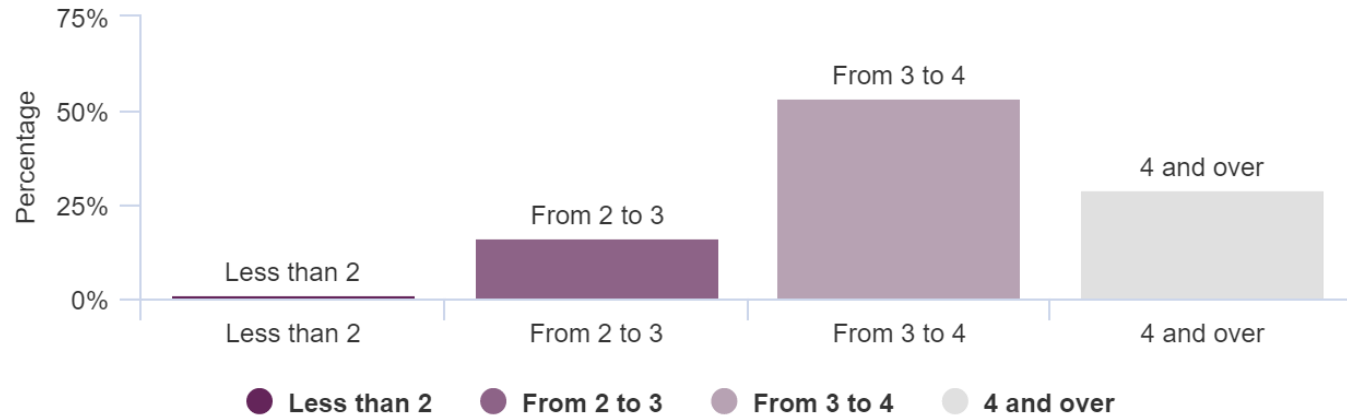
The average total score of 3.6 (3.7 median) encapsulates this mixed bag of perceptions. While there are clear strengths in team dynamics and interpersonal relations, there's a pressing need to address foundational aspects like compensation and communication to elevate the overall employee experience.

5. Analysis of kununu data: overall score

Kununu – Average total score

Effective responses: 406
Mean: 3.6
Median: 3.7
Min - Max: 1.8 - 4.8

Response rate: 100%
Lower quartile: 3.2
Upper quartile: 4.1



The Kununu data shows an average score of 3.6, indicating a generally positive sentiment. However, the median being slightly above the average suggests the influence of some exceptionally positive reviews. The bottom quartile (Q1) is at 3.2, meaning 25% of reviews are below this mark, while the top quartile (Q3) is at 4.1, with 25% of reviews exceeding this score. This distribution highlights two distinct groups: one less satisfied and another particularly pleased, warranting a closer look into the reasons behind these ratings.

5. Analysis of kununu data : Work atmosphere

Kununu - Work atmosphere

Effective responses: 406

Mean: 3.7

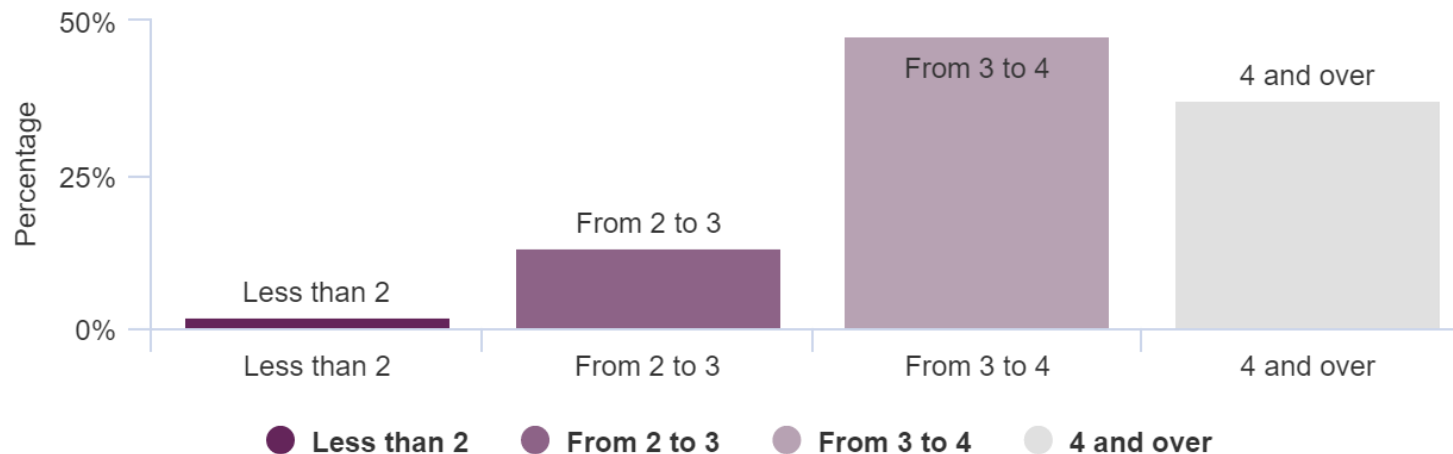
Median: 3.8

Min - Max: 1.6 - 5.0

Response rate: 100%

Lower quartile: 3.3

Upper quartile: 4.2



The "Work atmosphere" has an average score of 3.7, suggesting a generally favorable sentiment among respondents. However, the range of scores, from a low of 1.6 to a perfect 5.0, reveals diverse opinions. The quartile distribution, with 25% of respondents rating the atmosphere at 3.3 or below and another 25% rating it at 4.2 or above, highlights a polarization in perceptions. This suggests that while many employees find the work atmosphere satisfactory, there's a segment that feels otherwise, warranting further exploration into the factors influencing these ratings.

5. Analysis of kununu data : Supervisor behavior

Kununu - Supervisor Behavior

Effective responses: 406

Mean: 3.4

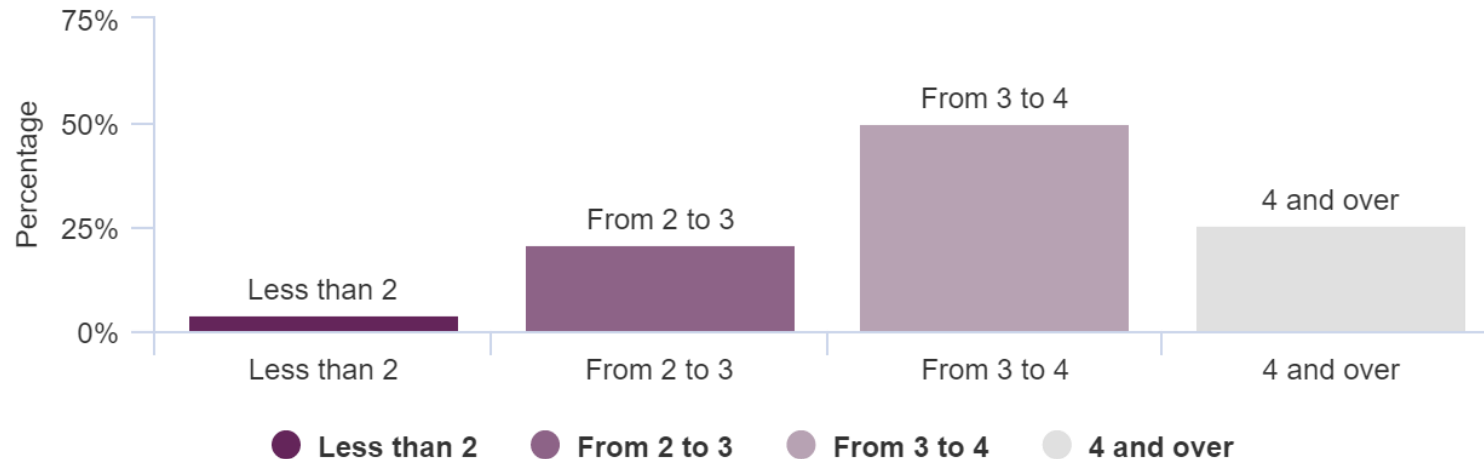
Median: 3.5

Min - Max: 1.4 - 4.9

Response rate: 100%

Lower quartile: 3.0

Upper quartile: 4.0



The median score for Supervisor behavior on Kununu is 3.5, indicating a balanced overall perception. However, with scores ranging from a low of 1.4 to a high of 4.9, there's a noticeable diversity in opinions. The bottom quartile (Q1) at 3.0 suggests that a quarter of the respondents have concerns or are dissatisfied with their supervisors, highlighting the variability in how supervisors' behavior is perceived across employees.

5. Analysis of kununu data : Cohesion within the company

Kununu - Supervisor Behavior

Effective responses: 406

Mean: 3.4

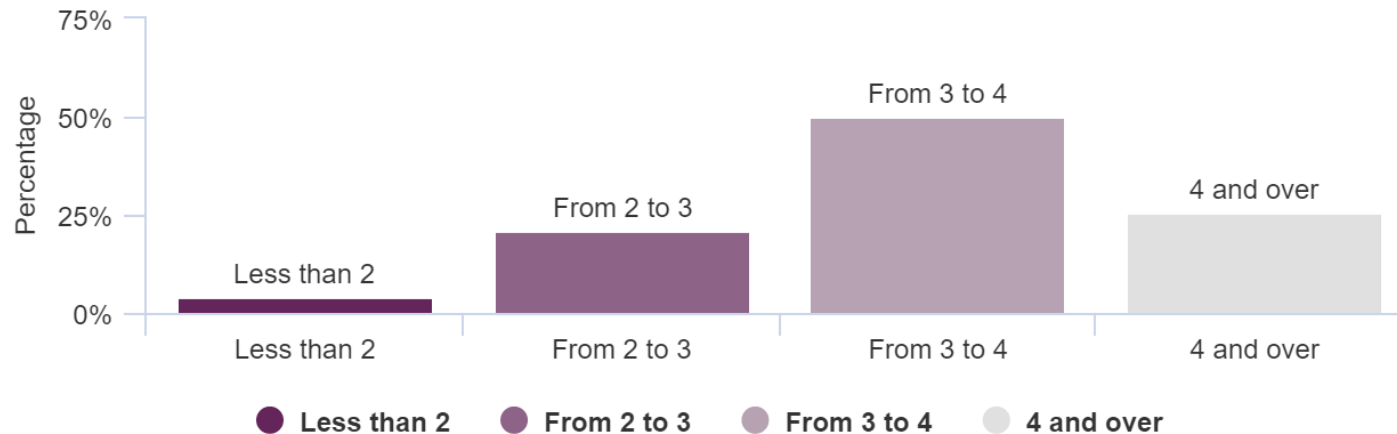
Median: 3.5

Min - Max: 1.4 - 4.9

Response rate: 100%

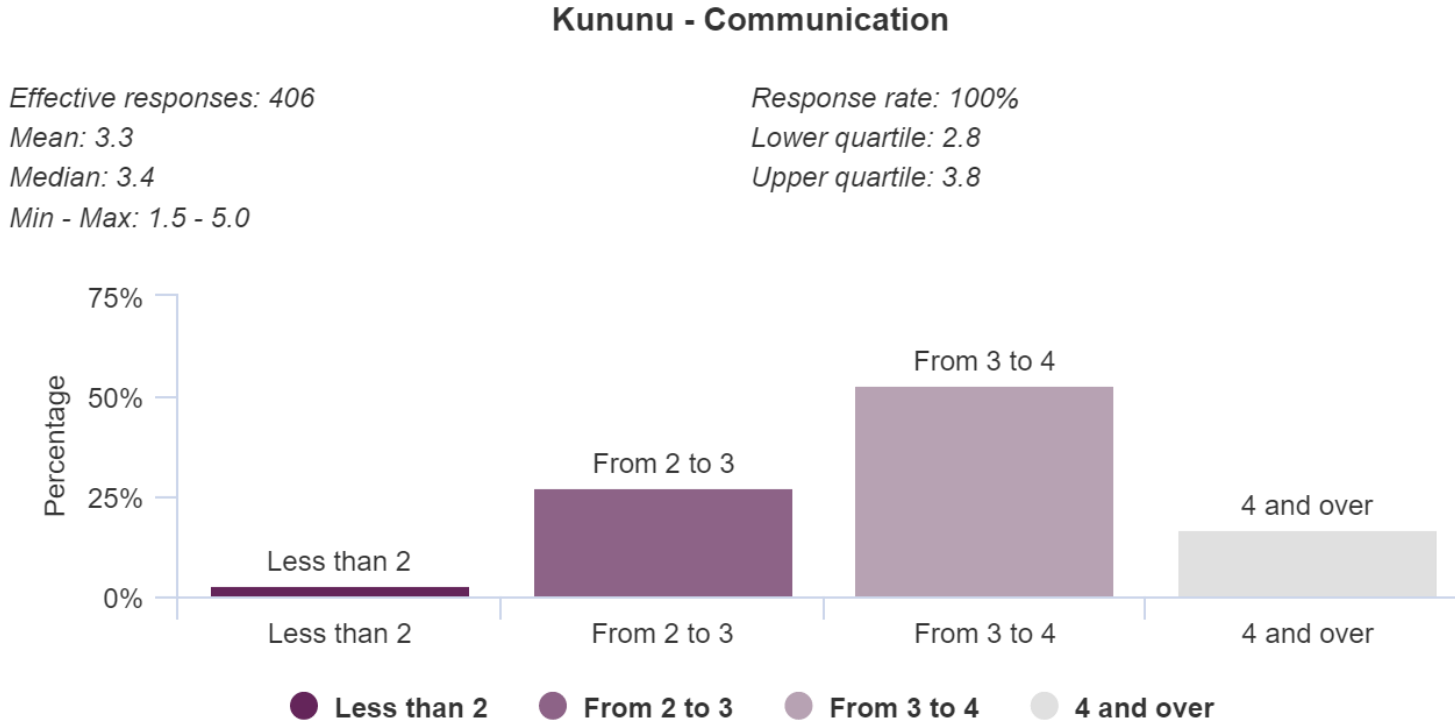
Lower quartile: 3.0

Upper quartile: 4.0



On Kununu, the average score for company cohesion is 3.9, suggesting overall positive sentiments. The scores range from 2.2 to 4.9, indicating varied perceptions among employees. With 25% rating cohesion at 3.7 or below and another 25% at 4.3 or above, it's evident that opinions on company cohesion are polarized, underscoring the need for a deeper understanding of the underlying factors.

5. Analysis of kununu data : Internal communication



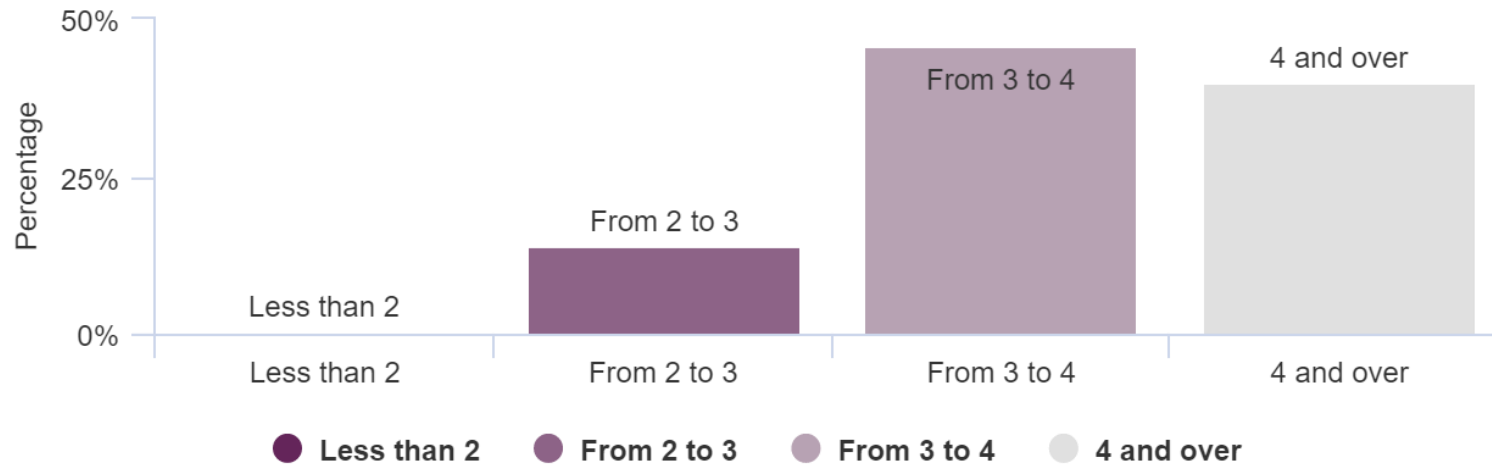
For "Communication" on Kununu, the average score is 3.3, which can be considered mediocre at best. This suggests that there are significant areas for improvement in communication practices within the organization. However, the broad score range from 1.5 to 5.0 highlights diverse employee experiences. The lower quartile score of 2.8 reveals that 25% of respondents have noble concerns about communication. In contrast, the upper quartile at 3.8 shows that there's a segment of employees who find communication satisfactory. This disparity, especially when juxtaposed against other metrics, emphasizes the importance of addressing communication challenges to enhance overall employee satisfaction.

5. Analysis of kununu data : Interesting tasks

Kununu - Interesting tasks

Effective responses: 406
Mean: 3.7
Median: 3.8
Min - Max: 1.8 - 5.0

Response rate: 100%
Lower quartile: 3.4
Upper quartile: 4.2



In the "Interesting ta" category on Kununu, the data suggests a generally positive sentiment regarding the variety and interest level of tasks within the organization. With an average score of 3.7 and a median of 3.8, it's evident that a majority of respondents find their tasks engaging. The range from 1.8 to 5.0, however, indicates a spectrum of experiences. While the lower quartile score of 3.4 suggests that 25% of respondents feel there's room for improvement in task variety and engagement, the upper quartile at 4.2 indicates that a significant portion of employees are quite satisfied with their tasks.

