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**Measuring Tailor-Made Service as a Form of Service Quality;  
The Service Individualization Level of the Hungarian Hotel Industry.**

**Dissertation – Thesis Book**

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## Introduction

Developing measurement systems and attempting to measure service quality has already been a well-researched topic. However, measuring the level of individualization of service through the company's capabilities and willingness rather than the guests' is more difficult than measuring the quality from the perspective of the service receiver. Therefore, one of the goals of this dissertation is to research and establish whether it is possible to create a system that measures the tailor-made service level of hotels. For this purpose, it is essential to prove that quality service should be considered as tailor-made service and to demonstrate that the currently available measurement systems are unsatisfactory for measuring the complex hospitality service. If such a measurement system can be created, it can also be used to map the Hungarian hospitality industry and determine their current level of service individualization. A managerial implication of this dissertation is to identify the key areas for improvement in service personalization and customization in the Hungarian hotel sector.

Therefore, the dissertation will have the following objectives:

1. to create a new measurement system to define tailor-made service level in the Hungarian hotels.
  - 1.1. to measure the tailor-made level of the hotel service in Hungary.
    - 1.1.1. to identify what the common characteristics are in the case of hotels that score high on the tailor-made service scale.
    - 1.1.2. to identify what the common characteristics are in the case of hotels that score low on the tailor-made service scale.
  - 1.2. to identify what phase of the guest encounter is most frequently tailor-made.
  - 1.3. to identify development opportunities for the Hungarian hotel market.

## Theoretical Background

Service quality and service quality measurement have expanded throughout the past five decades, with definitions growing from zero defects (Crosby, 1979) to compliance with guest expectations and reaching the customers' perception of service quality (Anderson et al., 1994; Berry et al., 1988, 1988; Grönroos, 1984; Oliver, 1997; Zeithaml et al., 1993).

If quality is defined as conformance to customer specifications (Parasuraman et al., 1988) because it will be judged by the consumer (Grönroos, 1984), regardless of whether it is the quality of a product or a service, then the guest will decide if their experiences were pleasurable (Oliver, 1997), which means that only tailor-made services can provide a high level of perceived service quality.

Since customers judge the services based on the sum of all service encounter experiences (Bolton and Drew, 1991; Boulding et al., 1993), and the performance of the company is determined by the customer (Zeithaml et al., 1993), each customer's needs must be fulfilled. Therefore, satisfaction depends on the individual guest. Every consumer will express different levels of satisfaction even when faced with the same service (Ueltschy et al., 2007). Therefore, the service provided must match the guest's needs and perceptions. The criteria used to evaluate service quality differ even among customer groups and circumstances (Ladhari, 2008), so

companies must have a strategy to tailor their service. Companies must identify the needs and preferences of different customers and provide creative responses (Gilmore and Pine, 2002).

Consumers' perception of technology-related service quality is also important, as IT service quality is essential to 21st-century service. In-person service quality perception has a stronger effect than e-service (Wang et al., 2016), but all services include multiple stages of service (Strombeck and Shu, 2014) and can consist of separate phases: technology-only, hybrid, and human encounters. If AISA is capable of higher efficiency and personalization of service, it will be accepted (Huang and Rust, 2018). Therefore, the technological gadgets must be useful for the guests.

Hence, in this paper, high-level service quality will be viewed as tailor-made service.

## Tailor Made Service

The grammar in the provided text can be improved. Here's a corrected version:

Tailor-Made Service can be divided into personalization, which can encompass personal encounters where the service provider develops a deeper relationship with the customer (Kokko and Moilanen, 1997; Surprenant and Solomon, 1987), personalized marketing, and customization. The consumers' desire for customized products has led to market segmentation (Smith, 1956).

Personalization, regardless of whether it is initiated by the company or the consumer, generally requires a high demand for information. It can be part of technology-based services, personal encounters, or marketing. The common denominator is that personalization utilizes information to provide the right service or product to the right person.

Customization allows customers to adapt the marketing mix to their individual preferences (Wang et al., 2010). The difference from personalization is that customization occurs within predetermined boundaries. Customers are presented with a specific set of options, and they can adjust them according to their preferences (Valenzuela et al., 2009).

Values are co-created through customization and personalization (Zine et al., 2014a).

## Research Environment and Model Building

### Customer Journey Model

When building a tailor – made service model various things must be considered. First of all based on the service quality models (Parasuraman et al., 1995, 1988; Grönroos, 1984; etc.) created in the past decades, a good measurement model will not only rely on multiple previous research, but will also consider the technical and functional aspects of service.

Second of all, a new customer journey model had to be created. Identifying the customer journey in the hospitality setting is essential to be able to create „good service“. In case of the hospitality industry, customer experience can be divided into three service encounter phases, service phase, pre-arrival phase and post-service phase but for instance the service phase can be further divided by either based on the activity (check in, stay, participating in service, requiring help, check out, (Agarwal and Bajaj, 2021; Chiu et al., 2014) or based on the place of the activity (check in, hotel room, hotel bar, (Bitner et al., 2008; Stickdorn and Zehrer, 2009). In the hospitality industry, the service phases can be further divided either based on the activity

(check-in, stay, participating in service, requiring help, check out, (Reichheld and Jennings, 2022) or based on the place of the activity (check-in, hotel room, hotel bar, (Stickdorn and Zehrer, 2009).

In building the customer journey model, very little of service is visible to customers as they have no conception of the underlying processes (Shostack, 1987). Therefore, the component of backstage/technical quality is considered. (Bitner et al., 2008; Grönroos, 1982; Mehrabian and Russell, 1974; Voss and Zomerdijs, 2007; Zeithaml et al., 2006).

### **Hotels in Hungary**

The only reliable source is the Hungarian Hotel and Restaurant Association (HHRA). The Association is divided to seven regions, covering the entire country, representing the interest of all types and categories of hotels and other hospitality businesses nationwide. The HHRA had 458 members on the 8<sup>th</sup> of May 2022.

### **Research Objectives and Hypotheses**

According to the previously discussed literature research, service quality is tailored service. Services are interactive processes in which the service provider utilizes specialized competencies and resources. Value is created through the guests' participation, which can either be in the form of the final product or an addition to a physical good. Quality is determined by conformance to customer specifications and will be judged by the consumer. Since the guests decide whether their experiences are pleasurable or not, tailor-made services can provide a high level of perceived service quality.

Based on the previously drawn conclusions, the purpose of the study is:

1.to create a new measurement system to define tailor-made service level in the Hungarian hotels.

1.1.to measure the tailor-made level of the hotel service in Hungary.

1.1.1.to identify what the common characteristics are in the case of hotels that score high on the tailor-made service scale.

1.1.2.to identify what the common characteristics are in the case of hotels that score low on the tailor-made service scale.

1.2.to identify what phase of the guest encounter is most frequently tailor-made.

1.3.to identify development opportunities for the Hungarian hotel market.

Previous service quality measurements in the hospitality industry have mostly been built on the SERVQUAL model (Parasuraman, Zeithaml, and Berry, 1988a) and have often measured service quality from the guest's point of view. Personalization and customization measurements were either just small additions to an existing model (Zeithaml, Parasuraman, and Malhotra, 2000b) or only concentrated on one aspect of the customer's journey (Bettencourt and Gwinner, 1996; Blom and Monk, 2003; Ariffin and Maghzi, 2012; Xu, Benbasat, and Cenfetelli, 2014). Nowadays, all services include multiple stages of service (Stromback et al., 2013) and can consist of separate phases of technology only, hybrid, and human encounters. Therefore, it is important to explore the possibility of building a complex and comprehensive measurement system that can be used without the guests' involvement.

## Research Questions

After reviewing the conceptual background and theoretical literature, the following research questions have been formulated.

- Q1. Is it possible to create a measurement system that fits the ideal hotel guest journey model?
- Q2. What indicators should be involved in creating a measurement system to determine/identify how tailor-made hotel services are to reach service quality?
- Q3. How tailored (personalized, customized) are the Hungarian hotel services?
- Q4. Can the hotels be assigned to groups based on the tailored service scale scores?
- Q5. What are the common characteristics of those hotels that got into the same cluster?
- Q6. Can the tailored service scale indicators be grouped based on which indicators hotels perform well and poorly?
- Q7. What are the common characteristics of those hotels that score high on the tailor-made service scale?
- Q8. What is the importance of providing tailored service for hotel managers?
- Q9. Is there a relationship between the value of the score on the tailored service scale and the importance of providing tailor-made service determined by the Hotel Manager?
- Q10. Is there a difference in the level to which guest encounter phases are tailor-made?
- Q11. Is there a difference in the level to which guest encounter stages are tailor-made?

## Hypotheses

**Hypothesis 1 - Hungarian hotels can be grouped in different clusters according to the tailor-made service level.**

Tailor-made service has both human and financial resource requirements (Wang et al., 2010b), but both customization and personalization can imply relatively low costs.

**Hypothesis 2 - Tailor made service indicators can be grouped into different clusters based on the performance of the hotel.**

While personalization has a high information demand, it could be a part of technology-based services, personal encounters, or marketing. By clustering the indicators of tailor-made services, a clear picture can be seen of the overall strengths and weaknesses of Hungarian hotels.

**Hypothesis 3 - There is a relationship between the different characteristics of a hotel and its tailor-made service level.**

- H3a. There is a relationship between the size and the tailor-made service level of a hotel.
- H3b. There is a relationship between the hotel type and the tailor-made service level of a hotel.
- H3c. There is a relationship between the type of the hotel and the tailor-made service level.
- H3d. There is relationship between the star rating of the hotel and tailor-made service level.

H3e. There is relationship between chain affiliation and the tailor-made service level of the hotel.

Personalization and customization have a high demand for information, time, and human resources (Wang et al., 2010b) to adapt the hotel's service offering to each guest's preferences (van Riel, Liljander, and Jurriëns, 2001; Valenzuela, Dhar, and Zettelmeyer, 2009b). Depending on the hotel and the characteristics of the customer, guests will spend varying lengths of time in the hotel. Therefore, in some cases, there will be more opportunities for personal encounters to occur.

**Hypothesis 4 - there is a relationship between the level of tailor-made services and the importance of the tailor-made services determined by the hotel manager.**

General Manager decides on the hotel's strategy (Jávor, 2009; Hayes, Ninemeier, and Miller, 2016). Therefore, if tailor-made service is important to the hotel manager, they should be able to influence the overall strategies of the hotel.

**Hypothesis 5 - There is a difference in the tailor-made service level of the guest encounter phases.**

The individualization of the service demands interaction between the hotel and the customer. The different stages have varying numbers of opportunities for encounters.

**Hypothesis 6 - There is a difference in the tailor-made service level of the guest encounter stages.**

The functional aspects of service delivery have a higher human resource demand, while the technological aspects have a higher financial demand. To provide good tailor-made service at the functional level, the hotel needs good technical support. Personalization is primarily initiated by the company through data collection.

## Research Concept

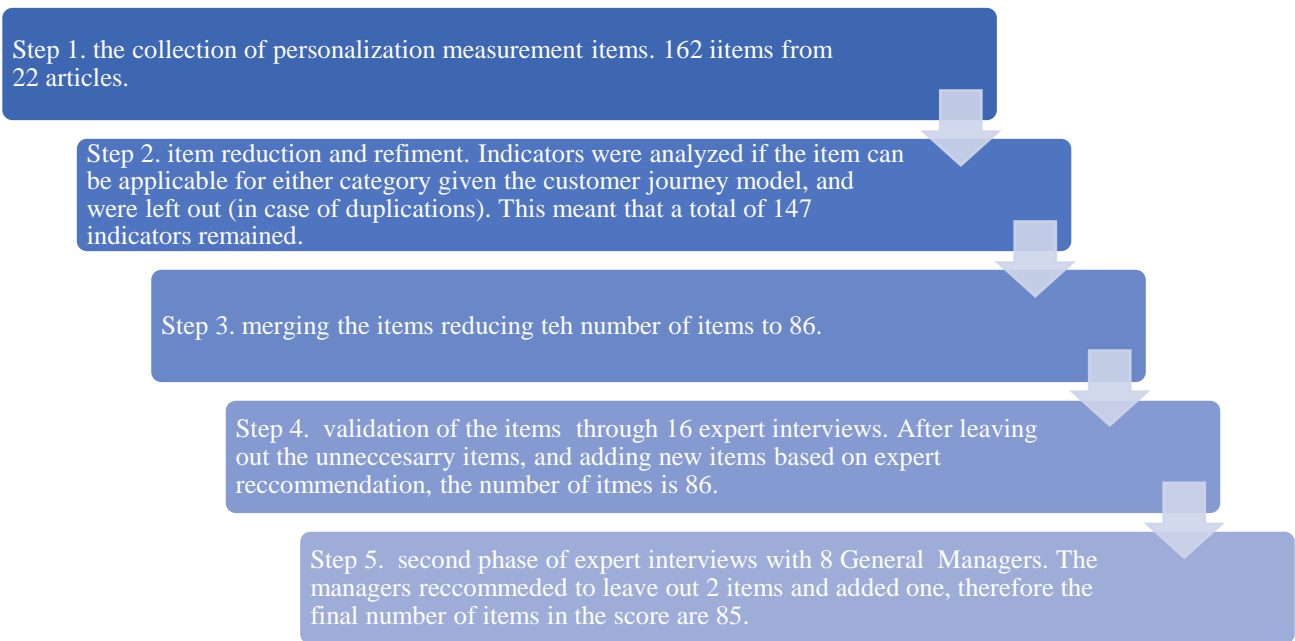
Both secondary and primary data were collected in this research. Additionally, the research includes quantitative aspects such as questionnaires, cluster analysis, and relationship studies, as well as qualitative aspects such as structured interviews.

