# Chapter 7 Impact of Tourism on Residents' Quality of Life: Segmentation Analysis and Marketing Implications



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Abstract Tourism has a great potential for enhancing residents' quality of life (OOL). Nevertheless, a limited number of studies have been carried out in this field. In order to overcome this gap this chapter aims to analyse the heterogeneity of residents of tourism destinations regarding perceptions of tourism impacts on several dimensions of their OOL. A survey of residents of two coastal communities located in the Central region of Portugal (Barra and Costa Nova) was undertaken in 2012 (N = 288). Two Principal Component Analyses (PCAs) were carried out to identify the dimensions both of tourism impacts on OOL and of host-tourist interaction. A hierarchical cluster analysis was carried out based on the dimensions of tourism impacts on OOL. Anova, Kruskal-Wallis and Chi-square tests were used to compare the clusters identified. Results reveal that tourism has a considerable impact on residents' OOL and that the residents' communities are heterogeneous regarding the perception of tourism impacts on several dimensions of QOL. Three clusters emerged: Cluster 1 – The most benefited (N = 34.4%); Cluster 2 – The quite benefited (N = 49.7%); and Cluster 3 – The least benefited (N = 16.0%). Statistical significant differences were detected among the clusters regarding several dimensions of host-tourist interaction, place of residence and satisfaction with several issues. Host-tourist interaction emerges as one of the factors with higher positive influence on the perceptions of tourism impacts on residents' OOL. The chapter ends with some contributions to the development and marketing of tourism destinations.

**Keywords** Residents' quality of life  $\cdot$  Cluster analysis  $\cdot$  Segmentation  $\cdot$  Host-tourist interaction  $\cdot$  Satisfaction  $\cdot$  Portugal

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#### 7.1 Introduction

Nowadays, tourism is one of the most important socioeconomic forces worldwide (Uysal et al. 2015), involving various agents, economic sectors and destinations. Tourism has become an important agent of change (economic, social, cultural and environmental) (Matarrita-Cascante 2010) in all places which are involved in the tourism system (origin region, transit region and destination region). In order to analyse these changes, several studies on residents' perceptions of tourism impacts and on residents' attitudes towards tourism development have been published since the 70s (e.g. Andereck et al. 2005; Brunt and Courtney 1999; Carneiro and Eusébio 2011; Haley et al. 2005). However, tourism impacts on Quality of Life (OOL) studies are gaining prominence, as mentioned by Uysal et al. (2015: 1) "one of the research areas gaining momentum and increased attention is the link between tourism activities, its consequences, and the QOL of those involved in the production or consumption of tourism goods and services". Despite the growing interest in analysing the relationship between tourism and QOL, and the widespread knowledge that tourism has great potential for enhancing residents' QOL, a limited number of studies have examined the impact of tourism on residents' QOL (e.g. Andereck et al. 2007; Aref 2011; Benckendorff et al. 2009; Kim 2002). Moreover, there is also an absence of studies that examine if destination communities are heterogeneous in terms of perceptions of tourism impacts on their QOL and which analyse the factors that may influence this heterogeneity. In order to close this gap, this study aims to analyse the heterogeneity of residents of coastal tourism destinations regarding perceptions of tourism impacts on several dimensions of their QOL. Specifically, this chapter intends to answer the following questions: (i) Does tourism affect the QOL of residents in costal tourism destinations? (ii) What residents' QOL domains are most influenced by tourism? (iii) Is there heterogeneity among residents regarding their perceptions of tourism impacts on the various domains of QOL? (iv) Are the perceptions of tourism impacts on QOL related to the socioeconomic characteristics of residents and their interaction with visitors?

The present study extends the research carried out in this field in two areas. First, the focus of the study is to assess the residents' perceptions of tourism impacts on their QOL in two important coastal tourism destinations located in the Central Region of Portugal (*Barra* and *Costa Nova*), where there are no studies in this topic. Second, this study also extends previous research by presenting and empirically testing a segmentation approach based on residents' perceptions of tourism impacts on several domains of their QOL. These types of studies are of utmost relevance to both public and private agents responsible for designing and implementing tourism development strategies in order to generate positive tourism impacts on residents' QOL. Consequently, this kind of research actions will contribute to increasing the level of residents' satisfaction with the tourism industry. Studies that analyse residents' perception of the impact of tourism on their QOL are also of utmost relevance since, as Andereck et al. (2007) highlight, this kind of studies helps to identify perceptions and residents' attitudes towards tourism and provide important data to

evaluate residents' support for additional tourism development and for specific development strategies.

This chapter first presents a literature review on the impact of tourism on residents' QOL and discusses the relevance of carrying out segmentation studies based on the impacts of tourism on residents' QOL. In this context, factors that may influence the perceptions of these impacts, namely socioeconomic features and interaction with visitors – are also examined. This literature review is followed by the description of an empirical study carried out in two Portuguese costal tourism destinations. This part of the chapter begins with a brief description of the costal tourism destinations analysed. Next, a methodology section is provided, where both data collection methods and data analysis methods are explained. The results of this analysis are presented and discussed. Finally, the chapter ends with a description of the most important conclusions of this research, followed by a discussion of the practical implications in order to define tourism development strategies that improve residents' QOL.

#### 7.2 Literature Review

### 7.2.1 Impact of Tourism on Residents' QOL

It is widely recognized that tourism has great potential to affect the life of local residents. Once a destination engages in tourism development, it will face changes and challenges in several areas (economic, social, cultural, and environmental). As a result, the residents of this destination also face new changes and challenges that influence their QOL and, consequently, their satisfaction with the tourism development process (Matarrita-Cascante 2010). Despite these arguments, a limited number of studies have specifically analysed the impact of tourism on residents' QOL (e.g. Andereck and Nyaupane 2011; Khizindar 2012; Kim et al. 2013). However, it is widely recognized that the improvement of residents' QOL should be a priority of all local authorities. As Yu et al. (2014: 9) highlight, "one of major purposes of tourism development in a destination is to improve the QOL of the host community". Consequently, it is widely recognized that all tourism development strategies should be designed and implemented with the purpose of improving the QOL of all agents involved, the residents being one of the most important agents for the success of a tourism destination.

Defining QOL is a difficult task because it is a subjective experience that may "depend on an individual's perceptions and feelings" (Andereck et al. 2007: 484). More than 100 definitions and models of QOL appear in the literature (Andereck et al. 2007; Eusébio and Carneiro 2014). Despite the wide range of QOL definitions published, there has been agreement in recent years that this is a complex and multidimensional construct comprising many issues of people's life and environments (Andereck et al. 2007; Moscardo 2009). Moreover, terms such as well-being, happiness and life satisfaction have frequently been used practically as synonymous

of QOL (Khizindar 2012; Matarrita-Cascante 2010). The QOL construct has been measured using a great range of indicators, such as social indicators, well-being measures and economic indicators (Liu 2015). Globally, this construct has often been measured using two types of indicators: (i) objective indicators that measure specific conditions of people's life (e.g. income level, education level) and (ii) subjective indicators regarding the evaluation of subjective life conditions (e.g. satisfaction with several aspects of life) (Andereck and Nyaupane 2011; Kim 2002). To assess all the domains of resident's QOL influenced by tourism development, as suggested by Jeon et al. (2016: 109) "resident's quality of life should be conceptualized with an aggregation of residents' perception of economic, social, and environmental conditions as well as comprehensive perception of well-being in the host community, embracing residents' subjective well-being and objective well-being".

Recently, the number of studies published that analyse the impact of tourism on residents' QOL has increased considerably. Some of the studies published analyse the impacts of tourism in a global sense (e.g. Andereck et al. 2007; Andereck and Nyaupane 2011; Aref 2011; Khizindar 2012; Kim et al. 2013), while others analyse the effects of specific types of tourism (e.g. gambling/casinos, surf tourism, cultural tourism and rural tourism) on residents' QOL (e.g. Chhabra and Gursoy 2009; Kim 2002; Jurowski and Brown 2001; Usher and Kerstetter 2014). Moreover, some studies published analyse the impacts of events on residents' QOL (e.g. Fredline et al. 2013; Liu 2015). In terms of methodologies, both qualitative (e.g. Matarrita-Cascante 2010; Usher and Kerstetter 2014) and quantitative methods (e.g. Andereck et al. 2007; Andereck and Nyaupane 2011; Chhabra and Gursoy 2009; Fredline et al. 2013; Jeon et al. (2016); Khizindar 2012; Kim 2002; Kim et al. 2013) have been used to analyse the impacts of tourism on residents' QOL. However, there is a prevalence of quantitative studies.

Several authors have studied the relevance of the QOL construct in the tourism literature and its various domains (e.g. Andereck et al. 2007; Kim 2002). Kim (2002) proposes a measure for QOL based on previous literature comprising four domains: material well-being (including two dimensions: income and employment and also cost of living), community well-being, emotional well-being (including two dimensions: leisure well-being and spiritual well-being) and health and safety well-being. Khizindar (2012) uses the four domains of QOL proposed by Kim (2002) to analyse the effects of tourism on residents' QOL in Saudi Arabia and Aref (2011) investigates the effect of tourism on residents' OOL in Shiraz, Iran, also using the domains of QOL proposed by Kim (2002). Moreover, Kim et al. (2013) also use the four domains of QOL proposed in 2002 to analyse the links between community residents' perceptions of tourism impacts (economic, social, cultural, and environmental) and residents' satisfaction with the four domains of life and overall life satisfaction. Kim et al. (2013) test the model developed in several communities of Virginia with different levels of tourism development. Andereck et al. (2007) analyse the existence of significant differences in perceived tourism-related QOL domains between Hispanic and Anglo residents in Arizona,

using 38 tourism-related QOL variables categorized into four groups (negative QOL impacts, positive QOL economic impacts, positive QOL sociocultural impacts, positive QOL environmental impacts). Andereck and Nyaupane (2011) examine residents' perception of the impact tourism has on their QOL, and the relationship between QOL perceptions and support for tourism in Arizona, using eight domains of residents' QOL (community well-being, urban issues, way of life, community pride and awareness, natural and cultural preservation, economic strength, recreation amenities and crime and substance abuse).

The studies published which examine the impact of tourism on residents' QOL (e.g. Andereck et al. 2007; Andereck and Nyaupane 2011; Aref 2011; Fredline et al. 2013; Khizindar 2012; Usher and Kerstetter 2014) reveal that tourism has effects on economic, social and cultural dimensions of QOL. These studies show that tourism contributes to increasing job opportunities (Andereck and Nyaupane 2011; Liu 2015; Usher and Kerstetter 2014), to providing additional and improved infrastructures and recreation opportunities (Andereck and Nyaupane 2011; Liu 2015) and to strengthening social and family ties (Usher and Kerstetter 2014). Moreover, other studies (e.g. Aref 2011; Kim 2002; Kim et al. 2013) reveal that tourism has different effects on material well-being, community well-being, emotional well-being and health and safety well-being. For example, the results of Aref's (2011) study reveal that the strongest tourism impacts occurred on emotional well-being, community well-being and income and employment, while health and safety well-being was the OOL domain least influenced by tourism. Despite the majority of the published studies revealing that tourism has a positive effect on residents' QOL (e.g. Andereck et al. 2007; Aref 2011; Kim et al. 2013, Usher and Kerstetter 2014) tourism growth may also negatively influence residents' QOL, when it contributes to loss of cultural identity (Jeon et al. 2016; Liu 2015), environmental degradation (Jeon et al. 2016; Liu 2015), increased cost of living (Andereck and Nyaupane 2011; Jeon et al. 2016; Liu 2015), friction created between residents and tourists (Andereck and Nyaupane 2011; Jeon et al. 2016; Liu 2015), a change in residents' way of life (Jeon et al. 2016; Liu 2015; Andereck and Nyaupane 2011), generating crowding and traffic and parking problems (Andereck and Nyaupane 2011; Jeon et al. 2016), as well as to increasing crime and the use of alcohol and drugs (Andereck and Nyaupane 2011; Usher and Kerstetter 2014). Therefore, tourism growth does not always have a positive impact on residents' QOL. When the tourism costs exceed the benefits perceived, tourism may contribute to a decrease in residents' QOL. Moreover, the effects of tourism on residents' QOL vary from resident to resident. Andereck et al. (2007: 487) report "while tourism development can improve the QOL of some members of a given population, it should not be assumed that a positive effect on QOL of the majority group will necessarily have a similar result for minority groups". This suggests the importance of segmenting residents according to their perception of tourism impacts on their QOL. The relevance of this construct as a segmentation basis will be further analysed in the next section.

# 7.2.2 Segmentation Based on Impact of Tourism on QOL

Segmentation is a useful tool for identifying distinct groups of consumers that should be approached using different marketing mixes (Kotler et al. 1999). Several reasons point to the relevance of segmenting residents of tourism destinations based on the impact of tourism on OOL. First, as the literature reviewed in the last section shows (e.g. Andereck and Nyaupane 2011; Kim 2002; Kim et al. 2013; Liu 2015; Usher and Kerstetter 2014), tourism may have important impacts on residents' OOL, contributing to enhanced residents' perceptions regarding their lives. Second, residents are important stakeholders of tourism destinations, since they may assume the role of service providers, of cultural brokers or, even, have casual unplanned encounters with visitors that may affect the visitors' experience of the destination (Sharpley 2014). Therefore, it is of utmost importance to ensure that tourism has a positive impact on the hosts' OOL, so that they develop positive attitudes towards tourism. In this context, some research reveals that the residents who perceive more positive impacts of tourism on their QOL are more likely to accept and support future tourism development (Woo et al. 2015) and to develop positive attitudes towards those responsible for the tourism development (Polonsky et al. 2013).

Additionally, some research reveals that the residents' perceptions regarding tourism impacts on QOL may depend on several features, such as the socioeconomic profile of hosts (Andereck and Nyaupane 2011; Chancellor et al. 2011; Jeon et al. 2016; Kim et al. 2013; Meng et al. 2010) and the contact established with visitors (Andereck and Nyaupane 2011; Nawijn and Mitas 2012). This suggests that residents of tourism destinations are heterogeneous regarding the perceptions of tourism impacts on their QOL and that segmentation studies using this segmentation basis may provide important insights to develop tourism development strategies that contribute to improving the QOL of tourism destinations' hosts.

Finally, perceptions regarding tourism impacts on QOL are revealed to be an useful segmentation basis in another context, namely in the segmentation of the visitors' market, giving rise to distinct and considerably large segments of visitors that differ not only in perceptions concerning tourism impacts, but also in several other features. However, regarding this last issue, a literature review undertaken revealed that the use of QOL as a segmentation basis has been confined, in the field of tourism, to the scope of tourists. Moreover, the research segmenting tourists based on this construct (e.g. Dolnicar et al. 2013; Eusébio and Carneiro 2014) is still very limited. As far as residents are concerned, several researchers (e.g. Andriotis 2005; Brida et al. 2010; Sinclair-Maragh et al. 2015) segment residents according to their perceptions about tourism impacts on a specific community. Only one study that identified clusters based on hosts' perceptions regarding tourism impacts on their own QOL was found. This study, undertaken by Fredline et al. (2013), corresponds to a longitudinal research where changes on impacts of tourism on QOL across time are assessed, specifically by analysing modifications in the size of clusters of residents with different perceptions of tourism impacts on QOL.

Looking in further detail to the potential relationships between tourism impacts on QOL and other constructs, namely those defining the socioeconomic profile of the residents, the study of Gu and Wong (2016) shows that, among the homestay operators analysed, the youngest and most highly educated are those who recognize the highest positive impact of tourism on QOL. Similar results regarding age were found in the Andereck and Nyaupane's (2011) study, and concerning education in the Roehl's (1999) study. Gender seems to affect perceptions of some tourism impacts and, consequently, of QOL. For example, in a research with residents of a casino destination (Roehl 1999), men perceived that tourism contributed more to creating jobs and to enhancing their QOL than women. However, the research is very limited in this field. Regarding income, there are contradictory findings that point to a positive influence of that variable on personal benefits in some cases (e.g. Andereck and Nyaupane, 2011) and to no significant influence on QOL in other cases (e.g. Roehl 1999).

A set of researches reveals that the place of residence of hosts may also influence their perceptions. Chancellor et al. (2011) examine the hosts' QOL elements that are affected by tourism development and detect significant differences between the perceptions of core and periphery residents in eight of those elements. Similarly, Roehl's (1999) research reports that urban residents perceive more social costs from casino gambling legalization and, thus, a lower OOL, than rural residents. Literature suggests that some differences in these perceptions may be associated with the level of development of the destination. As Butler (2006) postulates, tourism destinations evolve and hosts' perceptions of tourism impacts are likely to change across the stages of the destination's life cycles. The perceptions tend to become more negative when the number of visitors exceeds some thresholds and the charge capacity is surpassed. In this context, Meng et al. (2010) find that three groups of Chinese regions with different levels of tourism development also have different QOL levels, which suggests that tourism development may affect the residents' perspectives concerning QOL. Kim et al. (2013) go one step further and provide evidences that the relationship between the perceptions of specific tourism impacts (e.g. economic impacts) and the corresponding QOL domain (e.g. material well-being) changes across the stage of tourism development of the destination. Jeon et al. (2016) identify seasonality as another factor that affects perceptions on tourism outcomes, with higher seasonality leading to the perceptions of more social costs, less environmental sustainability and fewer economic benefits from tourism. In the context of socioeconomic features, the major consensus seems to be that those working in tourism are more likely to perceive a higher contribution of tourism to increased QOL (Andereck and Nyaupane 2011; Roehl 1999).

According to social theory, residents and tourists engage in various exchanges of physical and symbolic resources (Sharpley 2014) that may occur in several contexts – when visitors acquire goods or services, when both parties use the same tourism attractions and facilities, and when exchanging information and ideas (De Kadt 1979). There is a little evidence that the contact with tourists often contributes to increase the residents' QOL (Andereck and Nyaupane 2011; Moscardo et al. 2013), probably because of economic benefits derived from commercial exchanges

(e.g. sales of goods and services) (Sharpley 2014), but also because tourism offers residents a plethora of opportunities to, among other features, meet new people and, therefore, increase social networks and decrease isolation, have contact with other cultures and expand knowledge (Guo et al. 2014; Kastenholz et al. 2013; Mai et al. 2014). However, as several researchers argue, host-tourist interaction may also have a negative impact on residents (Moscardo et al. 2013; Reisinger and Turner 2002; Tucker 2003), since the impacts of this interaction also depend on several issues such as whether these contacts are planned or voluntary and on the attitudes and expectations of residents and tourists (Sharpley 2014). Therefore, when trying to understand the relationship within host-tourist interactions, it is important to consider not only the frequency of encounters with tourists, but also the satisfaction with those encounters. A limited number of studies (e.g. Nawijn and Mitas 2012) confirm that the hosts with a more positive opinion of contact with tourists are more likely to perceive more benefits of tourism to their QOL.

Research previously analysed suggests the existence of relationships between the residents' perceptions of tourism impacts on QOL, and both the socioeconomic characteristics of residents and their contact with tourists. However, the limited number of studies undertaken in this scope and some contradictory findings do not permit us to draw consensual conclusions regarding the kind of relationships that exist between these constructs.

# 7.3 Empirical Study

# 7.3.1 Brief Characterisation of the Study Area

The two coastal communities under analysis in this research – Barra and Costa Nova – are located on the west coast of Portugal and in the Central Region of this country – in the municipality of  $\hat{I}lhavo$ . The three parishes where these two communities are located have a total of approximately 22,000 residents (INE 2012). These two coastal communities are contiguous and very close to the city of Aveiro, both easily accessible by road and public transports. These two coastal tourism destinations are separated from Aveiro by a Lagoon (known as Ria).

Costa Nova, known for its candy-striped beachside houses, was originally a fishing town. However, throughout the nineteenth century this town gradually changed from a fishing community to a summer resort (Turismo Centro de Portugal 2014). Barra is essentially a residential town, known for its stately lighthouse (*Farol da Barra*), considered one of the tallest lighthouses in Portugal. Both beaches are known for their long sandy beaches and also for being windy, attracting many practitioners of water sports, such as surfing and bodyboarding. In these coastal communities there are many facilities supporting tourism and, manly during the peak season, several events are promoted. Moreover, these two beaches have Blue Flag (an eco-label based on several criteria such as environmental education and information, water quality, environmental management and safety and services) and

flag of Accessible Beaches. Consequently, these beach tourism destinations are highly demanded, not only by residents from *Aveiro* and *Ílhavo* Municipalities, but also by visitors (domestic and international), namely families and sports' lovers. These two destinations are in the development stage of the life cycle.

Some tourism supply and demand indicators of the municipality of *Ílhavo* reveal that tourism already has some relevance in this municipality. In 2013, seven tourism accommodation establishments, with 380 beds, lodged 15,670 guests, corresponding to 29,948 overnights. The majority of guests are Portuguese (representing 69% of the total), while foreign guests represent only 31%. Spain is the most important foreign market (representing 52% of all foreign guests), followed by the French (16%) and the German (8%) markets (INE 2014).

#### 7.3.2 Data Collection Methods

In order to obtain information about the residents' perception of tourism impacts on their QOL a questionnaire was administered, in 2012, to the residents of the two coastal communities – *Barra* and *Costa Nova* – characterized in the previous section. The questionnaire used was designed based on a literature review and includes questions organized into four groups: (i) perceptions of residents about the impact of tourism on their QOL; (ii) social contact with visitors; (iii) satisfaction; and (iv) socioeconomic profile.

To measure the perceptions of tourism impacts on residents' QOL, 22 features related to several domains of their OOL, selected from an extensive literature review on tourism and residents' QOL studies (e.g. Andereck et al. 2007; Andereck and Nyaupane 2011; Khizindar 2012; Kim et al. 2013, Yu et al. 2014) and on perceived tourism impact studies (e.g. Andereck et al. 2005; Carneiro and Eusebio 2011) were used. Respondents had to answer the question using a 7-point Likert scale from 1 "completely disagree" to 7 "completely agree". To assess the social contact of residents with visitors, residents were invited, using a 7-point Likert type scale from 1 "never" to 7 "very frequently", to report the frequency of 14 types of interactions, identified based on a literature review (e.g. De Kadt 1979; Eusébio and Carneiro 2012; Kastenholz et al. 2015; Reisinger and Turner 1998). Residents were also invited to indicate their level of satisfaction, also using a 7-point Likert-type scale, from 1 "very unsatisfied" to 7 "very satisfied", with three issues: place of residence, contact with visitors and their level of QOL. Finally, the questionnaire ends with some questions related to the sociodemographic profile of residents (e.g. local of residence, duration of residence in the coastal community, job, gender, age, education level and economic activity status).

A quota sampling approach, based on gender and age, using data provided by the National Statistics Institute of Portugal (INE – *Instituto Nacional de Estatística*), was used in this research to identify the sample. Residents of the two coastal regions under analysis (*Costa Nova* and *Barra*) were contacted by qualified interviewers in the street, in their own houses or in commercial establishments. In order to analyse

the validity and reliability of the questionnaire used, a pilot test was undertaken with 15 residents of the two coastal communities under analysis. Although 308 responses were obtained, a total of 288 questionnaires were considered valid for this research.

## 7.3.3 Data Analysis Methods

Two Principal Component Analyses (PCAs) were carried out to identify both the dimensions of the frequency of host-tourist interaction and of residents' perceptions regarding the impact of tourism on QOL. Moreover, in order to identify visitors with distinct perceptions concerning tourism impacts on QOL, a hierarchical cluster analysis was carried out based on the factor scores of the dimensions of tourism impacts on QOL previously identified in the PCA. Ward's method and the squared Euclidean distance were used in the scope of this cluster analysis, ANOVA, Kruskal-Wallis and Chi-square tests were used to compare the clusters identified, not only on the basis of segmentation adopted - perceptions regarding tourism impacts on OOL – but also on socioeconomic features: gender, age, education, economic activity status, job related to tourism, place of residence and duration of residence in the coastal community, and on frequency of interaction with visitors. Finally, the clusters were also compared in terms of their satisfaction with several issues – place of residence, QOL and contact with tourists. ANOVA was used to compare the clusters on quantitative variables while Chi-square tests were undertaken to compare the clusters on nominal or ordinal variables. Kruskal-Wallis tests were undertaken when the assumptions to carry out the ANOVA were not met. All the results presented in the following section correspond to statistical analyses that met all the required assumptions and that may, therefore, be considered valid.

#### 7.4 Results and Discussion

# 7.4.1 Socioeconomic Profile

The sample is quite balanced regarding gender, including only slightly more men (52.1%) than women (47.9%) and the majority of the respondents are between 25 and 64 years old. There is a prevalence of people with basic education (53.5%), with less than one quarter (23.1%) having higher education. As far as economic activity status and job are concerned, there is a considerable diversity in the sample, since about half of the respondents (49.7%) were employed and half of them (51.7%) had a job related to tourism. Considering the place of residence, about 55.2% of the respondents live in *Barra* whereas 44.8% live in *Costa Nova*. A large part of the respondents reported living in the coastal community where they were interviewed for a considerable period – from 1 to 5 years (30.3%) or even for more than 5 years (62.0%).

# 7.4.2 Identification of the Clusters Based on Residents' Perceptions of Tourism Impact on their QOL

In order to identify the clusters' profile regarding the residents' perception of tourism impacts on their QOL, a PCA with varimax rotation of the items representing those perceptions was carried out first. Five factors emerged from this PCA (Table 7.1): (i) F1: economic and sociocultural opportunities, which encompass both economic and financial opportunities provided by tourism (e.g. having a job, having more financial resources, diversity of economic activities in the community) as well as sociocultural opportunities (e.g. socializing, having contact with people of different cultures, carrying out and participating in leisure and cultural activities); (ii) F2: opportunities for living in a healthy and quiet environment; (iii) F3: heritage preservation and psychological benefits, which includes the perception that tourism contributes to preserving natural and cultural heritage, but also the perception that tourism brings psychological benefits such as having positive feelings, considering life meaningful and being proud to live in a specific place; (iv) F4: opportunities of access to supporting facilities, including transport, health services and some kinds of commercial establishments; (v) F5: changes in costs of living, representing changes in the price of goods and services and, specifically, in the price of land, that occur as a result of tourism development. The values of Kaiser-Meyer-Olkin (KMO), Bartlett's test of sphericity, communalities, total variance explained and Cronbach's Alpha attest to the appropriateness of the PCA and the reliability of the factors that emerged from the PCA.

The residents perceive that tourism has a considerable impact on their overall QOL (5.25 in average on a scale from 1 "completely disagree" to 7 "completely agree") (Table 7.2). The impact is higher concerning opportunities of access to supporting facilities (5.50) and economic and sociocultural opportunities (5.42) and somewhat lower in the case of heritage preservation and generation of psychological benefits (5.28), changes in costs of living (5.00) and of opportunities for living in a healthy and quiet environment (4.86). These results attest to the important role that tourism may have in improving the QOL of the residents of tourism destinations either by enhancing the set of facilities and economic and financial opportunities in the community, or by contributing to preserving heritage, to improving the psychological state of the residents or by offering them a wider set of opportunities of socialization or of participation in leisure and cultural activities.

With the aim of identifying homogeneous groups of respondents regarding perceptions of impacts on their QOL, the factor scores of the PCA previously undertaken were used as input for a hierarchical cluster analysis. This analysis was performed using Ward's method and squared Euclidean distance. It was decided, based on the dendrogram and on the agglomeration schedule, to retain a three-cluster solution. ANOVA and Kruskal-Wallis tests were then used to compare the three clusters regarding the residents' perceptions of the impact of tourism on their QOL. Statistical significant differences were detected among the three clusters concerning the perceptions of tourism impacts on QOL. Cluster 1 (*The most benefited*)

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Tourism impacts on			sociocultural	living in healthy and	psychological	access to supporting	in cost of
residents' QOL domains	Mean	Mean Communality		quiet environment	benefits	facilities	living
Having more job opportunities	5.27	0.655	0.731				
Having opportunities of contact with people of different cultures	5.80	0.604	0.714				
Having opportunity to carry out recreational activities	5.30	0.658	0.703				
Having opportunities to get more financial resources	5.13	0.635	0.685				
Having opportunity to participate in cultural activities	5.21	0.651	0.679				
Feeling that this place is valued by others	5.66	0.648	0.656				
Having opportunities for socialising	5.53	0.690	0.633				
Having diversity of economic activities	5.49	0.671	0.628				
Living in an unpolluted environment	4.98	0.799		0.870			
Living in a quiet environment	4.64	0.792		0.806			
Having a healthy life	5.26	0.747		0.800			

Feeling safe	5.11	0.731		0.782			
Living without traffic jams and people	4.24	0.711		0.757			
Having positive feelings	5.19	0.790			0.765		
Feeling proud to live in this place	5.54	0.718			0.708		
Preserving natural environment	5.35	0.727			0.678		
Preserving cultural heritage	5.31	0.739			0.656		
Having a meaningful life	5.01	0.724			0.620		
Having access to good transport	5.52	0.799				0.800	
Having facilities to promote mobility/ accessibility	5.40	0.737				0.696	
Having access to health services	5.20	0.766				0.695	
Having restaurants and other commercial establishments	5.89	0.682				0.605	
Changes in prices of goods and services	4.83	0.753					0.801
Occurence of valuation of real estate and land	5.16	5.16 0.588					0.462
Eigenvalue			10.940	2.609	1.288	1.175	1.003
Comulative variance explained (%)	ained (	(%)	20.717	37.939	52.416	65.065	70.894
Cronbach's alpha			0.910	0.902	0.891	0.854	0.607
KMO = 0.927  Bartlett's test of sphericity = 4700.761  (p = 0.000)	est of sp	phericity = $470$	0.761 (p = 0.000)				

**Table 7.2** Cluster profile regarding residents' perceptions of tourism impacts on their QOL (ANOVA and Kruskal-Wallis tests)

		Cluster 1	Cluster 2	Cluster 3		
Profile of clusters –	Total sample	The most benefited	The quite benefited	The least benefited	ANOVA	Kruskal- Wallis tes
tourism impacts on residents' QOL domains	(N = 288) (100%)	(N = 99) (34.4%)	(N = 143) (49.7%)	(N = 46) (16.0%)	F (p-value)	Chi- square (p-value)
F1: Economic and sociocultural opportunities	5.42	6.33°	5.34 <sup>b</sup>	3.71a	187.867 (0.000)	
Having more job opportunities	5.26	6.33	5.21	3.11		97.038 (0.000)
Having opportunities of contact with people of different cultures	5.79	6.52	5.67	4.63		74.705 (0.000)
Having opportunity to carry out recreational activities	5.28	6.25°	5.16 <sup>b</sup>	3.52ª	91.233 (0.000)	
Having opportunities to get more financial resources	5.13	6.18	5.02	3.28		106.658 (0.000)
Having opportunity to participate in cultural activities	5.20	6.11°	5.16 <sup>b</sup>	3.33ª	86.338 (0.000)	
Feeling that this place is valued by others	5.66	6.50	5.40	4.62		89.647 (0.000)
Having opportunities for socialising	5.52	6.35	5.52	3.76		100.712 (0.000)
Having diversity of economic activities	5.49	6.40	5.52	3.46		118.647 (0.000)
F2: Opportunities for living in healthy and quiet environment	4.86	6.00	4.37	3.97		104.131 (0.000)
Living in an unpolluted environment	5.00	6.08	4.42	4.46		63.702 (0.000)
Living in a quiet environment	4.67	6.06	4.06	3.61		99.777 (0.000)
Having a healthy life	5.25	6.24	4.92	4.17		66.423 (0.000)

(continued)

 Table 7.2 (continued)

Table 7.2 (continued)		Cluster 1	Cluster 2	Cluster 3		
	Total	The most	The quite	The least	_	Kruskal-
Profile of clusters –	sample	benefited	benefited	benefited	ANOVA	Wallis tes
tourism impacts on						Chi-
residents' QOL domains	(N = 288)	(N = 99)	(N = 143)	(N = 46)	F	square
	(100%)	(34.4%)	(49.7%)	(16.0%)	(p-value)	(p-value)
Feeling safe	5.13	6.19	4.65	4.30		79.604 (0.000)
Living without	4.26	5.39 <sup>b</sup>	3.80a	3.282a	35.512	
traffic jams and people					(0.000)	
F3: Heritage	5.28	6.38	5.10	3.44		155.016
preservation and						(0.000)
psychological benefits						
Having positive feelings	5.19	6.43	4.89	3.43		118.121 (0.000)
Feeling proud to live in this place	5.54	6.55	5.37	3.87		97.912 (0.000)
Preserving natural environment	5.34	6.23	5.36	3.33		104.895 (0.000)
Preserving cultural heritage	5.31	6.22°	5.35 <sup>b</sup>	3.26ª	96.586 (0.000)	
Having a meaningful life	5.01	6.49	4.56	3.26		130.498 (0.000)
F4: Opportunities of access to supporting facilities	5.50	6.45	5.50	3.45		146.587 (0.000)
Having access to good transport	5.50	6.45	5.56	3.28		109.710 (0.000)
Having facilities to promote mobility/ accessibility	5.39	6.43	5.36	3.22		119.397 (0.000)
Having access to health services	5.19	6.46	5.05	2.93		114.058 (0.000)
Having restaurants and other commercial establishments	5.88	6.45	5.99	4.37		66.734 (0.000)
F5: Changes in cost of living	5.00	6.11	4.73	3.47		121.500 (0.000)
Changes in prices of goods and services	4.86	5.99	4.54	3.41		80.241 (0.000)
Occurence of valuation of real estate and land	5.16	6.22°	4.98 <sup>b</sup>	3.52ª	77.182 (0.000)	

(continued)

		Cluster 1	Cluster 2	Cluster 3		
	Total	The most	The quite	The least		Kruskal-
Profile of clusters -	sample	benefited	benefited	benefited	ANOVA	Wallis test
tourism impacts on						Chi-
residents' QOL	(N = 288)	(N = 99)	(N = 143)	(N = 46)	F	square
domains	(100%)	(34.4%)	(49.7%)	(16.0%)	(p-value)	(p-value)
Overall QOL	5.25	6.26	5.12	3.52		95.243
						(0.000)

Table 7.2 (continued)

Note:

represents 34.4% of the respondents, specifically the residents who consider that tourism has an highest impact on their overall QOL and on each of the domains of this QOL. Conversely, cluster 3 (*The least benefited*), corresponding to only 16% of the sample, includes the residents that recognise the lowest impact of tourism in their QOL (both on QOL in general and on its various domains). The largest cluster, encompassing almost half of the sample (49.7%) is, however, cluster 2 (*The quite benefited*), composed of residents who do not perceive such high impacts of tourism as the residents of cluster 1, but who recognise higher impacts of tourism on their QOL than cluster 3.

# 7.4.3 Profile of the Clusters

#### 7.4.3.1 Socioeconomic Profile

Comparing the socioeconomic profile of the clusters identified (Table 7.3), no statistical significant differences regarding age, gender, education level and economic status were observed among the clusters. The results obtained also reveal no statistical differences among the clusters identified in terms of having a job related to tourism. However, there is a difference in terms of place of residence. Cluster 1 (*The most benefited*) includes a higher percentage of residents in *Barra* beach while cluster 2 (*The quite benefited*) includes a higher percentage of residents in the *Costa Nova* beach. These results reveal a different impact of tourism in the residents' QOL between *Barra* beach and *Costa Nova* beach, showing that the impacts of tourism on residents' QOL vary between tourism destinations and according to the level of tourism developed.

<sup>&</sup>lt;sup>a</sup>Homogeneous subset 1

<sup>&</sup>lt;sup>b</sup>Homogeneous subset 2

<sup>&</sup>lt;sup>c</sup>Homogeneous subset 3

**Table 7.3** Socioeconomic profile of the clusters identified  $(\chi^2 \text{ test})$ 

	_				
		Cluster 1	Cluster 2	Cluster 3	
	Total	The most	The quite	The least	
	sample	benefited	benefited	benefited	
	(N = 288)	(N = 99)	(N = 143)	(N = 46)	
Profile of clusters - socio-	(100%)	(34.4%)	(49.7%)	(16.0%)	Chi-square
demographic	% by	% by	% by	% by	Chi-square
characteristics	column	column	column	column	(p-value)
Place of residence					
Barra	44.8%	53.5%	45.5%	23.9%	11.195 (0.004
Costa Nova	55.2%	46.5%	54.5%	76.1%	
Duration of residence in	Barra and C	osta Nova			
Less than 1 year	7.7%	14.1%	4.3%	4.4%	8.999 (0.061)
[1–5 years]	30.3%	26.3%	32.1%	33.3%	
More than 5 years	62.0%	59.6%	63.6%	62.2%	
Age	'	'		'	
[15–24]	17.4%	13.1%	17.5%	26.1%	7.702 (0.103)
[25–64]	66.7%	72.7%	67.8%	50.0%	
65 or older	16.0%	14.1%	14.7%	23.9%	
Gender					
Male	52.1%	46.5%	55.2%	54.3%	1.920 (0.383)
Female	47.9%	53.5%	44.8%	45.7%	
Education level (highest l	evel)	'		'	
Basic education	53.5%	55.1%	51.7%	55.6%	1.251 (0.870)
Secondary education	23.4%	22.4%	23.1%	26.7%	
Higher education	23.1%	22.4%	25.2%	17.8%	
Economic activity status					
Employed	49.7%	53.5%	50.4%	39.1%	2.662 (0.264)
Other	50.3%	46.5%	49.6%	60.9%	
Job related to tourism				,	
Yes	51.7%	58.6%	44.4%	58.8%	2.976 (0.226)
No	48.3%	41.4%	55.6%	41.2%	

#### 7.4.3.2 Interaction with Visitors

In order to facilitate the comparison and the characterization of the clusters identified regarding social contact with visitors, a PCA with varimax rotation of the 13 items used to measure the frequency of host-tourist interactions in several contexts was carried out (Table 7.4). Three factors emerged from this analysis: (i) F1: *close informal contacts*, contributing to a deeper mutual knowledge (e.g. sharing meals

Social contact with visitors	Mean	Communality	F1: Close informal contacts	F2: Contacts in tourism attractions and facilities	F3: Formal contacts
Sharing meals with visitors	2.11	0.767	0.846		
Exchanging gifts with visitors	1.75	0.740	0.844		
Inviting visitors to one's home	2.03	0.739	0.836		
Practising sports with visitors	1.98	0.603	0.688		
Participating in parties with visitors	2.68	0.668	0.676		
Contact with visitors in other commercial establishments	4.09	0.630		0.773	
Contact with visitors on the beach	4.16	0.637		0.761	
Contact with visitors in discos, clubs and bars	3.31	0.586		0.718	
Contact with visitors in food and beverage establishments	4.71	0.598		0.654	
Contact with visitors in events	3.30	0.473		0.653	
Contact with visitors in the workplace	3.52	0.702			0.823
Interacting with visitors when providing goods and services	3.45	0.722			0.809
Providing visitors with information about the municipality	4.74	0.524			0.701
Eigenvalue			3.313	2.931	2.146
Cumulative variance explained (%)			25.487	48.035	64.545
Cronbach's alpha			0.880	0.806	0.737

with visitors, participating in parties with visitors); (ii) F2: contacts in tourism attractions and facilities, when visitors and hosts use the same places; and (iii) F3: formal contacts, when hosts interact with visitors due their professional activities and when residents provide information about the tourism destination. Results of this PCA show its appropriateness, given the Kaiser-Meyer-Olkin (KMO), communalities, total variance explained and Bartlett's test values as well as Cronbach's Alpha values, which indicate a suitable internal consistency of the three factors found.

The results presented in Table 7.5 show that close informal contacts occur with a very low frequency (2.14 in average on a scale from 1 "never" to 7 "very frequently") when compared to contact with visitors in tourism attractions and facilities (3.99) and formal contact (3.93). These results corroborate other studies, revealing that

**Table 7.5** Cluster profile regarding frequency of interaction with visitors (ANOVA and Kruskal-Wallis tests)

		Cluster 1	Cluster 2	Cluster 3		
	Total sample	The most benefited	The quite benefited	The least benefited	ANOVA	Kruskal- Wallis test
Profile of clusters – Social contact with visitors	(N = 288) (100%)	(N = 99) (34.4%)	(N = 143) (49.7%)	(N = 46) (16.0%)	F (p-value)	Chi- square (p-value)
F1: Close informal contacts	2.14	2.55	1.90	1.99		6.782 (0.034)
Sharing meals with visitors	2.13	2.45	1.89	2.17		3.016 (0.221)
Exchanging gifts with visitors	1.77	2.37	1.42	1.61		23.708 (0.000)
Inviting visitors to one's home	2.07	2.61	1.72	1.98		11.148 (0.004)
Practising sports with visitors	2.01	2.18	1.94	1.85		0.788 (0.674)
Participating in parties with visitors	2.72	3.15 <sup>b</sup>	2.54 <sup>a,b</sup>	2.35 <sup>a</sup>	4.463 (0.012)	
F2: Contacts in tourism attractions and facilities	3.99	4.32 <sup>b</sup>	3.89 <sup>a</sup>	3.58 <sup>a</sup>	5.346 (0.005)	
Contact with visitors in other commercial establishments	4.15	4.52	3.97	3.96		7.322 (0.026)
Contact with visitors on the beach	4.20	4.58	4.03	3.96	2.857 (0.059)	
Contact with visitors in discos, clubs and bars	3.41	3.72	3.38	2.83	3.011 (0.051)	
Contact with visitors in food and beverage establishments	4.82	5.13 <sup>b</sup>	4.76 <sup>a,b</sup>	4.33ª	3.844 (0.023)	
Contact with visitors in events	3.34	3.64	3.30	2.80		5.902 (0.052)
F3: Formal contacts	3.93	4.72 <sup>b</sup>	3.57ª	3.36a	17.611 (0.000)	
Contact with visitors in the workplace	3.58	4.55 <sup>b</sup>	3.15 <sup>a</sup>	2.82ª	13.069 (0.000)	

(continued)

		Cluster 1	Cluster 2	Cluster 3		
	Total	The most	The quite	The least		Kruskal-
	sample	benefited	benefited	benefited	ANOVA	Wallis test
Profile of clusters -						Chi-
Social contact with	(N = 288)	(N = 99)	(N = 143)	(N = 46)	F	square
visitors	(100%)	(34.4%)	(49.7%)	(16.0%)	(p-value)	(p-value)
Interacting with visitors when providing goods and services	3.50	4.24 <sup>b</sup>	3.18 <sup>a</sup>	2.96ª	8.605 (0.000)	
Providing visitors with information about the municipality	4.72	5.40 <sup>b</sup>	4.37ª	4.33ª	12.486 (0.000)	

Table 7.5 (continued)

Note:

host-tourist interaction is frequently brief and superficial (e.g. Eusébio and Carneiro 2012; Kastenholz et al. 2013, Kastenholz et al. 2015; Reisinger 2009).

The results of the ANOVA and Kruskal-Wallis tests (Table 7.5) display statistical differences among the clusters identified regarding host-tourist interactions. The residents belonging to cluster 1 (*The most benefited*) interact more with visitors when compared with residents belonging to the other clusters, while residents of cluster 3 (the least benefited) revealed to have less interaction with visitors. These results clearly show the relevance of host-tourist interaction in the residents' perception of tourism impacts on their QOL. As Andereck and Nyaupane (2011) observed, the amount of interaction between residents and tourists influences the perception of residents regarding the impact of tourism on their QOL. Then, the residents who have more contact with tourists view tourism in a much more positive way than those who have less contact with tourists.

#### 7.4.3.3 Satisfaction

Satisfaction and QOL are two strongly related constructs, as highlighted in the literature (e.g. Kim et al. 2013; Nawijn and Mitas 2012; Woo et al. 2015). Nawijn and Mitas' (2012) study reveals that perceived tourism impacts are associated with life satisfaction. Moreover, as aforementioned, a positive relationship between host-tourist interaction and the residents' perception of tourism impacts on their QOL is expectable (Andereck and Nyaupane 2011). In this line of thought a positive association is expected between residents' satisfaction with their place of residence, their QOL and their interaction with visitors and the perceptions of tourism impacts on their QOL. Results presented in Table 7.6 clearly reveal that the residents interviewed in this research are highly satisfied with their place of residence (M = 5.98,

<sup>&</sup>lt;sup>a</sup>Homogeneous subset 1

<sup>&</sup>lt;sup>b</sup>Homogeneous subset 2

Profile of clusters –	Total sample	Cluster 1 The most benefited	Cluster 2 The quite benefited	Cluster 3 The least benefited	ANOVA	Kruskal- Wallis test
Satisfaction with several issues	(N = 288) (100%)	(N = 99) (34.4%)	(N = 143) (49.7%)	(N = 46) (16.0%)	F (p-value)	Chi-square (p-value)
Satisfaction with their place of residence	5.98	6.24	5.93	5.54		10.673 (0.005)
Satisfaction with contact with tourists	5.34	6.00	5.06	4.83		36.786 (0.000)
Satisfaction with their QOL	5.81	6.21 <sup>b</sup>	5.61ª	5.58ª	10.687 (0.000)	

**Table 7.6** Cluster profile regarding satisfaction with several issues (ANOVA and Kruskal-Wallis tests)

Note:

on a scale from 1 "very unsatisfied" to 7 "very satisfied"), with their QOL (M = 5.81) and with their contact with tourists (M = 5.34). However, although globally all residents interviewed are very satisfied with their place of residence, their QOL and their contact with tourists, statistical differences among the clusters are observable. The most benefited residents (cluster 1) are also the most satisfied with all issues (place of residence, QOL and contact with tourists), while the least benefited residents (cluster 3) are the least satisfied with all issues analysed, the differences being higher regarding contact with tourists. These results reinforce the relevance of promoting satisfactory encounters between hosts and tourists in order to increase the positive impacts of tourism on residents' QOL.

# 7.5 Conclusions and Implications

This study highlights the relevance of tourism in improving residents' QOL, corroborating previous research (e.g. Andereck and Nyaupane 2011; Kim 2002; Kim et al. 2013; Liu 2015; Usher and Kerstetter 2014). Moreover, it also shows that tourism may have different impacts on the various QOL domains. Results reveal that in the coastal tourism destinations under analysis, tourism has a particularly important contribution to increasing access to supporting facilities and to improving economic and sociocultural conditions, reinforcing the findings of other studies (e.g. Andereck and Nyaupane 2011; Liu 2015; Usher and Kerstetter 2014). Furthermore, some heterogeneity regarding the perception of tourism impacts was observed in the communities analysed. Two of the three clusters identified recognise considerable positive effects of tourism on all the domains of QOL, while the other perceives

<sup>&</sup>lt;sup>a</sup>Homogeneous subset 1

<sup>&</sup>lt;sup>b</sup>Homogeneous subset 2

very low impacts of tourism on overall QOL and on its various domains. However, this last cluster represents only a minority (16% of the sample). In the present study, in contrast to what happened in other studies (e.g. Andereck and Nyaupane 2011; Roehl 1999) no statistical significant differences were found regarding socioeconomic characteristics, with the exception of place of residence, corroborating the studies of Chancellor et al. (2011), Kim et al. (2013), Meng et al. (2010) and Roehl (1999), which show differences in the impact of tourism on the residents' QOL according to the place of residence. In line with previous research (e.g. Andereck and Nyaupane 2011; Moscardo et al. 2013) this chapter also points out the important influence of host-tourist interaction on residents' perception of tourism impact on their QOL.

Several theoretical and practical contributions of this research may be identified. Theoretically, this study has an important role in the OOL and tourism marketing literature through the following contributions: (i) the scale adopted in this research to measure the impact of tourism on residents' OOL of two Portuguese coastal tourism destinations may be used in other studies in this field; (ii) it adopts the residents' perceptions of tourism impact on several domains of QOL as a segmentation basis, showing the usefulness of this segmentation approach to design tourism development strategies; and (iii) it improves the knowledge concerning the relationship between two important constructs in the field of tourism marketing – host-tourist interaction and impact of tourism on residents' QOL. Additionally, this chapter also provides relevant practical contributions. First, it points out the need to develop specific marketing approaches to each of the clusters identified in the communities analysed. The managers of these tourism destinations should also involve local residents in the development of tourism policies and strategies. It is of utmost importance to promote awareness concerning the potential benefits of tourism to QOL among residents, especially among hosts who still perceive low impacts of tourism on their OOL (cluster 3 – The least benefited). Moreover, considering the central role of host-tourist interaction in improving residents' perceptions of tourism impacts on their OOL, marketing strategies should be developed in order to promote more frequent and rewarding encounters between residents and tourists, namely involving the host community in the supply of tourism products and promoting events designed for both residents and tourists, such as gastronomic and music festivals, where local community may have an active role.

The present study is limited to two Portuguese coastal communities. In order to extend research in this field, it would be important to replicate this kind of research in other coastal communities and in other kinds of tourism destinations. Moreover, as tourism development is a dynamic process and the residents' perception of tourism impacts varies across the time, it would be desirable to carry out longitudinal studies to assess changes in this kind of perceptions in the two coastal communities analysed. Furthermore, although host-tourist interaction has an important role in this field of research, studies that examine the role of other factors that may influence residents' perceptions of tourism impacts on their QOL (e.g. place attachment, tourism experience) should be undertaken. Finally, qualitative research should be stimulated in order to have a deeper knowledge of the residents' perceptions of tourism impacts on their QOL.

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