5. Analysis of kununu data : Working conditions

Kununu - Working conditions

Effective responses: 406

Mean: 3.6

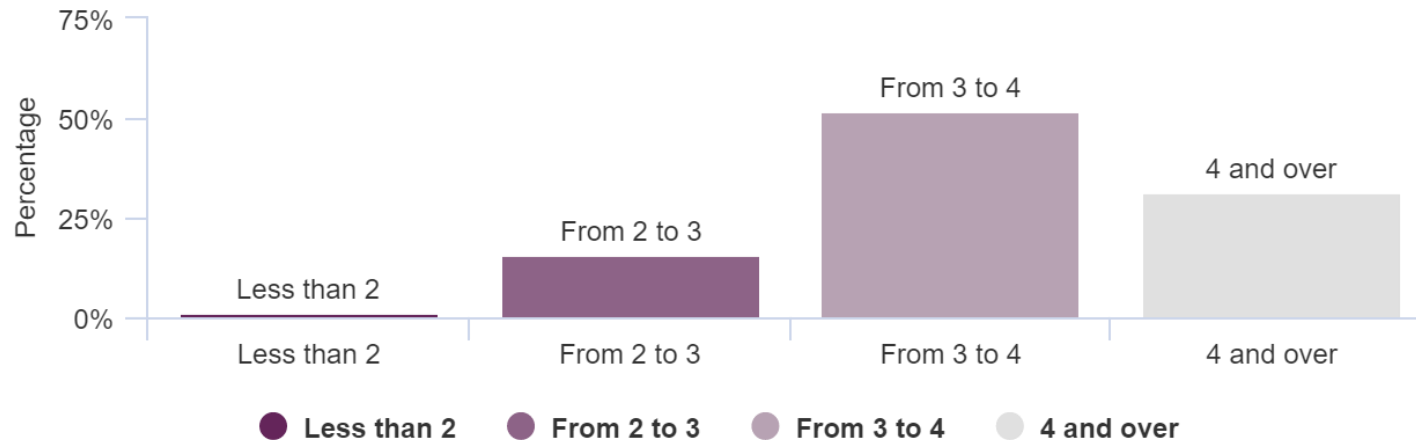
Median: 3.7

Min - Max: 1.7 - 4.9

Response rate: 100%

Lower quartile: 3.2

Upper quartile: 4.1



The Kununu data regarding working conditions in German establishments reveals a moderate level of satisfaction among employees. With a median rating of 3.7, it's evident that a majority of respondents find their working conditions to be slightly above average. However, the spread between the lower quartile (3.2) and the upper quartile (4.1) indicates a diversity in experiences. While many employees find their conditions satisfactory, a significant portion feels there's room for improvement. The broader range from 1.7 to 4.9 further underscores this variability. In essence, while many establishments provide decent working environments, there's a clear opportunity to address concerns and elevate the standard of working conditions across the board.

5. Analysis of kununu data : Environmental and social awareness

Kununu - Environmental and social awareness

Effective responses: 406

Mean: 3.6

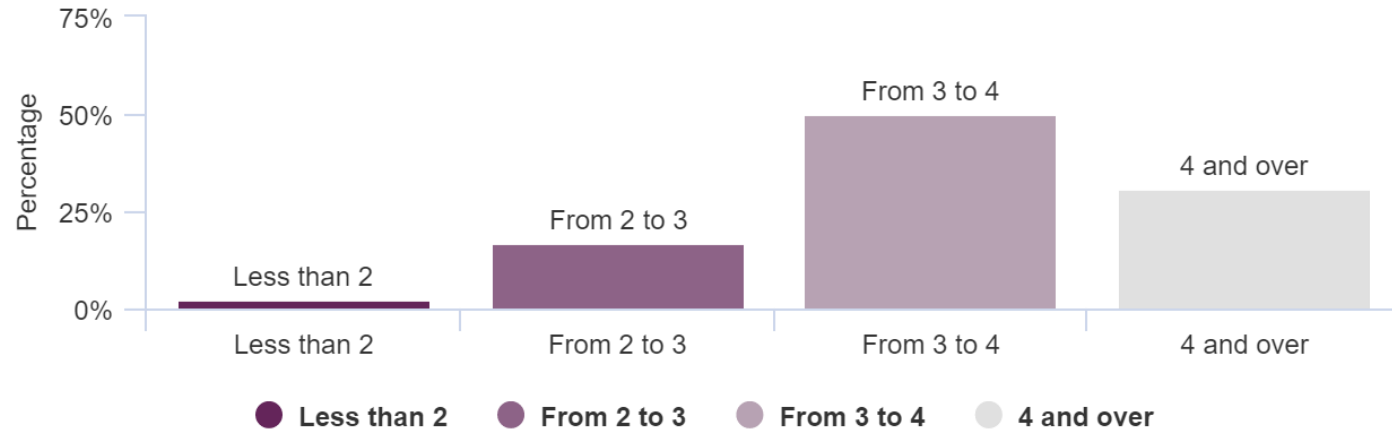
Median: 3.6

Min - Max: 1.6 - 5.0

Response rate: 100%

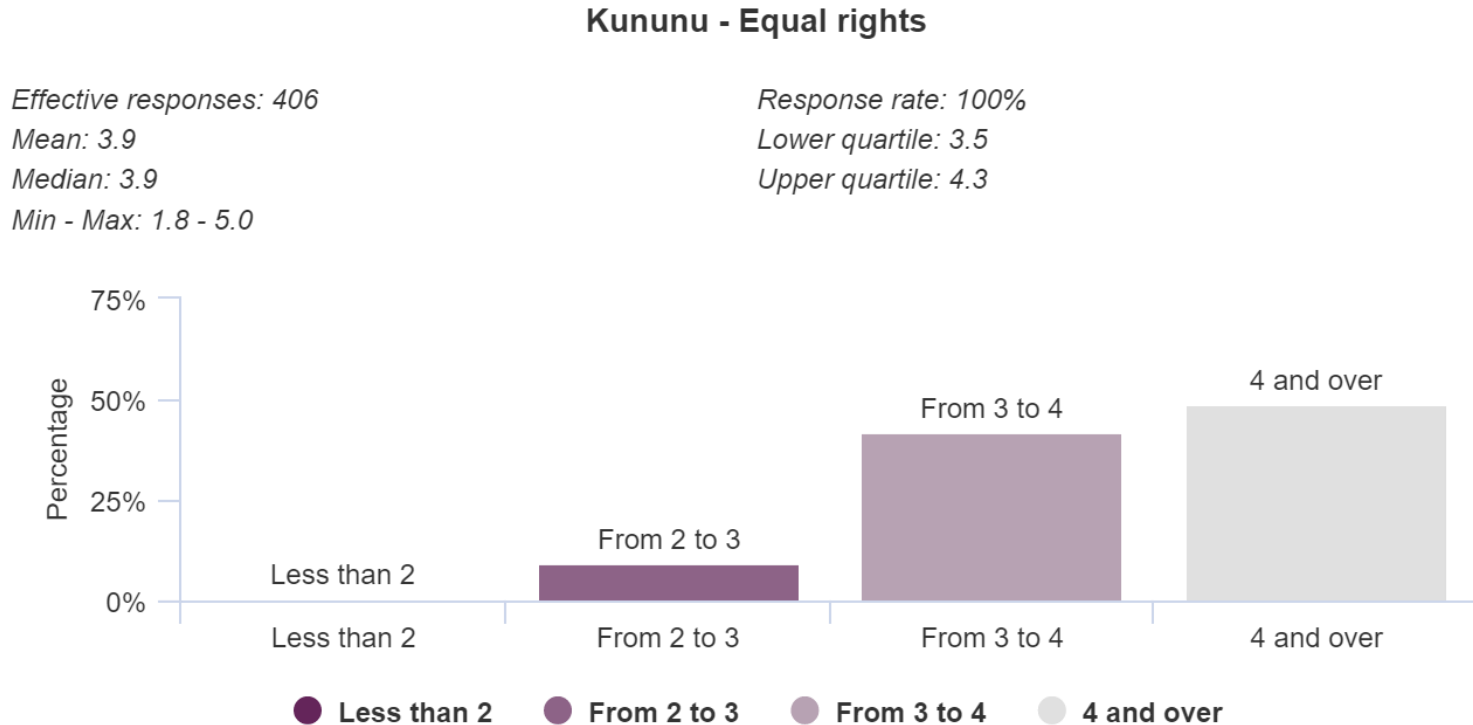
Lower quartile: 3.2

Upper quartile: 4.1



The Kununu data paints a picture of moderate commitment to environmental and social awareness within German establishments. With a median of 3.6, it suggests that organizations are making efforts in this domain, but there's significant room for enhancement. The range between the lower quartile (3.2) and the upper quartile (4.1) indicates varied experiences among employees. While some establishments are recognized for their proactive measures, others lag behind. The broader spectrum from 1.6 to 5.0 highlights this disparity.

5. Analysis of kununu data : Equal rights



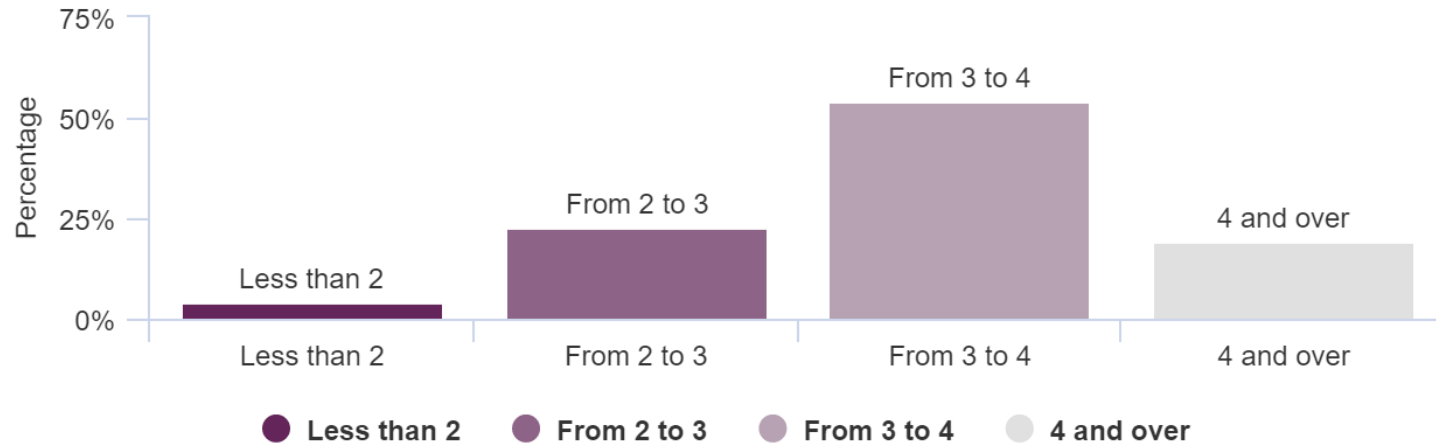
The feedback from Kununu indicates a generally favorable perception of equal rights within German establishments. With a median score of 3.9, it suggests that many organizations are making strides in promoting equality. However, the range between the lower quartile (3.5) and the upper quartile (4.3) highlights that experiences vary, with some employees feeling more positive about equal rights than others. The broader spectrum from 1.8 to 5.0 further accentuates this variation. In summary, while there's a commendable focus on equal rights in the industry, there's still room for improvement to ensure consistent experiences across the board.

5. Analysis of kununu data : Work-life balance

Kununu – Work-life balance

Effective responses: 406
Mean: 3.4
Median: 3.5
Min - Max: 1.4 - 4.8

Response rate: 100%
Lower quartile: 2.9
Upper quartile: 3.9



The data from Kununu reveals a middling sentiment towards work-life balance in German establishments. With a median score of 3.5, it's evident that while some organizations offer a balanced work environment, others have areas to improve. The spread between the lower quartile (2.9) and the upper quartile (3.9) underscores the varied experiences of employees. Some enjoy a harmonious balance, while others face challenges. The broader range from 1.4 to 4.8 further emphasizes this disparity.

5. Analysis of kununu data : Relations with older colleagues

Kununu - Relations with older colleagues

Effective responses: 406

Mean: 4.0

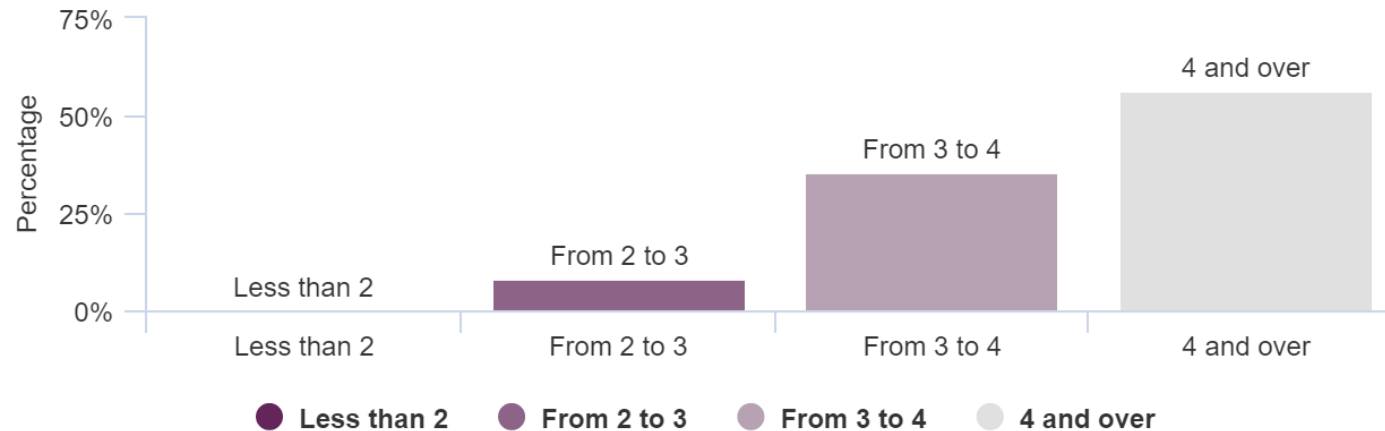
Median: 4.1

Min - Max: 1.9 - 5.0

Response rate: 100%

Lower quartile: 3.6

Upper quartile: 4.4



The data from Kununu portrays a positive environment regarding relations with older colleagues in German establishments. A median score of 4.1, slightly above the mean of 4.0, indicates that most organizations value and maintain harmonious interactions with their senior staff. The narrow spread between the lower quartile (3.6) and the upper quartile (4.4) suggests that this positive sentiment is relatively consistent across respondents. However, the broader range from 1.9 to 5.0 indicates there are outliers, hinting at areas where improvements can be made.

5. Analysis of kununu data : Career and continuing education

Kununu - Career and continuing education

Effective responses: 406

Mean: 3.5

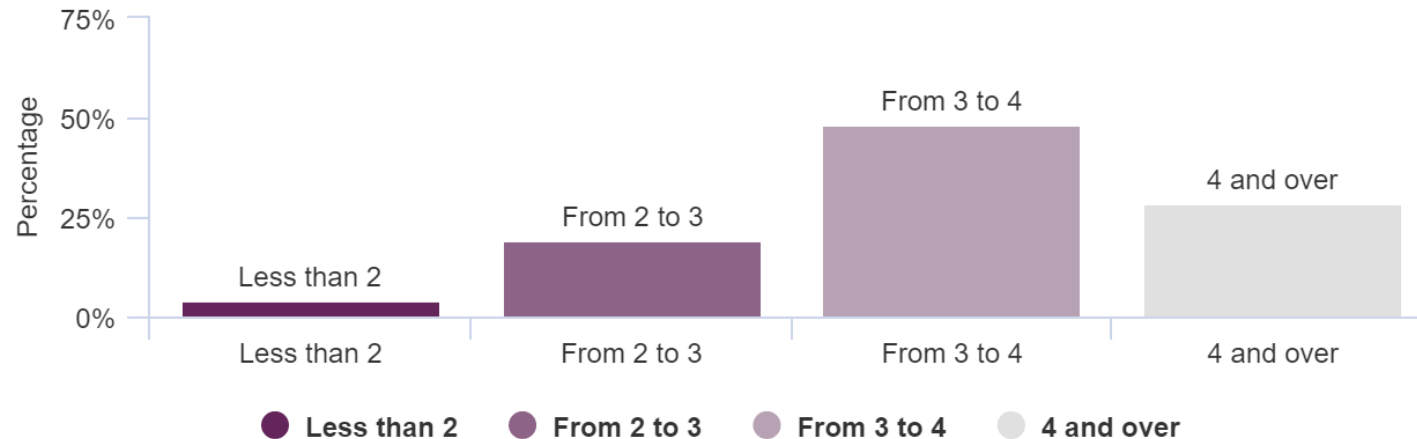
Median: 3.6

Min - Max: 1.3 - 4.9

Response rate: 100%

Lower quartile: 3.1

Upper quartile: 4.1



The Kununu data suggests a moderate emphasis on career advancement and ongoing education within German establishments. With a median of 3.6, slightly above the mean of 3.5, it indicates a general inclination towards providing opportunities for growth. However, the range between the lower quartile (3.1) and the upper quartile (4.1) suggests variability in employee experiences. Some organizations excel in this domain, while others may lag. The broader spectrum from 1.3 to 4.9 further underscores this disparity. Overall, while there's a recognition of the importance of career progression and learning, there's room for enhanced consistency across the industry..

5. Analysis of kununu data : Salary / benefits

Kununu - Salary and benefits

Effective responses: 406

Mean: 3.3

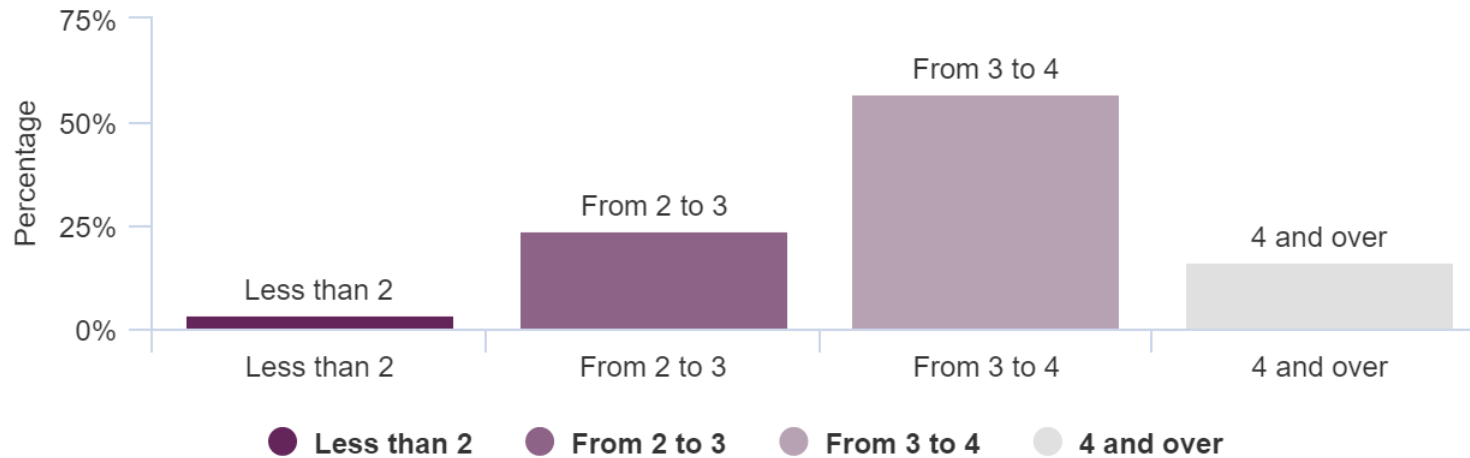
Median: 3.3

Min - Max: 1.5 - 4.8

Response rate: 100%

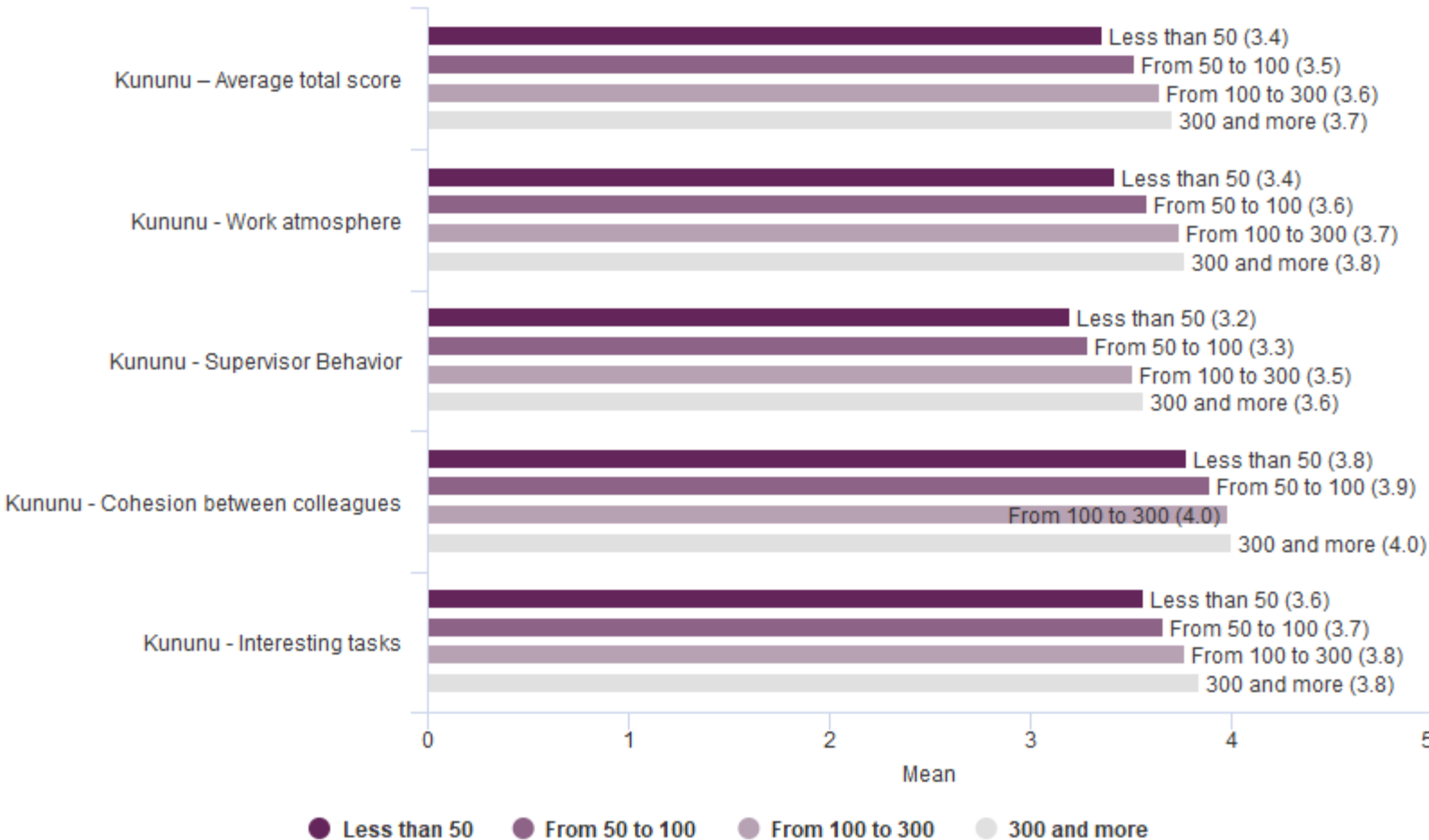
Lower quartile: 2.9

Upper quartile: 3.8



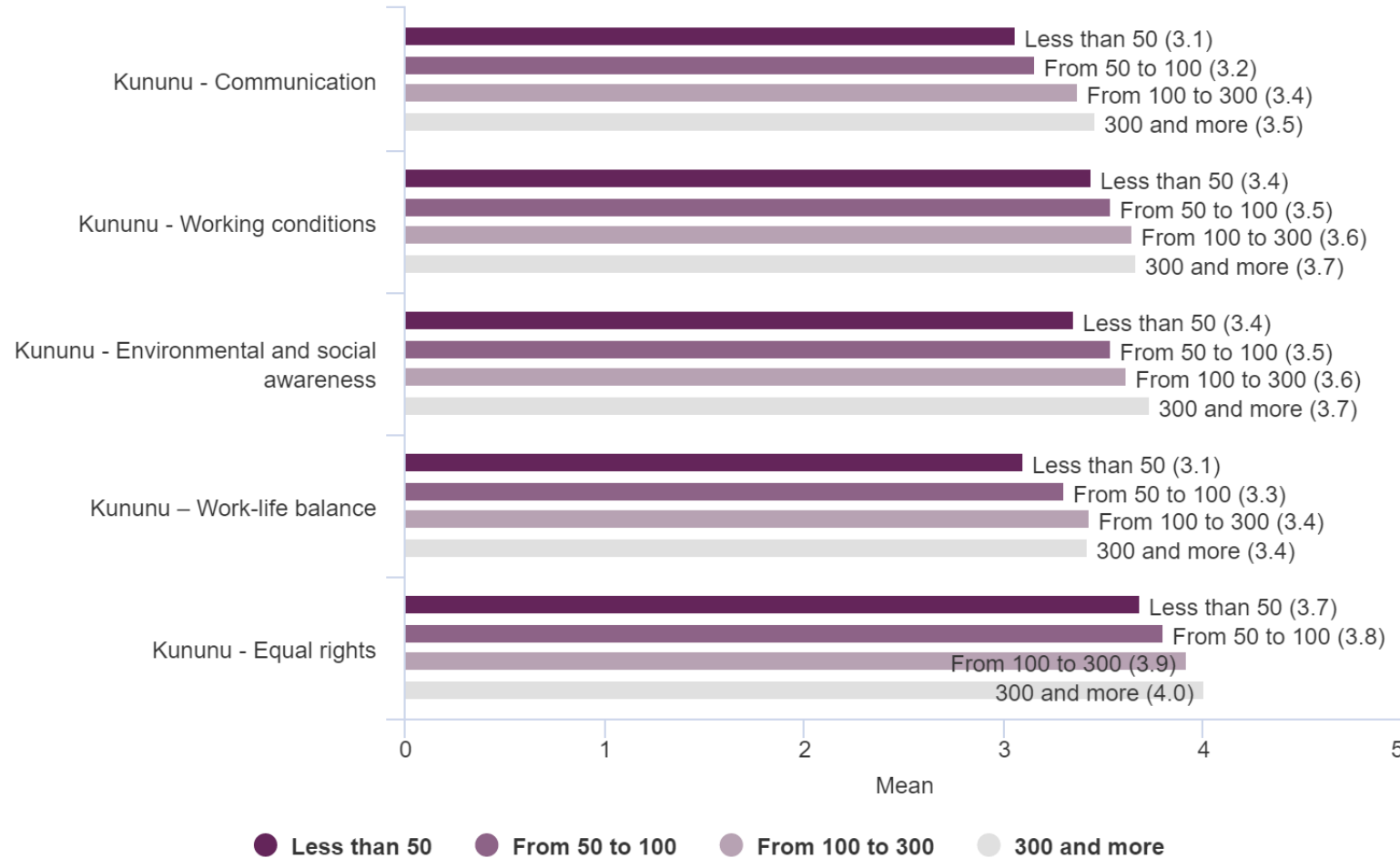
The Kununu scores for "Salary and Benefits" present a nuanced picture of employee perceptions regarding their compensation packages. With a mean score of 3.3, it suggests that the general sentiment towards salary and benefits is mediocre at best. The range between the lower quartile (Q1) at 2.9 and the upper quartile (Q3) at 3.8 reveals that 50% of the responses lie within this range. This suggests a moderate level of satisfaction for half of the respondents, but it also indicates that a quarter of employees are notably less satisfied (scoring below 2.9). In summary, while there are employees who find their salary and benefits satisfactory, a significant portion feels there's room for improvement.

5. Analysis of kununu data by size of hotel (nbe of rooms) [I]

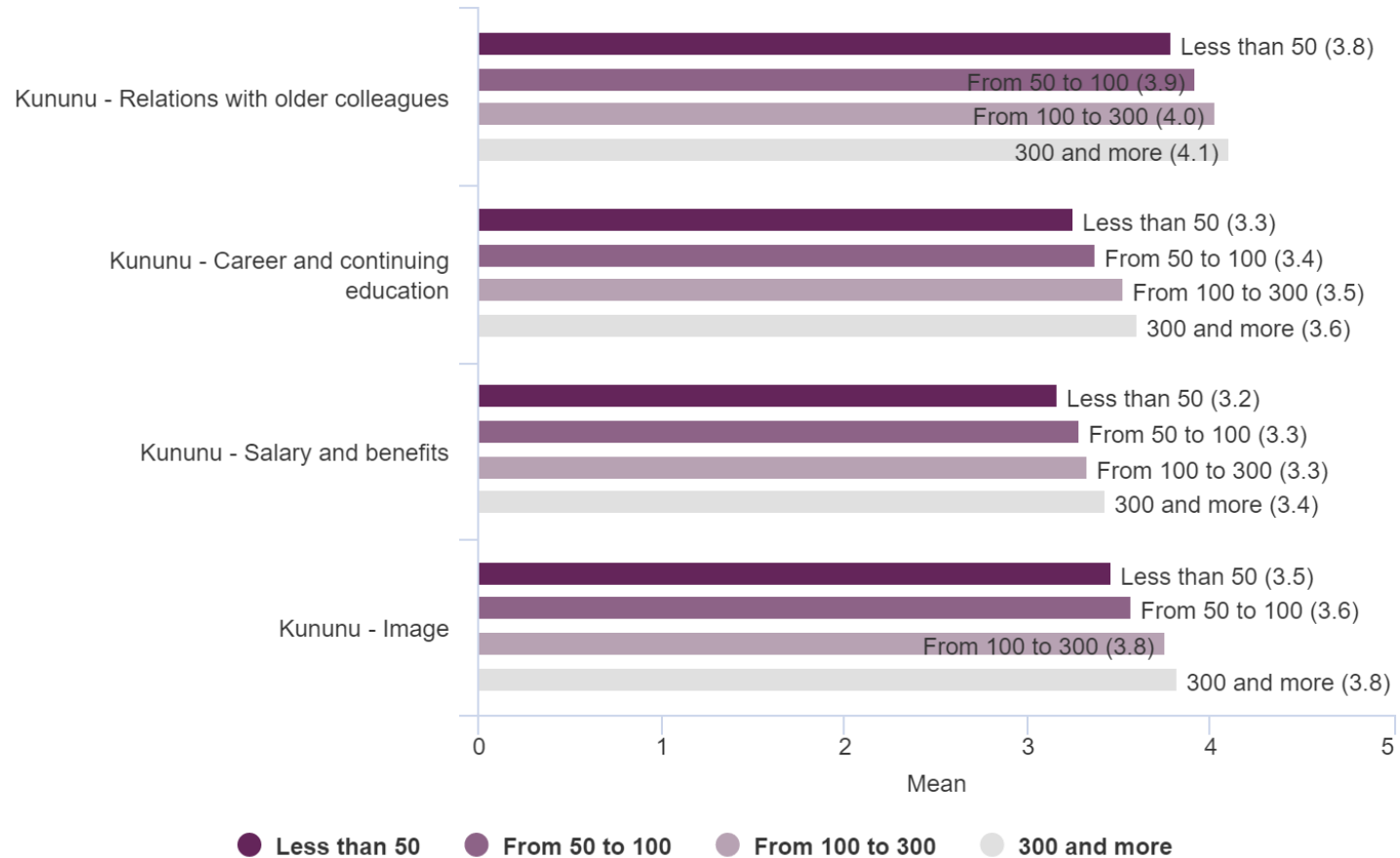


There appears to be a correlation between the size of the hotel and its score. Larger hotels consistently register higher scores compared to their smaller counterparts. This trend suggests that bigger establishments may have more structured processes, resources, or training programs that contribute to higher employee satisfaction. Conversely, smaller hotels might face challenges in certain areas that impact their overall ratings.

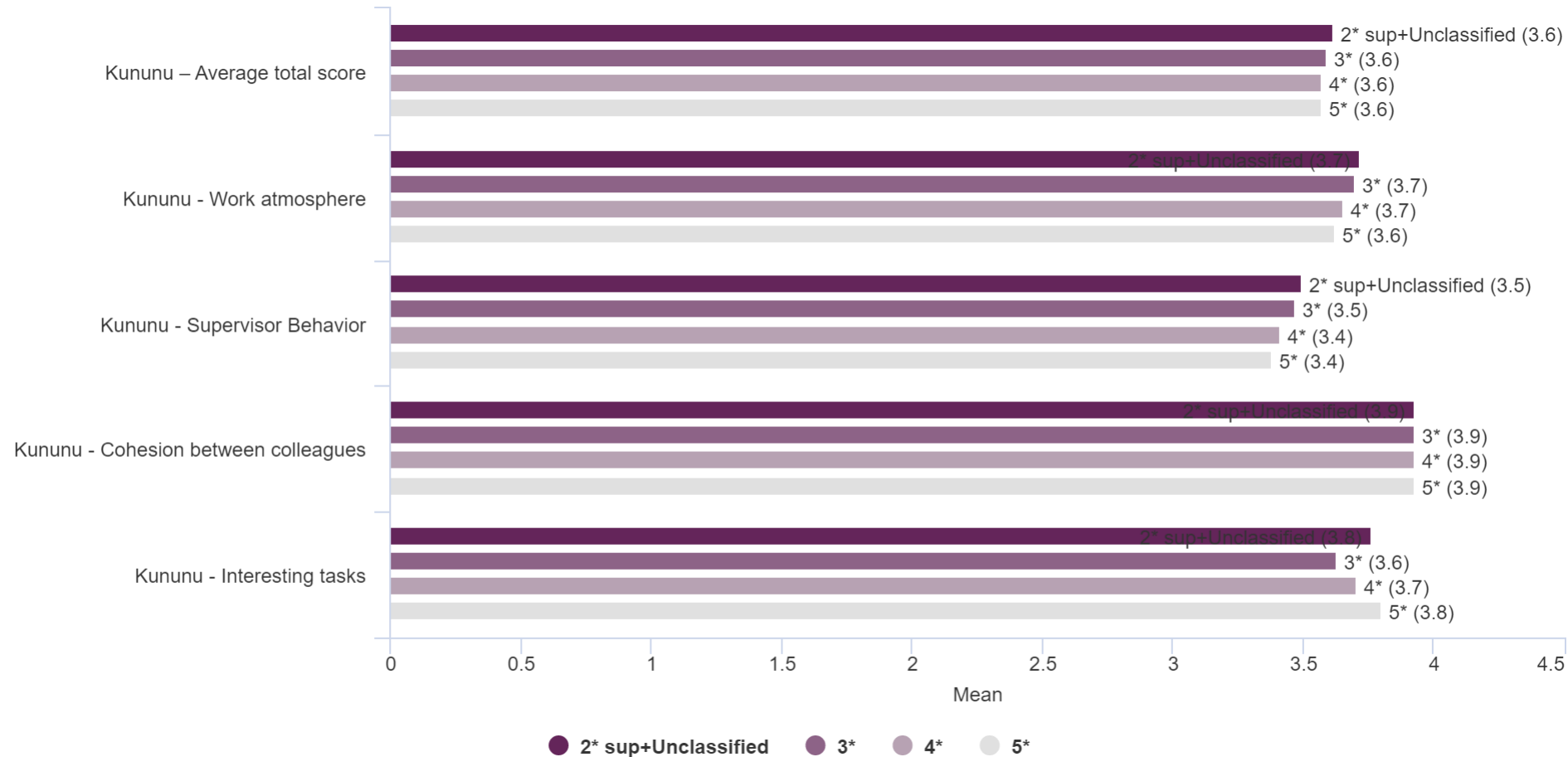
5. Analysis of kununu data by size of hotel (nbe of rooms) [II]



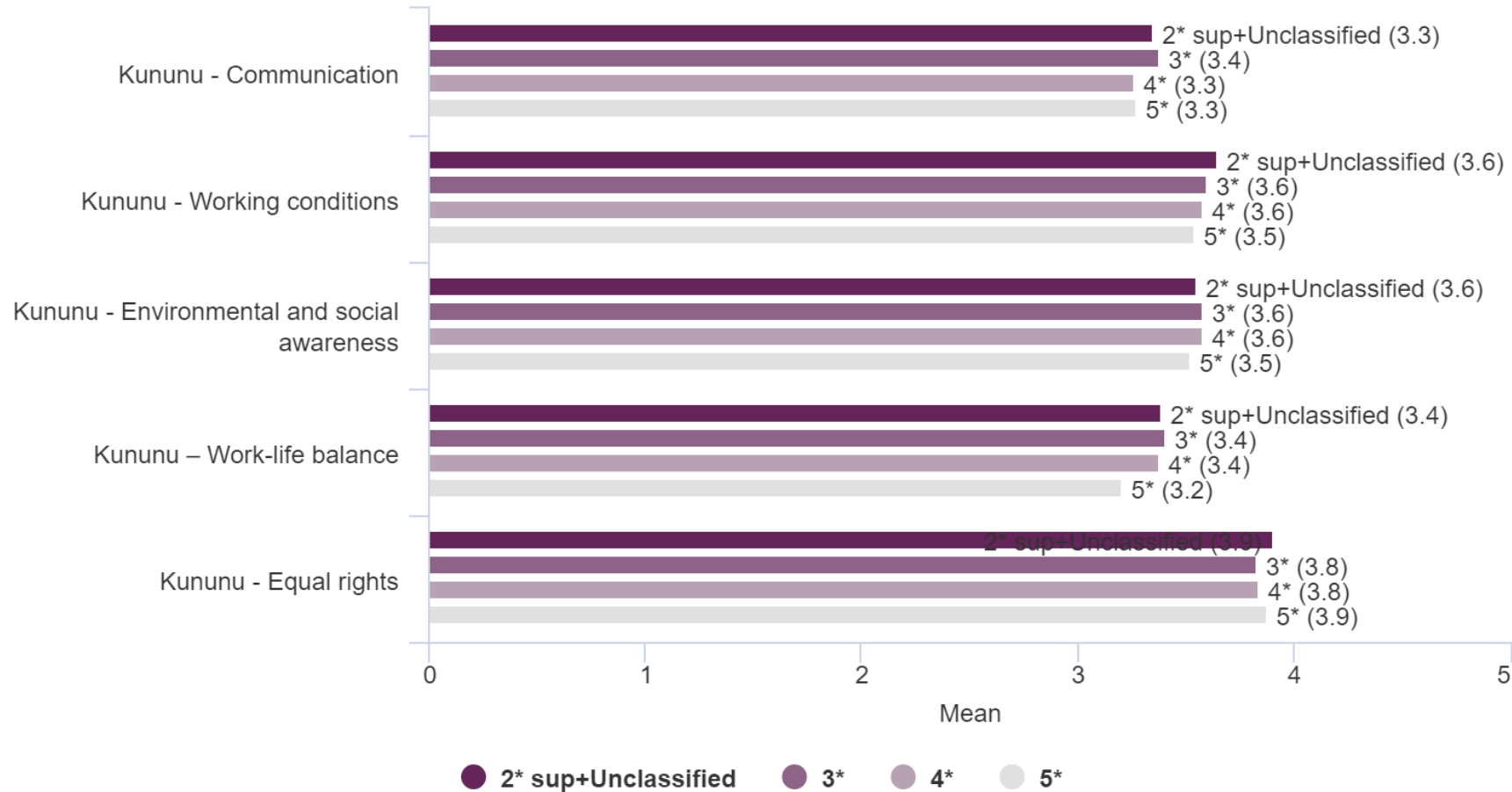
5. Analysis of kununu data by size of hotel (nbe of rooms) [III]



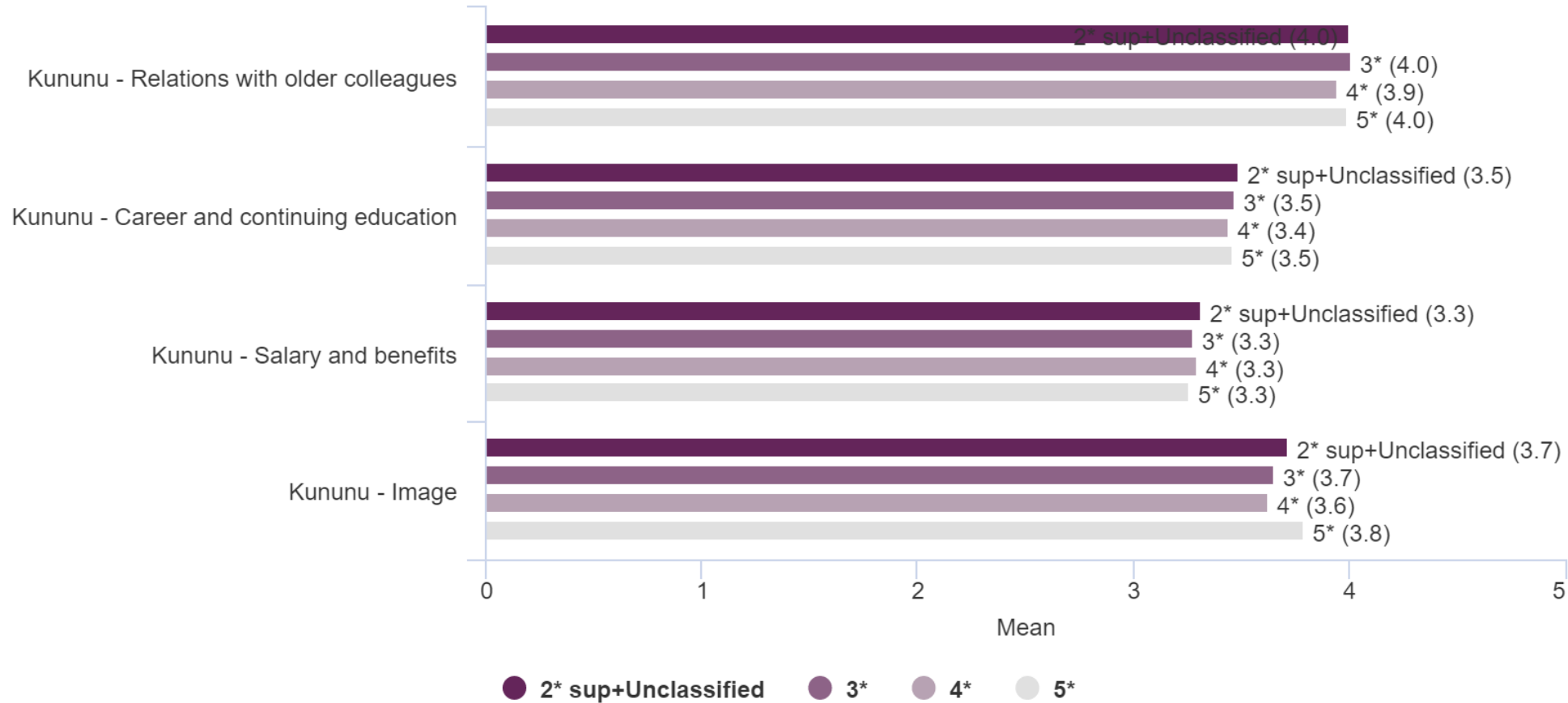
5. Analysis of kununu data by hotel hotel category [I]



5. Analysis of kununu data by hotel hotel category [II]



5. Analysis of kununu data by hotel hotel category [II]



5. Analysis of kununu data by hotel hotel category [IV]

Across the board, Kununu ratings exhibit remarkable consistency irrespective of the hotel category. This suggests that employee experiences and perceptions are relatively uniform across the German hotel industry, from 2-star establishments to luxury 5-star venues.

General Observations:

- The overall average score for all categories remains steady at 3.6, indicating a consistent employee sentiment across the board.
- Cohesion between colleagues is a strong point across all hotel categories, consistently scoring 3.9. This suggests a positive work culture and camaraderie regardless of the hotel's luxury status.
- Salary and benefits remain a consistent area of feedback, with all categories reflecting a score of 3.3. This might indicate an industry-wide standard or expectation regarding compensation and perks.

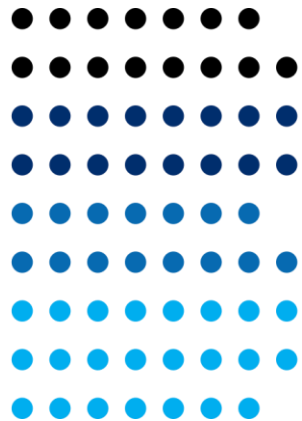
5. Analysis of kununu data by size hotel hotel category [V]

Notable Trends:

- 5-star hotels, while maintaining high standards for guests, show a slight dip in areas like work atmosphere, working conditions, and environmental and social awareness compared to their counterparts. This could be attributed to the higher demands and expectations in luxury establishments.
- Work-life balance sees its lowest score in 5-star hotels at 3.2, hinting at potentially longer working hours or more demanding roles in these premium establishments.
- The image of the hotel, which pertains to its reputation and branding, peaks in 5-star hotels at 3.8, indicating that employees in luxury hotels feel more pride or value in their establishment's brand.

In summary, while there are minor variations in specific areas, the overarching sentiment is that employee experiences in the German hotel industry are relatively consistent. The slight deviations in 5-star hotels, especially in work-life balance, could be areas of focus for improvement.

6. Analysis of Booking.com data



BOOKING
HOLDINGS

6. Analysis of Booking.com data

Booking - Number of Reviews

Effective responses: 346

Mean: 2,383.3

Lower quartile: 785.8

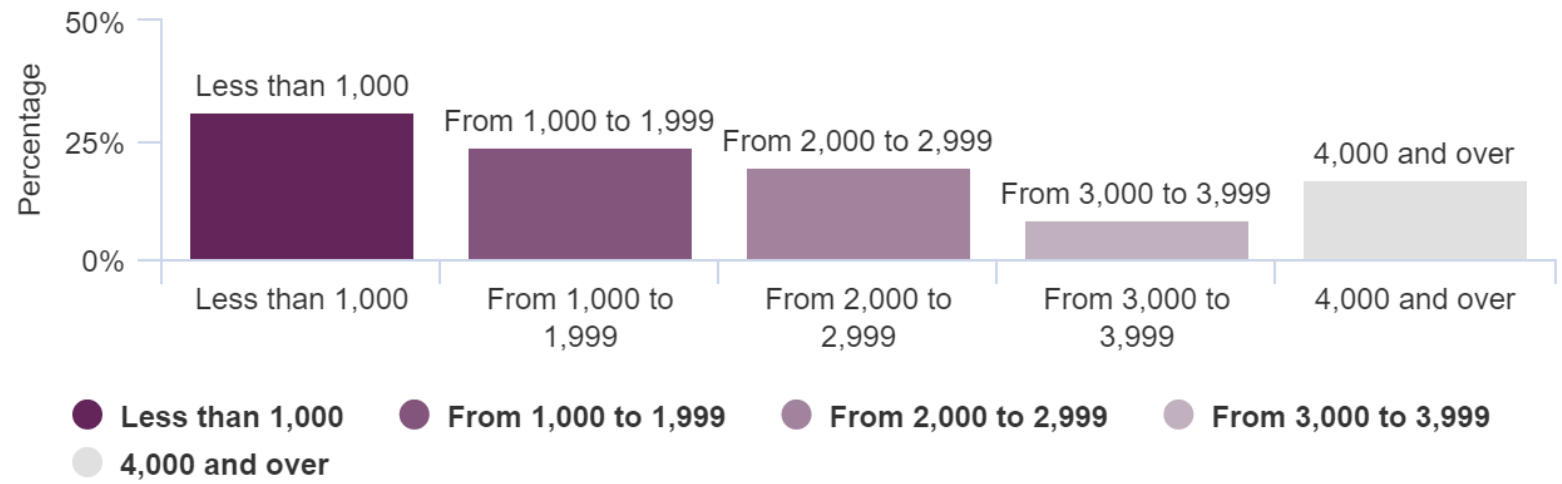
Upper quartile: 3,014.5

Response rate: 85%

Sum: 824,638.0

Median: 1,818.0

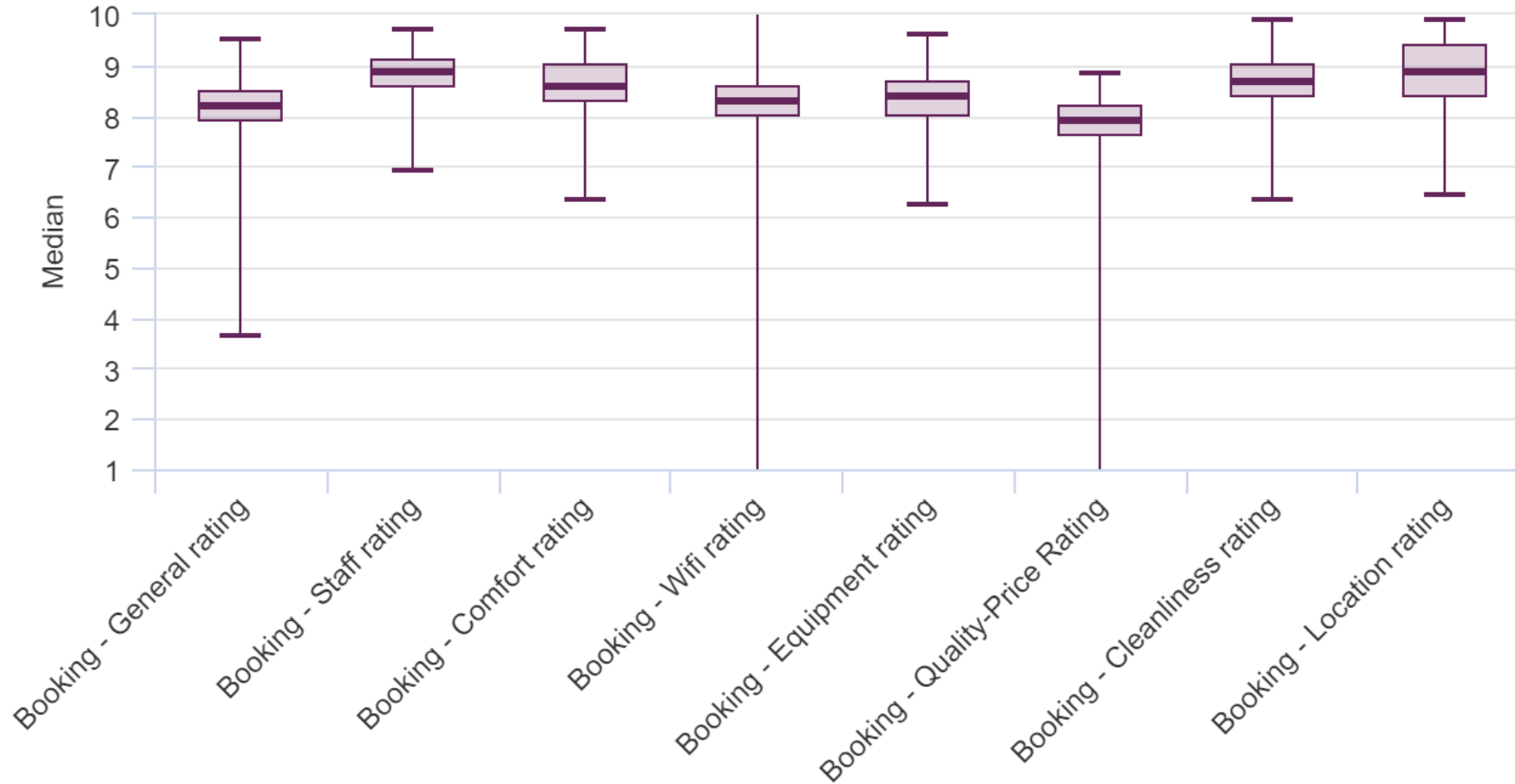
Min - Max: 36.0 - 16,773.0



There are a total of 824,638 Booking.com reviews for a total of 346 hotels.



6. Analysis of Booking.com data



6. Analysis of Booking.com data



6. Analysis of Booking.com data

The median ratings from Booking.com reveal that guests are generally satisfied with their experiences in the sampled German hotels.

Notably, the high scores for staff interactions and location (both at 8.9) suggest that the hospitality and strategic positioning of these hotels are their strongest assets. Cleanliness and comfort also score highly, emphasizing the importance of a well-maintained and cozy environment for guests.

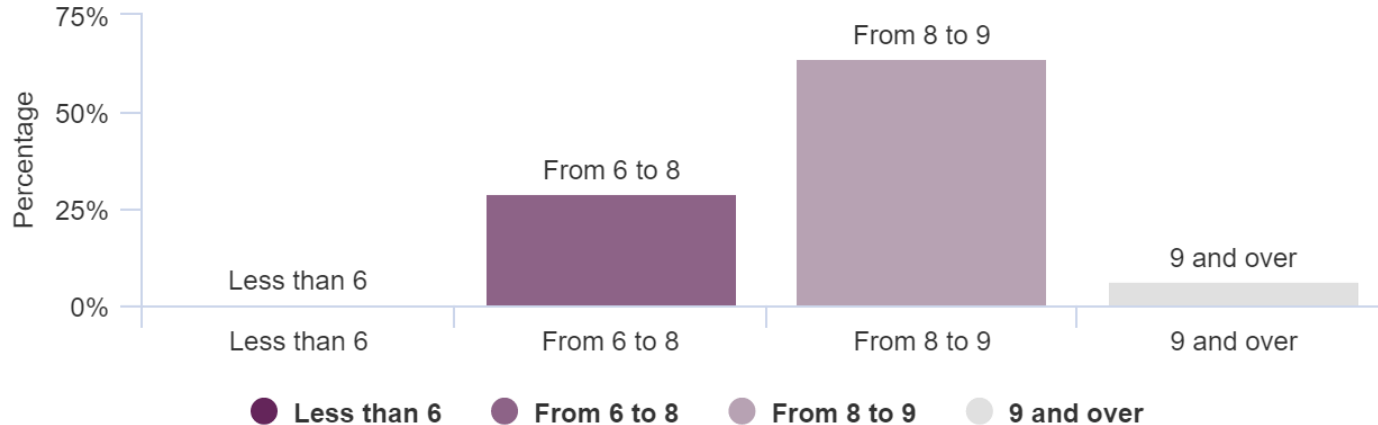
While the overall experience, represented by the general rating of 8.2, is positive, there's a slight room for improvement in aspects like quality-price value. The close clustering of median scores around the 8 to 9 range indicates a consistent quality of service across these establishments.

6. Booking.com data: Overall Score

Booking - General rating

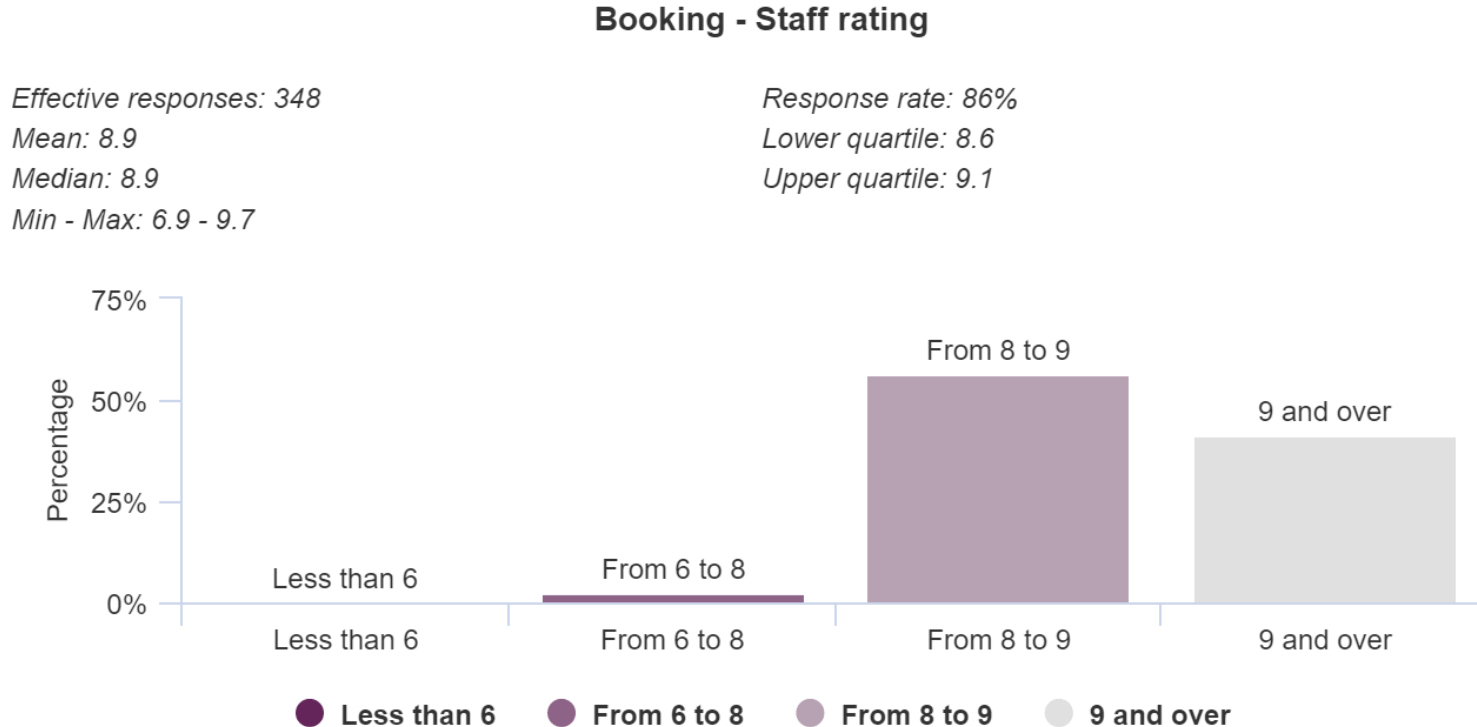
Effective responses: 348
Mean: 8.2
Median: 8.2
Min - Max: 3.6 - 9.5

Response rate: 86%
Lower quartile: 7.9
Upper quartile: 8.5



The general ratings for German hotels on Booking.com, as reflected in our sample, suggest a predominantly favorable guest experience. With a mean score of 8.2 out of 10, it's evident that most guests have a positive perception of their stay in these hotels. The interquartile range, spanning from 7.9 (Q1) to 8.5 (Q3), shows that 50% of the ratings are clustered within this narrow range. This indicates a general consensus among a significant portion of guests regarding the quality of their hotel experience. However, the full range of scores, from a low of 3.6 to a high of 9.5, highlights that there are varied experiences. While some guests had exceptional stays, a few were notably less satisfied.

6. Booking.com data: Staff rating



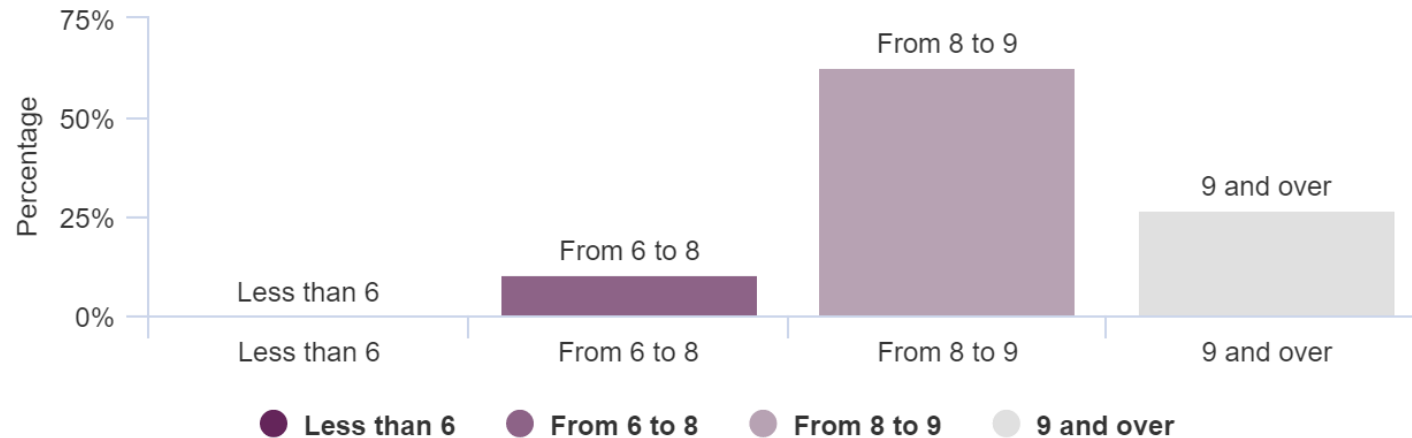
The staff ratings for the sampled German hotels on Booking.com are notably high, with a mean score of 8.9. This suggests that guests generally have positive interactions with hotel staff. The narrow range between the lower quartile (8.6) and the upper quartile (9.1) indicates consistent excellence in staff performance across the majority of these establishments. Even the minimum score, at 6.9, is relatively high, underscoring the importance and effectiveness of staff in shaping guest experiences in these hotels.

6. Booking.com data: Comfort rating

Booking - Comfort rating

Effective responses: 348
Mean: 8.6
Median: 8.6
Min - Max: 6.3 - 9.7

Response rate: 86%
Lower quartile: 8.3
Upper quartile: 9.0



Comfort levels in the sampled German hotels on Booking.com are commendably high, as reflected by a mean score of 8.6. The consistency in guest experiences is evident from the close alignment of the median with the mean. A majority of the hotels offer a comfort level that ranges between 8.3 (lower quartile) and 9.0 (upper quartile), indicating a uniform standard of comfort across these establishments. While the minimum score suggests there are a few outliers, the overall trend underscores the emphasis placed on guest comfort in the German hotel industry..

6. Booking.com data: WIFI rating

Booking - Wifi rating

Effective responses: 345

Mean: 8.3

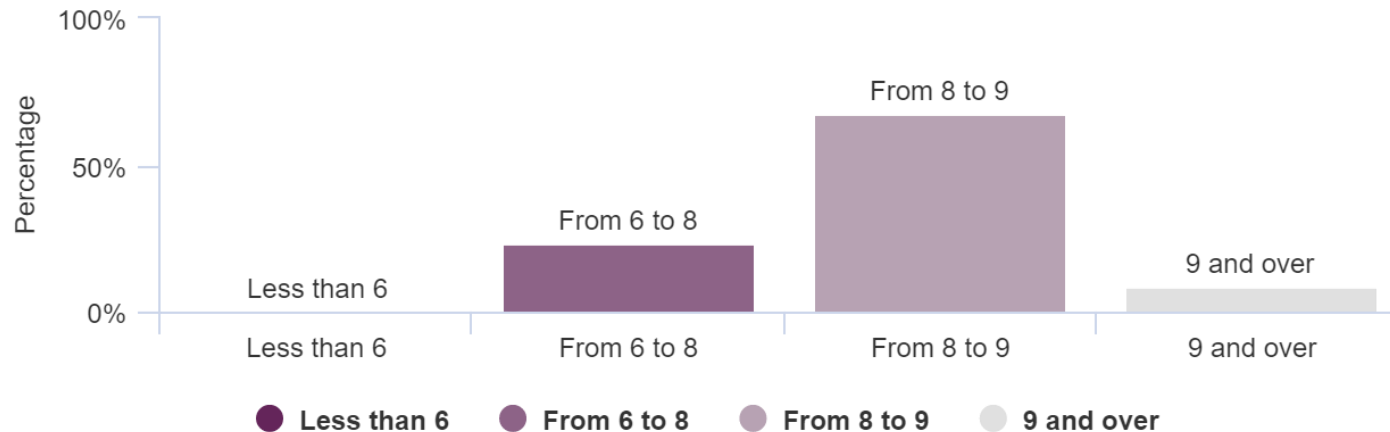
Median: 8.3

Min - Max: 5.9 - 9.8

Response rate: 85%

Lower quartile: 8.0

Upper quartile: 8.6



The Wifi service in the sampled German hotels on Booking.com is generally perceived as above average, with a central tendency score of 8.3. The data suggests a consistent quality of Wifi across most establishments, as the median aligns closely with the mean. The majority of ratings cluster between 8.0 and 8.6, highlighting a standard level of Wifi satisfaction among guests. While there's a range in experiences, the overall sentiment indicates that reliable Wifi connectivity is a prevalent feature in the German hotel landscape.

6. Booking.com data: Equipement rating

Booking - Equipment rating

Effective responses: 347

Mean: 8.3

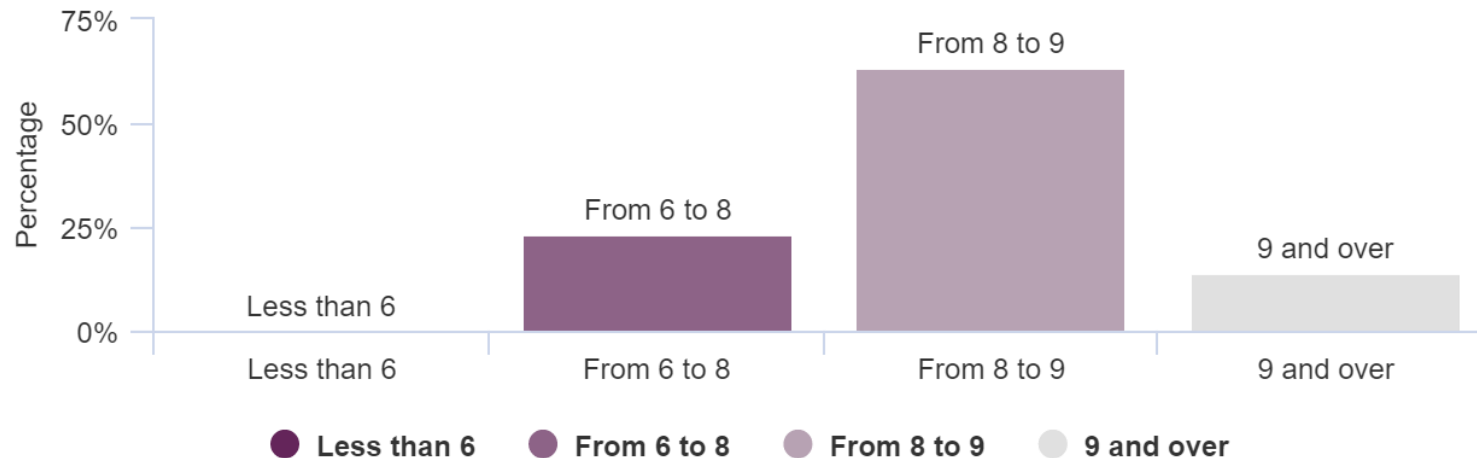
Median: 8.4

Min - Max: 6.2 - 9.6

Response rate: 85%

Lower quartile: 8.0

Upper quartile: 8.7



The equipment offerings in the sampled German hotels on Booking.com are generally well-received, with an average score of 8.3. The median score of 8.4 suggests that a majority of guests find the hotel equipment to slightly exceed the average expectation. Most ratings are concentrated between 8.0 and 8.7, indicating a consistent standard of equipment quality and availability across the hotels. Overall, the data underscores the importance placed on well-maintained and modern equipment in enhancing guest experiences in the German hotel sector.

6. Booking.com data: Quality-price rating

Booking - Quality-Price Rating

Effective responses: 348

Mean: 7.8

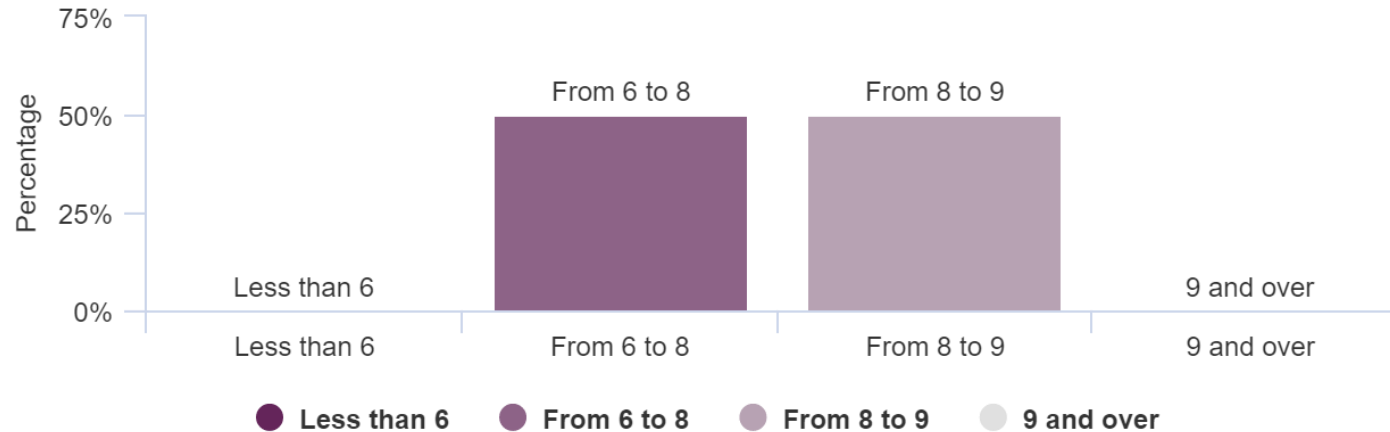
Median: 8.0

Min - Max: 0.8 - 8.8

Response rate: 86%

Lower quartile: 7.6

Upper quartile: 8.2



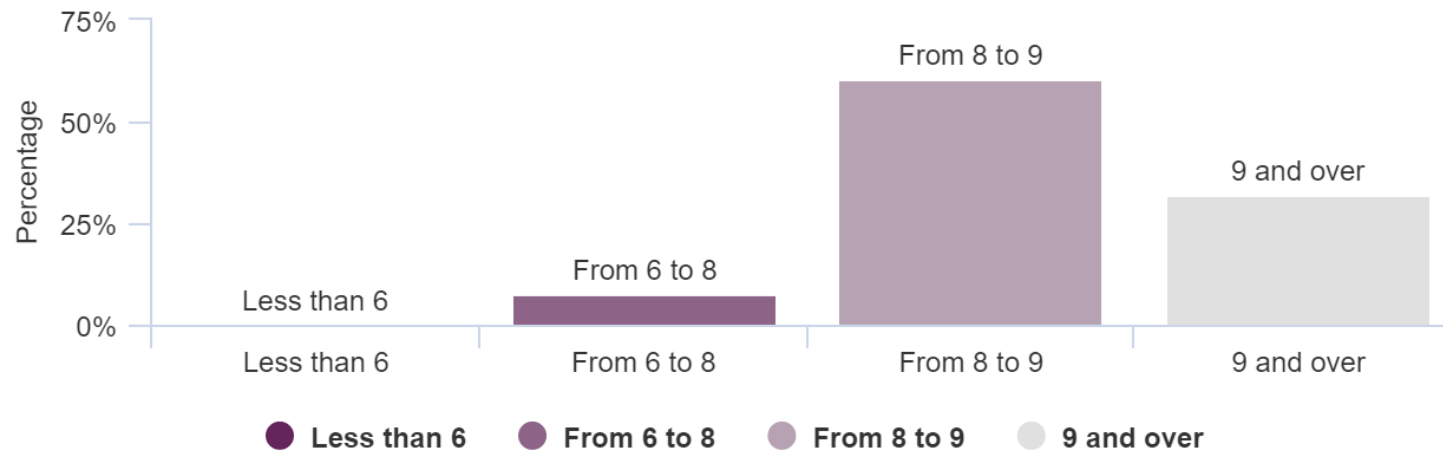
The value-for-money perception in the sampled German hotels on Booking.com is generally favorable, with a median score of 8.0. This indicates that most guests believe they receive a good balance of quality for the price they pay. The average score of 7.8, being close to the median, reinforces this positive sentiment. However, the range from 0.8 to 8.8 suggests there are outliers, with a few guests feeling they didn't receive adequate value. The majority of ratings, concentrated between 7.6 and 8.2, highlight a consistent perception of fair pricing relative to the quality offered in the German hotel industry.

6. Booking.com data: Cleanliness rating

Booking - Cleanliness rating

Effective responses: 347
Mean: 8.7
Median: 8.7
Min - Max: 6.3 - 9.9

Response rate: 85%
Lower quartile: 8.4
Upper quartile: 9.0



Cleanliness in the sampled German hotels on Booking.com is highly rated, with a median score of 8.7, reflecting guests' overall satisfaction with the hygiene standards. The close alignment of the mean and median underscores a consistent positive experience among guests. While the majority of ratings fall between 8.4 and 9.0, indicating a high standard of cleanliness, the broader range suggests a few establishments might have room for improvement. Nonetheless, the emphasis on cleanliness is evident in the German hotel industry, as it's a critical factor for guest satisfaction.

6. Booking.com data: Location rating

Booking - Location rating

Effective responses: 348

Mean: 8.8

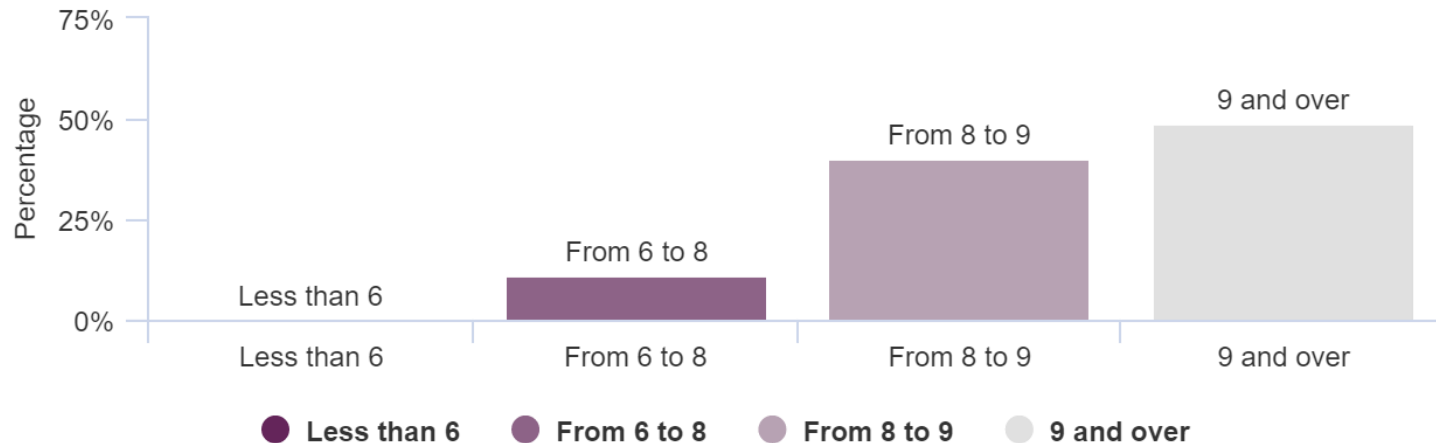
Median: 8.9

Min - Max: 6.4 - 9.9

Response rate: 86%

Lower quartile: 8.4

Upper quartile: 9.4



The location of the sampled German hotels on Booking.com is highly valued by guests, as evidenced by a robust median score of 8.9. The proximity of the mean and median indicates a consistent appreciation for hotel locations. Most ratings cluster between 8.4 and 9.4, suggesting that a significant portion of hotels are strategically situated. While the broader range points to some outliers, the overarching sentiment is that location plays a pivotal role in enhancing the guest experience in the German hotel sector.

6. Conclusion on Booking.com review data

Strengths: Guests consistently appreciate the service quality, with the staff performance emerging as a standout feature. The high median rating of 8.9 for staff indicates that the hospitality and professionalism of hotel personnel are top-notch. Additionally, the comfort and cleanliness of the accommodations are highly regarded, with ratings of 8.6 and 8.7 respectively. This suggests that guests find the hotels well-maintained and conducive to relaxation. Furthermore, the strategic locations of these hotels, as indicated by a median rating of 8.9, enhance the overall guest experience, making travel and exploration convenient.

Areas for Improvement: While the overall sentiment is positive, there are aspects where hotels could enhance their offerings. The quality-price rating, with a median of 8.0, suggests that while guests generally find value in their stays, there's potential for better alignment between price and perceived value. Wi-Fi, an essential amenity for modern travelers, has a median rating of 8.3, indicating reliable connectivity but with room for improvement to ensure consistent high-speed access.

In summary, German hotels are excelling in delivering quality service and ensuring guest comfort. However, to elevate the guest experience further, attention could be directed towards refining the value proposition and enhancing amenities like Wi-Fi.

7. Analysis of Tripadvisor



7. Analysis of Tripadvisor

TripAdvisor - Number of Reviews

Effective responses: 355

Mean: 969.9

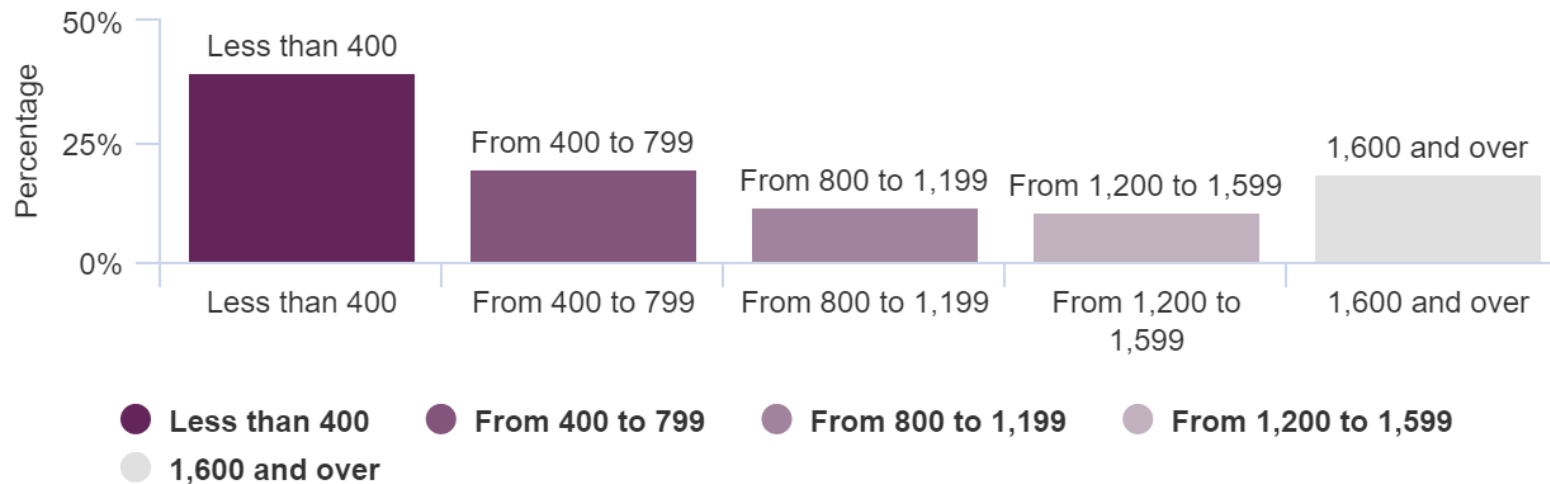
Median: 577.0

Min - Max: 1.0 - 6,114.0

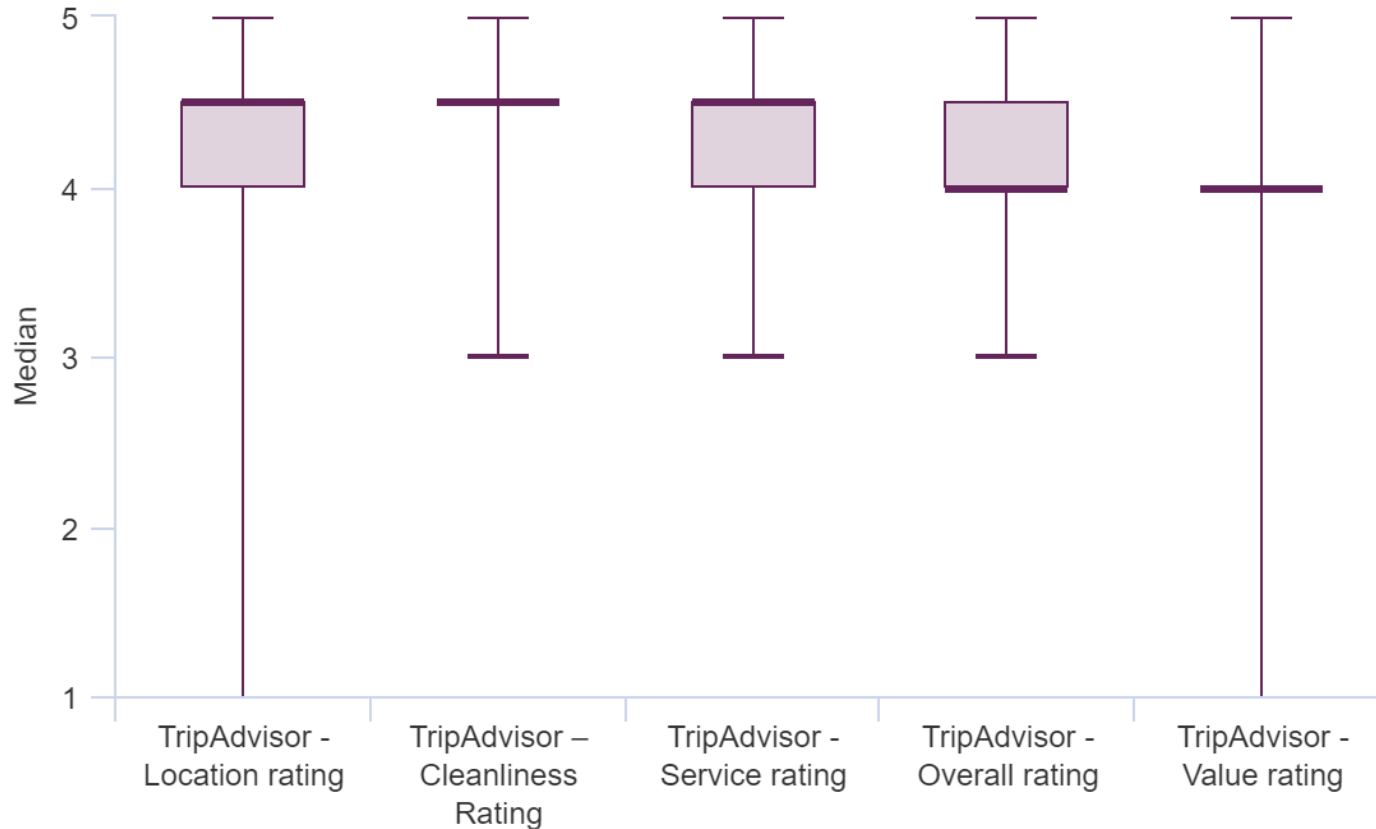
Response rate: 87%

Lower quartile: 257.5

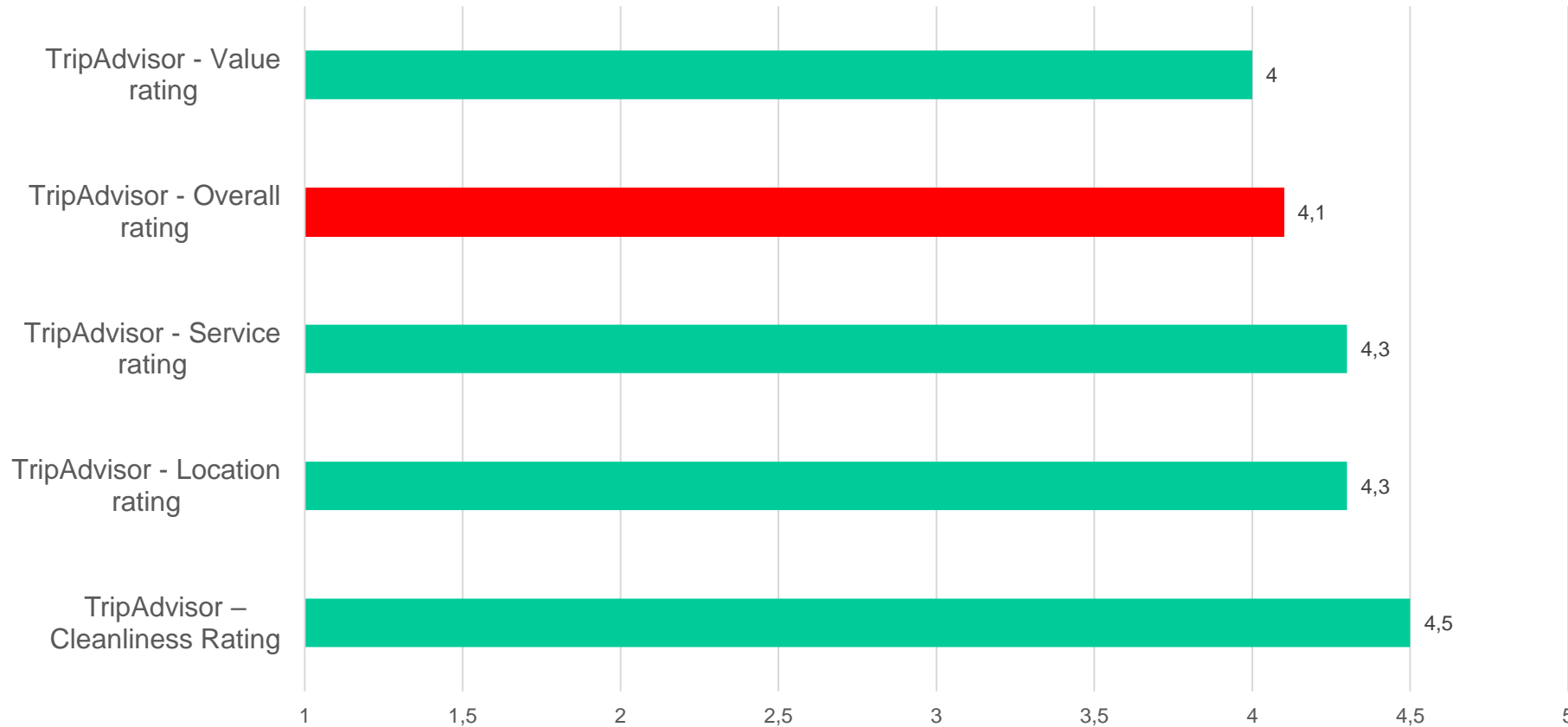
Upper quartile: 1,343.5



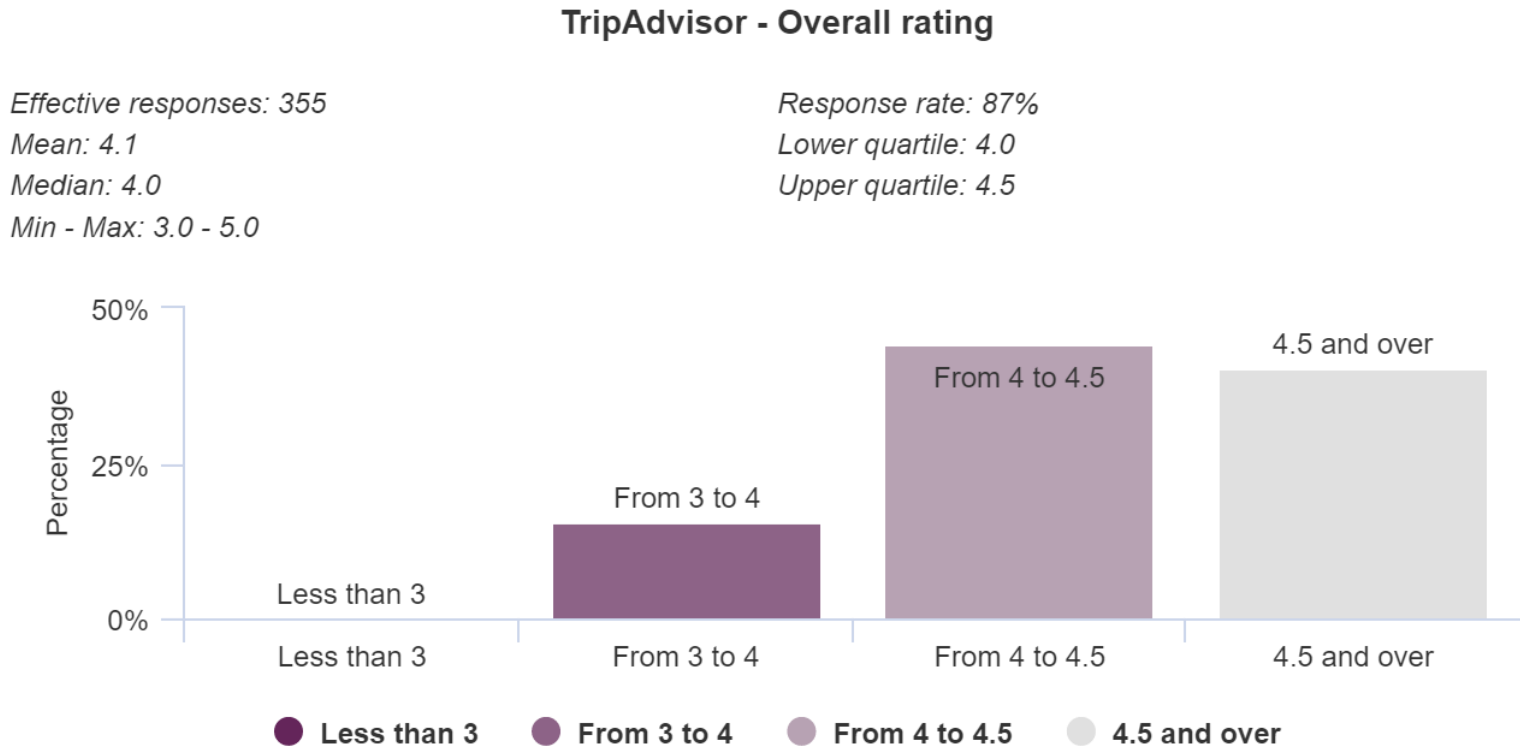
7. Analysis of Tripadvisor



7. Analysis of Tripadvisor



7. Analysis of Tripadvisor: Overall rating



The TripAdvisor ratings for hotels in our sample indicate a generally favorable guest experience, with a mean score of 4.1 out of 5. A majority of the ratings cluster around the 4.0 mark, as evidenced by both the median and the lower quartile. However, the upper quartile at 4.5 suggests that a significant portion of guests had an exceptionally positive stay. While the ratings predominantly lean towards the higher end, the range from 3.0 to 5.0 does highlight some variability in guest experiences. Overall, the data suggests that while most guests are satisfied, there's room for improvement to achieve consistent excellence across reviews.

7. Analysis of Tripadvisor: Location rating

TripAdvisor - Location rating

Effective responses: 355

Mean: 4.3

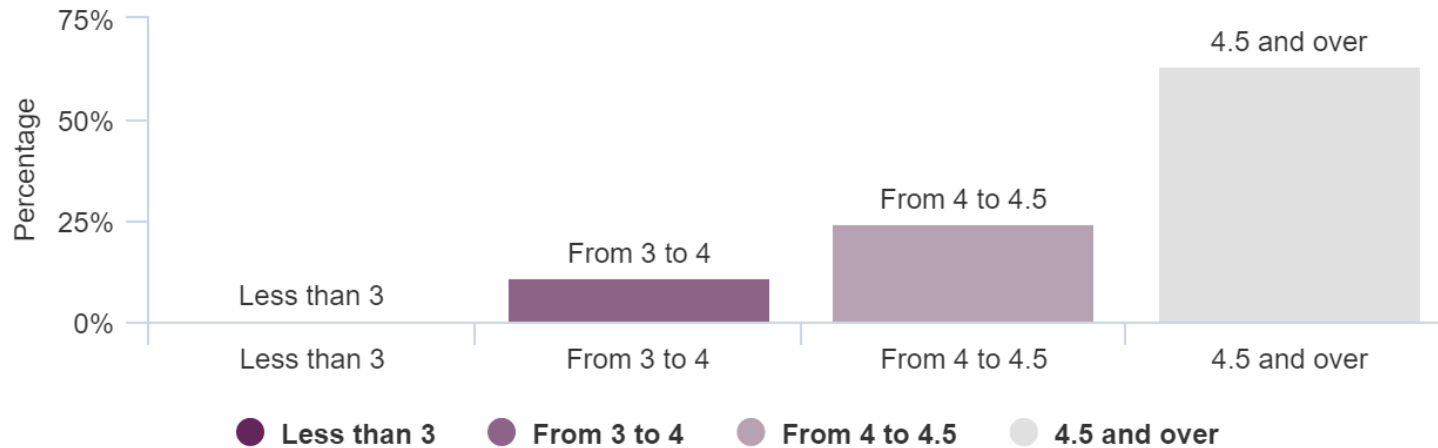
Median: 4.5

Min - Max: 0.0 - 5.0

Response rate: 87%

Lower quartile: 4.0

Upper quartile: 4.5



The location of German hotels, as rated on Tripadvisor, is generally perceived as excellent with a mean score of 4.3 out of 5. The median and upper quartile both standing at 4.5 further emphasize that a significant majority of guests find hotel locations highly favorable. While the lower quartile at 4.0 indicates good ratings, the minimum score of 0.0 suggests there were a few outliers or specific instances where guests found the location unsatisfactory. Overall, location appears to be a strong asset for these hotels, though a few establishments may need to address location-related concerns.

7. Analysis of Tripadvisor: Cleanliness rating

TripAdvisor – Cleanliness Rating

Effective responses: 354

Mean: 4.5

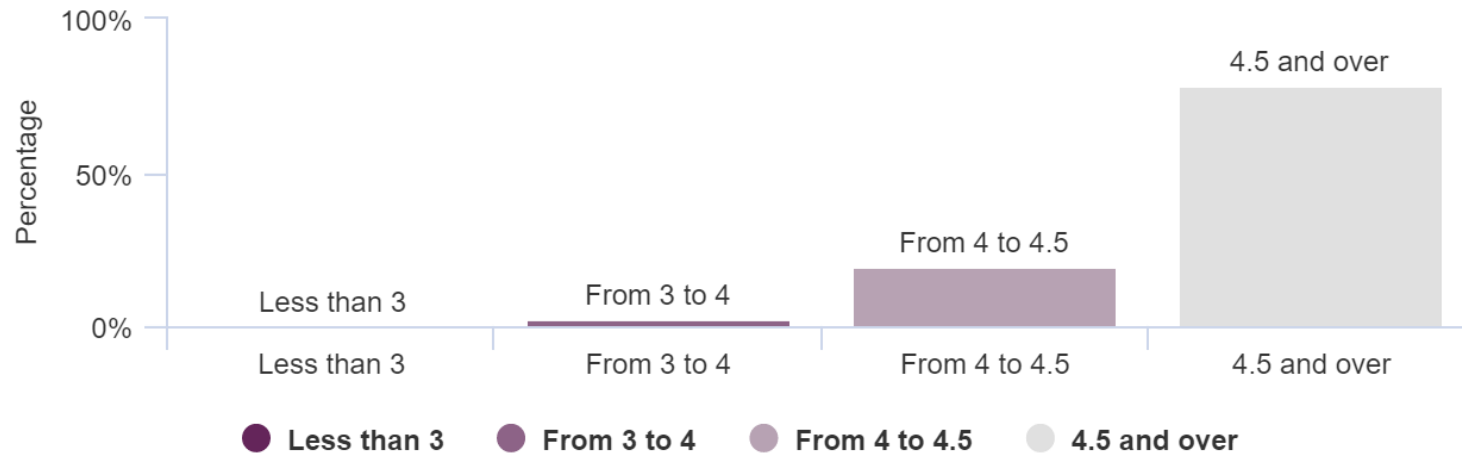
Median: 4.5

Min - Max: 3.0 - 5.0

Response rate: 87%

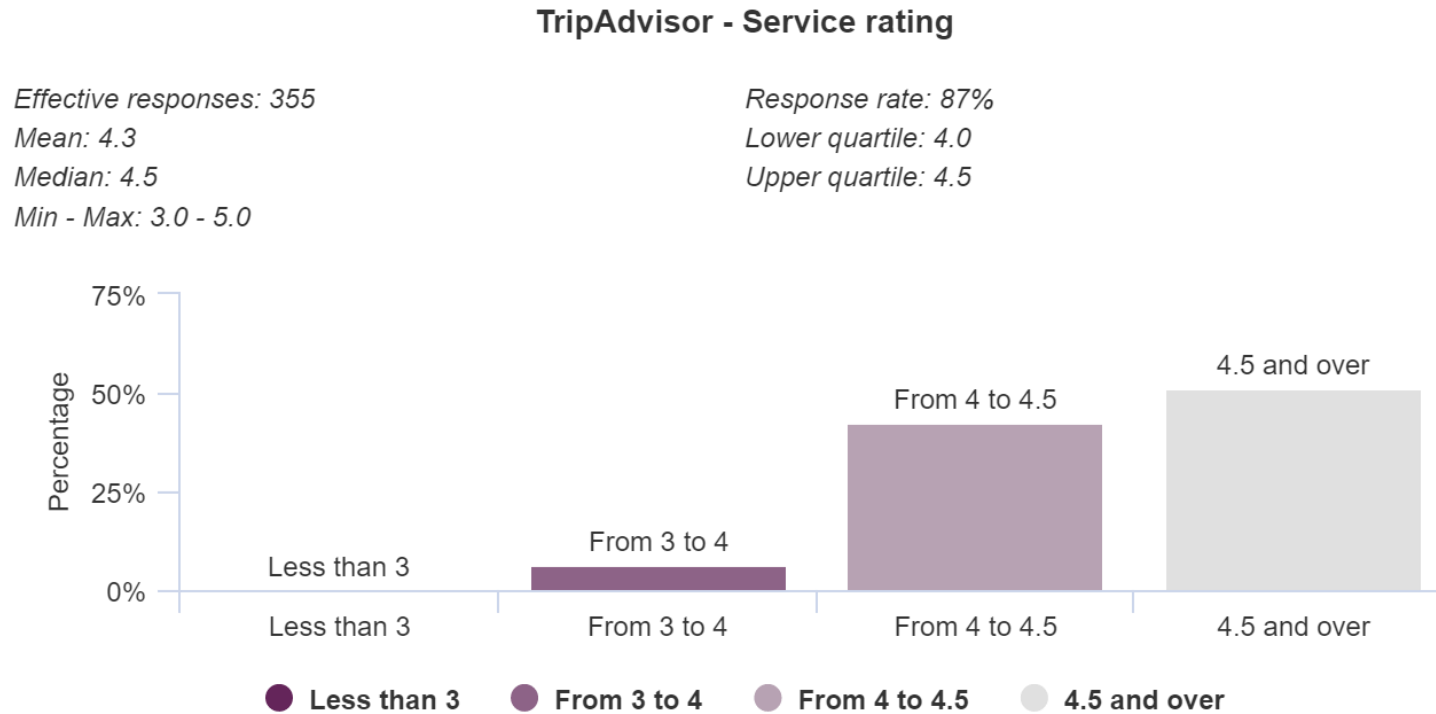
Lower quartile: 4.5

Upper quartile: 4.5



Cleanliness in our sample, as reviewed on TripAdvisor, consistently receives high praise with a mean score of 4.5 out of 5. The uniformity in the lower quartile, median, and upper quartile all being 4.5 indicates a strong consensus among guests about the excellent cleanliness standards. While the majority of reviews are positive, the minimum score of 3.0 suggests a few isolated instances of dissatisfaction. Overall, cleanliness stands out as a hallmark of quality for these hotels, with only rare deviations from the norm.

7. Analysis of Tripadvisor: Service rating



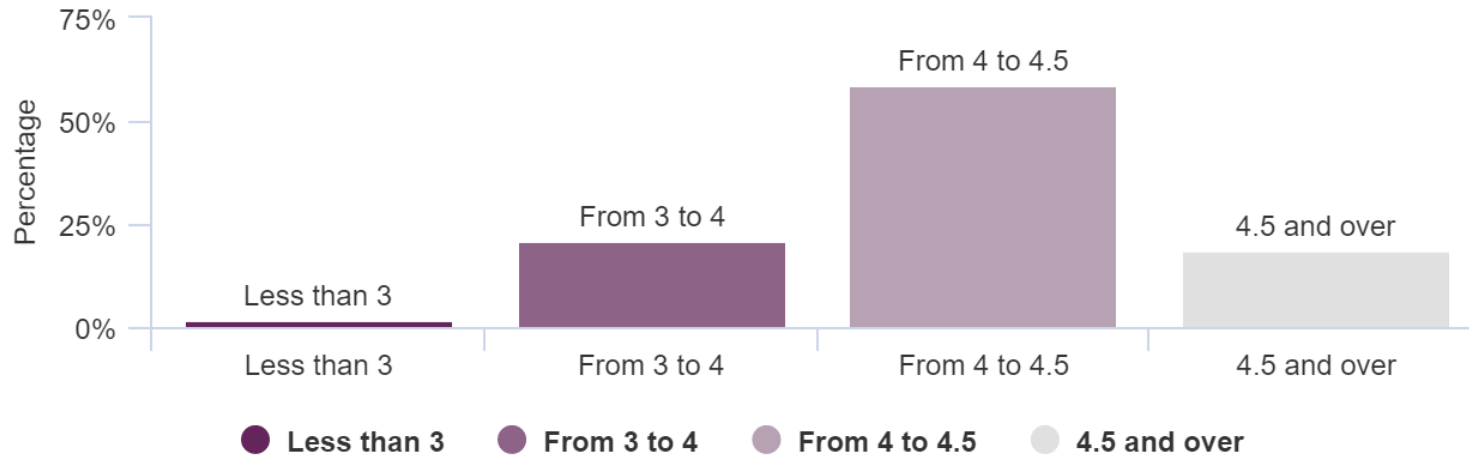
Service quality in hotels of our sample, as reflected on TripAdvisor, is notably high with an average score of 4.3 out of 5. The median and upper quartile both at 4.5 highlight that a significant majority of guests are extremely satisfied with the service they received. While the lower quartile at 4.0 indicates a baseline of good service, the range from 3.0 to 5.0 suggests a few areas for improvement. Overall, the service aspect is a strong point for these hotels, with most guests reporting above-average experiences.

7. Analysis of Tripadvisor: Price-Value rating

TripAdvisor - Value rating

Effective responses: 354
Mean: 4.0
Median: 4.0
Min - Max: 0.0 - 5.0

Response rate: 87%
Lower quartile: 4.0
Upper quartile: 4.0



The Price-Value perception of German hotels in our sample is consistent, with a mean, median, and both quartiles all at 4.0 out of 5. This uniformity indicates that the majority of guests find the value they receive for the price they pay to be satisfactory. However, the broad range from 0.0 to 5.0 suggests there are outliers, with some guests feeling they didn't receive value for their money. Overall, while most guests believe they received good value, there's room for hotels to enhance their value proposition to address the concerns of the few.

7. Conclusion on Tripadvisor review data

General Observations:

TripAdvisor reviews for German hotels indicate a generally positive guest experience. German hotels of our sample are generally well-regarded, especially for their cleanliness, service, and location.

Notable Trends:

- **Cleanliness Stands Out:** With a mean score of 4.5, cleanliness is a consistent highlight across reviews, suggesting that German hotels prioritize hygiene and upkeep.
- **Location and Service Shine:** Both these aspects received commendable scores, averaging 4.3, indicating that guests appreciate the strategic locations of the hotels and the quality of service they receive.
- **Room for Improvement in Price-Value Proposition:** The Price-Value rating, with a mean of 4.0 and a broad range from 0.0 to 5.0, suggests that while many guests find the pricing fair, there's a segment that believes there's room for better value.

8. Employee satisfaction relation to guest experience in German hotels

A statistical analysis of the relationship between employee satisfaction scores and customer reviews ratings

8. Research goal

The goal of this part of the project is to investigate whether there is **a relationship between employee satisfaction** scores and **customer review** ratings about German hotels.

Employee satisfaction scores were obtained from **Kununu** (employer review platform), while customer review scores were retrieved from **TripAdvisor** and **Booking.com**.

kununu 

Booking.com


Tripadvisor

8. Methodology

To investigate whether there was a relationship between employee satisfaction scores and customer review scores, both **variables were first standardized**.

“A standardized variable [...] is a variable that has been rescaled to have a mean of zero and a standard deviation of one”. [1]

“Standardizing makes it easier to compare scores, even if those scores were measured on different scales. It also makes it easier to read results from regression analysis and ensures that all variables contribute to a scale when added together”. [2]

8. Methodology

How to standardize a variable: “First, the mean is subtracted from the value for each case, resulting in a mean of zero. Then, the difference between the individual’s score and the mean is divided by the standard deviation, which results in a standard deviation of one.” [1]

$$x^* = (x - m) / sd$$

Where **m** is the mean of **x**, and **sd** is the standard deviation of **x**.

8. Methodology

The standardization of all employee satisfaction and customer review scores was performed on **JAMOVİ 2.3.28**, which is a free and open statistical platform based on the programming language **R**. [3]

A formula was applied to standardize each variable:



The screenshot shows the 'TRANSFORM' dialog box in JAMOVI. The 'Standardize variable' option is selected. Below it, there are fields for 'Description' and 'Variable suffix'. A section titled '+ Add recode condition' is visible, containing a formula: $f_x = (\$source - VMEAN(\$source)) / VSTDEV(\$source)$.

8. Methodology – correlation

The relationship between (the standardized) employee satisfaction scores and customer review scores was explored through **a series of partial correlations** [4]:

- To test whether two variables are positively related, not related, or negatively related, while controlling for the effects of other variables.
- The **direction and degree of correlation** is provided by the Pearson's correlation coefficient r , which lies between -1 and +1.



8. Results – correlations kununu vs TripAdvisor

kununu variables

TripAdvisor

	Total score	Work atmosphere	Supervisor behavior	Cohesion among colleagues	Interesting tasks	Communication	Work conditions
TripAdvisor: general grade	0.20	0.19	0.13	0.17	0.21	0.15	0.23
TripAdvisor: cleanliness	0.20	0.19	0.13	0.18	0.20	0.15	0.21
TripAdvisor: services	0.21	0.19	0.15	0.21	0.22	0.17	0.20
TripAdvisor: quality / price							

All colored relationships are positive and significant: $p < .05$. Degree of correlation: small = below $\pm .29$, medium = between $\pm .29$ and $\pm .49$. The shades of green are for illustrative purposes. This test is controlling for the number of stars the hotels have.

When hotel employees feel more satisfied with their jobs, especially valuing the variety of tasks and the working conditions, it reflects positively on TripAdvisor guest reviews (general score, cleanliness, service quality).

8. Results – correlations kununu vs TripAdvisor

kununu variables

	Environmental awareness	Work-life balance	Equality	Treatment of older colleagues	Continuous education	Social benefits	Image
TripAdvisor: general grade	0.23	0.13	0.21	0.18	0.20	0.16	0.33
TripAdvisor: cleanliness	0.22	0.13	0.19	0.19	0.21	0.15	0.31
TripAdvisor: services	0.21	0.14	0.21	0.20	0.22	0.14	0.31
TripAdvisor: quality / price	0.13						0.13

All colored relationships are positive and significant: $p < .05$. Degree of correlation: small = below $\pm .29$, medium = between $\pm .29$ and $\pm .49$. The shades of green are for illustrative purposes. This test is controlling for the number of stars the hotels have.

When hotel staff are content with their roles, particularly appreciating the hotel's commitment to environmental responsibility, opportunities for continuous education, and the overall reputation of the establishment, it directly correlates with improved TripAdvisor guest reviews in areas like overall score, cleanliness, and service quality.

8. Results – correlations kununu vs TripAdvisor

kununu ^Σ

- Overall rating
- Interesting tasks
- Work conditions
- Environmental awareness
- Equality
- Continuous education
- Image

**Pearson
correlations
> 0,2**



Tripadvisor

- TripAdvisor Overall Rating
- Cleanliness
- Service quality



8. Results – correlations kununu vs Booking

kununu variables

	Total score	Work atmosphere	Supervisor behavior	Cohesion among colleagues	Interesting tasks	Communication	Work conditions
Booking: general grade	0.12			0.12	0.12		0.19
Booking: staff	0.22	0.20	0.15	0.20	0.21	0.17	0.25
Booking: comfort							0.15
Booking: services							0.15

All colored relationships are positive and significant: $p < .05$. Degree of correlation: small = below $\pm .29$, medium = between $\pm .29$ and $\pm .49$. The shades of green are for illustrative purposes. This test is controlling for the number of stars the hotels have.

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HOLDINGS

When staff rate their job satisfaction, work atmosphere, teamwork, task variety, and work conditions positively, **results suggest an increase in** guest satisfaction on Booking.com, particularly in how guests rate the hotel's staff.

8. Results – correlations kununu vs Booking

BOOKING
HOLDINGS

kununu variables

	Environmental awareness	Work-life balance	Equality	Treatment of older colleagues	Continuous education	Social benefits	Image
Booking: general grade	0.15				0.13		0.23
Booking: staff	0.21	0.15	0.20	0.20	0.22	0.20	0.31
Booking: comfort	0.12				0.11		0.23
Booking: services							0.22

All colored relationships are positive and significant: $p < .05$. Degree of correlation: small = below $\pm .29$, medium = between $\pm .29$ and $\pm .49$. The shades of green are for illustrative purposes. This test is controlling for the number of stars the hotels have.

When staff express positive ratings regarding their job satisfaction, the hotel's environmental commitment, equality measures, respectful treatment of older colleagues, opportunities for continuous education, social benefits, and especially the hotel's overall image, there's a direct uptick in guest satisfaction on Booking.com. This is most evident in the high ratings guests give to the hotel's staff.

8. Results – correlations kununu vs Booking

BOOKING

HOLDINGS



kununu variables

	Total score	Work atmosphere	Supervisor behavior	Cohesion among colleagues	Interesting tasks	Communication	Work conditions
Booking: quality / price							0.11
Booking: cleanliness	0.11			0.12	0.13		0.19

All colored relationships are positive and significant: $p < .05$. Degree of correlation: small = below $\pm .29$, medium = between $\pm .29$ and $\pm .49$. The shades of green are for illustrative purposes. This test is controlling for the number of stars the hotels have.

8. Results – correlations kununu vs Booking

		Kununu variables						
		Environmental awareness	Work-life balance	Equality	Treatment of older colleagues	Continuous education	Social benefits	Image
BOOKING HOLDINGS	Booking: quality / price							0.13
	Booking: cleanliness	0.15			0.11	0.13	0.12	0.25

All colored relationships are positive and significant: $p < .05$. Degree of correlation: small = below $\pm .29$, medium = between $\pm .29$ and $\pm .49$. The shades of green are for illustrative purposes. This test is controlling for the number of stars the hotels have.



8. Results – correlations kununu vs Booking

kununu⁸³

- Overall rating
- Work atmosphere
- Cohesion among colleagues
- Interesting tasks
- Work conditions
- Environmental awareness
- Equality
- Treatment of older colleagues
- Continuous education
- Social benefits

**Pearson
correlations
> 0,2**

**BOOKING
HOLDINGS**

- Staff (quality)



8. Results – correlations kununu vs Booking



kununu

- Image

**Pearson
correlations
> 0,2**

**BOOKING
HOLDINGS**

- Overall grade
- Staff
- Confort
- Service quality
- Cleanliness



8. Interpretation of results

Although most of the identified relationships seem to be small, our findings indicate that there's a **positive link between how employees rate their satisfaction on kununu and the reviews guests leave on TripAdvisor and Booking.com**. Simply put: **when employees are happy, guests are more likely to be pleased**.

Furthermore, we can find **connections** between **our results and academic research**, whose main findings are resumed here:

- Employees' satisfaction has a positive effect on customer satisfaction [6, 7]
- Leadership behavior is important to ensure consumer satisfaction [5]
- Attention to the environment (through green training) has an indirect, positive effect on customer experience [8]

8. Interpretation of results

Finally, reflecting our exploratory findings, academic research indicates that **perceived employer brand** enhances employee satisfaction, which in turn has a positive effect on **customer experience**. [9]

	Environmental awareness	Work-life balance	Equality	Treatment of older colleagues	Continuous education	Social benefits	Image
TripAdvisor: general grade	0.23	0.13	0.21	0.18	0.20	0.16	0.33
TripAdvisor: cleanness	0.22	0.13	0.19	0.19	0.21	0.15	0.31
TripAdvisor: services	0.21	0.14	0.21	0.20	0.22	0.14	0.31

Screenshot of a table from our findings, which suggests a positive relationship between company image / reputation among employees and customer review ratings (general, cleanness, and services). See the Results for the full table.

9. Results – ANOVA

Multiple one-way ANOVA (Welch's) showed that when analyzing the relationship between hotel star categories and employee satisfaction scores (kununu), **no relationship was significant** ($p > .05$).

All the hotel star categories showed **positive employee satisfaction** (mean) scores ($M > 3.10$) without any significant difference among them.

The absence of significant differences might suggest that hotels engaging with kununu, regardless of their star rating, possibly excel in human resource management compared to the broader sector.



9. Results – ANOVA

Multiple one-way ANOVA (Welch's) showed **significant differences** ($p < .05$) among **hotel star categories** in terms of guest satisfaction **ratings on TripAdvisor** and **Booking.com** for:



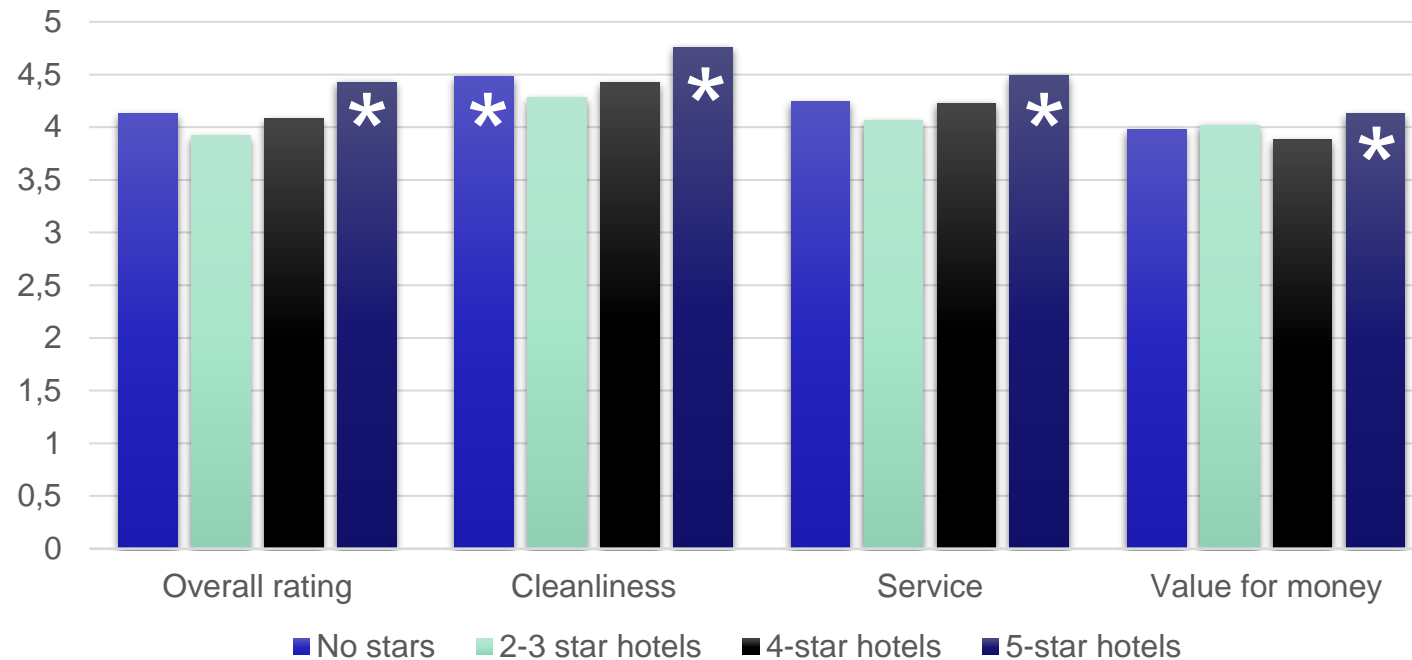
Overall rating	Cleanliness	Service	Value for money
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Overall rating	Staff	Comfort	Facilities	Cleanliness
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9. Results – ANOVA

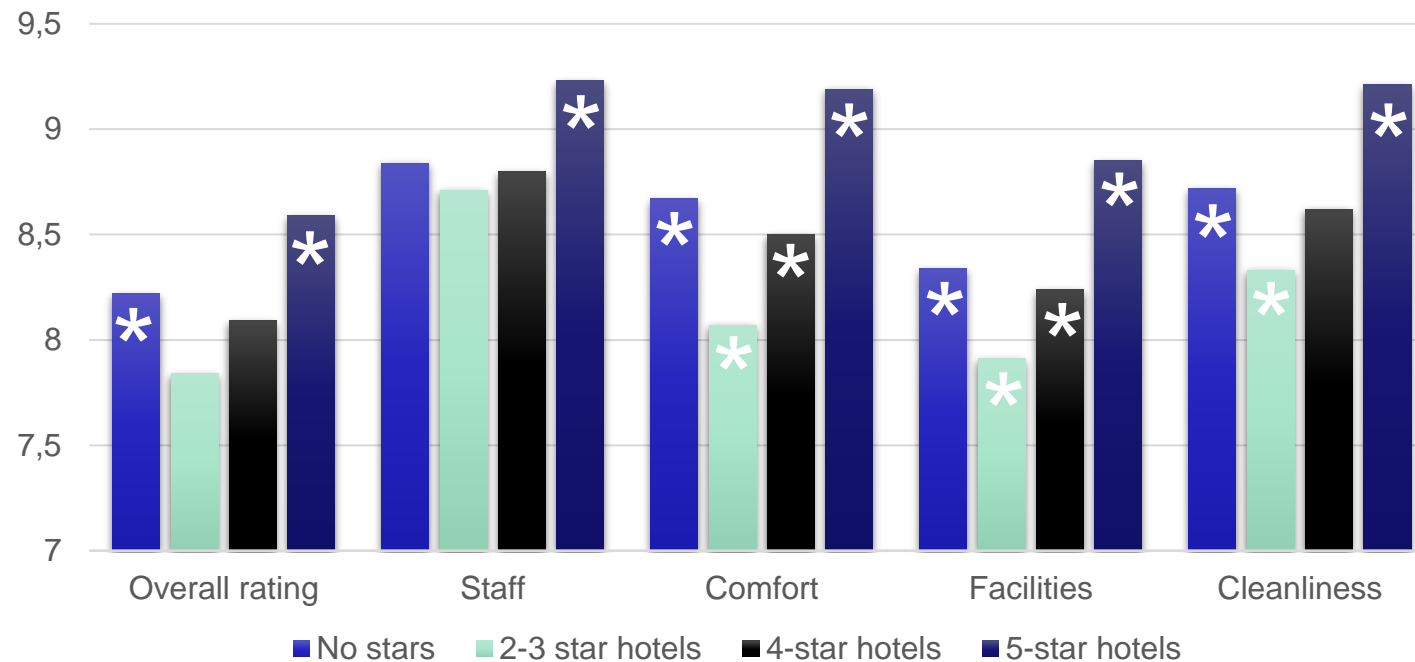
Hotel stars and TripAdvisor ratings



This is the visual representation of multiple Games-Howell Post-Hoc tests. The asterisk (*) indicates that the hotel star category is significantly different ($p < .05$) from at least two other star categories within the specific dimension. The Y-axis shows the means from TripAdvisor ratings.

9. Results – ANOVA

Hotel stars and Booking.com ratings



This is the visual representation of multiple Games-Howell Post-Hoc tests. The asterisk (*) indicates that the hotel star category is significantly different ($p < .05$) from at least two other star categories within the specific dimension. The Y-axis shows the means from Booking.com ratings.

9. Interpretation – ANOVA

For what concerns the ANOVA tests, we can argue that the **lack of difference among hotel star categories** (no stars, 2-3, 4, and 5 stars) in terms of **employee satisfaction** scores could be due to sample characteristics.

Indeed, it might be that these hotels – for which kununu scores are available – are **all investing in employees' wellbeing and satisfaction** – regardless of their stars.

Such dynamic **could explain the positive mean scores** for employee satisfaction and the lack of difference among hotel star categories.

9. Interpretation – ANOVA

Concerning the difference among **hotel star categories** (no stars, 2-3, 4, and 5 stars) and **guest satisfaction** ratings on TripAdvisor and Booking.com, our exploratory **findings are in line with scientific research**, which indicates that:

- Hotel star rating has a significant and positive effect on guest satisfaction [13]
- The positive relationship between user satisfaction and number of hotel stars provides support to the star system as a quality standard in hospitality [14]
- Value for money is a factor that is important for both luxury and budget hotel guests [12], which can explain why we have found only one difference on TripAdvisor ratings and no difference on Booking.com

10. Limitations

In the present study, we used online travel reviews from TripAdvisor and Booking.com as indicators for customer satisfaction.

Yet, it is important to mention that these reviews may not be representative of all hotel guests.

This limitation may justify the reason why most of the identified correlations with employee satisfaction scores are relatively small, although statistically significant.

10. Limitations

Finally, it can be observed that most of the identified significant relationships were between employee satisfaction scores and TripAdvisor review ratings; while those from Booking.com showed relatively less relationships.

This finding seems in line with previous research [11] showing that TripAdvisor's rating is better than other social media and online travel intermediaries for predicting hotel performance.

Furthermore, based on the characteristics of the platforms, we can speculate that this difference may be due to the strong user-generated review community that characterizes TripAdvisor [10], which might result in more accurate reviews; instead, reviews from Booking.com might contain more “noise”.

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