# DOKUZ EYLÜL UNIVERSITY GRADUATE SCHOOL OF SOCIAL SCIENCES DEPARTMENT OF MARITIME BUSINESS ADMINISTRATION MARITIME BUSINESS ADMINISTRATION PROGRAM DOCTORAL THESIS Doctor of Philosophy (PhD)

## CHANGE IN VALUATION OF COASTAL AREAS AND SOCIAL RESPONSIBILITY MARKETING

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### ABSTRACT

## **Doctoral Thesis**

### **Doctor of Philosophy (PhD)**

## Change in Valuation of Coastal Areas and Social Responsibility Marketing Onur AKDAŞ

Dokuz Eylul University Graduate School of Social Sciences Department of Maritime Business Administration Maritime Business Administration Program

The aim of this thesis is to figure out the social value of coastal areas in monetary terms and to explain this social value with social responsibility marketing variables. Coastal areas are classified as a natural resource in the international literature and have an ecological, economic and social value. Measuring these values will increase productivity in the use of coastal areas and lead to a change in the social value arising from the direct or indirect use of these areas, that this need for social value change is the main motivation of this thesis.

The research was carried out in two stages. In the first phase, the average willingness to pay value, the value per square meter, the value per meter and the total value are calculated for the coastal area and the port facility it hosts, using Contingent Valuation Method (CVM) and these findings are associated with the follow-up questions. In the second stage, social responsibility marketing variables compiled from social marketing and corporate social responsibility literature were tested. These variables were classified into seven groups by factor analysis. In addition, social responsibility marketing models that best describe the value of coastal areas and port facilities have been proposed in the study. Based on the resulting models, the term social responsibility marketing is defined for both coastal facilities and particularly port facilities. According to the results of the study, the total social value of the coastal area studied was approximately 145 million TL and the total social value of the port facility was approximately 81 million TL. The willingness to pay per capita is 34.10 TL and 19.10 TL respectively. Although the willingness to pay per capita for the port facility appears to be less, the participants assess more value for the port area per square meters than the whole coastal area. It means that, there is a high level of awareness for the port in society. In addition, it has been proved that coastal facilities have a social responsibility role in increasing the value of coastal areas. As for the port facility, it is concluded that the public image of the port increases the value of the coastal area.

The contributions of the thesis can be divided into such three areas as contribution to method, marketing literature and practitioners. Accordingly, including the port facility as a part of a survey design that evaluates the coastal area, collecting the willingness to pay values and assessing consistency of the results are the contribution to the Contingent Valuation Method (CVM). The definition of social responsibility marketing in terms of coastal areas and port facilities shows the contribution of the thesis to marketing science. Finally, it contributes to policy-makers, coastal planners and coastal facilities through guiding and value-creating models resulting from binary logistics regression tests.

Keywords: Coastal Areas, Social Responsibility Marketing, Social Value, Willingness to Pay, Contingent Valuation Method.

## ÖZET Doktora Tezi Kıyı Alanlarının Değerlendirilmesindeki Değişim ve Sosyal Sorumluluk Pazarlaması Onur AKDAŞ

Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Denizcilik İşletmeleri Yönetimi Anabilim Dalı Denizcilik İşletmeleri Yönetimi Programı

Bu tezin amacı, kıyı alanlarının sosyal değerini parasal ifadelerle ortaya koymak ve bu sosyal değeri sosyal sorumluluk pazarlaması değişkenleri ile açıklamaktır. Kıyı alanları, uluslararası literatürde bir doğal kaynak olarak sınıflandırılmaktadır ve ekolojik, ekonomik ve sosyal bir değere sahiptir. Sahip olduğu bu değerlerin ölçülebilmesi kıyı alanlarından yararlanmada verimliliği arttıracak ve bu alanların doğrudan ya da dolaylı kullanımından doğan sosyal değerinde bir değişime yol açacaktır ki bu tezin temel motivasyonu bu değişime olan gereksinimdir.

Araştırma iki aşamalı olarak yürütülmüştür. İlk aşamada, kıyı alanının ve bu alan içinde yer alan liman tesisinin; kişi başı ortalama ödemeye isteklilik değeri, metrekare başına değeri, metre başına değeri ve toplam değeri Contingent Valuation Method (CVM) – Koşullu Değerleme Yöntemi (KDY) kullanılarak hesaplanmış ve bu bulgular takip soruları ile ilişkilendirilmiştir. İkinci asamada, sosval pazarlama ve kurumsal sosyal sorumluluk literatüründen derlenen sosyal sorumluluk pazarlaması değişkenleri test edilmiştir. Bu değişkenler faktör analizi ile yedi grupta sınıflandırılmıştır. Ayrıca araştırmada, kıvı alanlarının ve liman tesisinin değerini en iyi şekilde açıklayan sosyal sorumluluk pazarlaması modelleri önerilmiştir. Çıkan modellere dayanılarak, hem kıyı tesisleri hem de liman işletmesi için sosyal sorumluluk pazarlaması terimi tanımlanmıştır.

Araştırma sonuçlarına göre, üzerinde çalışılan kıyı alanının toplam sosyal değeri yaklaşık 145 Milyon TL, liman tesisinin toplam sosyal değeri yaklaşık 81 Milyon TL bulunmuştur. Kişi başı ödemeye isteklilik değerleri ise sırasıyla 34,10 TL ve 19,10 TL'dir. Her ne kadar liman tesisi için kişi başı ödemeye isteklilik daha az görünse de, metrekare başına değere vurulduğunda katılımcıların limanın üzerinde bulunduğu kıyı alanına bütün kıyı alanından daha çok değer belirlediği anlaşılmaktadır. Bu bağlamda limana yönelik farkındalığın üst düzeyde olduğu, unun yanında, kıyı alanlarının değerinin artmasında kıyı tesislerinin sosyal sorumluluk rolünün bulunduğu çalışmayla saptanmıştır. Liman tesisi için ise, limanın toplumsal imajının kıyı alanının değerini arttırdığı sonucuna ulaşılmıştır.

Tezin katkıları yönteme, pazarlama literatürüne ve uygulayıcılara katkı olarak üçe ayrılabilir. Buna göre, bütünsel olarak kıyı alanını değerlendiren bir saha araştırması ve veri toplama aracı tasarımının içine bütünün bir parçası olarak liman tesisinin dahil edilmesi, ödemeye isteklilik değerlerinin toplanması ve sonuçların tutarlılığı Koşullu Değerleme Yöntemi (KDY)'ye bir katkıdır. Sosyal sorumluluk pazarlaması teriminin kıyı alanları ve liman işletmeleri özelinde tanımlanması, tezin pazarlama bilimine katkısını göstermektedir. Son olarak, binomial lojistik regresyon testlerinden çıkan modeller ile hem politika yapıcılara, hem kıyı plancılarına hem de kıyı tesislerine dönük yol gösterici ve değer yaratıcı katkılar sağlanmaktadır.

Anahtar Kelimeler: Kıyı Alanları, Sosyal Sorumluluk Pazarlaması, Sosyal Değer, Ödemeye İsteklilik, Koşullu Değerleme Yöntemi.

## CHANGE IN VALUATION OF COASTAL AREAS AND SOCIAL RESPONSIBILITY MARKETING

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## ABBREVIATIONS

AC	After Christ		
AIDS	Acquired Immune Deficiency Syndrome		
ANOVA	Analysis of Variance		
CLAMS	Coastal Landscape Analysis and Modeling Study		
CNY	Chinese Yuan		
COMET	Cooperative Program for Operational Meteorology, Education and		
	Training		
COREPOINT	$\Gamma$ Coastal Research and Policy Integration		
CSR	Corporate Social Responsibility		
CV(M)	Contingent Valuation Method		
df	Degree of Freedom		
EC	European Commission		
EMAS	Eco-Management and Audit Scheme		
ENCORA	European Network on Coastal Research		
EU	European Union		
EURO	European Currency		
EPA	Environmental Protection Agency		
GOF	Goodness-of-Fit		
HEA	Habitat Equivalency Analysis		
HIV	Human Immunodeficiency Virus		
ICZM	Integrated Coastal Zone Management		
IGO	Intergovernmental Organizations		
ISO	International Standards Organization		
KENTGES	Kentsel Gelişme Stratejisi (Urban Development Strategy)		
КМО	Kaiser-Mayer-Olkin		
LR	Likelihood Ratio		
MAP	Mediterranean Action Program		
MPGM	Republic of Turkey Ministry of Urbanization and Environment		
	Directorate of Spatial Planning		
NGO	Non-governmental Organizations		
NOAA	National Oceanic and Atmospheric Administration		

OECD	Organization for Economic Co-operation and Development	
PAC	Percentage Accuracy Classification	
PAP	Priority Actions Programme People for Ecosystem Based Governance in Assessing Sustainable	
PEGASO		
	Development of Ocean and Coast	
sig.	Significance	
SM	Social Marketing	
SPICOSA	Science and Policy Integration for Coastal System Assessment	
SPO	Undersecreteriat of State Planning Organization	
SPSS	Statistical Package for the Social Sciences	
TL	Turkish Lira	
UK	United Kingdom	
UN	United Nations	
UNCTAD	United Nations Conference on Trade and Development	
UNEP	United Nation Environment Programme	
US(A)	United States of America	
USD	United States Dollars	
WTA	Willingness to Accept	
WTP	Willingness to Pay	

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#### **INTRODUCTION**

Coastal areas geographically take up approximately 20% of the earth's surface. Besides that they put up 75% of the world's largest urban settlements and more than 45% of the global population. Approximately 85% of the states in the world have coasts with inland seas, oceans or both (Martínez et al., 2007). Estimation emphasizes that around three billion people are living within the area of 200 km from coasts and four billion in 400 km which is subject to be in a range of 100% increase by around 2025 (Ringim, Sulaiman, and Lyakurwa, 2016). The coastal zone has a big share on nation's economic and environmental wealth. In most of the coastal settlements, over 60% of all accessible jobs are related to coastal activities which range from fishing to marine tourism (Genz, Fletcher, Dunn, Frazer and Rooney, 2007). The population density within the coastal areas of the world are projected to be 115 and 134 in the years 2025 and 2050 respectively whereas the same projection is 191 and 211 for Europe and Asia continents (Neumann et al., 2015). Coastal areas have been inevitable resources for people as a source for nutrition, place for settlements and resting. Besides these facts, maritime industries ranging from fishing to shipyards, ports and recreational facilities provide most of their services in coastal areas and have been investing heavily on these regions. These competing industries carry out capital intensive investments and have an impact on natural environment and coastal areas.

Numerous activities carried out on the coastal areas can be classified into six main headings and these are ranged from waste disposal to nature reserves. The others consist of aquaculture and fishing; residential and recreational; military and strategical, industrial and commercial and finally agricultureal (Ketchum, 1972). Terrestrial ecosystems can be found in the distance of approximately 100 km inward after the coastline where can be defined as the "coastal area" (Martínez et al., 2007). Coastal ecosystems are the vital resources for the living organisms. Coral reefs, salt marshes, estuaries, mangroves, and the remaining continental shelves can be regarded as main coastal ecosystems (Burke et al., 2001). In addition of being nutritional resources for organisms, coastal ecosystems are acting as reserves for many fruitful organisms; food for many aquatic-based bacteria and kinds of fishes that have commercial value (Sukardjo, Alongi, and Kusmana, 2013). Besides, high productive sea grass ecosystems support in feeding the rest of the components and luckily they grow very fast even if the climate conditions are unusual and modern agricultural methods are not applied (Michot et al., 2002). The ecology that coastal areas provide has an effect both on environment and society that ecosystem services made the coastal areas appropriate places for people. These characteristics also support the other organisms which can alive on the coastal areas (Waycott et al., 2009).

The main motivation of this dissertation lies behind this calculated value and raises two questions: How can the value of the coastal area be measured for the society? Do coastal facilities have the social responsibility marketing role on changing value of coastal areas? Although there have been great efforts for the management of coastal areas, the social value of them for the society has been neglected by practitioners, investors and academic environment. This social value should consist of actual property value, ecosystem value, tranquility value, recreational value, in short all use and non-use values. In other words, it is a kind of total economic value to be measured by stated preferences methods which gathers the data directly from the respondents. Methodologically valuation of the coastal area by contingent valuation method has been chosen in order to clarify the research question stated above.

Turkey, İzmir has been selected as the research area since the Gulf of Izmir has accessibility for the researcher and intended area of use is ranged from recreational to business and coastal fishing. Coastal users with various purposes can be accessed along the coastal line and familiarity to the coastal area and sea is reasonably high among the coastal residents. Besides these facts, sea transportation was domestically and internationally used in İzmir. Port of Alsancak located in the heart of İzmir hosts international cargo terminals and cruise terminals as well. Market structure has historically been designed according to the requirements of international trade and tourism. Coastal residents enjoy living close to or working on the coastal area. These characteristics point the coastal area of İzmir as the application area for the field study. In the first chapter of this dissertation, importance of coastal areas has been given in details. Coastal planning and integrated coastal zone management processes were underlined and principles of related concepts are set out. Besides coastal areas, valuation methods for environmental goods have also been investigated and the methods have been given in details.

In the second chapter of this dissertation, social marketing and corporate social responsibility concepts have been analyzed in order to set the variables of social responsibility marketing on coastal areas. Since the proposed term – social responsibility marketing- is the mix of two stated fields, the variables should be deducted from these disciplines.

In the third chapter of this dissertation, methodology of the research has been given in details starting from questionnaire development to the definition of methods used in the research. In this chapter, the findings of content analysis carried out to infer the variables of social responsibility marketing have also been given.

The last chapter deals with the findings of the researches that are twofold. The first research deals with the valuation of coastal area and the second research aims to relate the social responsibility marketing variables with value perceptions of the participants. At the end, the models of social responsibility marketing for coastal areas and port facilities have been established and definitions of social responsibility marketing for coastal areas and port facilities have been proposed.

#### **CHAPTER ONE**

#### **COASTAL AREAS AND VALUATION**

#### **1.1. COASTAL AREA: TERMS AND DEFINITIONS**

Before giving the numerous definitions of "coastal area" systematically, the coastal related terms such as "coast", "coastline", "shore" and "shoreline" have to be differentiated. These definitions will provide a baseline for introducing the terms "coastal area" and "coastal zone". Definitions of the coastal related terms from different sources often correspond with each other. For instance according to the Woodroffe, the shoreline is "where the lands meet the sea" (Woodroffe, 2010) while Kay and Alder emphasize that "coast is where land and ocean meet" and add that "it is a line on the map, constantly moving by rise and fall of tides and passing of storms creating region of interaction between land and sea" (Kay and Alder, 2005). In other words, the authors underline that coastline and shoreline are the same and natural movements create changes in these areas. In contrary, Oertel (2005) defines coast as "the edge or margin of land next to the sea" and declares that the terms "coasts", "coastlines", "shores" and "shorelines" have different characteristics and they have been inaccurately used by the scientists (Oertel, 2005).

The scientific definitions of these terms were given by Oertel (2005) in the Encyclopedia of Coastal Science as follows; "The term coastline and shoreline are both boundary lines between water and land. The term coastline is generally used to describe the approximate boundaries at relatively large spatial scales. Shoreline is used to describe the precise location of the boundary between land and water" and a coast and shore are the "strip of land adjacent to coastline and shoreline respectively". Oertel also points out the difference by saying; "The main difference between a shore and a coast is one of scale. Shores are relatively narrow strips of land adjacent to water bodies, whereas, coasts generally depict relatively broad bands of land adjacent to water bodies".

#### 1.1.1. Definitions of "Coastal Area" and "Coastal Zone"

After giving the coastal related terms definitions and distinctive characteristics, meanings of "coastal area" and "coastal zone" will be given in details. Oertel put forward that "coastal zone" and "coast" has the same geographical characteristics (Oertel, 2005). Besides, "coastal area" and "coastal zone" are two interchangeable term in the coastal literature. It should be underlined that, while the latter has been being used more by international institutions and policy makers and the first one has been preferred by the studies that focus on the specific coastal regions and legal papers. From the points of administrative view, "coastal area" or "coastal policy area" have been preferred (Kay and Alder, 2005). The geographical illustration of coastal area has been given in Figure 1.





Source: Compiled from Karsten, 2019; CERC, 1984 and Pilkey et. al, 2011 by the Author

Figure 1 illustrates the all coastal related terms and the distinction between them. It should be stated that, length of coastal area have no strict limitations (Pilkey et al., 2011), it includes marine areas and the length of the coastal area depends on the geographical, social and economic conditions of the region. In some regions coastal area can lie 250 km inward to the land or it can stand just 250 m due to the conditions stated above.

The distinctive points of "coastal area" and "coastal zone" have been pointed out by Kay and Alder (2005). The authors underlined that; "coastal zone" is preferred in the documents regarding the "coastal zone management" issues since the coastal zone refers "geographically defined" planning area. Since the place of "coastline" and "shoreline" is continuously changing with the natural effects, the interaction occurs between land and sea and this interactive area can be defined as the coastal area (Kay and Alder, 2005). Within the scope of this dissertation, the coastal area has been preferred to use since the focus is on the very specific part of the coastal region.

Another definition of coastal areas has been created during integrated coastal zone management (ICZM) workshops with environmental concerns (Ketchum, 1972) as *"the coastal zone is the band of dry land and adjacent ocean space (water and submerged land) in which land ecology"*. According to Ketchum's definition, the bands that occurs between lakes, seas and the land is the border of the coastal area. From the ecological side, coastal areas are dynamic lands (Ketchum, 1972).

By looking into all definitions mentioned above, it should be stated that it is not easy to define coastal areas extensively. No single and standard definition is available for the coastal zone. It refers to the area between sea and the land (Woodroffe, 2010). The geographical limitations of coastal area are defined differently in many articles in the literature. Although these limitations vary from region to region, some studies have assumed that coastal area is 100 kilometers starting from the shoreline (Burke et al., 2001; Small and Nicholls, 2003). The distance of 100 km is commonly assumed for the valuation of terrestrial ecosystems which are mostly located in this range (Martínez et al., 2007).

The definition of Sorensen and McCreary (1990) can be considered as the most appropriate visualization of the coastal areas, and it directly fits to the aim of this dissertation; "*Coastal areas includes where the all the interactions and affects that can be observed from the land and water side*" (Sorensen and McCreary, 1990). In this definition the word "interaction" brings about the change in coastal areas and the aim of the dissertation is to measure the social value of the change in coastal

areas. Besides this, Ahlhorn (2018) have listed the main characteristics of the coastal areas as;

- Fractional changeover area between water and field.
- Intermissionless modificatory area
- Outstandingly plentiful area
- "Human idea of open space"

Between these four characteristics of the coastal areas, the attention of this dissertation will be on the "continuously changing environment" heading. And here the change refers to both the natural changes that occur in the appearance due to the waves and other natural currents and the human activities.

After giving scientific definitions of coastal related terms such as "coastline", "coastal area", "coastal zone". "shore" and "shoreline"; it will be beneficial to state the international organizations' definitions regarding these concepts. From the administrative points of view, United Nations (UN) put forward different definitions for different regions of the world. For instance the coastal zone is defined as "*the area comprising coastal public property, the coastal protection zone, coastal access land and coastal protected areas, the seashore, coastal waters and the exclusive economic zone and includes any aspect of the environment on, in, under and above such area" for South Africa and "any area declared to be a protected coastal zone by laws" for Kenya (UNEP, 2017b).* 

With managerial concerns, European Union (EU) defined coastal zone as "the geomorphologic area either side of the seashore in which the interaction between the marine and land parts occurs in the form of complex ecological and resource systems made up of biotic and abiotic components coexisting and interacting with human communities and relevant socioeconomic activities (EU, 2009). Considering the above mentioned definition of coastal zone, EU encompasses the land use of coastal areas as well as embraces the geophysical characteristics. According to the European Code of Conduct for Coastal Zones by European Council (EC) following definitions were established; "Coastline is the boundary between land and sea. Coastal Zone is an area including both land and sea, of indeterminate width, sometimes including river catchment areas, depending upon a wide variety of definitions currently in use. An area of a few kilometers can be assumed for general

purposes. Coastal strip is a narrow strip of land bordering the coastline, extending a few hundred meters inland. Coastal area or region is a general term describing places that are influenced by their proximity to the sea" (EC, 1998).

After technical definitions of coastal areas, the definitions which prioritize the environmental and ecological aspects should be underlined here. Carter (1988) put forward that "the coastal zone is that space in which terrestrial environments influence marine (or lacustrine) environments and vice versa" (Carter, 1988). Just like in any other definitions stated above, Carter have also emphasized the importance of interactions by considering the environmental aspects of the coastal areas. However, above mentioned scientific and technical definitions regarding the coastal area are not applicable to the administrative purposes. Therefore, new definitions of coastal areas were proposed (Harvey and Caton, 2010) for managerial and political intention by the Environment Directorate of the international Organization for Economic Cooperation and Development (OECD) and the definition should be flexible due to the managerial objectives and the troubles encountered (OECD, 2019).

From the points of legal regulations there are numerous definitions of coastal areas and other coastal related terms. Australian legal papers address the term "coastal zones" with more sophisticated insight. According to the legal regulations issued by the authorities coastal zones includes: "*Coastal waters, the seabed and offshore islands, including gulfs and sounds (canals) under the jurisdiction of Australian Government, the mobile beach zones and modern dune systems, mangroves and wetlands and flats subject to tidal influence, areas potentially subject to shoreline movements and estuaries and coastal lagoons"*(Western Australian Planning Commission, 2001).

In Turkey, the first Civil Law accepted in 1926 includes some parts about public property and it says the natural goods – mountains, lakes, seas and areas that are not appropriate for agriculture- do belong to government (Turkish Civil Law, 1926). Until 1972, no specific legal arrangement was found in the Turkish legal system for the coasts. In 1982, some arrangements were made on Turkish Constitution and gave the priority of the public benefits on coastal zones. After a while in 1990, the coastal law legally characterized the coasts as special areas in which the rights of ownership and the forms of exploitation are determined. After all, the term "coastal zone" is not defined in Turkish Coastal Law numbered 3621. Turkish Coastal Law is in use as the main legislative structure in Turkey and presents the general dimension and regulations for coasts. Therefore, current Coastal Law utilizes the coastal use just for public benefit. In spite of defining the term "coastal zone" directly, each of four different terms; "coastline", "coast edge line", "coast" and "shore strip" are defined separately; "Coastline is the natural line along which water touches the land and which is changing meteorologically at the coasts of the seas, lakes and rivers. The condition of flooding is an exemption. Coast edge line is the natural border determined by the inward motion of water from the coastline, including the land with sand, pebbles, boulders, rocks, reedy and marshland. Coast is the area between the coastline and the coast edge line. Shore strip is the area starting from the coast edge line and stretching inwards with a horizontal width of 100m" (Coastal Law, 1990).

Furthermore, competing industries ranging from aquaculture and tourism to transportation invest and operate in the coastal areas. UN declared that ocean and coastal areas provide beneficial components for sustainable developments regarding human and environmental aspects including economic, social and ecological dimensions. Fisheries, tourism, energy and shipping transport can be considered as the main industries benefit from the ocean and coastal areas (UNDP, 2011). In the following part, these competing industries operating on the coastal areas and the relation of these concerns with the dissertation will be given.

Consequently, a comprehensive definition of coastal area should be given by considering the above mentioned characteristics and scope of this dissertation. Within the framework of this dissertation coastal area can be defined as follows:

> "Coastal area is common area without specific geographical border, on which the public interest and social value are prioritized, starting from the marine areas extend along compatibly with industrial, social, economic, cultural and natural characteristics of region."

#### **1.1.2. Different Types of Land Use for Coastal Areas**

Coastal zones, more than any other environment, are shared systems. Unisectoral approaches to problem solving have not worked, and the challenge remains to create innovative multisectoral approaches which will produce desired outcomes (Parkes and Manning, 1998). The coastal area can be classified as a scanty resource which means limited number of operations can be carried out by using coastal resources (French, 2005). The scarcity of resources and competing values therefore combine to produce the need for a management regime to allocate benefits among users. The coastal zone satisfies a variety of needs, but its uses are often competitive or mutually exclusive, individually or in combination. These competitive demands are continually being made on what is in essence a finite resource base (Parkes and Manning, 1998).

To understand the comprehensive importance of the coastal areas for the industrial facilities systematically, International Standard Industrial Classification of All Economic Activities by United Nations (ISIC) is used. This classification has been prepared in order to be used in the further statistical analysis of all economic activities (Cerit, 2013). Cerit compiled these industries from the ISIC Rev. 4 classification system. Table 1 presents the possible industries related to coastal areas.

#### Table 1: Coastal Activities Based on ISIC Rev. 4

Section	Divisions, Groups, Class			
	Agricu	lture, forestry and fishing		
А	02	Forestry and logging		
	03	Fishing and aquaculture		
	Mining	and quarrying		
в	06	Extraction of crude petroleum and natural gas		
D	07	Mining of metal ores		
	09	Support activities for petroleum and natural gas extraction		
	Manufa	acturing		
	10	Manufacture of food products		
	15	Manufacture of leather and related products		
С	19	Manufacture of coke and refined petroleum products		
-	22	Manufacture of rubber and plastics products		
	24	Manufacture of basic metals		
	30	Manufacture of other transport equipment		
	33	Repair and installation of machinery and equipment		
D	Electric	city, gas, steam and air conditioning supply		
Е	Water	supply; sewerage, waste management and remediation activities		
	38	Waste collection, treatment and disposal activities; materials recovery		
F	Constr	uction		
G	Whole	sale and retail trade; repair of motor vehicles and motorcycles		
	Transp	ortation and storage		
	49	Land transport and transport via pipelines		
н	50	Water transport		
	51	Air transport		
	52	Warehousing and support activities for transportation		
	53	Postal and courier activities		
I	Accommodation and food service activities			
J	Information and communication			
K	Financial and insurance activities			
L	L Real estate activities			
	Profess	sional, scientific and technical activities		
	70	Activities of head offices; management consultancy activities		
М	72	Scientific research and development		
	73	Advertising and market research		
	7320	Market research and public opinion polling		
	74	Other professional, scientific and technical activities		
N	Admin	istrative and support service activities		
0	O Public administration and defence; compulsory social security			
Р	Educat	ion		
Q	Humar	health and social work activities		
R	Arts, e	ntertainment and recreation		
S	Other s	ervice activities		
Т	Activit	ies of households as employers; undifferentiated goods- and services-producing activities of households for own use		
U	Activit	ies of extraterritorial organizations and bodies		

### Source: Adapted from Cerit, 2013 and Compiled from UN, 2008

It is obvious that global and local changes encountered in natural and business environment influence the functioning of coastal systems and their ability to sustain human development (Crossland et. al, 2005). Industries listed in Table 1 may / must operate in the coastal areas. Especially the ones include maritime businesses and related industries naturally carry out their operations on the coastal areas directly or indirectly. Agriculture is the first and most important benefit in coastal areas. First residents of coastal areas have been used these areas to grow some kinds of animals and for salt harvest. Today, coastal areas present lush and fruitful soil for agricultural activities (Ahlhorn, 2018).

Shipping and seaborne trade are the fields that the coast plays a major role. Sea trade volume, vessel types and sizes are continuously growing and increased from 1.86 millions deadweight tons in 2017 to the 1.92 millions in 2018 (UNCTAD, 2018). In agreement with actual increase in the whole economic activities, trade and shipping operations ports to be enlarged and dredging of fairways become necessary for both hub ports and the ones located kilometers away via inland waterways such as Hamburg and Antwerp (UNCTAD, 2018). These facts have effects on the appearances and functions of the coastal areas since ports, shipyards and water transport are the industries that directly use coastal areas and create mass investments on these areas. Besides these industries listed above, marine tourism facilities are also located on the coastal areas. It should be noted here that marine tourism is often called as "coastal tourism" in many distinguished research and it is noted that approximately one third of overall tourism activities have been carried out in the coastal areas (Ghosh, 2012). Marine tourism industry includes different business forms and activities ranging from whale watching to cruise shipping (Orams, 1999). Different fields and components of coastal use will be given in the following parts but before that the research area of this dissertation -The inner part of Gulf of İzmirhas been illustrated from the industrial points of view in Figure 2.

Figure 2: Gulf of Izmir Land / Sea Use Plan



Source: Yücel-Gier, Arisoy and Pazi, 2010.

The land / sea use plan of İzmir Bay has been illustrated in Figure 2. According to this, different purposes of use of the coastal area have been carried out on the region. Various coastal inventories ranging from archeological sites and lighthouses to fish farming, ports and industrial area can be observed within the border of the İzmir Bay. Besides; restricted areas for diving, special environmental protection areas, marine transportation routes and commercial zones are located in the İzmir Bay. Ramsar region is an important part of the İzmir Bay that should be underlined. This region is defined by the intergovernmental Ramsar Convention on Wetlands signed on 1971 in Iran in order to be protected and evaluated as specific area on the integrated coastal zone management practices (Ramsar, 2011).

Components located in Figure 2, should be evaluated by strategic points of view and with business environment perspective. This perspective is applicable any business operating on the coastal areas as well. As stated in Figure 3 layers of the business environment can be applied to the coastal areas and the related industries.





Source: Johnson et al, 2017.

Every layer stated in Figure 3 has its own characteristics and ecosystem. Within this framework, political, economic, social, technological, environmental and legal factors locate in the outmost layer of the business environment and have several impacts on the industry, markets, organization and clarify the *"key drivers of change"* (Johnson et al, 2017) whereas Porter's five forces identifies the competitive nature of the specific industry (Porter, 1980).

All above mentioned determinants of the macro environment of business have extended impact on the coastal based industries ranging from transportation and tourism to fishing and recreation. Integrated coastal zone management practices of the nations can be accounted as the political and legal factors on the coastal areas since the policy maker bodies of the states have been dealing with these practices and aiming to sustainable management of the coastal areas.

Moreover, technological developments make the bigger vessel sizes available. Furthermore, it has been enforcing ports to carry out responsive investments on handling equipment and ship operating companies to make strategic alliances in order to benefit from economies of scale (UNCTAD, 2018) thus these alliances and investment requirements set forward high level of competition for ports (Notteboom et al, 2017).

#### 1.1.3. Ecosystem and Coastal Areas

The charm of the coastal ecosystem makes the coast more attractive to people and therefore coastal areas are to be used for leisure, recreation and tourism (Martínez et al., 2007). Due to migration and tourism, the population of coastal areas is increasing and the majority of whole tourism activities carried out in the coastal areas (Orams, 1999).

If it is needed to define the term of ecology that we often use on a daily basis, UNEP defines the ecosystem "as a dynamic complex of plant, animal, and microorganism communities and the nonliving environment interacting as a functional unit (UNEP, 2006)". The human being and coastal areas interaction roots back over numerous years. These fertile areas have been noodle points for population, human relations, and transportation (UNEP, 2005). As stated earlier, more than 45% of the global population have been hosted by coastal areas (Martínez et al., 2007). Coastal ecosystems are inimitable and valuable to people and economies and basically it is being destroyed and threatened by human beings devastation (Ghorai and Sen, 2014) and each year coastal ecosystems have been disappearing between the rate of 1% and 10% globally (Waycott, et. al, 2009).

According to the observations and calculations of World Research Institute, coastal ecosystems can be divided into three categories as natural ecosystems, semi amended ecosystems and fully amended ecosystems (Burke et al., 2001)

Martinez stated in 2007 "In coastal regions, A total of 3484 plant and 417 animal species have been reported for the Americas, Africa and Asia and 714 plants and 398 animals for the European and Arctic regions" (Martinez et al., 2007). Main coastal ecosystems consist of salt marshes, estuaries, mangroves, coral reefs and the remaining continental shelves (Waycott et al., 2009). Among them, mangroves are most important ones and especially found in tropical and subtropical wetland. Asaeda et. al emphasizes that mangroves are inimitable ecosystem components and their benefits are ranged from being home for various living forms to preventing contamination of harmful organisms. (Asaeda et al., 2016).

In terms of environment, the coast is a biological wealth to be protected. The coastal area controls the transformation between land and sea in terms of quantity and quality. This area varies according to the boundary between land and sea or land waters and sea waters (Doğan and Erginöz, 1997). Therefore, any loss in the function of these areas could lead to big harmful damages to all ecosystem ranging from coastal to marine species (Ghorai and Sen, 2014).

The above mentioned components that consist of coastal ecology are matchless and incomparable for humanity when the ecosystem services they provide are considered. It should be noted here, global warming which accelerates sea-level rise threatens these above mentioned ecosystem and their services (Ghorai and Sen, 2014). When the population density within coastal areas is considered, the importance of the coastal ecology arises. So that, as of 2015, around 2.9 billion people have been located within 200 km border from the coast which indicates about 11 % of the earth's surface (Neumann et al., 2015) and it is obvious that all these ecosystems are serving for their quality of life and survival. For example, coral reefs have special characteristics that supports warm and fertilize seas for other biological creatures of marine species (Maragos, Crosby, and McManus, 1996) and they are regarded amongst the most beneficial ecosystem components on globe (Odum and Odum, 2010).

As stated previously, coastal ecosystems have vital importance since they offer variety of ecosystem services. Therefore, the possible threats on coastal ecosystem should be underlined, in order to assess biodiversity conservation, water quality, survival of variety of marine species and also coastal tourism activities (Caroppo, 2015). The effects of marine tourism activities on coastal ecosystems have been encountering for numerous years since travelling to coastal areas have been a usual leisure time activity for human beings throughout history (Orams, 1999).

The first threat to be addressed is human activities on coastal areas (Coventry, 2001; Shi and Singh, 2003) including overfishing (Burke et al., 2001). Studies indicate that climate change and human based factors have been the major causes of coastal system degradation. In order to overcome these problems, spatial distribution

of coastal populations should be allocated equally in global scale (UNEP, 2005). On the other hand, there is a need for landscape protection in specific coastal areas where the biodiversity such as mangroves are disappearing (Sukardjo, Alongi, and Kusmana, 2013). Pollution that arises from human activities is also the reason of losses of biodiversity and in addition tourism is standing as one of the important factors that promotes and accelerates biodiversity degradation in coastal ecosystems (UNEP, 2009) since these areas are regarded as the most appropriate places for hotels and tourism related accommodation facilities (Orams, 1999).

Any negative changes in coastal ecology do not merely affect that area, it also affects nutritional pattern of other species, sea surface and deep temperatures and even volcanic movements (IPCC, 2001). For policy makers, such effects are considerable and have received a corresponding increase in attention with the growing concern that arises on global warming and its consequences which directly affects coastal areas and ecology (UNEP, 2014). According to one of the evaluation reports of the Intergovernmental Panel on Climate Change, the global sea level in the 20th century has increased by  $1.7 \pm 0.5$  mm a year, especially from the 1990s. According to the estimates made, it will be approximately 50 cm higher in the late of twenty first century. Also in the same report it is stated that if all of the polar glaciers melted, it could reach up to 7 meters (IPCC, 2018).

A wide range of distinguished research papers have been produced on coastal marine ecosystem services. Besides these, inter- and non-governmental organizations have prepared detailed reports on the preservation of ecological values of the coastal areas. One of the most influential ones is prepared by UNEP (UNEP, 2006). First of all, the report gave the current situation of the marine and coastal ecosystems and their services. After that, it analyzed the impacts the possible effects of the absence of ecosystems located in the coastal areas on life on Earth with statistics.

#### 1.1.4. Social Value and Coastal Areas

Messy and confusing definitions of "social value" on a variety of fields from economy to psychology can be found in literature. Nevertheless, it will be beneficial to consider the "social value" within the scope of the aim of the dissertation. As
coastal areas are the natural resources, the definitions of social value provided below should be taken in to consideration within the framework of natural resource management field.

"Social value" has been a very complicated term (Pearson and Sullivan, 1995). It is somehow viewed as social capital (Kim and Lee, 2015) and a value dedicated to a place, a value that shows the identity to any community and sometimes a symbolic value (Jones, 2017). There has been an ongoing debate on social value and these are particularly focused on natural resource management (Paudyal, Baral, and Keenan, 2018). The total benefits that people encounter from natural goods can be defined as social value (Kendal, et. al, 2015). Depending on the situation, the self-perceived quality of natural resources can also be classified as social value (van Riper, et. al, 2017). It should be stated that economic value of environmental goods or services are included in social values and used to address social values (Hansjürgens, Schröter-Schlaack, Berghöfer, and Lienhoop, 2017). The interrelation between people and natural resources as sea, land, and their commodities includes some parts of social values related with the coastal heritage (Khakzad, Pieters, and Van Balen, 2015). Later on, on the valuation related parts of this dissertation will evaluate the meanings of value and social value together.

Coastal areas are valuable areas due to their values provided to the life on the Earth. Coastal areas hosts three times greater population than the other regions of the world host and nearly <sup>1</sup>/<sub>4</sub> of the overall population live in the coastal areas, in other words within the border of a hundred kilometers from the coastal line (Small and Nicholls, 2003). Coastal regions play a vital role in the national economy of many countries due to their social and economic activities and their impacts. At this point, economists mostly see the coastal areas as "free goods" therefore use technical terms in conceptual definitions of coastal areas which are subject to the private property (Kibaroğlu et al., 2009).

The coastal zone provides goods and services highly valuable to human society. One of the reasons why people settled in coastal areas is that they are the first place they arrive after they come from the sea (Arslan, 2005). Coastal and marine sources provide nutritional components for people and animals, materials for constructions and invaluable areas for marine tourism activities (Martinez, et al., 2007).

The services provided by terrestrial ecosystems on the coast are not easily measurable, but are also inevitable for society and life. These benefits include protection from storms and hurricanes, the storage and conversion of nutritional components, maintenance of biodiversity and water retention (UNEP, 2005).

Coastal areas put forward significant benefits for people (Smith, 1976, Hausmann, 2001; Sachs et al., 2001), but they also contain the risk of natural hazards (Nicholls and Tol, 2006). Coasts host multitude of tourism, transportation and recreation activities, which have the potential to generate social and economic values and impacts on the coastal environment. Decision makers, therefore, will require information on the social and economic impacts of these activities as well as scientific information about their impacts on natural resources.

Pike, Johnson, Fletcher and Wright and Lee (2010), have aimed to establish views on the perception of social value on coastal areas and have carried out a study based on a grounded theory. Nine key themes have been identified as a result of the study ranging from management to marketing and promotion. Including, natural environment, spirituality, activities, community involvement, research education and interpretation, built infrastructure and access (Pike, Johnson, Fletcher, Wright, and Lee, 2010).

As a future research of previous study mentioned above; Pike, Johnson, Fletcher and Wright (2011) have discussed the social value of coastal resources and divided it into two parts as tangible social value and intangible social value. Intangible social value includes tranquility and spirituality, dynamic coastal changes and place attachment. Tangible social value includes visiting, social inclusion, neighboring, research and education, marketing and promotion (Pike, Johnson, Fletcher and Wright, 2011). Table 2 exhibits all of these values.

#### Table 2: Social Value of Coastal Areas

Intangible Social Value	Tangible Social Value
Natural Environment	Activities (Walking, Swimming, Fishing, Resting)
Tranquility and Spirituality	Social Inclusion
Dynamic Coastal Changes	Neighboring
Place Attachment	Built Infrastructure and Capacity
	Research and Education
	Marketing and Promotion

Source: Created by the author based on Pike, et. al. (2011).

According to Table 2, the key themes of social value on coastal areas have been changed when comparing to the previous study. While the key term "management" has been omitted, the "dynamic coastal changes", "place attachments" and "neighboring" have been added to the list. It shows the key terms of social value on coastal areas have been changing by the time since the coastal areas have very unvested characteristics and perception.

## 1.1.5. Human Wellbeing and Coastal Areas

People can be concerned as the main component of the coastal change (Carter, 1988). The history of interference to the coastal resources by people dates back the building structures and enjoying coastal scarce (French, 2005). As stated earlier the report prepared by UNEP *focused* on the basic fundamentals for life quality and listed them as; acceptable income level, assets belong to the households, water, place to live and food (UNEP, 2006). Freedom, security, human health and state of good social relations are other materials for the good life.

As it is stated in the report, it is almost impossible to figure out the economic effects of ruining of marine and coastal ecosystems on the human well-being. (UNEP, 2006). Tranquility, recreational and heritage values of the coastal ecosystems, and naturally tourism are the main components of the relationship between coastal areas and human well-being. Therefore, the policy makers face a

compelling tradeoff between the conservation and other priorities that are created by the usage of coastal areas (Khakzad et al., 2015).

Although there have been great efforts to measure the relationship between coastal areas and human well-being the research papers mainly monitors the interdependence of ecological services and quality of life. Therefore, these academic efforts could not set out appropriate frame to clear the dependency between wellbeing and coastal ecosystem services since the coastal areas include more than ecosystem services for the quality of human life.

Safety and environmental concerns can be regarded as the main dimension of the coastal management practices if the relation between human well-being, ethics and coastal areas are considered. Manufacturers are regarded as responsible parties for the units they produce and harmful effects occurred in the process of production (de George, 1999). Sea level rises, storms and all kinds of natural hazards that occur on the coastal areas are the possible threats to people's life. Besides these threats listed above, production plants and facilities pollute the environment and give harmful effects to the public safety (de George, 1999). One of the main environmental areas affected are coastal areas since numerous competing industries locate on these invaluable areas. Awareness to these threats has been a major concern for researchers and the safety levels of coastal areas have been determined in some regions (Short and Hogan, 1994). Effective land use policies and design applications should consider and respect the presence of environmental and safety concerns and these policies should sustain safety coastal areas for society (Pawlukiewicz, Gupta and Koelbel, 2007). Safety issues ranging from tourist's safety on marine tourism recreational activities to marine traffic safety are all related to the coastal areas (Shenping and Jinpeng, 2012) and should be well considered in safety measures.

# 1.1.6. Sustainability and Coastal Areas

Sustainability -as a term- has been getting more and more focused and widened the use of the term that has been observed since 1987 gained widespread usage after 1987, when the United Nations' World Commission on Environment and Development raised an issue on definition of sustainable development as *"it meets*"

the needs of the present generation without compromising the ability of future generations to meet their own needs (Heinberg, 2010)." Social, environmental and economic sustainability are the three dimensions of sustainability (Veldhuizen, Berentsen, Bokkers, and de Boer, 2015). Sustainability –as it is proposed in this definition- is directly related to the coastal areas since these areas are the outset of the resources that future generations are going to use these areas as resources to make their ends meet.

Sustainability, as the most fundamental issue to be considered in the planning of coastal areas, appears as a dominant paradigm in the world's coastal management programs towards the end of the twentieth century (Kay and Alder, 2005). Land use planning and sustainability are more intertwined than ever and ideas, principles and policies related to sustainability can be seen everywhere about coastal areas (Lang, 2012).

Bradbury puts set of principles for sustainable coastal development (Bradbury, 2010);

- Variety of intentions to use coastal areas brings cultural, commercial and residential values to the coastal areas. Accessibility to the coastal area should be regarded as the initial condition to be functional and social for the coastal areas.
- Coastal areas as a part of provinces are the components of the viability of the city. Since coastal areas contribute the wellness of the city's view, it can be regarded as an invaluable part of the transportation, recreation and culture.
- Water and common heritage of nature can be used to give form and sense to the coastal areas of the city again. Protection of industrial history is an integrated part of sustainability.
- The nature of the environmental aspects and the water must be preserved. The water quality of all natural components is the first condition of coastal planning and local authorities should take responsibility for this.
- Coastal projects and the coasts istself should be planned by considering the results of each step and the region's potentials such as architecture, public space and art should be strengthened since these projects are not short-term projects

- Coastal areas should be accessible to local people and visitors from all ages and income, both physically and visually.
- The redevelopment of coastal areas requires professionals from different disciplines. A network should be established between different disciplines with efficient flow of information.
- New coastal development may be carried out by using different partnership types. Public administrations should ensure the quality of layout and infrasuperstructure and ensure communities' balance.
- To promote a sustainable growth system, coastal management authorities and businesses must have equal priority in order to change coastal area plans which have modifiable and interdisciplinary characteristics.

Sairinen and Kumpulainen (2006) emphasize public participation is an effective factor in the coastal planning process and it can be assessed through interviews, surveys and workshops. Essential data can be collected on the local community and social structure (Sairinen and Kumpulainen, 2006). Steps for planning coastal areas are as follows according to Bertsch (2008);

- The coastal area should not be isolated from other regions and accessibility should be prioritized for public access.
- All interest groups should be included in the process. Government agencies, investors, community organizations and environmental groups should be eligible for the development of public spaces and should be took place in the process (Bertsch, 2008).
- Planning coastal areas should be started with the water plan. The water plan should be economically feasible.

Besides that, resources located and found in coastal areas should be used by considering these attributes as follows; (Akyarlı, 1992):

- Renewable resources' stocks must be enough,
- Resources' quality should be in an appropriate level and they should be accessible by the next generations to transfer cultural and historical patterns and to sustain ecosystem protection,
- Population in coastal areas by keeping infrastructure facilities at the required level

• Maintaining the quality of life by limiting the intensity.

As stated earlier, sustainability has been a core concept that is discussed in coastal management processes. With regard to this, two approaches should be compared. Figure 4 illustrates the coastal management approach with sustainable and unsustainable considerations (Dutton and Hotta, 1994). According to Figure 4, traditional coastal zone management has been declined because of over harvesting and then died finally. Just after the death of the system, there is recognition of need for sustainable coastal management which includes developing management system, implementing, monitoring, reviewing and evaluating steps.



Figure 4: Sustainable and Unsustainable Approaches to Coastal Resource Use

The activities that human beings have carried out on coastal areas reached outstandingly harmful levels and getting increased day by day (Stojanovic and Farmer, 2013) which makes the term sustainability more important –with all three levels; social, economic and environmental- for coastal areas. Each year coastal

Source: Dutton and Hotta, 1994.

ecosystems have been disappearing between the rates of 1% and 10% globally (Waycott, et. al, 2009).

Another aspect of the sustainability in coastal areas is to carry out sustainable coastal tourism. As one of the core branches of tourism, the coastal tourism is carried out in the intersection of land and sea while using resources combination such as coastal areas and its ecology, scenic view, regional cultural and historic heritage, gastronomy culture and of course infrastructure (UNEP, 2009). After defining coastal tourism, the term "tourism" should be defined. It is among the leading industries and it seems harder to make clear and outright definition but it should be considered closely interrelated with concepts such as; economic, social, cultural, environmental, and political. Since this dissertation examines and focuses on coastal areas, Fennell's definition in 1999 has been found suitable to the purpose since it contains the term "attractive areas" which can be regarded as coastal areas. He defines it as "the interrelated system that includes tourists and the associated services that are provided and utilized (facilities, attractions, transportation and accommodation) to aid in their movement across attractive areas ...(Fennel, 1999)".

Coastal tourism includes a wide range of coastal recreation activities and the share of these activities in overall tourism activities is becoming larger and larger. While some activities can be classified as consumptive (shell collection, fishing and shell collection) some can be non-consumptive (swimming, surfing, wind-surfing, boating, whale watching and snorkeling) (UNEP, 2009). States that carry out marketing activities on coastal tourism use their attractiveness of coastal areas and they are aware of the importance of the term "sustainability" (Hall, 2001). In parallel with it, tourists of today's world have a greater intelligence and knowledge on the impacts of their tourism activities on the nature and are eager to receive more sustainable tourism products and services (Golja and Nizic, 2010).

To summarize, the term "sustainability" has four main effects on coastal areas; one is comprehensive and three is more interrelated. The general one is affecting the decisions on coastal areas and it is called as sustainable thinking. The other three are just related with economics, environmental resource management and social and cultural development (Kay and Alder, 2005).

## 1.1.7. Settlements and Coastal Areas

Throughout history, many cities have been located on the coastal areas, and the relationship between cities and water can be considered as trueborn relationship. The coastal areas, which attract attention as the natural attraction areas of the cities due to their nature, have been the focus of many cities with their economic, social, historical, cultural and ecological values.

The coastal areas, which are the focal point of many cities with their transportation, trade and recreational usage, have an important role in the city life not only as economic value but also in terms of socio-cultural and landscape matters (Giovinazzi and Moretti, 2010). Romein (2005) emphasizes that projects involving complementary functions, such as housing, services, culture, creative industries, entertainment, shopping, are recognized as a prerequisite for the development of successful coastal areas, and that coastal areas are nodes in the post-industrial urban economies. Abulnour (2012), states that in the process of de-industrialization of the coastal areas, in the empty coastal areas; cafes, restaurants, entertainment areas and cultural and recreational facilities have been established so that cultural tourism can be prioritized in coastal areas.

A holistic approach to city and coastal integration is extremely important. In this direction, boulevards, squares and sightseeing routes that connect people with public spaces should be established (Fisher, 2004). In order to ensure visual integrity, design should be improved that buildings and open spaces are directed to water and buildings are placed perpendicular to the edge of the water (Atash, 2004; Huang, 2008).

Intense and unplanned urbanization, construction activities and urban wastes are the three main components of coastal settlements' effects on coastal areas (Sağlık et al., 2012; Alkay, 1995). To focus on Turkey, coastal areas are under the pressure of intensive urbanization. This pressure has been the main reason for the below mentioned problems (Şenbil and Aktepe, 2010; Önal and Nuray, 1997);

- Unplanned urbanization due to the fast housing,
- Nasty housing on the naturally valuable areas,
- Lack of technical and social infrastructures on the coastal facilities,

- Unplanned enlargement of cities and inappropriate field invasion,
- Sea embankment on the coastal areas for housing, roads and tourism,
- Heavy usage of underground sources,
- Deformation of coastal areas due to the climate change.

# **1.2. COASTAL PLANNING AND COASTAL ZONE MANAGEMENT**

Coastal planning is a technical activity that enables individuals to benefit equally from these resources according to the principles of social justice at the end of economic growth by using coastal areas as the most efficient way (Ergen, 1998). In fact, the core purpose of the coastal planning must be the public benefits according to the Turkish Constitution. The coastal planning consists of social and physical phases with legal, administrative and technical content that regulates the relations between coast, environment and human (Aydemir, 1999). Coastal planning activities should be fair on the public perception since these areas are the common ones and every part of the public has responsibility on it (Clément, Rey-Valette, and Rulleau, 2015). Planning is a kind of mandatory application for coastal areas since these areas are open to attack and suffer from human based activities such as settlement establishments (Valentini, Saponieri, and Damiani, 2017).

The term "coastal management" should be defined here. The broader definition of "coastal management" was made by French in 2004 as "*Coastal management is a dynamic process that covers the development and implementation of coordinated strategies to allocate resources and achieve conservation and sustainable multiple use of coastal areas* (French, 2004)". Allocation resources, achieving conservation and assessing the coastal area usage sustainably are the key terms of this definition. Therefore coastal management is more extensive than coastal protection or organizing the coastal environment (Anker et al., 2004).

Expectations from the management of coastal areas are listed below;

- Protection of coastal areas from environmental pollution,
- Preventing destruction of natural and artificial environment resources
- Ensuring socio-economic development compatible with resource carrying capacity of the coastal areas,

• Establishment of a coastal management system to implement the necessary applications (Doğan and Erginöz, 1997).

Nevertheless, it should be underlined here that since coastal areas are used by many industries, there are many stakeholders in case of management (Birch and Reyes, 2018). Later on, these specific characteristics of complexity would let the coastal management term into integrated coastal zone management perspective. From legal part of view, The United States was the pioneer of all countries to issue broader legal regulation on coastal areas with Coastal Zone Management Act of 1972 (Godschalk, 1992), which was issued just after the 1972 United Nations Stockholm Conference. In this sense, this act can be considered the first step of integrated coastal zone management concept with reference to its assumption that all competing industries within coastal areas should work together, of course not always in harmony, but to overcome the disputes (Godschalk and Zeisel, 1983).

Reid (1995) has empirically listed the principles of coastal zone management by considering the sustainability standards. According to the Reid, coastal management should;

- integrate preservation and development,
- satisfy some human needs,
- create opportunities to satisfy the all human needs,
- assess equity and social justice,
- respect the cultural heritage,
- assess the social self-determination and self-reliance and
- assess the ecological integrity.

To act for the above mentioned principles, in 1975, Mediterranean Action Plan (MAP) meetings were handled and Turkey also participated in these meetings with other 15 countries. This international action plan aimed to prevent marine and environment pollution (Birch and Reyes, 2018) followed by the issue of Barcelona Convention in 1976 for the Protection of the Marine Environment and the Coastal Region of the Mediterranean which aims (EC, 2019);

- to measure and prevent pollution on marine environment,
- to assess sustainability of marine and coastal resources management,

- to include the environmental concerns over the economic and social developments,
- Prevention of pollution from land and water resources in order to control coastal areas and marine environment's protection
- to control the protection of natural and cultural heritage
- to comprehend the collaboration between Mediterranean States
- to assess and maintain the quality of life

Here it should be underlined that one of the core protocols of Barcelona Convention is "Protocol on Integrated Coastal Zone Management (ICZM)" adapted in 2008 and the principles of ICZM were reassigned for Mediterranean region.

# **1.2.1. Integrated Coastal Zone Management (ICZM)**

As a response to the difficulties faced in coastal zone management, the approach arised in the 1980s which gathers all stakeholders in principal called integrated coastal zone management (ICZM) (Queffelec et al., 2009). The term ICZM is not recent. The conceptual framework of ICZM was first discussed in the United Nations in 1970s. After 1992 UN Environment Development Conference (Rio-Agenda 21), it gained a new dimension which emphasized the functions of ICZM in sustainable development. Today, it is adapted as a modern model of coastal management that serves the principles of integrity, effectiveness and scientificness (Uçlar, 2012). European Commission has also drawn a frame for ICZM and states that it commences with the familiarity of the common concerns and includes establishing the dialogue, cooperation among the related parties, coordination of action and integration of management (EC, 1999). In the last decades of the 1900's, states were aware of the need of more integrated coastal management approach since the coastal zone management strategies they involved were not fruitful individually (Post and Lundin, 1996). In Table 3, the key features of the process that consists of the way from coastal zone management towards integrated coastal zone management have been illustrated.

Table 3:	Change	in Key	Features of	Coastal Z	Zone	Management towa	rds ICZM
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Phase	Period	Characteristics
One	Between	Industrial considerations
	1950-1970	• Man-against-nature ethos
		Low public participation
		Underestimation of ecology
		• Acts after the things happened
Two	Between 1970-1990	• Increase in the assessment in environmental concerns
		• Increase in integration with industry
		High public participation
		Consideration of ecology
		Using science in evaluations
		• Acts both before and after the things happened
Three	Between	Sustainable development tools considerations
	1990-2005	Management perspective on environment
		Protection of environment
		Higher public participation
Four	Future	Ecological empathy
		Proactive responses
		Multi authority with related parties

Source: Kay and Alder, 2005

According to Table 3, public participation to the coastal zone management have been getting more and more important with ecological considerations, sustainability and environmental assessment (Kay and Alder, 2005).

Indeed, the term ICZM refers to sustainability of coastal management (Le Gentil and Mongruel, 2015), and different from the coastal zone management which only considers industrial concerns just occurred on the land part of the coastal zones (Vallega, 1999). Besides that, it should be underlined here that ICZM is not an alternative for industrial planning but aims to establish connection between ICZM goals and industrial plans activities (Post and Lundin, 1996).. ICZM can also be regarded as sustainable, adaptable and responding approach towards coastal resources to assess sustainable coastal area development (Worm, 1997). Therefore, the actions within this approach are to be subject of limits in practical, economic and social aspects and the practitioner of ICZM should consider financial, legal and managerial environment (Soriani et al., 2015). Another comprehensive definition of

ICZM made by Cicin-Sain and Knecht (1998) is that "ICZM is s continuous and dynamic process by which decisions are taken for the sustainable use, development, and protection of coastal and marine areas and resources (Cicin-Sain and Knecht, 1998)."

It should be noted that there must be a criterion of evaluation of ICZM applications. The successful result of ICZM should assess the sustainable development of coastal area. There has been an ongoing debate on evaluating the ICZM practices. Thus Ehler (2003) argues that accountability and adaptive management are two basics needs of ICZM assessment (Ehler, 2003). The EC has (1999) also identified two approaches; one is situation analysis of coastal areas and two is defining and empowering the methods to use in management of coastal areas. Van der Weide (1993) have also proposed on evaluation models for ICZM using system approach and these proposed model is still under development (Weide, 1993). EU Eco-Management and Audit Scheme (EMAS) and International Standards Organization (ISO) 14001 series are getting more and more important for coastal governance.

"Coastal Sustainability Standard (CoSS)" is another systematic approach of evaluating the ICZM applications developed by UK coastal practitioners including principles and criteria of ICZM and sustainable developments. The root diagram of this approach has been given by



#### Figure 5: ICZM Sustainability Root Diagram

**Source:** Gallagher, (2010). The Coastal Sustainability Standard: A management System Approach to ICZM.

According to Figure 2, coastal sustainability needs planning, participation, communication, integration, responsibility and balance in order to be well-managed. For instance, there is a scientific responsibility of the practitioners and education and awareness should be sustained in order to create communication channels between parties.

#### **1.2.2. ICZM Applications in the World**

As stated earlier, The United Nations Conference on the Human Environment (also known as Stockholm Conference) in 1972 under the leadership of the United Nations Environmental Program (UNEP) was the first step that initiated ICZM. After the Stockholm Conference, a declaration was published and according to the seventh principle of this declaration, more integrated approach should be carried out in order to prevent the pollution of the seas and save the human health and marine life (UNEP, 2006). The first legal effort after the Stockholm Conference was the coastal zone management act of 1972 which was issued by the United States. The aim of the act was stated as "to preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone (NOAA, 2019)."

Following these actions in 1974, Regional Seas Programme -that aims to protect marine life- has been established. As a first action plan covered by the Regional Seas Programme, Mediterranean Action Plan (MAP) was issued by UNEP in 1974 and in 1975 The European Community approved this action plan as a systematic guide and framework for marine environmental protection (UNEP, 2019). Here the Barcelona Convention should be addressed that it is a legal framework of the MAP and adapted in 1976 to "*prevent and abate pollution from ships, aircraft and land based sources in the Mediterranean Sea*" (UNEP/MAP/PAP, 2008). Some amendments have been made in Barcelona Convention according to the 1992 UN Environment Development Conference (Rio-Agenda 21) in 1995 and Protocol on Integrated Coastal Zone Management in the Mediterranean was issued in 2008. Turkey has ratified the Convention in 2002. According to the Mediterranean Protocol on ICZM, objectives can be summarized stated as follows;

- Ensure preservation of the integrity of coastal ecosystems, landscapes and geomorphology;
- To assess the considerations of environment in coastal development by including economic, cultural and social development;
- To decrease the effects of climate change and human activities that trigger the natural hazards on coastal areas and to sustain integrity between all decision makers at the national, regional and local levels;
- To sustain the sustainable development. To reach this aim, use of water should be prioritized within the framework of preserving the environmental rights of present and future generations (UNEP/MAP/PAP, 2008).

In the frame of principles discussed above, some countries have been applying ICZM projects at a national and regional level. Following paragraphs will include the examples of ICZM projects and their observed and measured results. From the perspective of institutional organization which allocates responsibilities among the parties and clarify the process, there are three approaches; allocating the duties to the agency, establishing new authority in the agency and creating interministerial council under the leading agency (Meltzer, 1998). The LENKA project which aims a nation-wide analysis of the suitability of the Norwegian coast for aquaculture (Kryvi, Ibrekk, and Elvestad, 1991) and ongoing projects in Niger Delta (Ringim, Sulaiman, and Lyakurwa, 2016) are the applications of first approach. The other countries which employ the first approach are United States, New Zealand, Tasmania, Indonesia and Thailand (Cicin-Sain and Knecht, 1998; Haward and Davis, 1994; Holmes and Saenger, 1995; Boelaert-Suominen and Cullinan, 1994; Goldin and Sann, 1993; Dahuri, 1995; Sloan and Sugandhy, 1994; Sudara, 1995; Tabucanon, 1991) As the second -establishing new authority in the agencyapproach requires to establish new authority Barbados and Sri Lanka did it so (Cicin-Sain and Knecht, 1998). Ecuador and the Netherlands are the appliers of the third approach which requires to build inter-organizational councils to carry on ICZM applications on the field (Cicin-Sain and Knecht, 1998; Epler and Olsen, 1993).

To identify the states individually, as stated earlier, the first act in relation with the coastal zone management was performed by the United States in 1972 by issuing coastal zone management act (NOAA, 2019). According to the act, central government, federal government and local authorities are respectively responsible in application of the coastal management plan. While central government draws the boarders of coastal zone, federal government addresses the problems and formulates then tactical way. Meanwhile, local authorities act as an arm of this strategy formulation which carries out the action plan of the management document (Hershman et al., 1999). Within the body of National Ocean Service, the Office for Coastal Management was established to coordinate and support the coastal management practices at all level (Cicin-Sain and Knecht, 1998). Coastal Zone Management Program was established by the above mentioned act and all 35 coastal and Great Lakes states, territories, and commonwealths (with the exception of Alaska) participate in this program (NOAA, 2019). Here The Sea Grant Programme should be underlined. It was created by the U.S. Congress in 1966 to facilitate the university-government partnership by using knowhow and data provided by both parties to generate solutions towards the coastal problems encountered within the coastal borders (NOAA, 2019). The effective feedback system is also employed within the coastal management practices of the United States, and it accelerates the success rate of the plans (Burroughs, 2015).

For South America, there are three regions (Santos Estuary, Bahia Blanca and Aysen Fjord) where conflict of interest arises and the main ICZM applications are focused on these regions where transfer of ecology due to the infrastructural investments and garbage management is the main problems (Campuzano et al., 2013).

For European Union, European Commission issued a paper called "ICZM: A strategy for Europe in order to carry out ICZM projects in a sustainable manner in 2000". From this point on, every state that is member of European Union has been monitored and reported the ICZM projects and results within the framework of this paper (Karnauskaitė, Schernewski, Schumacher, Grunert, and Povilanskas, 2018). The progressing reports of member states concerning ICZM developments have not been published since 2011 (EC, 2019). A short analysis revealed that that while only Germany, Portugal, Romania and the United Kingdom have an ICZM strategy in a national level, Estonia, Ireland and Denmark have no related national ICZM

application and for the rest of them, national ICZM projects were under development or adopting the overall strategy framework with European Union (Buono, Soriani, Camuffo, Tonino, and Bordin, 2015).

Public participation in the ICZM processes has been another principle for European Union (Soriani, Buono, Tonino, and Camuffo, 2015) and to assess public participation European Union has established a database which ease the data sharing with the community (Karnauskaitė et al., 2018). Marine biodiversity (Queffelec, Cummins, and Bailly, 2009), environmental sustainability (Maccarrone, Filiciotto, Buffa, Mazzola, and Buscaino, 2014), financial obstacles (Cavallo, Elliott, Touza, and Quintino, 2017), capacity building (Garriga and Losada, 2010) and social impact assessment (Sievanen et al., 2005) have been the key components of European ICZM applications. With this framework, projects such as COREPOINT, COMET2, SPICOSA and ENCORA (Portman, Esteves, Le, and Khan, 2012), CLAMS (O'Hagan and Ballinger, 2010), PEGASO (Soriani et al., 2015) and LENKA were carried out in the border of European Union for ICZM application.

Numerous academic events have been carried out in the world on coastal areas. Among them, "World Congress on Coastal and Marine Tourism 1996" in Hawaii, USA and the "International Symposium on Coastal and Marine Tourism 1999" in Vancouver were the prestigious ones. In addition, Littoral Conference series deal with the coastal matters ranging from coastal ecology to the social considerations and in 2018 15<sup>th</sup> Littoral conference was held in Netherlands.

### **1.2.3. ICZM Applications in Turkey**

In order to have a broader look into the coastal management applications in Turkey, the legal documents that contain coastal regulations should be assessed at least in chronological order. As stated in previous parts of the dissertation, coastal regulations have been included in several legal documents such as, Constitution (1982) and Coastal Law (Coastal Law, 1990) and Turkish Civil Law (Turkish Civil Law, 2001). Here it should be stated that, the additions and amendments about coastal area related clauses made on the Zoning Law in 1972 can be accepted as the first regulative applications on the coastal areas (Keleş, 2008). Numerous

amendments have been made in the above mentioned legal documents in years and with the addition of international regulations and conventions, Turkey ratified the coastal related authority structure became multifaceted and complicated (Çakır, 2012).

## 1.2.3.1. ICZM Applications in Development Plans and Projects

After intergovernmental conventions mentioned in the previous parts issued by the international institutions, the National Development Plans started to include strategies for coastal areas. The first arrangement, in which the phenomenon of environment is handled and taken as a separate section, is the 3rd Five-Year Development Plan (1973-1977) and the 1978 Interim Program. The plan draws attention to the main environmental problems of the country related with water, air and coast, and emphasizes that all of these components should be taken into consideration as a whole and within the planning system (Keleş and Hamamcı, 1997). The coastal law was issued in 1990 during the Sixth Five-Year Development plan (1990-1994) (Undersecreteriat of State Planning Organization - SPO, 1989). In the duration of the Eighth Plan (2001-2005) "National Environment Strategy and Action Plan" was issued and the pressures of urbanization over the coastal and marine areas have been underlined (Sarıçoban and Yıldırımcı, 2015). While the Ninth Five-Year Development Plan (2007-2013) indicates the situation analysis for the coastal areas of Turkey (SPO, 2006) the Tenth Five-Year Development Plan (2014-2018) has not mentioned any challenges specifically about coastal areas (Ministry of Development, 2013b) but within the framework of Tenth Five-Year Development Plan the new specialization commission was established called Spatial Planning Specialization Commission which presented the intention on establishing Ministry of Urbanization and Environment that will be endowed with authority to issue ICZM projects (Gülbitti, 2017).

In accordance with the Five-Year Development Plans, Coastal Zone Management Turkish National Committee was established in 1993 to support the preservation of coastal areas and assess the balances between the several coastal usages (By-Law, 1993). Besides this, the KENTGES project (Integrated Urban Development Strategy and Action Plan) has been carried out by Directorate of

Spatial Planning (MPGM) for the years between 2010 and 2023. In this project document, the valuation of coastal areas and assessing the coastal inventory subjects have been underlined (MPGM, 2010) and 1297 technical personnel have been educated about different aspects of coastal areas (MPGM, 2013).

The term ICZM was first included directly in law, in the Statutory Decree no.644 which was about the establishment of Ministry of Environment and Urbanization (Statutory Decree, 2011). Before ICZM applications in Turkey, the coastal management practices carried out within the framework of international regulations are given in Table 4.

Name of The Project	Project Date(s)	Aim
İzmir Gulf Coastal Area Management Programme	1989-1993	- To Jugulate Pollution - To Enable Integrated Coastal Management Plan
İskenderun Gulf Environment Management Project	1990-1993	- Environmental evaluation of development trends
Bodrum Semi-Island Coastal Area Management	1993-1995	- Determining the current situation for the solution of environmental problems of coastal and marine areas, collecting information and data
Blacksea Integrated Coastal Areas Management Policies and Strategies	1996-1998	<ul> <li>To formulate the policy and strategies for Blacksea Coastal Areas</li> <li>Preparation of action plan and determination of priority projects</li> </ul>
Mersin Coastal Zone Integrated Planning Project	1995-1996	<ul> <li>To formulate the policy and strategies for coastal areas</li> <li>To establish information technology infrastructure</li> </ul>
Belek Coastal Management Programme	1995- 1998	- To preserve biological diversity and natural resources by reducing harmful effects of tourism to coastal areas
Çıralı Coastal Management Programme	1997-2000	- To preserve biological diversity and natural resources by reducing harmful effects of tourism to coastal areas
Patara Environment Protection Region Management Plan	1997	- To prepare an environmental protection plan
Coastal Management Plan for Trabzon	1996	- Strengthening the self-renewal capacity of ecological systems

**Table 4**: First Coastal Management Practices in Turkey

Source: Adapted from Gülbitti, 2017.

According to Table 4, İzmir Gulf Coastal Area Management Programme, İskenderun Gulf Environment Management Project, Bodrum Semi-Island Coastal Area Management, Blacksea Integrated Coastal Areas Management Policies and Strategies, Mersin Coastal Zone Integrated Planning Project, Belek Coastal Management Programme, Çıralı Coastal Management Programme, Patara Environment Protection Region Management Plan and Coastal Management Plan for Trabzon are the some examples for coastal management plans that leads the the history of coastal planning in Turkey.

ICZM projects held by the Ministry of Environment and Urbanization are Samsun ICZM Plan (2011), Antalya ICZM Plan (2011), İzmit Gulf including Kocaeli and Yalova ICZM Plan (2015), İskenderun Gulf incl. Adana, Mersin and Hatay ICZM Plan (2015) and Bursa ICZM Plan (2015) in chronological order (mpgm.csb.gov.tr, 14.02.2019). In addition to these plans, Izmir, Sinop, Balıkesir-Çanakkale, Rize-Artvin, Aydın-Muğla and Van-Erçek Lake ICZM plans are under development by Ministry of Environment and Urbanization (Gülbitti, 2017). It should be noted here all of these plans are not compulsory legal rules but they are regulative and advisory plans for coastal areas (By-law, 2014).

Furthermore, academic symposiums and congresses have been set by the governmental bodies and universities for several years in Turkey on the subject of coastal areas. Ninth National Congress on Turkish Coastal and Marine Areas was set in 2012 and Eight Coastal Engineering Symposium was held in 2018 in Turkey. Besides, National Marine Tourism Symposium has been held since 1998 and the fourth symposium was held in İzmir on 2018. Moreover, International Congress on Coastal and Marine Tourism was held in İzmir, Turkey on 2005 and hosted by Dokuz Eylul University and Oregon State University.

## **1.2.3.2. ICZM Applications of Local Authorities**

A frequency analysis has been carried out in order to assess and figure out the decision regarding the coastal related issues on local authorities' administrative bodies. To reach the stated aim, six major coastal cities from all coastal regions of Turkey have been selected. Trabzon, Samsun, İstanbul, Izmir, Mugla and Antalya have been picked to be analyzed for this research. The decisions of Municipal Councils between the years 2016 and 2018 have been analyzed for each city. Table 5 illustrates the findings of this research.

Variables	Trabzon	Samsun	İstanbul	İzmir	Muğla	Antalya	Total
Zoning Plan in Coastal Area	30	16	108	38	0	26	218
Zoning Plan in Fill Area	25	4	5	0	0	0	34
Coast Line	67	4	81	14	0	15	181
Integrated Coastal Zone Management	2	0	0	0	0	0	2
Coastal Law	64	17	89	27	0	15	212
Coastal Regulation Issue	0	0	0	3	1	1	5
Coastal Area / Facility	5	0	37	3	0	9	54
Coastal Protected Area	0	8	3	1	0	3	15
Objection to Zoning Plan	184	2	21	7	0	0	214
Tariffs on Coastal Services	7	0	0	1	7	0	15
Renting Coastal Facilities	7	5	1	0	0	10	23
Coastal Transportation Infrastructure	0	0	13	0	0	1	14
Public Benefits on Coastal Areas	0	0	3	3	0	2	8
Total	391	56	361	97	8	82	

 
 Table 5: Decisions Regarding Coastal Related Subjects on Municipal Councils in Turkey (In numbers)

**Source**: Compiled from Trabzon Metropolitan Municipality, 2019; Samsun Metropolitan Municipality, 2019; Istanbul Metropolitan Municipality, 2019; Izmir Metropolitan Municipality, 2019; Muğla Metropolitan Municipality, 2019; Antalya Metropolitan Municipality, 2019 by the Author.

As seen in Table 5, in municipal councils, decisions regarding the zoning plan in coastal areas have been the most popular subject. Besides this, objection to these zoning plans have also been one of the most popular ones. The terms coastal law and coast line have been the most cited terms in these municipal council decisions. In contrary, integrated coastal zone management have been the least cited terms by local authorities in the decisions made for the coastal areas.

Renting coastal facilities have been criticized in municipal councils 23 times while the coastal protected areas have been mentioned 15 times. Decisions on coastal transportation infrastructures have been taken 14 times while coastal regulation issues were mentioned 5 times. It should be noted here that coastal law has been cited 212 times by Councils since this law must be applied to all the coastal areas located in the responsibility of these municipalities.

In consequence, integrated coastal zone management practices have not been adequately addressed by the local authorities while the zoning plans occupied most of the ongoing debates. It also shows that the coastal planning activities are carried out according to the needs that occurred at that time. No strategic and tactical long term planning activities on coastal areas have been processed by the local authorities.

## **1.2.4.** Organizations On Coastal Zone Management

Coastal areas are located in a complicated environment which is subject to intergovernmental, non-governmental organizations and international conventions. Addressing this complex system and ample environment, a wide range of institutions work on different coastal issues in an integrated manner (UNEP, 2005). There are international, regional and national governmental and non-governmental organizations dealing with several aspects of coastal areas and with variety of aims and motivations. Table 6 and Table 7 illustrate these international and national organizations respectively with the year of establishments, locations of headquarters and missions.

Name of the Organization	Year	Headquart er	Mission	Type of Organization
International Council for the Exploration of the Sea (ICES)	1902	Denmark	"To advance and share scientific understanding of marine ecosystems and the services they provide and to use this knowledge to generate state-of-the-art advice for meeting conservation, management, and sustainability goals"	IGO
World Meteorological Organization (WMO)	1950	Switzerland	"To sustain international cooperation and coordination on the state and behaviour of the Earth's atmosphere, its interaction with the land and oceans, the weather and climate it produces, and then resulting distribution of water resources"	IGO
International Maritime Organizations (IMO)	1958	UK	"To promote safe, secure, environmentally sound, efficient andsustainable shipping through cooperation"	IGO
UNESCO Intergovernmental Oceanographic Commission	1960	France	"To promote international cooperation and to coordinate programmes in research, services and capacity-building, in order to learn more about the nature and resources of the ocean and coastal areas"	IGO
United Nations Environment Programme (UNEP)	1972	Kenya	"To provide leadership and encourage partnership in caring for the environment"	IGO
Intergovernmental Panel on Climate Change (IPCC)	1988	Switzerland	"To provide governments at all levels with scientific information that they can use to develop climate policies."	IGO
The Estuarine & Coastal Sciences Association	1971	UK	"To promote excellence in estuarine and coastal marine science, technology and management."	NGO
World Conservation Monitoring Centre (WCMC)	1988	UK	"To promote the conservation, protection and enhancement of nature."	NGO
The Coastal & Marine Union Association (EUCC)	1989	Netherlands	"Promoting a European approach to coastal conservation."	NGO
International Coastal and Ocean Organization (ICO)	1989	USA	"Link professional planners, policy specialists, managers, institutions, and organizations around the world concerned with the management, protection, and development of coastal and ocean resources and space."	NGO
International Association For Coastal Reservoir Research (IACRR)	2017	Australia	"To contribute to sustainable development of water resources and the optimisation of global water resources management."	NGO
National Oceanic and Atmospheric Administration (NOAA)	1970	USA	"To understand and predict changes in climate, weather, oceans and coasts and to conserve and manage coastal and marine ecosystems and resources"	Regional
European Environment Agency (EEA)	1993	Denmark	"To support sustainable development by helping to achieve significant and measurable improvement in Europe's environment."	Regional
Baltic Marine Environment Protection Commission (HELCOM)	1974	Finland	"To protect the marine environment of the Baltic Sea from all sources of pollution through intergovernmental cooperation."	Regional

Table 6: International and Regional Inter Governmental (IGO) and non-Governmental Organizations (NGO) Related with Coastal Areas

Source: Compiled by the author from web sites of; IACRR, 2019; EUCC, 2019; IMO, 2019; NOAA, 2019; UNEP, 2019; WMO, 2019; IPCC;2019; WCMC, 2019; ECSA, 2019; ICES, 2019; IOCUNESCO, 2019

Name of the Organization	Year	Mission	Type of Organization
National System of Marine Protected Areas (DKA)	2009	"Strengthening of Turkey's national marine and coastal protection systems and aims to ensure effective management."	Governmental
Underwater Research Organization (SAD)	1994	"To contribute to the researches, preservation, reproduction of natural, historical and cultural values in the seas, inland waters and coasts and to transfer themto the future generations."	NGO
TURMEPA	1994	"To protect the coasts and seas of our country as a national priority and to leave to future generations a livable Turkey with clean seas."	OĐN
Ministry Environment and Organization Directorate general of environment management department of marine and	2003	"Prepare legislation on prevention and control of environmental pollution, develop standards, determine measurement, determination and quality criteria; to give an opinion on environmental pollution according to the characteristics of the	Governmental
Coastal Intalagement (CTOM) Ministry Environment and Organization Directorate general of spatial planning coastal zones denartment (MPGM)	2011	"In coastal and wetlands, in order to develop healthy physical environment, determine the location selection and growth potentials of the investments, implementing and approving any kind of legal physical plans at any scale."	Governmental
Republic of Turkey Ministry of Transport and Infrastructure Directorate General of Shipyards and Coastal Structures (TKGYM)		"Considering the principle of protecting the environment, sea and coastline; to determine shipbuilding and ship recycling facilities', ports', piers' and similar coastal structures', location, capacity and other properties."	Governmental
Directorate General of Coastal Safety (KEGM)	1997	"To provide the safety of navigation, life, property, environment and enhance maritime security in Turkey's Search and Rescue Area.""	Governmental
Turkish Naval Forces Office of Navigation, Hydrography and Oceanography (SHODB)	1909	"To provide navigational, hydrographical and oceanographical services and products, to carry out national coordination and international activities in this field by using survey assets and existing abilities in hand, with the intention of supporting safety of navigation, scientific marine researches and operations of naval forces assets in the surrounding seas."	Governmental

Table 7: National Governmental and non-Governmental Organizations Related With Coastal Areas in Turkey

Source: Compiled by the author from web sites of KEGM, 2019; TKGYM, 2019; SHODB, 2019; MPGM, 2019; CYGM, 2019; TURMEPA, 2019;SAD, 2019; DKA, 2019; access date: 30.01.2019

## **1.3. VALUE AND VALUATION: DEFINITIONS AND METHODS**

In different areas of discipline ranging from business to economics, marketing to engineering, value has different meanings. Before getting into the conceptual framework of the term "value", it will be beneficial to have a look at the roots of the word etymologically available in the different dictionary type sources.

The word "value" roots back to the years between AC 1275-1325 and is thought to be the first used in Middle English period in ancient Rome. It is suggested that the words "valuta" and "valita" in Latin had been used in order to define the value of the money in its exchange operation in trade. Oxford dictionary defines value as "how much something is worth in money or other goods for which it can be exchanged" and "the quality of being useful or important". The term is also defined in Cambridge based resources as, "How much money something could be sold for" and there is also second meaning stated as "how useful or important something is". In another source, the word value was derived from the latin word "Valere", which means trading and marketing (Shillito and Marle, 1992).

Lexical meanings of the word given above shows that human beings perceived the term as monetary concept and normally it had been used in exchange and trade operations for centuries. The broader perspective is needed to be generated to understand the term with today's economic and competitive conditions and with the harmony of various disciplines.

To classify the meanings of value in different fields, the semantic dimensions of the value should be defined firstly. The object of value, the value type and provider of value are the three dimensions of value (Hansjürgens et al., 2017). The object of the value is somehow taken from the environmental resources, the value type can be individual or social and the provider of value can be a person or a group (Chan, et. al, 2016).

In the very beginning of the corporate finance it is underlined that financial objective of any firm is to maximize the wealth of its shareholders which increase the firm value that is the unit of measurement which represents the overall monetary and economic value of the business (Okka, 2011). Therefore, it should be noted that, in order to create value, firms have to shift from conventional accounting to financial management practices which directly focuses on increasing the firm value. In the

field of finance, value is equal to firm value and it includes two separate components; fundamental value and shareholder value (Kumar, 2016). Fundamental value can be described as expected value of free cash flows (Jirasakuldech, Emekter, and Rao, 2008) whereas shareholder value can be found by extracting the value of outstanding debt from the firm value (Knauer, Silge, and Sommer, 2018) Indeed, evidence supports the fact that firms that take care of customers and employees also deliver value for the owners. Consider the results of an annual survey that asked executives, outside directors and financial analysts to rate the US companies, the common point of that the twenty companies with the lowest score is that they delivered a negative return to their shareholders for the ten-year period that preceded the ranking (Hawavini and Vialet, 2010). Beside these concepts regarding value, market value is another term that is directly related with the future-oriented value and focuses on the firm performance (Nicolau and Santa-María, 2013). Therefore, investing in assets that have higher return will accelerate the market value of the firm (Wang, Dai, and Xu, 2018). As a result, in order to survive and create value in the competition, companies should perform benchmarking through value-based management in accordance with the innovative strategic plans and investment decisions which have an important impact on value creation (Viviani and Maurel, 2019).

In Philosophy, value is an abstract term therefore every human beings can understand different things from this term (Kuçuradi, 2003). Because of them numerous definitions have been made for the term "value" in philosophy. In this field the value shifts from the monetary appearance to the emotional structure and values are defined as the criteria on which individuals and the society are based in meeting their social needs.

In economics, what we are willing to pay for the goods or services is assumed as the value of it in general (Barbier, Acreman and Knowler, 1997). In other words, value is the monetary amount that people accept to pay for the goods which meet their needs (Rothkegel, 2008). Value in business economy is the benefit of an economic commodity (Ataman ve Kibar, 1999).

The ability of firms to create value for their shareholders is related to the way they treat their customer, employees, and community (Hawavini and Vialet, 2010). To enhance shareholder value, management can implement a wide range of strategies. An integrated approach to strategy development can be discussed at these major levels; corporate, business or competitive, and operational. Corporate strategy is concerned with broad issues such as entry or exit decisions, corporate acquisitions, growth, divestment or buy-outs, etc. According to the National No.45 Manifest on International Valuation Standards in Capital Markets of Turkey, value is equal to approximate price of product or service that is supposed to be agreed for sale (SPK, 2019). Business or competitive strategy is concerned with how strategic business units compete in particular markets, together with the allocation of resources. Operational strategy deals with how functional levels contribute to corporate and business strategies (Johnson et al, 2017).

In management, there is a kind of management approach to foster shareholder's decisions called Value Management (Invernizzi, Locatelli, Grönqvist, and Brookes, 2019) and the history of this approach roots back to World War II due to the stock outs encountered in production process (Khodeir and El Ghandour, 2019).

*Value* has been used as a crucial and a vital marketing term in marketing literature (Tasci, 2016). To have a deeper insight on the term "value" in marketing, Zeithaml has made very comprehensive definition of terms "value" and "perceived value" and asked a research question of "What do consumers mean by quality and value?" (Zeithaml, 1988). This question was answered according to the scale and model established and the results were clustered around the four components as "value is low price", "value is whatever I want in a product", "value is the quality I get for the price I pay" and "value is what I get for what I give" (Zeithaml, 1988).

It is hard to realize the distinction, if the companies supports or ruins the social value (Retolaza, San-Jose, Roqueñi, 2016). To probe into the mentioned problem the most comprehensive explanation and classification of value that also fits to the aim of the dissertation was focused. According to Sheth and his friends, consumer choice behavior was affected by five types of values as; "functional value", "conditional value", "social value", "emotional value" and "epistemic value" (Sheth, Newman, and Gross, 1991). The reason behind the idea that Sheth's classification of values is best fitted to the aim of dissertation is that "social value" has been counted as one of the factors that affect the consumer choice behavior. It

should be noted here that "creating social value is prerequisite to creating business value" (Bhattacharya, Sen and Korschun, 2011) and that's why this dissertation dealing with the social value side of coastal areas. Businesses located on the coastal areas cannot create business values unless they produce social value as well. Since social value is aimed to be calculated and formulated by the results of this dissertation, social value should be identified with the mechanisms of marketing discipline. And it is: "The perceived utility acquired from an alternative's association with one or more specific social groups. An alternative acquires social value through association with positively or negatively stereotyped demographic, socioeconomic, and cultural-ethnic groups. Social value is measured on a profile of choice imagery" (Sheth, Newman, and Gross, 1991). Similarly, in Sanchez's and his friends study, social value is stated to be one of the dimensions of perceived value's six dimensions groups reduced from twenty four items (Sánchez, Callarisa, Rodríguez, and Moliner, 2006). Sweeney and his friends in 1999 also counted social value as a dimension of perceived value and emphasized that social value appears after the threshold value of acceptability of that product or service is exceeded (Sweeney, Soutar, and Johnson, 1999).

Indeed social value is defined in several different fields. For instance Tolan (1978) stated that effects of social values can be found on each phenomenon and events occurred on the daily life of society and they are evaluated with the frame of these social values (Tolan, 1978). Gummerus (2013) has carried out an bibliographic study on the broader definitions of value and found out that value creations and value outcomes must be fitted in order to access the maximum value in all fields (Gummerus, 2013)

Value has been studied by the economists for years but in the new century it has been also discussed from the point of customers and marketing scholars. By focusing on the term value, "customer value" in marketing should be identified briefly. Many scholars have identified the consumer value as "acquisition value" and tried to clarify it as it is gained by the accurate perception of benefits/sacrifices tradeoff (Thaler, 1985). In other words, the value should appear in balance with the sacrifices for the product or service and benefits taken from it. Value-based strategies have been heavily used by the firms in order to be competitive in the marketing environment (Laitamäki and Kordupleski, 1997). Heskett (2008) suggests that customer value is the source of other values such as stakeholder and shareholder value (Heskett et al., 2008). The definition of customer value was defined as "difference between total customer benefits and total customer cost" (Kotler and Armstrong, 1994). In addition to these definitions, customers itself can be regarded as the employee in value creation process and customer value creation process is defined as an interactive process in which both businesses and consumers can contribute (Mills, Chase, and Margulies, 1983; Vakulenko, Hellström, and Hjort, 2018).

Within the framework of this dissertation, the social value of the coastal areaas an environmental good- will be calculated. Therefore, it should be noted that the term value gains different meanings when it is calculated for environmental goods. To understand and reflect the overall frame, the environment-related value taxonomy will be given the in following parts.

# **1.3.1.** Total Economic Value of Environmental Goods

The meaning of economic value is very clear and it is directly related to human well-being and the economic theory on environmental goods consider them as tool to create benefits (Pearce, 2006). From the perspective of individuals, total economic value is the total of use and non-use values that raised due to the consumption of that product or service, vice versa, the total economic value of the product or service is the sum of each individual' total economic value (Humphreys and Fowkes, 2006). It is important to value environmental goods since this valuation provides data for national statistics and policies (Bann, 1997). Economic value can be regarded as a measurement indicator that considers the variety of usage of environmental goods like coastal areas and beaches (Zambrano-Monserrate, Silva-Zambrano, and Ruano, 2018).

Environmental goods are assets of the nature and forests, fisheries and even quality of environment and quality of air and water are inevitable assets which provide precious services to human beings (Freeman, Herriges, and Kling, 2014). First of all, the concept of environmental good should be defined to better understand the environmental value. By looking into the public and private goods, the most important characteristics and distinctive features of public goods are that the benefits taken from public goods cannot be distributed to the individuals whereas private good benefits can be allocated (Samuelson, 1954). Samuelson -indirectly- have emphasized that the natural goods are mainly public goods and they have strong relations with the rules of welfare economics. The benefits that occurred due to one's using of public goods or services do not affect the other's level of benefits from public goods (Samuelson, 1954). After Samuelson, Musgrave has emphasized that public goods satisfy the social needs of individuals. From these points of view, coastal areas are the public goods and they can be assessed as natural goods as well. The simple and silent walking along the coastal side or coastal fishing activities do not reduce the others' benefits on it as long as the activities carried out in the coastal areas are to satisfy the social needs like recreation.

In some cases, scientists propose that nations should change calculation system of national income by including the numbers derived from nonmarket environmental services and by excluding the costs made for rehabilitation of them (Nordhaus and Kokkelenberg, 1999). At this point, the relation between welfare economics and environmental goods value should be underlined. Protection of environment provides benefits both for natural goods and well-being of people (Hansjürgens et al., 2017). One of the fundamental principle of welfare economics is that economic activities are carried out to enhance the well-being of people, and these people must decide the degree of their welfare on the present time (Freeman et al., 2014). Each individuals' utility make up the societies welfare (Samuelson, 1947), and the degree of welfare does not merely depend on the product or services consume, it also depends on the characteristics of the nonmarket and environmental goods and their services provided to these people (Freeman et al., 2014). In this context, the total area of recreation on coastal areas and the quality and quantity of coastal facilities are the determinant of welfare of the each individual and the whole society. In contrary, some objections to the thought of valuing environmental goods and relating it with the welfare of people are available. Doak and his friends claims that social-based conservation and valuation approaches provide beneficial and better outcomes than the practices that focuses on the conservation of economically

valuable areas (Doak, Bakker, Goldstein, and Hale, 2015). Neuteleers and his friends also suggests that environmental goods are not marketed commodities with business related dimensions such as costs and prices (Neuteleers and Engelen, 2015). Sagoff underlines that economic value cannot be tied to the nature since even welfare economists could not empirically draw a relation between willingness to pay and welfare of the the environmental good (Sagoff, 2008). Another study suggests that environmental valuation studies have no effects on policies regarding environmental planning especially on coastal areas (Waite, Kushner, Jungwiwattanaporn, Gray, and Burke, 2015)

As stated in Figure 6, total economic value is the sum of use and non-use values and the classification of total economic values support to calculate the accurate value of environmental goods as created based on Freeman et al., (2014) and adapted from Kym and Jim (2012);





Source: Adapted from Freeman et al., (2014) and Kym and Jim (2012)

Measuring the total economic value of environmental good will generate the specific monetary value that represents the benefits taken from these goods (Liu, Liu, Zhang, Qu, and Yu, 2019). The types of values that make up these benefits are classified as use values that include direct use. indirect use, option use values and non-use values that consist of altruism, bequest and existence values (Kym and Jim, 2012). The following paragraphs will identify these values and their connection with the coastal areas.

Use values quantify the value that occurs during the direct or possible usage of environmental good or services (Kym and Jim, 2012). Direct use values are generated with the straight and undeviating relation with environmental goods (Bann, 1997) and are measured for final consumptive goods generated by / from environmental assets by using WTP. For instance, coastal areas generate direct use values for transportation, recreation, energy and maritime industry. These values are mostly used as an input in financial assessments of investments (Kym and Jim, 2012).

Option values, which is a value assigned in accordance with an individual's willingness to pay to protect an asset for the option of using it in the future, sometimes called as value of insurance (Pearce and Moran, 1994). In another source, option value is defined as the value that the people put on the environmental good in order to preserve and hand down to the next generation by stating willingness to pay (Plottu and Plottu, 2007). As a type of use value, option value is the measure of the future usage of the environmental good (Bann, 1997) and this value has some difficulties to be measured since the values have to be clarified (Kym and Jim, 2012). For instance, the protection of coastal biodiversity in producing food for human being in the future (FAO, 2011) consists of option value. However, if the individual's knowledge is not capable of making this kind of inference, then the option value will stand missing.

People can easily recognize and be aware of the direct use values whereas indirect use values are to be omitted or not recognized easily (Xu, Qian, Zheng, and Peng, 2007). These values do not have a place in market as a product or service, so in evaluating environmental investment projects, decision-makers usually neglect them (Xu et al., 2007). Indirect use value occurs when the benefit of individual is derived from the indirect use of a good (Humphreys and Fowkes, 2006). For instance; A shop owner who owns a shop located in the coastal area and takes benefits from recently improved public transport capacity by having more customers does not use the public transport directly but has benefits from the results of it.

In economics, values that occurred without the people's direct use of the environmental good are called non-use values (Freeman et al., 2014). In other words these values are not descended by any usage of environmental goods (Bann, 1997).

Non-use value is a kind of feelings just derived from the awareness of existence of environmental goods such as scenic-view or biodiversity within coastal areas or forests (Larson, 2006). As a subtype of non-use value, existence value occurs in the minds of people who put a value to the environmental goods but do not benefit from using them. The existence value is the most complicated one to measure since it contains subjective considerations (Kym and Jim, 2012). Another classification regarding the types of environmental goods value is available. As this thesis focuses on the social value of the coastal area, the value approaches should be considered by another perspective. Coastal areas of local or regional significance can be evaluated by the below mentioned values. These are; Amenity values, Recreational values, Cultural / historical values, Ecological / scientific values (Taranaki Regional Council, 2009).

Amenity value is the overall quality of an area whereas recreational value measures the quality of recreational opportunities of the areas. Cultural / historical sites of value include archeological sites and sites of historical significance. Ecological or scientific sites of value include features of the ecological characteristics of the area. In the following parts, these values are to be detailed in deep since all of these values are related to coastal areas and subject to calculation. Although the term valuation refers to the monetary calculation at first sight, it should be noted that there is a strong need to value non-monetary values of natural resources, which this dissertation has mainly focused on.

# **1.3.2.** Economic Valuation Methods for Environmental Goods

Today, incentives and supports are given to the countries by the United Nations to state the value of the environmental goods in master plan and policy related papers (UNEP, 2017a). As environmental values are discussed in previous parts, each value type is subject to the measurement and each of them requires different valuation techniques (Dong, 2013). Valuation needs huge economic and social data that requires too much time and financial aid to collect (Kula, 1994). Economic valuation is defined by UNEP as; "valuation is a method of determining the relative importance of environmental consequences of economic activities. It

*helps political authorities to make informed decisions about biodiversity conservation*" (UNEP, 1995). This definition emphasizes the importance of economic valuation by underlying the term economic activities. It should be noted that economic activities bring changes in environmental resources (European Environment Agency, 2014).

Environmental resources have to be valued economically in order to establish and implement policies (Cameron and James, 1987) and therefore economic valuation is regarded as defining the value of the environmental goods or services with monetary terms (Barbier et al., 1997). Economic analysis considers the tradeoffs that are either implicit or explicit in decisions that have environmental impacts. Such considerations require the use of common tools such as money, because, so often, environmental impacts (positive or negative) are not bought or sold directly in markets, they do not have market-based estimates of value (Rolfe, Johnston, Rosenberger, and Brouwer, 2015).

Before getting probe into environmental valuation methods, the systematic flow of environmental valuation process should be underlined. U.S. Environmental Protection Agency (EPA) in 2009 has created this systematic flow of environmental valuation stated in Figure 7. The methods which are going to be mentioned in the following parts are to be implemented in Step 5. The social value calculation of the coastal area will be held with the framework of below mentioned valuation process. According to the steps in environmental valuation, problem formulation is the first step. The second step consists of defining the changes in the environmental goods. The effects of these changes on human welfare and well-being are identified in the third step. In the fourth step, the change should be clarified with many aspects. Most suitable valuation techniques should be implemented in order to value these changes in the fifth step and finally reporting these changes to the related parties is the sixth and the last step (EPA, 2009).

#### Figure 7: Steps in Environmental Valuation



#### Source: EPA, 2009

Various taxonomies for valuation of environmental goods are available and Turner and his friends' study (1994) will be the appropriate commencement to discuss these valuation methods. Economic valuation methods can be divided into two categories as market demand and non-market demand methods and while the latter measure the value of the good by using demand curve, the first one values the good without using demand curve (Turner, et. al, 1994). Dose response approach, preventive expenditure approach, opportunity cost approach, human capital method, replacement cost approach are included in the non-market demand approach whereas market demand approach includes two main types of valuation as stated preference methods and revealed preference methods. Figure 8 illustrates this classification (OECD, 1995). Turners' classification consists of non-market demand approaches and market demand approaches and these approaches are based on observations of changes and their effects on the market value of environmental goods (Dong, 2013). For instance, effects of the change in biodiversity on the output of overall ecosystem services, agricultural and fisheries outcome is to be measured by market demand valuation approaches (Freeman et al., 2014). To clarify the distinction point of nonmarket demand approaches from market demand approaches, it should be stated that;
several changes from coastal ecosystem effect the coastal structures and components of these structures and enhance the maintenance costs in business-related enterprises are to be evaluated by market demand approaches, whereas the same situation effects the household's costs then non-market demand approaches will be implemented in order to value the changes in environmental goods (Freeman et al., 2014).





Source: OECD, 1995

Although the elements in the above-mentioned classification are called nonmarket demand approaches and market demand approaches, the general name of the environmental valuation is often referred as non-market valuation since there is no market for environmental goods, they are not traded at all. It should be clarified that these terms are different from each other's. From this point of view, another classification is provided by Segerson in Table 8 (Segerson, 2017).

#### Table 8: Major Non-Market Valuation Methods

Revealed Preference Methods	Stated Preference Methods
Travel Cost	Contingent Valuation
Hedonics	Choice Experiments
Defensive Behavior	
Substitution Methods	

Source: Segerson, 2017

Indeed, classification approaches showed in Table 8 have two distinctive characteristics: First, whether the valuation decision is based on observations or participants' direct answer to the survey question. Second, whether the values that are stated in monetary terms are observed directly or compiled from the series of data analysis implemented to the secondary data (Bargmann and Tremml, 2007).

In another classification for valuation methods of environmental goods, Chee (2004) has added another method to the "Revealed Preference Methods" and "Stated Preference Methods" as "Direct Market Valuation Methods". By adding direct market valuation methods, the actual values that occurred within the market itself are to be regarded as the value of the environmental goods and these values are inferred via several tools ranging from market-price based approaches to cost-based approaches (Chee, 2004). From this point of view Turner's (1994) and Chee's (2004) taxonomy of valuation methods seem to be close and assumed that environmental goods can be traded in the market. Coastal areas can also be traded in the market if they are subject of the private property. However, measuring the social value attributed to coastal areas is the aim of this dissertation therefore; the coastal areas are considered as environmental goods that cannot be traded in the market. In short, the classification of Segerson (2017) is found appropriate to be included in this dissertation.

In environmental valuation, it is very important to apply appropriate method according to the type of value. While direct use values can be calculated by using any types of valuation method available, indirect use values can only be estimated by willingness to pay responses obtained by stated preferences methods. In other words, decrease in the tangibility of the value forces researcher to use stated preferences methods such as contingent valuation methods (Dong, 2013).

#### **1.3.2.1. Revealed Preference Methods**

The value of an environmental good or service is generally calculated by inferring the answers of the direct questions asked to the participants and observing the revealed preferences of individuals (Campbell, 2018) where the latter approach is called revealed preference and the first is stated preference. Revealed preference methods are used to assess the value of the environmental good via observations of manners and behaviors carried out by the participants related to the environmental goods (Segerson, 2017). Many affects and outputs of the projects are reflected in intangible forms and they are not exchanged in the real market. Revealed preference methods are to be employed here in order to assess monetary values to these outputs of the projects that do not have a market price –as pollution of drinking water and pollution of clean air- by taking into account the behavior of people in the market (OECD, 2006). The travel cost method, hedonic pricing method and defensive behavior method are the main methods included in this type of approaches (Marre et al., 2015).

By comparing to the stated preference methods, revealed preference methods are less preferred in the environmental valuation studies due to the difficulties in managing and conducting the research but revealed preference methods have so many reasons to be preferred instead of stated preference methods and the main reason is that revealed preferences methods is based on observation of behaviors and the results can be enriched by commenting on these actual behaviors (Bockstael and McConnell, 2007). Stated preference methods measure the value based on a behavior that is intended whereas the revealed preference method is directly based on the behavior performed (Bargmann and Tremml, 2007).

## 1.3.2.1.1. Travel Cost Method

Travel Cost is a method commonly used in determining the value of natural areas used for recreational activities (Ward and Beal 2000). The travel cost method is based on the expenditure that individuals make in order to visit the environmental good and using it (Parsons, 2017). The idea of inferring the environmental values from the costs of travel are first included in the study of Hotelling (1949) for the National Parks Service of the United States in the 1940s by using expenditure of visitors for this activity as an input and then followed by Wood and Trice in 1958 (Hotelling, 1949; Wood and Trice, 1958). Method's fields of application have been increasing since the first proposal and with some conditions related to aim of the studies and data analysis (de Frutos, Rodríguez-Prado, Latorre, and Martínez-Peña, 2019). By considering the basis of the method, it should be stated that travel cost method can only measure the use value of environmental good and more specifically for those that are needed to be visited (Segerson, 2017).

International intergovernmental organizations such as World Bank and UNEP have been implementing and giving advice of using travel cost method in order to assess the value of environmental goods that the projects would affect (Bolt et al., 2005). In addition, if the environmental good subjected to the valuation attracts people for recreational visits, travel cost method is regarded as if compulsory method to be implemented (UNEP, 2014). It should be noted here, recreational visits often take place in tourism activities and travel cost method is considered most appropriate method for valuation of touristic destinations (Wu, Chiu, and Chen, 2019) including coastal areas. Travel cost method is also used to create travel demand model for specific destinations (Lee, Chen, Liou, Tsai, and Hsieh, 2018). The main goal of the travel cost methods in tourism industry is to define the all kinds of derived values in monetary value (Ward and Beal, 2000).

By using travel cost method, the value of the recreational site are to be inferred by collecting and processing the travel costs that the people have to pay to visit that site (Bockstael, 1995). Travel costs consist of transportation expenses, entering fee to the recreation area and costs of travelling time, therefore the term "travel costs" refers to the total cost of a visit or trip (Lamsal et. al, 2016; Zhang et. al., 2015; Chen et. al, 2004). Therefore, travel cost method takes the travel costs of the individuals to the specific area as an input and premises that as the distance of a person to the area to be valued increases, the number of visits to this area will decrease (Anderson and Bishop, 1985). In short, the numbers of visits to the destination are considered as the demanded quantity and the costs of these trips are regarded as the value of that destination (Parsons, 2017).

Single-site models and random utility maximization models are the two approaches used in the travel cost method where the first one takes the individual's travel costs to the one recreational site as an input, the latter deals with multiple-site factors and include site selection variables (Parsons, 2017). In other words, random utility maximization models compare the values of two or more recreational sites (Bargmann and Tremml, 2007) or evaluate the changes that occurred in the quality or quantity of a recreational site (Bateman et al., 2002) whereas single-site models puts a value to the single recreational site usually for one specific activity (Bargmann and Tremml, 2007).

Giving specific examples from the studies that have applied travel cost method can be beneficial to better understanding of these environmental valuation methods. Kipperberg and his friends have analyzed the effects of wind tribune investments on the recreational value of the region in Norway by using travel cost method and contingent valuation method together and compared the results. Number of trips to the region, the total costs of the trips and the possible number of trips to the region after the investment completed have been asked to the participants and the results show that the investment would have decreasing impact on the recreational value of the region (Kipperberg et al., 2019). Numerous studies are available for the same purpose for different regions (Chen et al., 2004; Grilli, Landgraf, Curtis, and Hynes, 2018; Lavee and Menachem, 2018; Narukawa and Nohara, 2018; Ngulani and Shackleton, 2019; Zambrano-Monserrate et al., 2018). In another study, the recreational values of the Gold Coast beaches have been analyzed for domestic visitors and international visitors. The results have shown that Gold Coast would have lower recreational value without its beaches and the total value of the region for the international visitors is approximately 500 millions USD which is higher than the cost of beach protection projects, which meant these projects are feasible for the

policy makers (Zhang, Wang, Nunes, and Ma, 2015). Similarly, another study has aimed to assess the role of Taylor Mountains in the value of the whole region in the California and the questions have been asked to participants including number of visits, the possible visits if the Taylor Mountain's are not well protected and the demographic characteristics. The results show that Taylor Mountain's protection is of vital importance on the existence value of the California (Hanauer and Reid, 2017). Another confounding study has been carried out in Greece by using travel cost method to assess the value of Poseidon Temple in Sounio. The study has been handled with different scenarios and all scenarios have been taken different components of the travel costs into consideration. Therefore, in each scenario different recreational value has been accounted but even in the less valued scenario the total maintenance and preserving costs of the temple has been found feasible (Tourkolias, Skiada, Mirasgedis, and Diakoulaki, 2015).

Travel cost method is supposed to be hard to handle and requires huge load of data to elicit but the results of the method can be regarded as a guidance for policy makers and implementers (Waite et al., 2014). All of these above mentioned studies were guide the policy makers by assessing the total recreational value of the attractive destinations and advise them to employ the preserving and maintenance projects of the particular prominent zones in order to save the overall recreational values of the sites.

#### **1.3.2.1.2. Hedonic Pricing Method**

As one of the methods involved in stated preference methods, hedonic pricing method merely measures use values that can be defined with another related marketed goods or services price (Segerson, 2017). This method assesses the data on cryptic demand to the environmental goods related with the commodities in market. In order to assess the value function of the house that is surrounded by environmental beauty or very close to the coastal area and has a nice scenic view, hedonic pricing method can be used by evaluating the change in that coastal area and environmental beauty. Therefore both the value of change and the effects on the housing prices can be found by using hedonic pricing method (Brander, et al., 2010). In short, it can be

described as measuring the effects of being close to the environmentally attractive areas on the housing prices are to be reflected in monetary terms. Questionnaires or face to face surveys are not a compulsory tools for the implementation of the hedonic price method (Soler and Gemar, 2018).

Hedonic pricing method is widely used for tourism industry especially in order to assess the location of the hotels or related accommodations used for recreational purposes. A study carried out with the aim of putting the correlation between room prices and location found out that location of the hotel directly affects the room prices. After all the same study has valued the environmental amenities in specific geographical locations by interpreting the room prices (Soler and Gemar, 2018). In another study, the seasonality effects on hotel prices have been analyzed. Seasonality, several proximity measures, location (external attributes) and service quality, cleanliness and having spa facilities (internal attributes) are the some of the independent variables. The study proposes a pattern for policy makers and managers in tourism industry and related businesses by focusing on the seasonality concerns (Wang, Sun and Wen, 2019)

The effect of time spent between home and work on the housing prices as a measure of welfare has also been measured by applying hedonic pricing method in a study and the findings show that %12.5 increase in time spent between home and work would create 1.29 billions welfare loss for the employees in Korea therefore decrease housing prices and the value of the region (Jun, 2019). In another study, the impacts of waste disposal facilities on accommodation prices have been investigated by hedonic pricing method and the results show that the proximity to these facilities decreases the prices (Casado, Serafini, Glen, and Angus, 2017).

There are several studies linked to the subject of this dissertation. The effect of amenities that occurred in coastal areas to the accommodation prices have been investigated with hedonic pricing method by Hamilton (2007) and the result show that the decrease in the length of dikes along the coastal landscape will increase the accommodation prices and therefore the value of the coastal area (Hamilton, 2007). Another related study has been carried out for the coastal areas of Indonesia, in order to measure the effects of sea level rise environmental losses (Mehvar, Filatova, Syukri, Dastgheib, and Ranasinghe, 2018). Another study in the United Stated has been carried out to clarify the effects of proximity of coastal areas on the housing prices and it has been found that proximity to the coastal areas with rich ecosystem surroundings increase the housing prices (Chen and Fik, 2017). The study with the same aim was also conducted in Spain (Mora-Garcia, Cespedes-Lopez, Perez-Sanchez, Marti, and Perez-Sanchez, 2019). Besides coastal proximity, sea view is also regarded as a determinant of the value and analyzed by hedonic pricing method in Greece and normally the sea view is found to be an increasing effect for the housing prices (Latinopoulos, 2018).

## 1.3.2.1.3. Defensive Behavior Method

Defensive behavior can be accepted as the responses in order to overcome the effects of environmental disasters and defensive behavior method is used to value the economic benefits of public policies implemented for public health significantly (Dickie, 2017). Defensive behavior method is the pioneer method to value the economic losses linked to the any kinds of pollution and the method is carried out by observing the defensive behavior of people against that pollution (Smith and Desvousges, 1986). Defensive behavior method is applied via different approaches as consumer market study, health production function study, demand for a necessary defensive input study, and, defensive expenditure study (Amit and Sasidharan, 2019).

In literature, the pros and cons of increase in air quality have been measuring with stated preference methods and especially with defensive behavior method. For instance, having less time outdoor is a kind of defensive behavior against low air quality and people are eager to stay at home with their children in the day of low air quality and also willing to pay much more money to prevent air pollution (Mansfield, Johnson, and Van Houtven, 2006). In another study, the same subject has been analyzed and people have been asked to pay for the facemasks in order to protect themselves from the low air quality and the results show that eagerness to pay for the facemasks could be regarded as defensive behavior against low air quality and somehow values the air quality of the region (Zhang and Mu, 2018). Air quality and public health relation have been valued with different articles in literature and almost

all of them find that air pollution is an inevitable component of human health (Calthrop and Maddison, 1996; Chen, Qin, Tan-Soo, and Wei, 2019; Fotourehchi, 2016; Janke, 2014; Sass et al., 2017; Tan-Soo, Qin, and Zhang, 2018; Yan, Duarte, Wang, Zheng, and Ratti, 2018).

The defensive behavior method has been discussed by the literature for the water related policy and quality studies (Birol, Karousakis, and Koundouri, 2006) and beside air quality, the water quality has also been examined in terms of defensive behavior approach. Lanz and Provins (2016) claim in their study that households are eager to spend money for the products to increase the tap water quality and it assessed the value of water resources for the specific region (Lanz and Provins, 2016). Defensive expenditure approach is rooted back to household production function theory of consumer behavior and according to the theory the products that households use have direct relation with the harmful effects of the pollutions such as water cleaning devices (Birol et al., 2006). The value of clean water has been discussed in another study and the results are the same that defensive expenditures for the clean drinking water is in the outstanding level (McConnell and Rosado, 2000). "Health production function" approach has been also used in the literature by Amit and Sasidharan (2019). In the study, health is accepted as a variable to create production functions of household and any changes in the people's health leads the researcher to measure the total value of the water quality (Amit and Sasidharan, 2019).

#### 1.3.2.1.4. Substitutions Methods

The example to the use of substitutions methods can be presented as follows. Assume that there is a wetland ecosystem services around the resources of fresh water. These wetland ecosystems refine the drinking water and clarify the contaminants of it. Unless there are no wetland ecosystem components around the resource, the authorities will be needed to build facilities to make the drinking water clean. In consequence, the cost of building these kinds of cleaning facilities is the value of the presence of the wetland. The logic behind the substitutions method works as explained above (Bargmann and Tremml, 2007). There are two types of substitutions methods for non-market valuation and these are replacement costs and equivalency analysis. Unlike other revealed preferences methods introduced in earlier parts of this dissertation, substitutions methods are valuing the environmental goods from supply side, and replacement cost method is used to determine the value of a service that is provided by public investment to improve an existing situation and value of an existing service that can be protected from loss by public effort (Abdullah et al., 2011). An outstanding care should be employed in order to apply replacement cost method (Shabman and Batie, 1978). In some cases, especially for the ones that value the sea grass ecosystems, the replacement cost model underestimates some of the components of the ecosystem and "Habitat Equivalency Analysis (HEA)" is used instead of it. HEA considers more components of ecosystems and is more appropriate for the valuation of ecosystem services (Dewsbury, Bhat, and Fourqurean, 2016). It should be noted here replacement costs are sometimes used as an input to calculate total damages on environmental goods especially after the oil spills (Ofiara, 2002).

Limited number of studies carried out by using substitution methods are available in the literature and some of them suggest that contingent valuation method can be used in the studies instead of substitution methods since these methods can be partially adapted into hypothetical scenarios (Kontogianni, Luck, and Skourtos, 2010). Beside that, in order to apply replacement cost approach in the study of environmental valuation, there must be three specifications that the subject should have; (1) the service should be given with the same characteristics by the replaced facility, (2) the most cost effective investment should be chosen among the replacement alternatives, (3) The public authorities should a have power to afford and enough budget to handle the replacement investments (Trabucchi, Donlan, and Wade, 2010). Performing contingent valuation method instead of replacement costs should be evaluated by considering these three criteria since, if these criteria's are not met then the case would be shifted to the hypothetical side from the actual. In the following section, the stated preference methods and specifically contingent valuation method is to be analyzed in details due to the reason that it is the main method of this dissertation.

### **1.3.2.2. Stated Preferences Methods**

As Johnston, Parsons and Ramachandran indicate in their research "Benefit Transfer Combining Revealed and Stated Preference Data", *Revealed Preference* (*RP*) valuation techniques use data on observed behaviors to estimate monetary measures of welfare change ex post. On the other hand Stated Preference (SP) valuation techniques estimate these measures ex ante using responses to survey questions that ask how individuals would behave if faced with hypothetical scenarios describing a resource or policy to be evaluated (Johnston, Parsons and Ramachandran, 2014). As stated earlier, the main difference between stated preference methods and revealed preferences method is that while the latter is based on the observation of behaviors, the first one is based on the responses taken from the individuals (Bargmann and Tremml, 2007). Because of this mechanism, stated preference methods need questionnaires based on hypothetical scenarios to get the insights on values to carry on valuation process (Segerson, 2017).

It should be pointed out here that stated preference methods can be used in order to assess the use and non-use value together (Bargmann and Tremml, 2007). Furthermore, stated preference methods are the only tools to measure passive-use values (Flores, 2017). To remind passive use, it will be beneficial to have a look at the Carson's example on passive use: even if someone never goes to the specific area, he / she has the right to demand protection of that area and this preference is called passive-use value (Carson, 2012). Therefore the main implementation fields are ranging from recreation and human health to any other activities that alter the individual's value assessment and the stated preference methods are commonly used for valuation of wetland areas (Bargmann and Tremml, 2007). The main method of stated preference approach is contingent valuation method, and it is also one of the core methods implemented in this dissertation. The Following parts include detailed information about the method and the reason for choosing this method can be inferred from these parts.

### 1.3.2.2.1. Contingent Valuation Method (CVM)

Contingent valuation method is the main method of this dissertation and will be given in the third chapter of this dissertation in details. Nevertheless, to give an insight about the methodology, general framework of the contingent valuation method will be given in short under this heading

Very basically, the contingent valuation method is the part of stated preference methods and used for the estimation of value that people put on a specific environmental good (Ahmed and Gotoh, 2006; Hoyos and Mariel, 2010). Debates have been going on the contingent valuation method and the main concern is that it is applicable in hypothetical market and the difficulties in measuring the validity.

It should be underlined here that there has been an ongoing debate about the first use of the contingent valuation method. The studies that reveal the benefits of outdoor recreation in Maine forests in 1960 and in Delaware River in 1958 can be regarded as the first two applications of contingent valuation studies (Hanemann and Kanninen, 1999). Additionally, the cost of Exxon Valdez disaster that took place in 1989 was calculated by valuing the affected coastal area and this valuation made the contingent valuation as the main method of the passive-use valuation (Holvad, 2006).

Most of the environmental goods and services cannot be traded in the marketplace and therefore they have not got a price. Because the market cannot predict a price for them, it means that they have a social value and the market cannot place it (Turner et al., 1994). Contingent valuation is one of the methods that is listed under the stated preferences approaches that aims to take opinions about participants' willingness to pay or willingness to accept amounts via surveys presenting hypothetical scenarios on the amendments of environmental and/or social goods and services (Chee, 2004). The values of this method contingent because it depends on the information provided to the respondent in the survey and the method is used in order to calculate willingness to pay (WTP) often to protect environmental sources and ecosystems (Hoyos and Mariel, 2010)

The contingent valuation method can be rooted to the Welfare Economics Theory that the result of the method –monetary value- can be evaluated as the measure of the welfare of the community (Hoyos and Mariel, 2010). Its primary superiority over the other techniques is that the result value can be evaluated as both use and non-use values and therefore investigator can evaluate all kinds of benefits that the people can get from the subject environmental goods or services (Chee, 2004). It should be stated here contingent valuation studies are established on the willingness to pay responses and income is one of the important variables of this decision so that it must be reminded to the participants that willingness to pay decision should be given according to the income level (Dong, 2013) otherwise the responses would be stated as protest responses (Egan, Corrigan, and Dwyer, 2015)

Steps to carry out contingent valuation survey have been outlined according to the resources on contingent valuation studies (Carson, 2000; Ahmed and Gotoh, 2006; Dong, 2013 and Hoyos and Mariel, 2010). According to this outline, the appropriate steps are given in Figure 9. Survey design phase includes scenarios and follow up question developments.





**Source:** Created by the author based on Carson, 2000; Ahmed and Gotoh, 2006; Dong, 2013; Hoyos and Mariel, 2010 and Hanley, et al, 1997.

### **1.3.2.2.2. Choice Experiments**

Choice experiments are the name of common methods applied to collect the willingness to pay values (Uysal, Janssen, Miran. Abay, Boyacı and Hamm, 2012). Some other terms such as "attribute-based methods" have been used instead of

"choice experiments" in numerous researches but it should be stated that "choice experiments" is more appropriate to use when the aim and the application process are considered.

Choice experiment method is used when the environmental good to be valued has some distinctive characteristics such as prices (Holmes, Adamowicz and Carlsson, 2017). By using choice experiment methods; one can measure the level of changes in a specific characteristics of the environmental good and assess the preferences or trade offs in behavioral settings on these changes (Holmes et al., 2017).

Discrete choice experiments is first used by Adamowicz et al. (1994) to value an environmental resource. Discrete Choice Experiments methods uses hypothetical scenarios to value the environmental good and collect the data by using questionnaire forms just like in a contingent valuation method and the same principles in designing contingent valuation surveys are applicable to the discrete choice experiments (Hoyos, 2010). Different from contingent valuation study the special focus should be employed on the choice process and that's why discrete choice experiment is not applicable to this dissertation.

Discrete choice experiment are based on Random Utility Theory of Thurstane (1927) and should consider the utility and welfare of the participants. In this research the selected costal area does not provide specific utility and therefore there are no adequate alternatives to ask for the participants. Besides, the willingness to pay responses have not merely been evaluated, they were also tried to be explained with the variables of social responsibility marketing variables. Since there are other variables to define and interpret the willingness to pay values in this study, discrete choice experiment is not an appropriate method to the nature of this dissertation.

# 1.3.2.2.3. CVM Literature on Coastal and Environmental Valuation

In the literature of contingent valuation method, numerous environmental goods have been valued and very limited number of them took the coastal areas as the subject. Besides coastal areas, forests, marine protected areas, wetlands, coastal lagoons have been the subjects of contingent valuation studies and in the following paragraphs these studies have been underlined with their subjects and findings.

Studies on marine protected areas have been mainly focusing on evaluating the human detoration on these sites. Badalamenti et al., (2000) have carried out a study to underline the marine protected areas and their importance on socioeconomic impacts of the regions. They suggest that these effects should be considered in valuing the marine protected areas and contingent valuation method should be used in these studies (Badalamenti et. al, 2000). In 2006, Becker and Choresh wrote a book in order to emphasize the importance of marine protected areas and proposed contingent valuation method as the most appropriate valuation method of calculating economic value of these areas (Becker and Choresh, 2006). Togridou et al. (2006) also underlines the importance of some socioeconomic characteristics of participants over the willingness to pay decisions. While source of information gathered on the subject environmental good and income level are the important determinants of willingness to pay, nationality is not as important as the others for the willingness to pay decisions (Togridou, Hovardas, and Pantis, 2006).

Wetlands have also been the subjects of the contingent valuation methods. Social and ecological valuation of the wetlands in France has been analyzed by Westerberg and his friends. According to their study, they recommend that the restoration of the wetlands should be limited by the one third of its whole size, there must be more trees and biodiversity should be increased in the wetlands (Westerberg, Lifran and Olsen, 2010). Birol and Cox (2007) also tests the impacts of social, economic of respondents on willingness to pay decisions and found out that policies should be created according to the public perceptions and attitudes towards the environmental good (Birol and Cox, 2007). In another study, the value types that wetlands create have been listed. Travel cost and contingent valuation methods have been used together to value the wetlands and the results show that wetlands valuation should be made by contingent valuation since it gives more appropriate willingness to pay values (Boyer and Polasky, 2006). Pate and Loomis (1997) has valued the quality concerns of the wetlands of Oregon and found out that participants who are geographically closer to the wetlands have 300 % more willingness to pay than the ones living outside the wetlands area (Pate and Loomis, 1997).

Agricultural economics is another field of application for the contingent valuation and choice experiment methods. A study in this field focused on the organic certification logos' effects on willingness to pay decisions used choice experiment methods and found out that willingness to pay decisions for the organic foods differed according to the logos (Uysal, Janssen, Miran, Abay, Boyacı and Hamm, 2012). Another study focused on the pesticides residuals on the agricultural products and its effects on the buying behavior and underlined that there was a potential for the products which are labeled according to their pesticides residual levels (Akgüngör, Miran and Abay, 2001).

Very many systematic studies have been carried out on the river of California, and it is that valued the willingness to pay responses given to the hypothetical scenario on the reclamation of the river basin. The results show that income, number of children and education level are the main determinants of willingness to pay decision of the respondents (Ojeda, Mayer, and Solomon, 2008). Lant and Roberts (1990) has calculated the willingness to pay values for the increase in the quality of water in wetlands and found out that people are willing to pay 30 % more for the clean and quality water in the wetlands (Lant and Roberts, 1990). After all its clear that wetland valuation studies should be more site-specific in order to overcome some difficulties arising from difficulties of collecting data from geographically large areas and populations (Woodward and Wui, 2001). Paola and his friends have carried out a contingent valuation study in Italy in order to test the public participation to the establishment of waste water disposal unit and found out that the demographic characteristics of the participants are the strong determinants of the willingness to pay decision (Paola, Mustafa, and Giacomo, 2018). Li and Gao in 2016 valued the ecosystem of wetland located in China and found out the willingness to pay value for the overall ecosystem services of subject wetland. According to the results 144 million of CNY was calculated as the overall ecosystem value of wetland for the society (Li and Gao, 2016). In contrary, another study that focused on the wetland in China found out that the total value of the wetland was 1430 million CNY which was ten times higher than the other study. Although the wetlands are different, it should be stated that the first study used the open ended elicitation format and found out more reliable value whereas the latter used the dichotomous choice method

(Jin, Ma, Cai, and Sun, 2016). In the same geographical location another wetland valuation study was carried out and it monitored that the proximity to the wetland, gender and income are the determinants of willingness to pay decision (He, Sun, and Zhu, 2015). In another research, the wetland in Quebec have been valued by three separate contingent valuation models based on the demographic characteristics of respondents and some environmental attributes such as environmental knowledge and access to the transport modes. The Results show that urbanization and intense agriculture give great damages to the wetland area and willingness to pay decisions differ according to the participants environmental knowledge, familiarity and social economic characteristics (He, Dupras, and G. Poder, 2016). In contrary, Souza and his friends found out no correlation between willingness to pay decision and demographic characteristics whereas participants were more willing to pay for the low-cost alternative of wetland treatments system in Brasil (de Simone Souza, Loureiro Paulo, and Árpad Boncz, 2017). Another outstanding research was carried out in Nepal to value the recreational benefits of specific wetland located in the coasts of Ghodaghodi Lake Complex and it was found out that investment policies on social benefits creator investments implemented by the government and the public-private partnerships have positively affected the willingness to pay values (Lamsal, Atreya, Pant, and Kumar, 2016). By focusing on the difference on the findings of different methods, Snyder (2019) has put forward a research that proves the replacement cost and contingent valuation studies give the same results for the valuation of same wetland in Costa Rica (Snyder, 2019). The preservation and reclamation project of wetland have been valued in another study at New Zealand and it has been found out that the project should be enlarged and comply with the future predictions of population inferred from the willingness to pay decisions of participants (Ndebele and Forgie, 2017).

The coastal lagoons have also been the subjects of the contingent valuation studies and Velasco and his friends carried out a study in the coastal lagoons of Spain. They put forward that the overall ecosystem value of the coastal lagoons is approximately 43 million Euros and the occupation has the meaningful difference in willingness to pay decisions that fishermen are more willing to pay for the preservation of the coastal lagoons. Moreover, gender, age and educational background also differ in willingness to pay decision (Velasco, Pérez-Ruzafa, Martínez-Paz, and Marcos, 2018). In Spain there is another study that values the wetlands and it has figured out that awareness and familiarity are the two determinants of the willingness to pay decision (Rupérez-Moreno, Pérez-Sánchez, Senent-Aparicio, and del Pilar Flores-Asenjo, 2015)



## **CHAPTER TWO**

## SOCIAL MARKETING AND CORPORATE SOCIAL RESPONSIBILITY

## 2.1. SOCIAL MARKETING: TERMS AND DEFINITIONS

"Social Marketing" concept was first mentioned by Kotler and Zaltman in 1971 in the article named "Social Marketing: An Approach To Planned Social Change". From then on, scholars have produced many definitions for this concept. The very first definition of Kotler and Zaltman is as follows; "Social Marketing is the design, implementation and control of some marketing practices such as product planning, pricing, communication, distribution and marketing research and programs that might affect the acceptability of social ideas and thoughts (Kotler and Zaltman, 1971)." 31 years later, Kotler, Roberto and Lee (2002) defined social marketing as; "...use of marketing principles and techniques that will affect target population in order to accept reject or give up a behavior for the benefit of individuals, groups or society as a whole (Kotler, Roberto and Lee, 2002)." Kotler and Lee defined social marketing in 2008 as: "Social marketing is a process that applies marketing principles and techniques to create, communicate, and deliver value in order to influence target audience behaviors that benefit society (public health, safety, the environment, and communities) as well as the target audience (Kotler and Lee, 2008)."

Another definition of "social marketing" in 2006 by British National Social Marketing Centre is as; "*The systematic application of marketing concepts and techniques to achieve specific behavioral goals relevant to a social good*" Besides, Kotler and Lee in 2009 defined social marketing as: "……*Process using marketing principles and methods in order to create value, understand and deliver it for purpose of affecting the behaviors of the target population in a way that will benefit both that target population and society in general (public health, environment and communities* (Kotler and Lee, 2009)."

Analyzing the details of the definitions, it can be seen that social marketing has changed the purpose of "adopting the ideas" to "changing the behavior for the benefits of society". As shown in the above mentioned definitions, the very first definition (1971) focuses on using marketing tools on social issues, the second definition (2002) focuses on the target audience's behaviors. Definitions in 2008 and 2009, highlights the term "creating value" to affect target populations behaviors and society as a whole.

Social marketing uses marketing tools to reform and alter the behaviors for public health, protection of environment, quality of life and "*Altering the Behavior*" can be evaluated in four forms as; admitting a new manner, refusing a potential manner, reorganizing a present behavior, giving up an previous behavior (Kotler, Roberto and Lee, 2002);

The definition that suits the scope and aim of dissertations was proposed by Alan R. Andreasen in 1994 through the article named "Social Marketing: Its Definition and Domain": "Social marketing is the adaptation of commercial marketing technologies to programs designed to influence the voluntary behavior of target audiences to improve their personal welfare and that of the society of which they are a part (Andreasen,1994). "The term "welfare" here intercepts with the "Contingent Valuation Technique" –that is planned to be used in valuation part of the study-which is rooted to "Welfare Economics".

In his study, Andreasen (1994) argues that social marketers should believe that the social marketing program will improve long-run societal welfare and criticized the definitions of Kotler and Zaltman made in 1971. He suggests that the definition has some blind side in that; it limits social marketing objectives to influence the "acceptability of social ideas". Nevertheless, according to Andreasen the social marketing activities must "influence the voluntary behavior". He also points out that the definition makes the individuals' mind, a bit confused between the term social marketing and societal marketing.

In Andreasen's words, a program can be labeled as social marketing program if it;

- Applies the same tools and technology with commercial marketing
- Influences the voluntary behavior and
- Primarily seeks to benefit society (Andreasen, 1994).

Dann (2010) proposes a new definition for social marketing by processing previous definitions by Leximancer (content analysis software) and has written the

social marketing as; "Social marketing is the adaptation and adoption of commercial marketing activities, institutions and processes as a means to induce behavioral change in a targeted audience on a temporary or permanent basis to achieve a social goal (Dann, 2010)"

Kotler and Lee (2009) mainly divide social marketing concept into two categories as downstream social marketing and upstream social marketing. While the latter aims to broaden the effects of behavior change factors, the first one just aims to alter the targeted consumer's behavior (Kotler and Lee, 2009). In other words, the downstream social marketing is based on voluntary engagement to the behavior change just on the targeted consumers, the upstream social marketing uses the policies and regulations to alter the behaviors in overall society (Rayner, 2007; Hoek and Jones, 2011).

# 2.1.1. Distinctive Nature of Social Marketing

Here it should be noted social marketing is sometimes misunderstood and regarded as social advertising, social media marketing or social networking (Kotler and Lee, 2009). The distinctive main principles of social marketing are "Focusing on behaviors", "Voluntary Recognition of Behavior Change", "Using traditional marketing principles". "Selecting and influencing the target market", and "The aggregation of benefits" (Kotler and Lee, 2008). In another study Zikmund and d'Amico suggests that social marketing; (1) Addresses social stakeholders, (2) Considers development of community partnerships,(3) organizes funding for policies on the subject of change and it is a process that includes the production of activities (Zikmund and d'Amico, 1996). Besides these, "social marketing is a social thought, a social case, a marketing activity that is designed to ensure the acceptability of desired behavior (Zikmund and d'Amico, 1996)"

Another complicated concept that is sometimes confused with social marketing is societal marketing. While societal marketing is concerning about the moral, social and ethical correspondences of commercial transactions, social marketing deals with the applications and tools that can be used to change behaviors of individual's (El-Ansary, 1974). Table 9 set out some of the differences regarding

the social and commercial marketing, shown in (Wei-Skellern, Leonard and Stephenson, 2007).

Level	Туре	Commercial Marketing	Social/Nonprofit Marketing
Internal	Inputs	<ul><li>Organizational budgets</li><li>Staffing</li><li>Internal support</li></ul>	<ul> <li>Organizational budgets</li> <li>Volunteers</li> <li>Donations</li> <li>Corporate support</li> </ul>
	Activities	• Strategy creation and execution	• Strategy creation and execution
	Internal outputs	• Sales campaigns	<ul> <li>Behavior change campaigns</li> <li>Fundraising campaigns</li> <li>Volunteering events</li> <li>Corporate development</li> </ul>
External	Results Management	• Sales	<ul> <li>Behavior changes</li> <li>Volunteer retention</li> <li>Donation levels / loyalty</li> <li>Corporate collaboration</li> </ul>
	Impacts	Profits / Return on investment	<ul> <li>Social change</li> <li>Nonprofit / social program growth</li> </ul>

**Table 9:** Commercial and Social/Nonprofit Marketing

Source: Wei-Skellern, Leonard and Stephenson, 2007.

According to Table 9, the main difference of social marketing from commercial marketing is the need to influence attitudes towards an idea. The purpose of social marketing is to find an answer to a social problem and to make a positive change in the target audience (Kotler and Roberto, 1989).

Commercial marketing and social marketing is different in many aspects and the following points should be focused in order to highlight the differences;

- Monetary gain is the primary aim for commercial marketer while the social marketer seeks to have a changed behavior in pocket.
- Social marketing aims to change the behavior of people towards the ideal one while the commercial marketing tries to sell services or products.
- Competition differs that commercial marketing regarded the other enterprises which offer the same products or services as competitors while the social

marketer's competitors are the alternative behavior that creates cost and harmful effects (Kotler and Lee, 2008)

Besides the differences, in general terms, commercial marketing and social marketing has some common points; these are "A customer orientation", "Exchange theory", "Marketing research", "Audiences segmentation", "Four P's", and "Evaluation of Results" (Kotler and Lee, 2009).

## 2.1.2. Scope of Social Marketing

Approximately four decades ago, by the scholars of marketing, it was pointed out that the job of marketers is to contribute to the enrichment of people's lives, health and religious services, efficient use of natural resources and the use of fine arts through improved marketing. Kotler and Zaltman (1971) are the pioneers of social marketing and used this term in their article in 1971. This was the first introduction to social marketing that is derived from the idea that marketing should do something for the wellbeing of the people and could use the commercial marketing tools while creating benefits for the individuals.

As stated earlier, the main aim of social marketing is to create systematic support in order to get desired behavior (Kotler and Lee, 2009). Moreover, social marketing campaigns foster the social change and governmental bodies recognized the concept of social marketing (Gordon, Russell-Bennett, and Lefebvre, 2016). It should be noted here that whether upstream or downstream the social marketing is based on understanding the needs, values and choices of the segmented consumers (Kotler and Lee, 2009). After its first use in the literature, social marketing is now used for different fields of researches ranging from public health to family planning and environmental conservation (Kotler and Lee, 2009). The developments of social marketing discipline with highlights of the major turning points will be presented in a systematic manner. The conditions of the ongoing years, on which environmental problems, legal and political disputes arise changed marketing management pespective towards social responsibility intense approach (Mucuk, 2001). Furthermore, consumers who became conscious started to take into account firm's relationship with society and their approach to social events rather than their relations with consumers (Tenekecioğlu, 1977). Besides these efforts on the promotion of social marketing, an education of social marketing has also been the subject of the researcher. A research was conducted to generate an effective curriculum of social marketing class applicable in the educational bodies such as faculties and research institutes (Kelly, 2013).

By reviewing the social marketing literature, one could say that it is evolved so much in many aspects but general concepts that social marketing deals with remained the same. After Kotler and Zaltman first use of the term social marketing conceptual studies have been carried out in order to promote and validate it (Andreasen, 1994, 1997, 2002; Carins, Rundle-Thiele, and Fidock, 2016; C. Domegan et al., 2016; Kelly, 2013; Kestane, 2014; Lee, 2016). Besides these studies, such subjects as; ethical considerations of social marketing (Brenkert, 2002; Choi, Eldomiaty, and Kim, 2007; Laczniak et al., 1979), social marketing of social change and social ideas (Malafarina and Loken, 1993), social marketing of tourism and leisure time management (Bright, 2000; Nagla, 2010; Zerva, 2013), role of social marketing in improving quality of life (Carrigan, Moraes, and Leek, 2011; Singh, Saini, and Majumdar, 2015), social marketing and commercial marketing relation (Dann, 2010; Domegan, 2008; Peattie and Peattie, 2009; Walsh, Hassan, Shiu, Andrews, and Hastings, 2009), social marketing and environmental protection relation (Çabuk and Nakıboğlu, 2003; Kennedy, 2010), policy making (Biroscak et al., 2015), social marketing mix (Edgar, Huhman, and Miller, 2015) and public health (Arli, Pekerti, Kubacki, and Rundle-Thiele, 2016; Bayin and Akbulut, 2012; Colarossi, Hazel, Collier, DeSouza, and Pappas, 2016; Fujihira, Kubacki, Ronto, Pang, and Rundle-Thiele, 2015; Gertner, Gertner, Araujo, Bahia, and Bouzas, 2016; Lefebvre and Flora, 1988; Li, Newcombe, and Walton, 2015; Marshall, 2013; Parvanta et al., 2013; Sewak and Singh, 2017; Tobey, Koenig, Brown, and Manore, 2016) have been covered within the term.

Social marketing aims, accelerates and measures the level of social change according to the definitions made by distinguished authors (Kotler and Zaltman, 1971; Andreasen, 1994). Social marketing is complicated and it's hard to handle the process since its main purpose is to change behaviors in cosmopolite social and economic conditions (Lefebvre and Flora, 1988). Here the types of social change should be addressed and Table 10 illustrates the types of social changes of consumer, organizational and societal level in short and long run (Menegaki, 2012);

Period	Consumer Level	<b>Organizational Level</b>	Societal Level
Short-run	Behavior Change	Change in Norms /Administrative Cahnge	Policy Change
Long-run	Lifestyle Change	Organizational Change	Socio-cultural evolution

Table 10: Level of Social Changes

Source: Adapted from Levy and Zaltman, 1975 via Menegaki. 2012

It can be inferred from Table 10 that in each level of change different social marketing mix strategies should be applied in order to accomplish the change. To clarify, the elements of social marketing mix are to be analyzed in details.

# 2.1.3. Social Marketing Mix

Including marketing's 4 P's -Product, Price, Place, and Promotion- in the social marketing is requirement of systematic campaign and approved by the social marketers (Phillipson et al., 2009). Marketing mix is prerequisite framework for social marketing activities and to mark social marketing efforts as successful (Grier and Bryant, 2005) therefore social marketing needs strategy to be implemented within the framework of scheduled and well planned workflow. Traditional marketing four P's (Product, Price, Place, Promotion) are borrowed by the social marketing (Andreasen, 2002) with extra four P's that are specific to social marketing itself and these are; Public, Partnership, Policy, Pursestrings (Weinreich, 2009). The application of effective social marketing mix is the key success factors of social marketing mix frame in a specific subject basis. Besides that, it should be noted here, each social marketing application field and each separate campaign has its own social marketing mix (Luca and Suggs, 2010). Because of that, aggregate definitions

and components of social marketing mix have been identified generally. Table 11 monitors the components of social marketing mix with comparison to traditional marketing mix elements;

Traditional Marketing Mix Elements (4 P's)	Social Marketing Mix (8 P's) Product			
Product				
Price	Price			
Place	Place			
Promotion	Promotion			
	Public			
	Partnership			
	Policy			
	Pursestrings			

Table 11:	Elements of	Traditional	Marketing	Mix and	Social N	<b>Marketing</b>	Mix
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Source: Adapted from Weinreich, 2009

To identify the elements stated in Table 11, product of social marketing mix is undoubtedly targeted ideas and behaviors with relation to the aim of social marketing: "to change behavior or ideas" (Musembi, 2005). With broader perspective, product elements of social marketing includes three dimensions; targeted behavior of the social marketing campaign, related potential benefits of that behavior, and a real tangible goods or services which helps the individual in adopting the targeted behavior (Kotler and Roberto, 1989). With regard to the product's three dimensions in traditional marketing; core product, actual product and augmented product (Kotler and Andreasen, 1991), for the social marketing, core product is benefits of targeted behavior, actual product is the targeted behavior that are marketed by social marketing campaign and the augmented product is the real tangible goods to promote adopting the targeted behavior (Musembi, 2005).

Price as an element of social marketing mix can be defined as the cost incurred in the process of changing and adopting the desired behavior (Kotler and Lee, 2008) just like price of traditional marketing which is identified as the specific amount of money demanded to sell specific commodity or service (Kotler and Armstrong, 2001). These costs can be in monetary or nonmonetary and the latter includes time, effort or energy whereas the first one includes the expenditures made for the procurement of augmented product (Kotler and Armstrong, 2001) specified in the previous paragraph.

Place of social marketing mix is defined as "Place is where and when the target market will perform the desired behavior, acquire any related tangible objects, and receive any associated services (Kotler et al., 2002)." In other words place in social marketing mix refers to channels through that individuals are touched and areas in which behavior change is marketed and incentivized (Menegaki, 2012).

Promotion refers to the social communication that creates mutual trust between marketer and targeted individuals or groups (Menegaki, 2012) and the effectiveness of the promotion based on the familiarity of the offers and beliefs of individual's on the benefits of marketed behavior (Kotler et. al, 2002). Therefore the social marketer should do his/her best in order to build a trust between the targeted group and the marketed behavior / idea.

Public in social marketing mix – in general- refers to the all parties that have an impact on the overall program but it should be narrowed and it has two phase as internal and external while the latter is target individuals or groups the first one refers to the ones that have an active role on the implementation and preparation of marketed behavior (Weinreich, 2009). Public can be created and enlarged by social networking, Word of mouth communication channels (Menegaki, 2012) raising confidence and awareness to the marketed behavior / ides within the public is one of the tasks of the social marketer (Brohmann et. al, 2006).

Partnership refers to the collaborations with the organizations that have similar or close unity on objectives and willingness to work together (Weinrech, 2009) and therefore these collaborations can accelerate the influence of social marketing campaign by the synergies established between the parties (Menegaki, 2012). Policy is another particular tool of the social marketing mix. The initial aim of the policies should be developing new networks which are necessary for the wellbeing of social marketing program (Menegaki, 2012). Purse strings identify the funds resources and the financial funding of social marketing programme may vary and this specification adds another characteristic to the social marketing campaigns and its strategy (Weinreich, 2002).

#### 2.1.4. Key Success Factors of Social Marketing

Social marketing, as stated earlier applies commercial marketing tools and techniques to assess the change in behaviors of individuals and society in order to sustain public good (Kotler and Lee, 2008; Truong, 2014). Conducting social marketing campaigns within the framework of proper planning will have a positive impact on their success. Kotler and Roberto (1989) underlines that the initial duty of the social marketing applicants is to establish appropriate, quantifiable and achievable objectives. Kotler and Roberto also suggested that social marketing campaign can seek broader objectives at the initial stages, but afterwards the objectives and the target population should be getting narrower and narrower to reach them easily.

Since its introduction, numerous social marketing programs have been conducted and these programs have been handled by the application of commercial marketing tools and it proves that consumers are the main concerns of the social marketing campaigns (Musembi, 2005). Branding and conducting market research (Walsh et al., 2009), segmentation of audiences (Grier and Bryant, 2005) and pilot studies to assess the social values, behavior patterns and the sociologic characteristics of target participants are the other success factors of social marketing campaigns (Nanda, 2015).

To create and apply social marketing campaign, an effective and systematic social marketing mix should be applied (Luca and Suggs, 2010). After its introduction, many concerns had been raised over the social marketing discipline, nevertheless it is accepted as user-friendly and consumer oriented tools of social and behavioral change and increasing the welfare of society and individuals (Kotler and Lee, 2008). In addition to these success factors, voluntary engagement can be listed as the key elements that social marketing gains its importance, difference and competitiveness by the reliance on voluntary actions instead of mandatory forms such as laws (Kotler and Armstrong, 2001). "Social responsibility of the enterprises"

approach is the main perspective of social marketing and enterprises are supposed to be free to identify the operating areas and to be volunteer to participate in activities that help improve the welfare of the community and the quality of life (Tenekecioğlu, 1977).

#### 2.2. CORPORATE SOCIAL RESPONSIBILITY: TERMS AND DEFINITION

Corporate Social Responsibility (CSR) issue, which includes the economic, legal, ethical and voluntary responsibilities that businesses are obliged to fulfill to their customers, competitors and shareholders, is increasingly attracting the attention of the world in recent years (Eren and Orhan, 2013). It is possible to say that the concept of "social responsibility" lies on the basis of the "corporate social responsibility" when the related literature is analyzed (Carroll, 1999). As the father of the corporate social responsibility (Carroll, 1999) Bowen defines corporate social responsibility as the sum of social obligations formed "by pursuing those policies, making those decisions, or following those lines of action which are desirable in terms of the objectives and values of our society" (Bowen, 1953). In this definition Bowen underlines the term "social obligation".

Based on this definition of Bowen, some debates have been raised. In some views, researchers think that the only condition to be the part of corporate social responsibility action is being a volunteer (Manne and Wallich, 1972). In 1976, rather than the specifications of the corporate social responsibility, broader definition that includes dimensions of corporate social responsibility was made. According to the definition, corporate social responsibility should deal with the daily ongoing problems ranging from pollution to the poverty (Hay, Gray and Gates, 1976). Finally, Carroll (1979) illustrates the dimensions of social responsibilities of businesses in four categories as "discretionary, ethical, legal and economic" responsibilities in an order from the least important to the most according to their social effects (Carroll, 1979). In this framework, the definition of social responsibility of business is formulated as "The social responsibility of business have according to the social responsibility of business at a given point in time" (Carroll, 1979).

Just like Carroll's classification, Garriga and Mele (2004) have introduced four dimensions of corporate social responsibility as; instrumental, political, integrative and ethical (Garriga and Mele, 2004). Besides this, Porter and Kramer (2002) have positioned the corporate social responsibility activities as a strategic tool that generate competitive advantage for the companies (Porter and Kramer, 2002).

Another definition focuses on the ethical behavior and economic development by defining the corporate social responsibility as: "Corporate Social Responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large" (Holme and Watts, 2000). In another definition, corporate social responsibility is defined as maximizing the long-term benefits for the community by reducing and minimizing all types of harmful results of the activities of the enterprises (Lee, 2010). From the broader perspective, David (2011) suggests that social responsibility refers to an organization's actions beyond legal requirements in order to protect or enhance the well-being of living things (David, 2011).

The European Union Commission (2002) defines corporate social responsibility as a concept that is formed -on the basis of voluntariness of businessesby the incorporation of social and environmental concerns into business activities and interaction with stakeholders (EC, 2001). World Bank also defines the corporate social responsibility as; corporate social responsibility is the commitment of the employees of the enterprises, the families of the employees, the local community and the whole community to the efforts aiming to increase the quality of life and thus contribute to sustainable economic development.

# 2.2.1. Phases in History of Corporate Social Responsibility

The development of corporate social responsibility concept can be broadly divided into three stages as pre-business phase, pre industrial revolution phase and post industrial revolution phase (Taşlıyan, 2012). Wang (2015) divides these phases into four that commences from the mid 1950's to the present age (Wang, 2015). Lee (2008) and Wang (2015) suggests that the idea of corporate social responsibility can

be rooted back to the first quarter of the twentieth century and to the declaration of the aim of Ford Motor Company by Henry Ford in 1917 as "..to do as much as possible for everybody concerned, to make money and use it, give employment, and send out the car where the people can use it... and incidentally to make money" (Lee, 2008; Wang, 2015). By saying these words, Ford has been accepted as the pioneer and founder of the corporate social responsibility practices. The corporate social responsibility activities began to appear fast in the 1960s and 1970s with the increasing interest in responsible commercial behavior in the United States (Bieri, 2015).

In the 20<sup>th</sup> century, the concept of corporate social responsibility in the United States has come to the forefront with the accusations of the companies acting in monopolistic practices and against the rules of competition. Just as developments of corporate social responsibility, issuing Anti-trust laws, developments of consumer rights applications were being developed in order to overcome these unfair practices (Post, Lawrence, Weber and Frederick, 1996). Development of trade unions, development of professional managerial approaches, fast globalization and democratization process, the depletion of natural resources, prevention of environmental pollution, the necessity of companies to leave a good impression in society, multi-partnership of companies, producing goods and services in accordance with the preferences and expectations of the society and the world, motivation of personnel for efficiency, can be listed as the reasons of increasing importance of corporate social responsibility (Eren, 2000).

From the academic side Bowen's study named "Social Responsibilities of Businessmen" in 1953 is accepted as the first study to examine the relationship between organizations and society (Carroll, 1979). In his book, Bowen (1953) emphasizes that companies should be accountable to the community and complies with ethical rules in order to achieve superior performance in the long term (Maignan and Ferrell, 2004). As the pioneer of corporate social responsibility Bowen (1953) underlined that corporate social responsibility includes "entrepreneurial commitment to promote corporate policies to foster decision making or to follow lines of action that are desirable in terms of goals and values to the society as a whole" (Bowen, 1953). Besides supportive efforts for corporate social responsibility, the defensive thoughts against the concept have also been suggested in the literature. The pioneering defensive thought has been presented by Friedman (1962) with these statements; "There is one and only one social responsibility of business — to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud (Friedman, 1962)." According to Friedman, paying taxes is the initial and only way of enterprises to be included in the social responsibility; other efforts will be harmful for the competitiveness of the businesses.

#### 2.2.2. Corporate Social Responsibility and Marketing

Corporate social responsibility and marketing relation has been an ongoing debate for the academic environment. From the beginnings of 60's, marketing researchers have been dealing with the corporate social responsibility matters and they have merely focused on the social obligations of corporations (Wang, 2015). Companies that exhibit this understanding and give importance to corporate social responsibility issues are increasing their chance to develop their image and increase their sales (Lembet, 2006).

The marketing related corporate social responsibility studies have been dealing with the subjects of environmental and cause-related marketing, consumer communication, consumer reactions to corporate social responsible efforts and corporate reputation (Barone et al. 2000;; Wagner et al. 2009; Crouch 2006; Handelman and Arnold, 1999; Menon and Menon 1997; Zeithaml and Zeithaml, 1984; Handelman and Arnold 1999; Brown and Dacin 1997; Sen and Bhattacharya 2001). In addition to subjects, corporate social responsibility can be evaluated as an advertising tool for the businesses (Arif, 2017). Concepts that are related to marketing such as; corporate reputation (Aguilera-Caracuel and Guerrero-Villegas, 2017), consumer behavior (Boccia, Malgeri Manzo, and Covino, 2019), customer satisfaction (Caruana, Vella, Konietzny, and Chircop, 2018), brand value (Chang, Jang, Lee, and Nam, 2019; Yang and Basile, 2019) and cause-related marketing

(Kim, Youn, and Lee, 2017) have been included in the corporate social responsibility studies.

Identifying corporate social responsibility issues just from the marketing side is not an holistic approach since marketing and corporate social responsibility related articles are merely focusing on the consumer side, but there are other parts that are heavily dealing with the corporate social responsibility actions like employees, managers and third party service providers (Wang, 2015). Besides that, in the market conditions where there is no information flow problem for the consumers, it is seen that consumers use corporate social responsibility activities as a criterion in the evaluation of the businesses (Becan, 2011). In addition to marketing benefits of social responsibility activities stated earlier, companies that are aware of their corporate social responsibilities gain significant advantages in entering new markets and ensuring customer loyalty. Many funding and institutional investors in the world have begun to evaluate the performance of that company on social responsibility before deciding to invest in a company (Mohr and Webb, 2005). It should be noted here, Kotler and Lee (2005) have argued the term "corporate social marketing" and it will be defined in the following parts under the corporate social initiatives headings.

# 2.2.3. Scope of Corporate Social Responsibility

As stated earlier, Carroll (1979) defines four social responsibility obligations of the business as "discretionary, ethical, legal and economic" obligations (Carroll, 1979). This dimensional model will be analyzed in the next heading but it is also important for understanding the scopes of social responsibility behaviors of corporations.

Understanding the scope of corporate social responsibility requires merging the definitions of several types of responsibilities (Geva, 2008). Therefore, economic behavior of corporation can be seen as fundamentals since all of other responsibilities are built on the economic activities that corporation takes profit from (Carroll, 1979). Within this framework, the scope of social responsibilities of corporations can be divided into two categories as "internal social responsibilities" and "external social responsibilities" (Aktan, 1999). Figure 10 illustrates the parties involved in both internal and external of corporation and subject to the corporate social responsibility activities. According to these parties, the scope and the nature of the corporate social responsibility activities have different characteristics. For instance, the treatments of corporate social responsibility activities towards government must be more formal and legitimate (Aktan and Börü, 2007).

Figure 10: Internal and External Corporate Social Responsibility



Source: Aktan, 1999

Employees, stakeholders and managers are located in the internal social responsibility side of the classification. To focus on employees, it must be stated here that in the evolving process of CSR from internal to the external environment, employees have become key component in building effective social responsibility activities and assessing the trust (Morsing et al., 2008).

All the related parties involved in the external social responsibility side are competitors, consumers, providers, environment, society and government. A very recent study underlines that environmental and governmental social responsibilities of corporations can be processed together (Graafland, 2019). The society as a party of external social responsibility side is the one with highest population and impact area that almost all social responsibility activities target the well-being of society (Kotler and Lee, 2008). As complementary to this model, Kotler and Lee (2005) divides the corporate social initiatives of corporations into six groups. But before giving the names of these initiatives the definition of corporate social initiatives is "major activities undertaken by a corporation to support social causes and to fulfill commitments to corporate social responsibility (Kotler and Lee, 2005)." The six corporate social initiatives are;

- Cause Promotions
- Cause-Related Marketing
- Corporate Social Marketing
- Corporate Philanthropy
- Community Volunteering
- Socially Responsible Business Practices

**Cause promotion** is the type of corporate social initiative that corporation itself or -via the sponsor- organizes fund raising campaigns for a cause (Kotler and Lee, 2005). Cause promotions enable the target audiences to admit the desired behavior and accept the benefits of corporate's goodwill (Menon and Kahn, 2003). A cosmetic company which is trying to ban the use of animals as a tester in the related product development processes can be example of cause promotion initiative (Kotler and Lee, 2005). For the coastal areas, the port facility can organize a litter collection campaign and it can also be evaluated as cause promotion campaign.

**Cause-related marketing** refers to the activities that corporation donates the predetermined amounts of money to the specific charity in order to provide the specific products to sustain desired benefits (Kotler and Lee, 2005). Varadarajan and Menon (1988) defined the concept as "it is the process of formulating and implementing marketing activities that are characterized by an offer from the firm to contribute a specified amount to a designated cause when customers engage in revenue-providing exchanges that satisfy organizational and individual objectives (Varadarajan and Menon, 1988)." Repeat purchases and increasing sales can be listed as benefits of cause-related marketing and for the coastal areas the following process will be the example of cause-related marketing; a port facility can announce that if any ships call the port between the specific dates, the specific amounts of the revenue will be transferred to the environmental protection charity.

**Corporate social marketing** is defined as the efforts of corporations on influencing and changing the behavior of consumers (Kotler and Lee, 2005) towards the positive manner (Hastings, MacFadyen and Anderson, 2000). In other words, corporate social marketing is "supporting a behavior change campaign intended to improve public health, safety, the environment or community well-being (Kotler, Hessekiel, and Lee, 2012)." It should be noted here that, corporate social marketing activities have five success factors and these are as follows (Lee, 2016);

- "The match passes the smell test": The corporate social marketing activity and the operations field of the corporation should be relative.
- "The target audience is a natural": The target audience should be predetermined.
- "The behavior is beneficial to all": Both the individuals and society can enjoy the benefits of corporate social marketing outcomes.
- "The corporation helps remove major barriers to behavior change": By applying marketing mix strategies corporations should remove the barriers of behavior change.
- "The corporations combine corporate social marketing with other corporate social initiatives": The other five corporate social initiatives should be planned in the integration with corporate social marketing activities.

Optimal eight steps of corporate social marketing are defined as follows (Kotler and Lee, 2005);

- Conducting a situation analysis
- Selecting target audiences
- Setting behavior objectives (the desired behavior)
- Determining barriers and motivations to behavior change
- Developing the marketing mix
- Developing a plan for evaluation and monitoring
- Establishing budgets and find funding sources
- Completing an implementation plan
**Corporate philanthropy** refers to the direct donations or free services to a charity and can be evaluated as the most traditional one among other corporate social marketing initiatives (Kotler and Lee, 2008). Corporate philanthropy can be accepted as a main element located in the ties between corporation and society and in a study carried out in United States of America, it has been found that the 64 % of the participants declared that firms should use the corporate philanthropic behaviors as the standard and base behavior (Simon, 1995). Beside this a common practice of corporate philanthropy should be used by the businesses (Blagov and Petrova-Savchenko, 2012). Therefore, it should be noted that the benefits of corporate philanthropy must be measured well in order to allocate the appropriate resources to the philanthropic activities (Lim, 2010).

**Community volunteering** is asking and encouraging the corporate-related parties to involve in and work for the organizations of societies and parties can decide on which activity to participate (Kotler and Lee, 2005). Disaster relief has been the major activity evaluated within the framework of community volunteering.

**Socially Responsible Business Practices** consists of "corporation's discretionary business practices and investments that support social causes to improve community well-being and protect the environment and Socially responsible business practices are often publicized by the corporation, as they represent opportunities to showcase concrete actions the company is taking to contribute to communities and the environment, especially to regulatory and policy making audiences (Kotler and Lee, 2005)."

## 2.2.4. Corporate Social Responsibility Models

Corporate social responsibility have been a subject of debates for several years and based on these debates researchers have generated some models in order to understand the corporate social responsibility and these debates can be broadly divided into two groups as (1) corporations are basic entities and they just provide products and services just for profit (2) corporations are cosmopolite entities and they have a duty of sustaining well-being of society at all beyond the profit gaining (Quazi and Brien, 2000). Consequently, these debates have given the huge and

quality amounts of literature that provides numerous beliefs, models and theories. The common point of all these models is that corporations must do at least something for the well-being of society (Geva, 2008).

By looking up the intense body of corporate social responsibility literature, it can be inferred that, there are three main theories available and the others that are trying to define the corporate social responsibility. These three main theories are; the concentric circles of social responsibility, corporate social responsibility pyramid (Carroll, 1979), the intersecting circles of corporate social responsibility (Schwartz and Carroll, 2003).

Carroll (1979) suggests three dimensional level of measuring corporate performance and proposed corporate social responsibility model as the first dimension of corporate performance As stated in previous parts, in his study, he proposed a corporate social responsibility pyramid with four dimension; economic, legal, ethical and discretionary as stated in Figure 11 (Carroll, 1979);

Figure 11: Pyramid of Corporate Social Responsibility



Source: Carroll, 1979

Economic dimension of these four have been assessed as the fundamental one by Carroll and all the other three were to be built on the economic dimension. Carroll emphasizes that society demands the "economic and legal" dimensions, expects the "ethical" dimension and "desires" the discretionary dimension (Carroll, 1979). Since other responsibilities will depend on economic responsibilities, the survival of the enterprise and the availability and increase of resources depend on the realization of this responsibility (Branco and Rodrigues, 2007). Legal obligations are the second important dimension. In addition to taking a productive role in the economic system, businesses also fulfill their economic requirements by taking into account the laws and regulations in the environment in which they operate (Carroll, 1979). Ethical responsibility is to meet the expectations of societies that are not regulated by the laws in other words they can be accepted as non-written standards, norms, and indirectly earned values from society (Branco and Rodrigues, 2007). Respecting people and not harming nature and society is an example of these responsibilities (Jamali, 2008). Discretionary responsibility is the responsibility of the society that does not impose definitive assignments on businesses and is based solely on a voluntary basis (Carroll, 1979). When businesses take part in voluntary activities, society appreciates the businesses and feels high commitment to them (Rim et al., 2016). For example, managers can take into account social concerns of stakeholders and create social awareness by contributing to charitable organizations, developing non-pollution-related products, creating equal opportunities in working life, making donations, and assigning women to the boards (Fombrun and Shanley, 1990).

Besides that, Carroll's pyramid has been criticized by Carroll again and he proposes a model that every dimension should be regarded as equal and evaluated with holistic approach (Carroll, 2016). In contrary to this view, Visser (2006) suggests that every geographical part of the world can have different corporate social responsibility obligation order and gives an example of Africa where economic dimensions are followed by legal dimension (Visser, 2006).

Another model that illustrates the main principles of corporate social responsibility has been made by Lawrence, Weber and Post (2005). According to the study, corporate social responsibility is based on two principles; "Principles of Charity" and "Principle of Stewardship" (Lawrence et.al, 2005). Principle of Charity refers to the actions through which companies make voluntary contributions to the less fortunate members of society. In contrary, principle of stewardship refers to the situation in which companies must ensure that society benefits or does not suffer from their business decisions and actions. According to the principle of stewardship,

the managers of corporation are at the core point of the public trust (Lawrence et. al, 2005).

A two-dimensional model has been proposed by Quazi and O'Brien that mainly trade-off the benefits and costs of the social responsibility activities (Quazi and Brien, 2000). And finally three-dimensional model proposed by Schwartz and Carroll (2003) with some amendments on corporate social responsibility pyramids that they take the "philanthropic" dimensions and included in other three dimensions meant that voluntary activities should take place in all dimensions of corporate social responsibility activities (Schwartz and Carroll, 2003).

## 2.3. SOCIAL MARKETING AND CORPORATE SOCIAL RESPONSIBILITY ON COASTAL AREAS: LITERATURE SURVEY

It should be noted that Social Marketing and Corporate Social Responsibility (CSR) are different concepts but their definitions overlap in some aspects. While social marketing activities indicate that government has more responsibility, profit making businesses come into prominence in corporate social responsibility (Kestane, 2014). As a common point for social marketing and corporate social responsibility, it can be said that both serve for a well- designed society and a cleaner environment. Business firms use social marketing tools in their corporate social responsibility operations.

Social marketing aims to change human behaviors in favor of the coastal resources, while corporate social responsibility in a more micro-sense aims to create a more sustainable attitude for businesses in relation to the coastal area. Coastal resources ranging from ecosystems to recreational areas have direct pressure from the social and business activities. As stated in previous parts social marketing intends to change the humans' behaviors by using marketing principles. Basically if the behavior intended to be changed is related to the environment or more specifically to the coastal areas this can be regarded as a s social marketing efforts on coastal areas.

In the social marketing and corporate social responsibility literature, there are very limited numbers of research related with coastal areas. Therefore, the variables should be deducted from the related literature in order to be tested by the field study. In chapter three, the content analysis tables can be found for both discipline but here these variables are analyzed in details.

#### **2.3.1. Social Marketing Literature and Possible Variables**

As stated earlier social marketing aims to change the behaviors of the people in order to sustain the acceptability of the social ideas (Kotler and Zaltman, 1971). Public health can be regarded as the major concerns of social marketing discipline. Arli and his friends (2016) have created hypothesis on alcohol consumption and measured the alcohol dependent health problems according to the place of birth and nationality in order to formulate social marketing campaign against alcohol consumption (Arli et al., 2016). Besides alcohol consumption, the related literature has also been dealing with the success of antismoking campaigns (Parvanta et al., 2013). It should be stated that the organizations on the health discipline should formulate well designed social marketing campaigns and use commercial marketing tools in order to apply social marketing mix and assess the well-being of public health. Besides that, social marketing approach in health institutions should promote corporate reputation and building trust, effective communication with the parties, quality of services and effective use of resources (Bayin and Akbulut, 2012). Changing the eating habits and consumption reduction within the society has been another subject of social marketers and researchers who have been trying to apply mixed methods including using technological devices rather than basic traditional methods affecting individual's behaviors (Carins et al., 2016; Peattie and Peattie, 2009). To underline the importance of social marketing campaigns on public health, a social marketing campaign on HIV prevention has been evaluated in some studies (Sewak and Singh, 2017) and some of them have found out that success factors differ according to the education level of the women and majority of the respondents stated that the social marketing campaigns changed their behavior (Colarossi et al., 2016). Similarly, Fujihira and his friends evaluated the success of social marketing campaign and found out that, social marketing campaigns evolved the behavior of adults older than sixty years old to have more dynamic life(Fujihira et al., 2015). Very different study on public health has been conducted by Gertner and his friends to analyze the corporate social responsibility and social marketing campaigns together on the prevention of obesity. They have revealed that commercial organizations should change the tools of their social responsibility and social marketing campaigns and encourage the consumer to consume healthy foods rather than rather than offering price discounts and quantity reduction in menus (Gertner et al., 2016). A distinguished study has been conducted in public health and tried to clarify that social marketing campaigns should be subject to the volunteer engagement otherwise - if it is processed by the regulatory legal documents- it may be failed (Marshall, 2013). Another study has evaluated the success of ongoing social marketing campaigns aiming to increase the fruit and vegetable consumption and found out that campaigns should use the evidence-based practices to reach the target population (Tobey et al., 2016).

Besides above mentioned subjects, social marketing studies have been dealing with the wide range of dimensions related with the social life of the people. Environmentally friendly service production and consuming are the two main determinants of social marketing discipline and it directly focuses on increasing consumer's environmental familiarity (Çabuk and Nakıboğlu, 2003). In some aspects, social marketing affects social welfare, societal and individual well-being by changing the lifesyles and recreational attitudes of people (Bright, 2000) and welfare exchange contributes to the trust of consumers in the social marketing campaigns (Choi et al., 2007). Kennedy has proposed a social marketing model to alter and affect the environmental regulations and inferred that social marketing tools can be used to sustain environmentally friendly behaviors (Kennedy, 2010). In correlation with the environmentally friendly behavior concerns, ethical and moral considerations for the social marketing have also been analyzed by the marketing researchers. Social marketer's action requires more ethical jurisdiction than the commercial marketer since the social marketing activities can yield large scale social (Brenkert, 2002). Ethical and moral considerations of the social movements marketing activities have been analyzed (Choi et al., 2007) from the sustainability point of view by Carrigan and his friends. They have put forward that small and medium size organizations can affect the social behavior change campaigns and accelerate the process by reflecting ethical and socially responsible behavior (Carrigan et al., 2011). Besides ethical considerations, the social marketing campaign should also be financially evaluated and assessed as feasible to be implemented (Biroscak et al., 2015).

Numerous studies give some practical information on the formation of social marketing campaigns. For instance, it has been proved that using consumer oriented approach and applying social marketing mix will make the social marketing campaigns more and more effective (Lefebvre and Flora, 1988). Besides marketing mix, information technologies must be used in social marketing campaigns (Nagla, 2010) and social marketing can be used as a tool for social entrepreneurship (Singh et al., 2015).

The most relevant interdisciplinary study with the subject of dissertation was conducted in 2016 by the researchers from different disciplines. Domegan and her friends used the European Union social marketing campaign "Sea for Society" as an example to identify the barriers of change on the behaviors of people towards coastal and marine ecosystem. They worked together with the marine ecosystem service users and coastal residents and found out that with systematically formulated social marketing campaigns change can be observed in the behaviors of people. They mainly drew a framework on how to manage the change in behaviors during the social marketing campaigns, underlined the importance of legitimacy and offered a term "system-thinking social marketing" to be discussed by the marketing researchers (Domegan et al., 2016).

### 2.3.2. Corporate Social Responsibility Studies and Possible Variables

Corporate social responsibility mainly deals with the ethical, economic, legal and volunteer responsibilities of the corporations towards the society (Carroll, 1979). The related literature has been shaped according to these dimensions and additionally some other in-house concerns have also been a subject of the studies.

One of the three most relevant corporate social responsibility studies with the subject of dissertation was conducted in 2015 and it was about the port industry. Since the corporate social responsibility activities have become popular for the port industry, the port strategy and policies should be employed in organizational level

and environmental regulations have become more and more important for the port business (Acciaro, 2015). The second study was conducted in 2015 by Fatemi and his friends on the effects of valuation on the corporate social responsibility. A specific model has been established in order to value the corporation which has budget for the corporate social responsibility activities and it has found out that costs and expenditures for corporate social responsibility activities increase the value of the firm (Fatemi, Fooladi, and Tehranian, 2015). The third most important study for the dissertation was conducted in 2004 by Maignan and Ferrell on the relation of corporate social responsibility activities can be done by using social marketing researches and stakeholder identification is one of the important part of the communication with stakeholders (Maignan and Ferrell, 2004).

Becchetti and his friends have put forward that corporate social responsibility is directly related with the earnings of stakeholder and also found out that corporate social responsibility activities have impacts on the employee relation and environmental concerns and investment plans (Becchetti, Ciciretti, and Hasan, 2015). For instance, there is strong relationship between green information technology (IT) investments and corporate social responsibility activities that green IT investments has been found as a determinant of corporate social responsibility policies (Bohas and Poussing, 2016). In addition to this view, it has been found out that corporate social responsibility activities affect the organizational performance if they are performed during the process of service or product delivery (Mehralian, Nazari, Zarei, and Rasekh, 2016). In accordance with these view, corporate social responsibility activities should be provided together with the business value components by the leaders of the companies since these activities are the "integral strategic components of the company" (Mujtaba and Cavico, 2013). Besides leaders of the companies, employees should be voluntarily engaged in corporate social responsibility activities (Poschmann, Goldenstein, Händschke, and Walgenbach, 2015). It must be noted here that corporate social responsibility activities as strategic components of the company should be positive and related to extent of business impacts and also consider the shareholder's value (Park, Song, and Lee, 2017).

Some social trend topics such as gender discrimination have been the subjects of corporate social responsibility activities. It has been found out that legitimacy and awareness of corporate social responsibility activities are the two main factors of applying non-gender-related occupational health strategies (Celis, Güémez, Almeida and Balmaseda, 2017). Another trend topic for the discipline is the corporate social responsibility activities of tobacco industries. A study has been conducted in order to analyze the regional differences in corporate social responsibility differences of tobacco companies and it has been found out that companies in the United States are more willing to carry on corporate social responsibility activities on youth smoking prevention whereas the others are incorporating unrelated activities such as Red Cross, food banks and college scholarships (McDaniel, Cadman, and Malone, 2016).

As stated earlier, one of the main aims of this research is to clarify the social responsibility marketing variables. Figure 12 illustrates the relation between social marketing, corporate social responsibility and social responsibility marketing.





## Source: Created by the Author

According to Figure 12, Social responsibility marketing is an area of marketing discipline that cooperates behavior change together with social marketing

and corporate social responsibility by the support of legal, economic, philantrophic and ethical considerations.



## **CHAPTER THREE**

# SOCIAL VALUATION OF A COASTAL AREA IN IZMIR IN SCOPE OF SOCIAL RESPONSIBILITY MARKETING

Within the scope of the thesis, social value of coastal areas has been identified in monetary terms. Contingent valuation method has been used to explain this value with social marketing and corporate social responsibility variables. Logistic regression tests have been applied to the data provided by contingent valuation questionnaire and deductions have been made according to the significance levels of the variables over profile questions. Dimension reduction (Factor Analysis), independent sample t-Test, ANOVA test have been used in SPSS 23 software in order to make these inferences statistically correct and test the hypotheses. In short, this thesis has been structured in an empirical way in order to reach its aim as it will be explained in detail in the following parts.

#### **3.1. THE AIM AND SCOPE OF THE RESEARCH**

Earth is surrounded by coastal areas and therefore it can be called as a "coastal planet". 361 millions square km of water (71 % of total surface) and 149 millions square km of land area (29 % of total surface) comprises the earth and the coasts of the world locates in the intersection points of both with 1.6 millions km long (Burke et al., 2001). The number of ecological species ranged from plants to the small planktons is variable and invaluable for the human beings. Another importance of the coastal areas can be inferred from the population and settlements it encloses. The coastal areas cover about 20 % of the surface area of the earth, but it houses about 45 % of the world population and hosts 75 % of the mainland. On the other hand 4/5 of the countries on the world have an access to the coasts (Martinez et al., 2007)

The aim of the study is to assess a social value of the coastal areas in monetary terms within the scope of social responsibility marketing variables. These variables help to explain the social value of the coastal areas. Another aim of this study is to show whether the social value of the coastal area includes significant differences according to age, gender, level of income, and even whether having children or not. The variables of social responsibility marketing are deducted from the social marketing and corporate social responsibility concepts by content analysis on these fields and it is to be explained in the following parts of the thesis. It should be stated here that this research is partially descriptive and partially exploratory.

Both the literatures on contingent valuation and social responsibility marketing have been searched but no study in which both disciplines are evaluated together has been found. Therefore, another aim is to list the social responsibility marketing variables and it is another originality of this research to reveal these variables. As the variables of social responsibility marketing have not yet been revealed in the marketing literature, the two main areas, social marketing and corporate social responsibility, have been revealed. In addition to these, it is aimed to find out which of the explanatory variables of social responsibility marketing in coastal valuation are related to the social responsibility field or social marketing discipline.

A question may arise here; why has the researcher decided on analyzing social marketing and corporate social responsibility marketing variables to infer the social responsibility marketing? To answer this question the relationship between corporate social responsibility and marketing discipline should be analyzed. Corporate social responsibility caught marketing scholars' attention during the early 1960's and they have mainly pointed out the social responsibilities of marketing activities of the firm rather than corporate social responsibilities on social issues. These efforts of promoting corporate social responsibilities in marketing activities have emerged the concept of social marketing (Maignan and Ferrell, 2004). In short, the two fields have been historically tied and have common variables. Because of this proximity, possible variables of new concept "social responsibility marketing" have been searched in the literature of these two main related disciplines.

In this study, the social responsibility marketing variables will be tested in the context of the responsibilities of the businesses in the coastal areas. Therefore, these businesses responsibilities in scope of social responsibility marketing will be revealed in the eyes of coastal users. Explaining the calculated social value of the

coastal area with the social responsibility marketing variables is also important in terms of expressing the originality of the work.

The main purpose of study alongside all of above is to highlight the responsibilities of coastal businesses in terms of social responsibility marketing and to indicate whether the value given to the coastal areas has changed in the context of social responsibility marketing variables. The thesis also provides a contribution to the marketing science and defines the concept of social responsibility marketing.

## **3.2. METHODOLOGY OF THE RESEARCH**

As presented in Figure 9, the research has been designed in two parts. In the first phase of the research, contingent valuation method has been used. The scenario needed to implement this method has been developed and follow-up questions have been designed together with evaluation questions. These questions have been directed to the participant in the same questionnaire form together with the questions designed in the second part. Therefore the monetary value of the coastal area has been calculated. In the following sections the method of contingent valuation and the construct of the related parts of the questionnaire is going to be explained in detail.

In addition, the value of Inner Gulf of Izmir was expressed by contingent valuation method which is used in stated preferences approach to assess the use value of the natural public good. