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**EVALUATION OF EMPLOYEE COMPETENCE BY QUALITY  
FUNCTION DEPLOYMENT METHOD: THE CASE OF HOTELS IN  
CAPPADOCIA**

*AValiação da Competência do Funcionário pelo Método de Implementação  
da Função de Qualidade: O Caso de Hotéis na Capadócia*

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**ABSTRACT:** The main purpose of this study is to evaluate the competencies of the employees operating in the tourism sector and to determine the priority expectations of the managers about the employees. Within the scope of the study, first of all, employee competencies will be determined from the literature. In the continuation of the study, the activities that need to be done to increase employee competencies for the managers of the accommodation enterprises operating in Cappadocia are presented. In line with the information obtained, the activities that need to be done to improve the competence of the employees in the region by revealing the current situation are listed in a detailed way. Quality function deployment (QFD) method was used in the study. QFD is a quality improvement method that can integrate the expectations of decision makers into remedial activities. Including the expectations of the managers about the employees in the improvement process with the QFD method increases the importance of the study. **Keywords:** Employee competence, QFD, AHP, Hotels.

**RESUMO:** O objetivo principal deste estudo é avaliar as competências dos funcionários que operam no setor de turismo e determinar as expectativas prioritárias dos gestores sobre os funcionários. No âmbito do estudo, em primeiro lugar, as competências dos funcionários serão determinadas a partir da literatura. Na continuação do estudo, são apresentadas as atividades que devem ser realizadas para aumentar as competências dos colaboradores e dos gestores dos

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empreendimentos de alojamento a operar na Capadócia. De acordo com as informações obtidas, são elencadas de forma detalhada as atividades que devem ser realizadas para melhorar a competência dos colaboradores da região, revelando a situação atual. O método de implantação da função de qualidade (QFD) foi usado no estudo. QFD é um método de melhoria de qualidade que pode integrar as expectativas dos tomadores de decisão em atividades corretivas. Incluir as expectativas dos gestores sobre os funcionários no processo de melhoria com o método QFD aumenta a importância do estudo. **Palavras-chave:** Competência do funcionário, QFD, AHP, hotéis.

## INTRODUCTION

With the rapid growth in the tourism sector, there has been a great increase in the number of tourism enterprises. As a result of the increase in the number of these enterprises operating in the field of tourism, high competition among these enterprises emerges (Koç & Villi, 2021). Tourism enterprises have realized that in order to cope with this intense competition, service delivery and quality should be considered and given importance (Gündoğdu & Erkilic, 2020). Because it is possible to establish the same kind of tourism enterprises in another region or in the same destination in a short time. At this point, human resources, which will provide competitive advantage by differentiating tourism enterprises from their competitors, have gained more importance than ever (Biçer & Düztepe, 2003). In addition to these, the need for labor factor is much higher in tourism sector than other sectors, since the production of goods and services is not suitable for mechanization and automation due to the nature of the tourism sector. Because of the “labor-intensive” production technique, the employment density of the sector is high. At the same time, goods and services in the tourism sector have to be consumed as soon as they are produced (Birinci & Güçlü, 2021; Sezgin, 2015). Due to such features of the tourism product, the employee factor is more important in this sector than it is in other sectors. For this reason, tourism enterprises should pay more attention to activities about employees (selection, training, rewarding, authorization and remuneration etc.).

One of the most important problems of enterprises today is to employ the right and well-trained employee for the right job. Today, an employee’s working lifelong in an enterprise and his/her rising through the organizational steps has lost its importance. Knowledge, flexibility and speed are among the most important features of organizations today. For this reason, the expectations of the organizations from the employees and the organizational structures related to this have changed, and therefore flexibility, unlimitedness and expertise have come to the fore in the way both organizations and employees view career (Spencer & Spencer, 1993). Human resources give more importance to employees who have knowledge, skills, abilities and attitudes to differences than employees who dedicate themselves to an institution. For this reason, commitment and loyalty have been replaced by all observable behaviors, namely competencies, such as knowledge, attitudes, and skills that enable superior performance in a job (Kordon, 2006).

Employee competency provides various benefits to tourism enterprises. In order for the employee to provide these benefits to the enterprises, they must first transform their competencies into measurable behaviors. Competencies that can be transformed into behaviors can be supervised and controlled by managers. In this way, the benefits of the competencies of the employees will be revealed more clearly. Competencies that can



be measured and supervised can be developed and transferred from person to person (Biçer & Düztepe, 2003; Eren & Onat, 2018).

One of the most important benefits that competencies bring is the use of a common language within the organization. Conducting analyses of the same standard both on a personal basis and on the basis of teams and making them systematic is a second gain for the institution. Competencies also provide a real perspective by embodying success. From this point of view, the definition of success becomes standard for all and is known to all. With the use of competencies, it is primarily aimed to create a difference in the working life of the employees and the way they view their work (Boyatzis, 1982). Businesses will only be able to achieve the performance they want with the increase in the success level of their employees and managers.