### Building the Scoring Model – Qualitative Research

This study aimed to conceptualize the measurement of tailor-made service. For this process, the scale development procedures developed and employed by, among others, Chi et al. (2020), Churchill (1979), and Parasuraman et al. (1985), were used to create the hotel tailor-made service measurement model.



## 1. Figure - Building of the scoring model



(Source: Own Edit)

### Value of the Scale

The tailor-made service scale has two types of values. The technical stage items have a binary value on a 0-1 scale. There are 26 items in the technical stage, which means that the total value of the technical scale items is 26. The functional stage items can be measured on an ordinal scale from 0 to 5. Since there are 59 indicators in this stage, hotels can reach a maximum of 295 points on the functional stage. Therefore, a hotel's tailor-made service score can range from 0 to 321.

### Quantitative Research

After creating the measurement scale, it was distributed among hotels by being added to a questionnaire that included questions about the hotels' characteristics. The questionnaire was converted into an online survey and sent out via email. The president of the HHRA agreed to assist in the distribution of the survey and endorsed the research by sending out the survey on the 3rd of October 2022. Reminder emails were sent out weekly, and the region presidents or vice presidents were contacted directly via email and/or phone. The last survey was sent out on the 15th of November 2022.

After cleaning the data, 105 hotels remained in the sample, which, according to the HHRA feedback, is within the range of the "member hotels' willingness to respond" (90-120 fillings) to surveys done by the HHRA. Comparing the survey results to the population, it can be stated that 22.93% of the HHRA members participated in the survey. Most of the hotels in HHRA are in the Budapest region, which consists of the hotels of the city of Budapest (N=131) and its surroundings (N=28). This region was the least responsive, as only 8.81% agreed to participate in the survey.

Among the participants, 31 hotels are part of a hotel chain, most of them from the Budapest region, which has significantly more chain members than the other regions. The hotel size ranges from 10 to 429, while the number of employees working in the establishments ranges from 2 to 250.

The majority of hotels target leisure guests (76%), and the most common primary target group among leisure guests is families. Three target groups are the most common: families, businesses, and couples of all ages. Most of the participants are Wellness hotels (38%) and City hotels (28%).

**Hypothesis 1 - Hungarian hotels can be grouped in different clusters according to the of tailor-made service. and Hypothesis 2 - Tailor made service indicators can be grouped into different clusters based on the performance of the hotel.**

To test hypothesis 1 and hypothesis 2, bi-cluster analyses were performed. Bi-clustering methods are new in the social sciences (Kosztján et al., 2019), and they are a data mining technique that makes the simultaneous clustering of the rows and columns possible. For this analysis, the R software environment and the R Studio integrated development environment were used. As part of the bi-clustering analyses, three clusters were tested: the top league, the lower league, and the middle league. The bi-cluster analyses were relevant, and through the analyses, all three clusters were identified as significantly relevant with a  $\tau=0.75$  threshold.

#### Leagues and the Overlap of the Leagues.

After identifying and confirming that the three leagues (A, C, and B) are relevant, the next step is to find the overlaps. Not all hotels assigned to the top league perform well in all tailor-made service indicators, as there are overlaps with the middle (B) and lower leagues (C). Bi-clustering procedures allow each submatrix to overlap with each other, creating League AB, ABC, and CA.

#### The Cluster of Tailor-made Service Indicators

There are 46 tailor-made service indicators in the top league, and 17 of them fall into the middle and lower leagues with a threshold  $\tau = 0.75$ . Additionally, there are 2 indicators in the union of league CA. Three indicators cannot be significantly assigned under the stricter threshold.

#### Members of the Clusters

With the tailor-made service indicators assigned, the cluster will look as follows:

The top league (League A) has 80 hotels and 65 indicators. Almost 90% of functional stage indicators and 51% of technical stage indicators are here, meaning that 80 out of 105 hotels perform well above average when it comes to the post-service phase and do well in the service phase, especially in acts of kindness, guest service, and supporting activities and infrastructure necessary to offer personalized and customized service.

The middle league (League B) is the most homogeneous league. All 28 hotels are performing well in the 17 tailor-made service indicators assigned to these hotels, which means that they are also great at encouraging employees to provide individualized service and be truly hospitable. They are all performing outstandingly in encouraging and providing hospitality.

The lower league (League C) has 95 hotels and 19 indicators, which means that more hotels are performing poorly in these 19 indicators than hotels that are at least average. The lower league is characterized by technical stage indicators containing supporting activities and technological

conditions that can be crucial in customized or personalized services, such as the websites' data collecting abilities or micro-segmentation of the target group. This means that 90.5% of all participants perform poorly, and the remaining 9.5% perform at best average in these indicators.

Looking at the leagues from the tailor-made indicator standpoint, the top league indicators focus on the functional aspects of tailor-made service and include all necessary supporting activities for individualized service.

The middle league indicators focus on hospitality and encouragement, both of which are essential parts of great service.

The lower league contains most technical aspects and supporting indicators, which would require planning and investment in customization and personalization.

There are three sub-leagues of hotels and two sub-leagues of indicators based on how they overlap.

**1. Table - Name of Hotel Bi-clusters**

<b>Name in Bi-cluster</b>	<b>Name of Bi-cluster</b>	<b>Members and indicators</b>	<b>Target group</b>	<b>Target group by origin</b>
<b>League A*****</b>	<b>Leaders</b> of tailor-made service	4 hotel 46 indicators	Leisure guests	international guests
League C*	The <b>Conservatives</b> of service	24 hotels 17 indicators	Leisure guests	domestic guests
<b>League AB</b>	The <b>Champions</b> of hospitality	5 hotels 17 indicators	Leisure guests	international 3 domestic guest 2
<b>League ABC</b>	The real <b>Midfielders</b>	23 hotels 0 indicators	Leisure guests	international guests
<b>League CA</b>	<b>Up-and - comers</b>	48 hotels, 2 indicators	Business guests	similar proportion.

(Source: Own Edit)

## Thesis 1

It was determined that Hungarian hotels can be grouped into five different clusters (Leaders, Champions, Midfielders, Conservatives and Up-and-comers) according to the level to which they can provide tailor made services. The smallest group is the Leaders of tailor-made service with 4 hotels, followed by the Champions of hospitality with 5 hotels. The real Midfielders consist of 23 hotels and are closely followed by the Conservatives of service with a cluster of 24 hotels. The fifth cluster identified is the Up-and-comers, in which cluster 48 hotels can be found.

## Thesis 2

It was concluded that tailor-made service indicators can be grouped into four different clusters (Leaders, Champions, Conservatives and Up-and-comers) based on the performance of the hotel. The top league indicators focus on the functional aspects of tailor-made services and include all necessary supporting activities for individualized service while the lower league contains most technical aspects and supporting indicators. The middle league indicators focus on hospitality and encouragement. The fourth indicator cluster has 2 indicators concerning data collection and re-marketing which are necessary functions in the endeavour in service individualization.

### Conclusion of Hypothesis 1 and 2.

Dividing the hotels and tailor-made service indicators into clusters showed a clear difference in the levels of tailor-made service. The hierarchy of Hungarian hotels reveals that a considerable portion of the industry falls into the middle or lower leagues, as there are more hotels assigned to the "Midfielders" and "Up-and-comers" than to the "Champions" and "Leaders." Despite the fact that most hotels perform as "Midfielders" or lower, the clusters of tailor-made service indicate that most indicators are situated in the top league. This means that indicators focusing on functional stage aspects, such as acts of kindness and classical hospitality service with a focus on guest satisfaction, are important to almost all players. On the other hand, active personalization and customization of service, as well as employee encouragement, are generally less important in the Hungarian hotel sector.

### **There is a relationship between the different characteristics of a hotel and its tailor-made service level. (Hypothesis 3)**

The hypothesis aims to determine if specific hotel characteristics such as size, star rating, target group or hotel type will affect the level to which service is tailor-made.

#### **The Size of the Hotel**

This sub-hypothesis was set up to test the relationship between the number of rooms in the hotel and their score on the tailor-made service scale. To investigate this relationship, correlation analysis has been chosen (Sajtos and Mitev, 2007).

The Pearson correlation shows that there is no statistically significant correlation between the size of the hotel and the tailor-made service score ( $p=0.711$ ). The room numbers and the sub-scores for the functional score (0-295) and technical score (0-26) were also compared but showed no statistically significant correlation between the variables (Functional,  $p=0.791$ ; Technical,  $p=0.288$ ).

Therefore, it can be concluded that (H3a.) there is no relationship between the size of the hotel and the tailor-made service level; thus, I reject the hypothesis.

### The Type of Hotel

This sub-hypothesis was directed to investigate the relationship between the hotel type and their score on the tailor-made service scale. To investigate this relationship, one-way ANOVA has been chosen, the test of Homogeneity of Variances was met. The results show  $p > 0.05$  therefore there it can be concluded that there is no relationship between the type of the hotel and the level to which service is tailor-made, therefore the hypothesis is rejected.

### The Hotel's Guest Type

This sub-hypothesis aims to find a relationship between the hotel guest type and their score on the tailor-made service scale. To investigate this relationship, variance analysis has been chosen, but the test of Homogeneity of Variances was not met. Therefore, the nonparametric analysis of the Kruskal-Wallis test was performed. Since the p-value is greater than  $p=0.05$ , it can be concluded that (H3c) there is no relationship between the hotel's guest type and the level to which the service is tailor-made. Therefore, the hypothesis can be rejected.

### The Star Rating

This sub-hypothesis aims to find a relationship between the hotel's star rating and their score on the tailor-made service scale. To investigate this relationship, variance analysis has been chosen, and the test of Homogeneity of Variances was met. The ANOVA analysis shows a significance of  $p < .05$ .

Therefore, it can be stated that (H3d) there is a relationship between the hotel's star rating and the tailor-made service level.

To determine where a stronger relationship can be found and to identify which specific groups are different from each other, a post-hoc test was performed. The output shows no significant difference between the different star-rating scores, except between 3-star and 4-star hotels, where 3-star hotels score significantly higher than 4-star hotels. Therefore, the hypothesis is confirmed.

### Chain Membership

To determine if there is a relationship between chain membership and the score on the tailor-made service scale, t-test is going to be performed. The test shows Sig. (2-tailed) is  $p < 0.05$ , which signifies that there is a statistically significant difference between the two groups.

The analysis found that chain members, have a higher score, (255,35 +/- 41.6) compared to non-chain members (232,66 +/- 41.35)  $t_{103} = -2.56$ ,  $p = 0.012$ . Therefore, the hypothesis can be accepted.

### **Findings of Hypothesis 3.**

#### **Finding 3a.**

The Pearson Correlation analysis confirmed that there is no relationship between the size of the hotel and the level to which services are tailor-made as the significance level is  $p=0.711$ .

#### **Finding 3b.**

Based on the results of one-way ANOVA where the significance level is  $p=0.348$ , it can be concluded that there is no relationship between the type of hotel and the level to which services are tailor-made.

#### **Finding 3c.**

No relationship was found between the hotel's guest type and the level to which services are tailor-made as the significance level of the Kruskal – Wallis Test is  $p=0.080$ .

### **Thesis 3.**

#### **Thesis 3d.**

It was proven that there is a relationship between the hotel's star rating and the level to which services are tailor-made. The post-hoc analysis showed that 3-star hotels score significantly higher than 4-star hotels on the tailor-made service score.

#### **Thesis 3e.**

Independent Samples Test determined that there is a relationship between chain membership and the level to which services are tailor-made as  $p<0.05$ . The analysis found that chain members have a higher score,  $(255,35 \pm 41.6)$  compared to non-chain members  $(232,66 \pm 41.35)$   $t_{103}=-2.56$ ,  $p=0.012$ .

### **Conclusion of Hypothesis 3.**

Literature suggests that tailor-made service requires a high number of human resources and data. This indicates that the more time the guest spends in the hotel, the greater the chance for the hotel and the customer to co-create value. However, the findings of the hypotheses showed no statistically significant difference between the size of the hotel, the type of hotel, or the type of guest. Therefore, the length of stay or the specific needs of different target groups have not affected the level of tailor-made service in the Hungarian hotel industry. This suggests that the

extent to which hotel employees and guests have the chance to "encounter" did not influence the score the hotel achieved.

Furthermore, while the star rating system indicates the level of quality, this research showed that the only difference was between three and four-star hotels regarding individualized service, where three-star hotels performed better in individualization than four-star hotels. At the same time, the results show that chain membership affected the level of individualization of service. Chain members emphasize standardization, which influences their approach to tailored service. They also usually share resources with their chain members, which could explain the results and why they performed better on the overall tailor-made service scale.

**There is a relationship between the level of tailor-made services and the importance of the tailor-made services determined by the hotel manager. (Hypothesis 4)**

General Manager is the main decision-maker in the hotel strategy; therefore, their attitude is key when deciding on a more tailor-made service strategy. The survey contains three questions regarding the importance of tailor-made service. (Based on Ariffin, 2013; Chellappa and Sin, 2005; Ozturk et al., 2017).

- How important is it to you to provide tailor-made service to your guests?
- How important is it to your hotel that in your hotel's communication, you make the guest feel like they are special customers?
- How important is it to you to modify the hotel service supply based on the guest's individual needs?

The managers were asked to answer the above questions and rate their responses on a 1-7 Likert scale. After determining the internal correlation between the indicators, to compare the importance value, Pearson rank correlation was used, which shows  $p > .005$ , therefore it can be concluded that there is no relationship between tailor-made service scale and the importance of providing tailor-made service, therefore the hypothesis can be rejected.

**Finding 4**

Based on Pearsons Rank Correlation it can be concluded that there is no relationship between the value of score on the tailor-made service scale and the importance of providing tailor made services determined by the Hotel Manager as the significance level is  $p=0.837$ .

**Conclusion of Hypothesis 4.**

Although General Managers are the main decision-makers of the hotel and strategy, the results could not prove a relationship between the importance of service personalization and customization for the General Manager and its presence in the hotel service.

**There is a difference in the tailor-made service level of the guest encounter phases. (Hypothesis 5.)**

To measure whether there is a difference in the tailor-made level of the guest encounter phases, first, the three phases must be comparable. Since each phase has a different number of indicators, they had to be normalized on a scale from 0 to 1.



After normalizing the score rates of the phases to make them comparable, a paired sample t-test was chosen to identify if there was a significant difference between the phases regarding the level of tailor-made service. The analysis reveals a moderate relationship between the phases ( $r = 0.41-0.7$ ), as stated by Sajtos and Mitev (2007).

The average difference between the two variables is the greatest between the pre-arrival and the post-service phase ( $-0.1272$ ).

- There is a significant average difference between the service phase and the pre-arrival phase ( $t_{104} = 5.392$ ;  $p = .000$ ), indicating that, on average, the service phase scores were 0.082 points higher (on the normalized scale) than the pre-arrival phase scores.
- There is also a significant average difference between the service phase and the post-service phase ( $t_{104} = -3.113$ ;  $p = .002$ ), indicating that, on average, the service phase scores were 0.0447 points lower (on the normalized scale) than the post-service phase scores.
- Finally, there is a significant average difference between the pre-arrival and the post-service phase ( $t_{104} = -7.444$ ;  $p = .000$ ), indicating that, on average, the pre-arrival phase scores were 0.1272 points lower (on the normalized scale) than the post-service phase scores. Based on these results, it can be confirmed that hotels performed best on the post-service scale and they core lowest of the pre-arrival phase, therefore I can accept the hypothesis.

#### **Thesis 5.**

Based on Paired sample t-test, it was proven that there is a statistically significant difference in the level to which guest encounter phase are tailor made. Hungarian hotels perform best in the post-service phase tailor-made service indicators, (as service phase and the post-service phase is  $t_{104} = -3.113$ ;  $p = .002$  and the pre-arrival and the post-service phase  $t_{104} = -7.444$ ;  $p = .000$ ) and lowest in the pre-arrival phase tailor-made service indicators (as service phase and pre-arrival phase  $t_{104} = 5.392$ ;  $p = .000$ ).

#### **Conclusion of Hypothesis 5.**

The research compared the guest encounter phases based on the level of tailor-made service scores. The study showed that, although based on the literature, the service phase should be the best performer as it is the phase when the most encounters happen and therefore offers the most chances for tailoring service, in the Hungarian hotel industry, the post-service phase performs the highest. Furthermore, the scores of the post-service phase were all in the top League cluster and showed significantly higher results in all cases. Altogether, the Hungarian hotels performed the worst in the pre-arrival phase, which also relies heavily on technology.

#### **There is a difference in the tailor-made service level of the guest encounter stages. (Hypothesis 6)**

The tailor-made service indicators play on two stages, the technical and the functional stage. By normalizing the scores of the two sub-scales, it is possible to compare them. To measure whether there is a difference in the level to which guest encounter stages are tailor-made, first, the 2 phases must be comparable. As each has a different number of indicators, they had to be



normalized (0-1). The bivariate Pearson correlation coefficient for each pair of variables shows moderate relationship between the phases. (Sajtos and Mitev, 2007))

There is a significant average difference between the technical stage and the functional stage ( $t_{104}=-21.148$ ;  $p=.000$ ) which means that on average the technical stage scores were 0.3554 point lower (on the normalized scale) than the functional stage scores.

Based on this analysis, it can be concluded that hotels performed better on the functional tailor-made service scale indicators, therefore the hypothesis can be accepted.

#### **Thesis 6.**

Based on paired t-test it can be concluded that there is a statistically significant difference in the level of tailor-made services in the different guest encounter stages. Hungarian hotels as the significance level is  $p=0.000$ . Hungarian hotels perform best on the functional stage as the technical stage scores are 0.3554 point lower in average.

#### **Conclusion of Hypothesis 6.:**

The research compares the technical stage and the functional stage indicators and found a statistically significant difference which shows that Hungarian hotels, in general, perform better in tailor-made items of the functional stage.

#### **Novelty of the results:**

1. Conceptualizing a new customer journey model for the hotel industry that considers multiple aspects of service.
2. Creating a new tailor-made service quality measurement system for hotels that fills gaps in existing research and testing it.
3. Using bi-cluster analyses, a new technique in social sciences, to provide a fresh perspective on grouping methods and identifying best performers.
4. Providing an overview of the Hungarian hotel industry's capability to provide tailor-made service and examining the characteristics of clustered hotels.
5. Identifying strengths and weaknesses of Hungarian hotels in providing tailor-made service through grouping indicators.
6. Finding the relationship between hotel characteristics and the level of tailor-made service, contradicting existing literature and extending knowledge.
7. Presenting and analysing differences in the tailor-made level across service encounter stages and highlighting statistically significant differences.
8. Presenting and analysing differences in the tailor-made level across service encounter phases and highlighting statistically significant differences.
9. Offering an overview of the Hungarian hotel industry from a service individualization perspective.
10. Providing a new understanding of the strengths and weaknesses of the Hungarian hotel industry in providing service.

### Further Research:

The preparation of this measurement system was done by qualitative interviews. Following the research, a post interview could be implemented to analyse how hotel leaders interpret these results and if they agree with it.

As mentioned, the measurement system could be applied to other service areas, but it should be tailored to the service. The modifications should follow the same logic and interviews with experts on the field would be needed.

One other direction of the research could be to create a measurement system paired with the tailor-made service measurement system detailed in this dissertation, that could be filled out by the hotel guest, to measure what the guest experience from the service and compare it with the self-evaluation score of the hotel. This direction would concentrate on hotels individually and could give more important data to the hotel to where to improve.

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Conference Participation:

ATSA (Euro Asia Tourism Studies Association) 2020, Italy (online) - Service through personal encounters or technology; the preferences and privacy concerns of Generation Z

THE INC (Tourism Hospitality & Events International Conference) 2020, Netherlands (online) - Personalization as co-creation, luxury hotel case studies

III. International tourism-marketing conference 2020, Hungary (online) - A szállodai CSR politika megjelenése a vendég visszajelzésekben

IV. International Conference on Tourism and Security 2019, Zalakaros, Hungary - Privacy preferences of Gen Z in technology-based service use

X. International Tourism Conference, 2019, Győr, Hungary - Personalization in the hotel industry; research agenda

EATSA (Euro Asia Tourism Studies Association) 2019, Antalya, Turkey - Travelling to tell the tale? – Role of (e-)WOM in case of Lake Balaton (Hungary)

II. International Tourism-marketing Conference 2019, Pécs, Hungary - Utazom és mesélek, Az utazók (e)WOM szerepe a Balatonnál.

III. International Conference on Tourism and Security 2018, Zalakaros, Hungary - Privacy preferences of Gen Z in technology-based service use

XIII. KHEOPS International Conference, 2018, Mór, Hungary - An exploratory research on competency differences between Hungarian and Dutch Front Office Managers

IX. Országos Turizmus Konferencia, 2018, Pécs, Hungary - A kompetencia GAP