Employees are of great importance for a tourism enterprise. Because, as mentioned above, tourism is a labor-intensive sector and service is seen as the main factor that distinguishes tourism enterprises from each other. Although the employees are very important for a tourism enterprise, employee competency is at least as important as the employees themselves (Kordon, 2006). In other words, competency is a quality which means employing the right employee in the right job, having the knowledge and skills required by the employees, being willing to turn these skills into observable behaviors and performing superior to other employees as a result of these behaviors. In this study, it is aimed to evaluate the competency of the employees working in accommodation enterprises and to create a roadmap for improvement. To do this, QFD and AHP techniques were used in an integrated manner. In this way, it became possible to weight the existing criteria and possible improvement activities as objectively as possible. In line with the findings obtained, suggestions were made for the accommodation enterprises operating in the research region, and suggestions were presented for the researchers working in this field in terms of both method and the findings.

## LITERATURE REVIEW EMPLOYEE COMPETENCY

Competency is defined as observable behaviours that encompass distinctive knowledge, skills and attitudes in achieving superior performance. In other words, competency is a group of knowledge, skills and characteristics that affect a significant part of a person's role and responsibilities at work, are related to their performance at work, can be measured by accepted standards, and can be advanced through education and development (Biçer & Düztepe, 2003).

Boyatzis (1982) defined competency as the characteristics of the person whose job results in effective and superior performance. Superior performance is a kind of behavior that consistently outperforms average and poor performance in the work environment. Its features follow the 80-20 rule, which includes key behaviors that lead to superior performance. 80% of the consequences of an event are caused by 20% of the causes. This is called the 80-20 rule (Schoonover, 2001).

Spencer & Spencer (1993: 9) defined competency as the basic characteristic of an individual that achieves an effective and/or superior outcome in any job and/or situation. According to Spencer & Spencer (1993: 9), core competencies are a very deep part of the personality and are an indicator that will allow you to predict how an individual will behave in different situations and positions. Competencies are basic characteristics of people and indicate ways of thinking and behavior that can be adapted



to different situations and continue for a certain period of time (Spencer & Spencer, 1993).

The concept of competency was first used by Selznick in 1957 in the form of “distinctive competency” to describe the process that points to the main factors that lead an organization to success. Accordingly, the concept of competency became widespread after Prahalad and Hamel used it in their article “the Core Competence of the Corporation” in 1990 (Bayraktar, 2002).

The concept of competency was first used by White (1959) in the field of human resources, but it gained a real importance after the study “Testing for Competence Rather than Intelligence” published by David McClelland (1973) (Mansfield, 2000). In his work in the field of job competency, McClelland started his analysis directly from the person doing the job without any prejudice about what characteristics should be possessed to do the job better and defined the characteristics that reveal job success through open-ended behavioral case interviews (McClelland, 1973). The purpose of this study is to determine the features that directly affect superior success.

There are many definitions related to the concept of competency. This is because competency has had different uses to this day and is a concept that has been studied from different points of view (Hoffmann, 1999). Competency is an abstract concept, difficult to define and measure. In order to make this concept, which is still being studied today, concrete and not abstract, it is examined with behavioral styles. Critical value behaviors are emphasized in the success of the employees in doing their job. These behaviors indicate that employees who succeed at work demonstrate behavior that is more stable than average or unsuccessful employees (Doz, 1996).

In the tourism industry, as in other industries, the product is created by bringing the elements of labor, capital, natural resources and entrepreneurship together. However, since the product produced by the tourism industry is described as intangible, it is a labor-intensive sector (Bilgiçli & Altınkaynak, 2016). Enterprises operating in the tourism industry do not have many alternatives to differentiate from each other. Because in this sector, the same enterprise in destination “A” appears in a short time in destination “B”. Or such situations can occur in the same destination. For this reason, the most important trump card in the differentiation of these enterprises is the employees (Chapman & Lovell, 2006; Eren & Onat, 2018; Tesone & Ricci, 2005). Thanks to the employees owned by a tourism enterprise, the quality of service perceived by customers can be significantly improved. In a study, it was concluded that the service quality offered by the tourism enterprise is more important than the physical elements offered by the same enterprise (Doğan & Karakuş, 2014). In this study, it was observed that tourists traveling to a destination first expect a smiling face, a good welcome and a helpful service from employees, while secondly they pay attention to the physical facilities of the enterprise. As can be seen from this study, if employee-job harmony is achieved in an enterprise, the highest level of performance that could possibly be obtained from that job can be obtained (Aktuna & Kiliçlar Bayram, 2019). In this way, many advantages can arise for the enterprise. For this reason, it is necessary to talk about the importance and advantages of employee competency, which is very important for tourism enterprises.

Competencies are features that enable enterprises to compete effectively, make the enterprise different from its competitors, direct their strategies, and therefore should be found in everyone working in the business. Competencies vary according to the work done. For example, the competencies that lower, middle and senior managers working in hotel enterprises should have are different. Therefore, competencies have



been studied in the literature at three levels. These competencies are classified as core competencies, functional competencies and managerial competencies (Kordon, 2006).

Core competencies reflect the vision, mission and values of enterprises. It is the basic qualities of an enterprise that cover the entire business, regardless of tasks and positions, showing how it wants to be recognized by customers and competitors, and the core competencies mostly include technical skills and knowledge (Milkovich, 1997). Core competencies are among the factors that directly affect the success or failure of the organization, as technical knowledge and skills are required. In determining the competencies of all positions in the organization, it is noted that they are compatible with the core competencies and develop each other. Because the core competencies reflect the corporate culture of the organization (Kordon, 2006).

Functional competencies, which we can also call human competencies, especially mean the competencies that mid-level managers should have. In addition to technical knowledge, they are behavioral styles that will harmonize personal and organizational goals and ensure the establishment of good relationships. Functional competencies are extracted by analyzing the behavior of those who perform a professional role (Kordon, 2006).

Managerial competencies refer to the competencies that senior managers who will make strategic decisions should have. These competencies are of great importance for enterprise policy and profitability. For this reason, managerial competencies are of great importance for an enterprise. The basic managerial competencies that top managers should have are observed as analytical thinking, future-oriented thinking, determination and managing the change (Kordon, 2006).

Competencies are used more frequently by organizations today. This is because it helps to solve important problems and make decisions. Competencies (Hauenstein, 2000):

- Supports empowerment, coaching, evaluation and performance development processes,
- Explains labor force standards and expectations,,
- Provides a common language for describing enterprise requirements,
- It ensures fairness in value and wage decisions,
- It unites individuals, teams and managers with the business strategies of the enterprise and brings them together on the same plane.

In order for competencies to be beneficial, they need to be transformed into measurable behaviors. Since the competencies that are transformed into behaviors will be auditable and controllable by the decision makers, the benefits of the competencies will be revealed more clearly. Measurable competency can be developed and transferred from person to person (Biçer & Düztepe, 2003).

One of the most important benefits that competencies bring is the use of a common language within the organization. Conducting analyses of the same standard, both on a personal and team basis, and making them systematic is a second gain for the organization. Competencies also provide a real perspective by embodying success, the definition of success becomes standard for all, and success is known to everyone in the same way. Thanks to competencies, it is primarily aimed to create a difference in the perspectives of the employees towards their work. enterprises are thought to be able to achieve the performance they want only by increasing the success of lower, middle and upper level employees (Biçer & Düztepe, 2003). Other benefits of competencies are listed as follows: changing success criteria, providing assurance, high performance graphics, effective competitive advantage and associating individual behaviors with



company strategy (Biçer & Düztepe, 2003; Campbell & Luchs, 1997; Lucia & Lepsinger, 1999).

Competencies constitute a common language that ensures the connection and harmony among enterprise-employee-organization. Therefore, it is very important to be perceived by everyone in the same way and to be identified correctly. Each competence consists of a short definition and behavioral indicators that express it. Behavioral indicators are measurable and observable responses that occur when a certain competence is used (Kordon, 2006). That is, it is very difficult to measure the concept of competence directly. Therefore, in order to measure this concept, it must be transformed into observable behaviors. When the relevant literature is examined, it is observed that this concept is divided into many different dimensions and measured. One of the most notable measurements is the three-dimensional measurement Spencer & Spencer (1993: 11) made in their study. These dimensions are knowledge, skill and attitude. In addition to these dimensions, Biçer & Düztepe (2003) tried to measure this concept with five dimensions by adding observable behavior and superior performance dimensions. When the competency literature is examined, it is observed that the concept is examined as dimensionless (Boyatzis, 1982; Kolibáčová, 2014; Mayatürk Akyol, 2011; Shippmann et al., 2000), three-dimensional (Spencer & Spencer, 1993) and five-dimensional (Eren & Onat, 2018; Kordon, 2006). However, data about the perceptions of lower-level employees or managers in these competency measurements was obtained by asking them. In this case, we can say that the measurements were actually made with subjective data. At this point, it is thought that the data obtained by using mixed methods to reveal the competencies of the employees and how to improve the competencies of the employees will be beneficial to the scientific knowledge and sectoral decision makers. At the same time, no studies have been found in the relevant literature that reveal the existing competencies of employees in tourism enterprises and provide recommendations on how these competencies can be developed. It is thought that this study will fill the gap in the relevant field.

## QUALITY FUNCTION DEPLOYMENT (QFD)

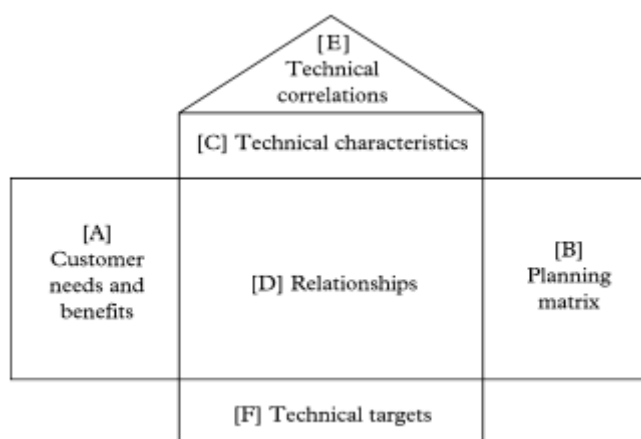
Quality Function Deployment (QFD) is a quality system that was developed by Prof. Yoji Akao and Prof. Shigeru Mizuno in Japan in the 1960s and it is a significant technique of Total Quality Management (Patro & Prasad, 2013). Akao (1990) describes QFD as a “*method to transform user demands into design quality, to deploy the functions forming quality, and to deploy methods for achieving the design quality into subsystems and component parts, and ultimately to specific elements of the manufacturing process.*” Two issues made the concept very important and the first one was that although people began to be aware of the importance of design quality, it was not possible to find the way to maintain it in books then. The second issue was that although quality control charts were being used by the companies, these charts were only being produced at the manufacturing site not before but after the production. As a result, the necessity for ensuring certain qualities and predetermining control points before the production activity led the way to the QFD (Akao, 1997).

As a systematic method based on the idea of adapting technology to people, QFD intends to help enterprises understand the needs of their customers and meet these needs by using their own abilities and resources (Wang, 2007). In addition, by using matrices and quantitative and qualitative techniques, QFD changes customer needs into definable and measurable product and process parameters. It is also worth noting that,

QFD is a method that considers both customers and organizations (Jeong & Oh, 1998: 377). Since it was developed, it has helped companies in planning new products, designing product requirements, deciding process qualities, controlling the production process and documenting the specifications which already exists (Gupta & Gupta & Nagi, 2012: 896-897).

In the first place, QFD was used to develop higher quality products in order to fulfill or outpace customers' needs by compiling and analyzing the voice of the customer. Therefore, the immediate functions of QFD are "*product development, quality management, and customer needs analysis*". Then, the functions of QFD have been broadened to such fields as "*design, planning, decision-making, engineering, management, teamwork, timing and costing*". Obviously, QFD seems to be applicable to many fields without limitations (Chan & Wu, 2002: 467).

QFD is applied by a cross-functional team through generating a series of one or alternatively more matrices and the first of this is called the House of Quality (HOQ). Using these matrices makes it possible to relate customer expectations and needs to a large series of product qualities. In order to measure to what extent the customer needs are fulfilled, it is necessary to develop a set of metrics which enables identification and prioritization of product's design specifications (Hauser et al., 2010: 1). Figure 1 demonstrates The House of Quality with its all parts and each part here holds the specific information that belongs to the QFD procedure. The order that is regularly pursued during QFD process is from A to F. In room A, customer wants are listed that are evaluated against competitors and the results of this evaluation takes place in room B. Room C holds the information that is needed for the transformation of customer expectations into technical aspects. The correlations between customer wants and technical responses take place in room D. In the "roof" part which is E shows the technical correlations and room F contains the information about all the technical targets (Hernández, Carmen Hidalgo, Salazar-Laplace, & Hess, 2007: 598).



**Figure 1:** The House of Quality.

**Source:** (Cohen & Avieli, 2004; Hernández et al., 2007: 598)

In a QFD process, there are some steps to be followed (Sohn, 1999: 756):

- Identifying the voice of customer as "WHAT"s,
- Identifying the "HOW"s which is the action plan to provide customer satisfaction,
- Relating the components of "WHAT"s to the components of "HOW"s,



- Identifying the relative importance of “WHAT”s,
- Putting “HOW”s in order.

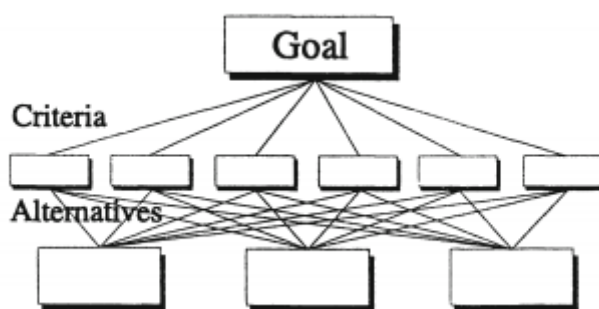
### ANALYTIC HIERARCHY PROCESS (AHP)

The Analytic Hierarchy Process (AHP) is a basic decision making method (Saaty & Vargas, 2012: 1) that was developed by Professor Thomas L. Saaty in 1980 (Mu & Pereyra-Rojas, 2017: 5). The reason for designing the AHP was to deal with the rational and the intuitive at the same time, in order to make the best choice when there are various alternatives that should be evaluated by taking several criteria into account. During this process, basic pairwise comparison judgments are carried out by the decision maker and they are subsequently utilized to generate overarching priorities for ranking the options. The AHP allows for inconsistencies in judgments while also offering a way to increase consistency (Saaty & Vargas, 2012).

AHP is a decision-making and estimating method that provides percentage distributions of decision points in terms of factors influencing the decision and is utilized when the decision hierarchy can be specified. AHP uses a predefined comparison scale and it is based on one-to-one comparisons on a decision hierarchy. These comparisons are made both on the factors affecting the decision and on the importance values of the decision points in terms of these factors. As a result, differences in importance turn into a percentage distribution on decision points (Yaraloğlu, 2001: 131).

AHP is a multi-criteria decision-making method that uses subjective judgments to be digitized and changed into objective evaluation criteria. There are some steps to be followed while applying the AHP method and these steps are explained in the following paragraphs (Bottero, Comino, & Riggio, 2011: 1212; Hafeez, Zhang, & Malak, 2002: 43-44; Saaty, 2003: 85-86; Shin, Yoo, & Kwak, 2007: 378-379; Vaidya & Kumar, 2006: 2; Zietsman & Vanderschuren, 2014: 42-43).

1. *Demonstrating the problem in the form of a hierarchical structure:* The most basic structure is a hierarchical one, with the ultimate goal at the top, criteria in the middle, and alternatives at the bottom. Choosing the most appropriate alternative by taking into account all the criteria is the ultimate goal. As can be seen in figure 2, the hierarchy appears to consist of three alternatives with six criteria.



**Figure 2:** A Three Level Hierarchy.  
**Source:** (Saaty & Vargas, 2012: 3).

2. *Creation of pairwise comparison matrices:* While making pairwise comparisons, the criteria are compared among themselves, as well as the alternatives in terms of each criterion. A 9-point scale (Table 1) is used to make the comparisons, and the judgment





values are digitized with the use of the scale’s quantitative weights, yielding paired comparison matrices.

Table 1: The AHP Pair-wise Comparison Scale

Numerical Values	Verbal Scale	Explanation
1	The two elements are equally important.	Both elements contribute in an equal way.
3	One element is given a moderate amount of importance over another.	One element is favoured over another by experience and judgment.
5	One element has a higher importance than another.	An element is highly preferred.
7	One element has a much higher importance than another.	An element has a strong hold on the situation.
9	One element has an extreme importance over another.	An element is preferred at least by an order of magnitude.
2,4,6,8	Values that are intermediate.	Used to find a middle ground between two judgments.
1.1-1.9	When two elements are really close however one must frequently estimate.	Even better, the elements are compared to other contrasting elements on a scale of 1-9, yielding good results.

Source: (Berrittella, La Franca, & Zito, 2009: 251).

The pairwise comparison matrix for a situation in which a total of n criteria in the form of K1, K2, ..., Kn are compared in pairs will be an A matrix of nxn type as shown below.

$$A = [a_{ij}] = \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \vdots & \vdots & \vdots & \vdots \\ a_{n1} & a_{n2} & \dots & a_{nn} \end{bmatrix}$$

The values that take place in the matrix are in the form of a<sub>ij</sub>. These values show the quantitative judgments in relation to the comparison of K<sub>i</sub> (i-th criterion) and K<sub>j</sub> (j-th criterion). To illustrate, a<sub>12</sub> is the quantitative judgment value obtained by comparing K<sub>1</sub> (first criterion) and K<sub>2</sub> (second criterion). The value of elements a<sub>11</sub>, a<sub>22</sub>, ... a<sub>nn</sub> that are located on the main diagonal of the matrix is 1 and in addition a<sub>ij</sub> = 1/ a<sub>ji</sub>.

3. Finding the pairwise comparison matrices’ priority values: The sum of each matrices column is calculated. Next, each element in the matrix is divided by the sum of the columns in the column it is in. In this way, the sum of each column is 1, and each element in the pairwise comparison matrix takes values in the range of (0, 1). This means that the matrix is now normalized. The average of each row is taken in the normalized matrix and the averages found form a column matrix and show the priority values (weights) corresponding to each criterion. The W matrix, which is an nx1 type column matrix with priority values, is shown below.

$$W = [w_{ij}] = \begin{bmatrix} w_{11} \\ w_{21} \\ \vdots \\ w_{n1} \end{bmatrix}$$

To put it another way, the average of the first line ( $w_{11}$ ) is the priority value of  $K_1$ , which is the first criterion; the average of the second line ( $w_{21}$ ) is the priority value of  $K_2$ , which is the second criterion; and the average of the ..., n-th line ( $w_{n1}$ ) is the priority value of  $K_n$ , which is the n-th criterion.  $K_1, K_2, \dots, K_n$  criteria are ranked according to their weights (priority values). The criterion which has the highest weight is more significant compared to others. In order to decide if it is possible to use these weights immediately, the consistency ratios of the pairwise comparison matrices had better be checked. It is possible to use the obtained weights that are  $w_{11}, w_{21}, \dots, w_{n1}$  if the comparisons made in the matrices consistent. In the next step, explanations concerning the consistency ratio can be found.

4. *Calculating the consistency ratio:* The first form of pairwise matrix is multiplied by the priority values attained from this matrix. Namely, the  $n \times n$  type A matrix is multiplied by the  $n \times 1$  W matrix and as a result of this multiplication, the  $n \times 1$  type R matrix is obtained.

$$A_{n \times n} W_{n \times 1} = \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \vdots & \vdots & \vdots & \vdots \\ a_{n1} & a_{n2} & \dots & a_{nn} \end{bmatrix} \begin{bmatrix} w_{11} \\ w_{21} \\ \vdots \\ w_{n1} \end{bmatrix} = \begin{bmatrix} r_{11} \\ r_{21} \\ \vdots \\ r_{n1} \end{bmatrix} = R_{n \times 1}$$

Then, as in the process shown below, each element in the R matrix is divided by the corresponding element in the W matrix and as a result, matrix B is obtained.

$$\begin{bmatrix} r_{11} / w_{11} \\ w_{21} / w_{21} \\ \vdots \\ w_{n1} / w_{n1} \end{bmatrix} = \begin{bmatrix} b_{11} \\ b_{21} \\ \vdots \\ b_{n1} \end{bmatrix} = B_{n \times 1}$$

After this process mentioned above, it is possible to calculate the  $\lambda_{\max}$  value which actually is the arithmetic mean of the values in matrix B.

$$\lambda_{\max} = \frac{b_{11} + b_{21} + \dots + b_{n1}}{n}$$

Consistency Index (CI) can now be calculated:

$$CI = \frac{\lambda_{\max} - n}{n - 1}$$

Consistency Ratio (CR) is the value which is obtained when Consistency Index (CI) is divided by the value of Random Index (RI).

$$CR = \frac{CI}{RI}$$

According to the matrix size, RI index takes different values. Table 2 below demonstrates random index values according to different matrix sizes.

Table 2: RI (n) Values

<b>n</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<i>RI</i>	0.5245	0.8815	1.1086	1.2479	1.3417	1.4056	1.4499
<b>n</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	
<i>RI</i>	1.4854	1.5141	1.5365	1.5551	1.5713	1.5838	

Source: Alonso & Lamata, (2006: 449)

The resulting CR value is checked and if this value is less than or equal to 0.10, it can be said that the pairwise comparisons are consistent. However, it is not possible to mention consistency when the CR value is greater than 0.10. Thus, in such cases, the judgments/comparisons should be reconsidered by the decision maker.

5. *Determination of final priority values:* In the final step, in order to find composite weights, or in other words final priority values, the priority values (weights) obtained through the whole of the hierarchy are combined. The weights in each layer are multiplied by going from the top of the hierarchy to the bottom. Finally, the final priority value of each alternative is obtained by the addition of these multiplications.

## ANALYSIS

In this study, the competencies of employees in accommodation enterprises operating in the Cappadocia region were evaluated using AHP and QFD methods integrated. Cappadocia is a vast area, extending toward the Toros Mountains in the south, Aksaray in the west, Malatya in the east, and the shorelines of the Black Sea in the north. Nowadays, the region named Cappadocia encompasses Nevşehir, Aksaray, Niğde, Kırşehir, and Kayseri provinces. The area known as “core” Cappadocia, and where the famous chimney rock formations may be seen includes Uçhisar, Göreme, Avanos, Ürgüp, Derinkuyu, Kaymaklı, Ihlara, and the surrounding environment. For this study, this area was taken into consideration as Cappadocia on the whole. This region, also known as the land of beautiful horses, was an important retreat and shelter for Christendom seeking refuge from Roman domination after the Hittites (Tosun, Temizkan, Timothy, & Fyall, 2007). For this reason, there are many important museums and historical sites in the region, considered sacred by Christians on pilgrimages. At the same time, this region is also the center of the fairy chimneys formed by the effects of the Erciyes, Melendiz, and Hasan mountains. Göreme Natural and Historical National Park, which is among the regions where fairy chimneys are most vivid, is included on the UNESCO World Natural and Cultural Heritage list. Before the Covid-pandemic, in total, 3,834,134 tourists visited Cappadocia in 2019 (Ministry of Culture and Tourism, 2019). It should be noted that approximately 57% of total tourist arrivals in Cappadocia were international, while 43% were domestic.

The data of the study were collected from the managers (including the department managers) working in the accommodation enterprises in the research region between July and November 2019. Within the scope of the research, applications were made to all of the accommodation enterprises (Ministry-certified) in the region,



but 67 managers who agreed to participate were included. Since the data collection activities of the research were carried out more than once, it was not possible to reach the 67 people mentioned at each stage. In some stages, some of the collected data were not included in the analyzes because they could not provide the level of consistency within themselves.

As the first stage of the research, the relevant participants were asked to evaluate the employee competency criteria within themselves. These criteria were obtained from the literature (Biçer & Düztepe, 2003; Eren & Onat, 2018; Spencer & Spencer, 1993). This evaluation was made in the form of pairwise comparisons and their weighting was carried out using the AHP technique. In practice, 67 people were reached, but 13 of them were excluded from the analysis because their data could not provide the level of consistency. Table 3 below shows the degree of importance of the criteria for employee competency.

Table 3: Employee competency weighting

Codes	Employee Competencies	Weightings
EC1	Level of Knowledge	0,172093
EC2	Skill	0,204651
EC3	Attitude	0,134884
EC4	Observable Behaviour	0,22093
EC5	Superior Performance	0,267442

On the roof of the house of quality, there are remedial activities. During the data collection phase of activities to improve employee competency, 67 participants were asked questions in the form of interviews. The obtained data were subjected to content analysis and categorized under 10 headings. The categorization carried out at this stage was validated by 7 expert tourism researchers by taking expert opinion. Table 4 shows the remedial activities obtained.

Table 4: Remedial Activities to Improve Employee Competency

	Remedial Activities
<b>A1</b>	Providing on-the-job training.
<b>A2</b>	Clear identification of job requirements.
<b>A3</b>	Clearly defining the qualifications that the employees should have.
<b>A4</b>	Paying attention to job requirements and employee qualifications in recruitment.
<b>A5</b>	Management's supporting the company's human resources policies.
<b>A6</b>	Establishment and fair implementation of the internal reward system for employees.
<b>A7</b>	Establishing an effective communication channel between each level in the organizational chart of the enterprise.
<b>A8</b>	Ensuring effective communication between departments within the enterprise.
<b>A9</b>	Increasing the human resources budget of the enterprise.
<b>A10</b>	Managing in-house promotion and remuneration process fairly.

After the stage reached within the scope of the research, data collection activity was carried out again. At this stage, not all of the 67 participants reached in the previous stage could be reached. In total, 61 participants were contacted again, and activities to improve employee competency were primarily weighted within themselves. At this



stage, a short training was provided to enable participants to give more informed responses to these activities. The main purpose of this training was to take into account the ease of realization of the activity while weighting the activities to improve employee competency. Because, it can be assumed that when some activities are carried out, they can be quite effective in terms of improving employee competency. However, the possibility of realizing that activity may be very difficult or impossible. Therefore, it is possible to make a more realistic weighting when creating plans and strategies to increase employee competency at the enterprise level. The weights of the activities that need to be carried out to improve employee competency are given in Table 5.

Table 5: Weighting the Remedial Activities to Improve Employee Competency

Codes	Activities to Improve Employee Competency	Weightings
A1	Providing on-the-job training.	0,127436
A2	Clear identification of job requirements.	0,074963
A3	Clearly defining the qualifications that the employees should have.	0,104948
A4	Paying attention to job requirements and employee qualifications in recruitment.	0,142429
A5	Management's supporting the company's human resources policies.	0,074963
A6	Establishment and fair implementation of the internal reward system for employees.	0,119940
A7	Establishing an effective communication channel between each level in the organizational chart of the enterprise.	0,059970
A8	Ensuring effective communication between departments within the enterprise.	0,100450
A9	Increasing the human resources budget of the enterprise.	0,044978
A10	Managing in-house promotion and remuneration process fairly.	0,149925

At this stage of data collection, the activities that need to be done to improve employee competency were again subjected to pairwise comparisons within themselves, specific to employee competency. At the end of the study, the final weighting, in which all these weights are reflected, is given in Table 6.

Table 6: Final Weighting of the Remedial Activities to Improve Employee Competency

Codes	Activities to Improve Employee Competency	Weightings	ranking
A1	Providing on-the-job training.	0,11265739	4
A2	Clear identification of job requirements.	0,09396952	7
A3	Clearly defining the qualifications that the employees should have.	0,10603048	6
A4	Paying attention to job requirements and employee qualifications in recruitment.	0,1259112	2
A5	Management's supporting the company's human resources policies.	0,12326044	3
A6	Establishment and fair implementation of the internal reward system for employees.	0,10682571	5
A7	Establishing an effective communication channel between each level in the organizational chart of the enterprise.	0,05964215	9
A8	Ensuring effective communication between departments within the enterprise.	0,05301524	10
A9	Increasing the human resources budget of the enterprise.	0,07952286	8
A10	Managing in-house promotion and remuneration process fairly.	0,13916501	1



## DISCUSSIONS AND CONCLUSIONS

It is a known fact that the tourism, hospitality and travel industry has a unique structure. One of the most striking aspects of this structure is that it is a labor-intensive sector (Sezgin, 2015). In a sector where service production is intense, human resources appear as a very important element. Naturally, the quality of the labor element is one of the most basic determinants of the success of the touristic product in a total sense. In other words, a successful production activity must be carried out in order for the tourist to be satisfied with his/her travel in general and for the feeling of satisfaction to be created. Since this production is realized by the employees, any problem that may occur at this stage may negatively affect the satisfaction of the entire tourism product, which has an integrated structure (Karakuş & Çoban, 2018). Another point to be noted here is that production and consumption activities are simultaneous. This situation makes the success of the tourism industry a little more difficult (Sezgin, 2015). For example, when tangible products are considered, the production stage of a television will not directly affect the satisfaction of the consumer. When the consumer buys a tangible product, he will evaluate how perfect the product he/she has bought is in meeting his needs and desires. However, the situation is different in terms of service production. Many aspects such as clothing, friendliness, cleanliness, etc. of the employee providing the service are important to the service consumer.

Another important issue for the tourism and hospitality industry is the way that mistakes are compensated. It is quite easy to compensate for a mistake that will occur while producing a tangible good in an industrial sense. It is sufficient to prevent the defective product from reaching the consumer. However, this is not possible in the tourism, hospitality and travel industries due to simultaneous production and consumption. It is very important but difficult to recover a mistake that will occur at this stage (Sezgin, 2015). As a result, the competencies of those working in tourism and related fields are very important for the success of enterprises and other stakeholders (investors, all employees, government, society, etc.). From this point of view, in this study, a research was conducted to evaluate and improve the competencies of those working in the field of tourism. Within the scope of the study, the QFD method, which is frequently used for product development, was integrated with the AHP, which is a multivariate decision-making method, and an application was made in the accommodation enterprises operating in Cappadocia. In this way, the criteria of employee competency and remedial activities were evaluated and weighted as objectively as possible. At this point, it should be noted that the activities that score low in the resulting weightings do not indicate that they are unimportant. All of these activities are assumed to be effective in increasing employee competency. However, from an economic point of view, the limited resources and the large number of activities that can be done can prevent the realization of each activity (Karakuş, 2020). Enterprises have to use the budget and other resources effectively and efficiently in order to continue their activities successfully. For this reason, the aim of this study is to determine which activities should be done beforehand in order to improve employee competency. In this regard, it may be useful to find a starting point for decision makers.

When the findings are examined, it has been determined that the activity with the highest weight for increasing the employee competency is "fair promotion and remuneration within the company". Essentially, this activity appears to be an activity that will contribute to the increase in the motivation of the employees. In terms of



employee competency elements, it corresponds to observable behavior and superior performance dimensions. What needs to be understood at this point is that managers actually think that employees should be improved in terms of motivation rather than their knowledge, skills and attitudes. In other words, although employees are relatively qualified for the requirements of the job, they cannot adequately transform these qualifications into their behaviors. As seen in the first weighting made in terms of employee performance criteria (table 3), observable behavior and superior performance are the criteria with the highest importance.

The second activity with the highest weight for improving employee competency is "Paying attention to job requirements and employee qualifications in recruitment". At this point, the importance of matching the job and the employee in terms of competency is emphasized. Therefore, the human resources department has a great responsibility. Because in recruitment, the competencies of the candidates should be measured and the competencies they have should match the features that the job requires. For this reason, it is also an inevitable necessity for the employees who will carry out the recruitment activity to have the competency for their own job.

In some enterprises, no matter how much the importance of human resources is emphasized, the attitudes of the top managers at the point of decision maker of the enterprise can be determinative. Therefore, it will not be very realistic to expect human resources activities that are not supported by the management to be successful. In this sense, it is not surprising that the third activity with the highest weight is "Management's supporting the human resources policies of the enterprise". The order of other activities to improve employee competency is as follows: Providing on-the-job training, establishment and fair implementation of the internal reward system for employees, clearly defining the qualifications that the employees should have, clear identification of job requirements, increasing the human resources budget of the enterprise, establishing an effective communication channel between each level in the organizational chart of the enterprise, ensuring effective communication between departments within the enterprise.

Cappadocia region is a very important tourist destination for both Turkey and the world. For this reason, it is essential to ensure the satisfaction of the tourists visiting the region regarding the total tourism product. From this point of view, there can be many benefits of increasing the competency of the employees of the accommodation enterprises. In addition to the benefits that the employee competency will provide to the stakeholders in the micro sense, its contribution to employment, economy, country image, etc. in the macro sense is undeniable.

It should be mentioned that, as in every study, this study also has some limitations. First of all, within the scope of the study, only enterprises with a ministry operating certificate were examined. Since data collection processes are based on voluntariness, it was not possible to reach managers from all of the mentioned enterprises. This situation constitutes the limitation of the research. In this sense, a more comprehensive data collection activity and a study in which different types of enterprises are included is recommended to researchers for future studies.

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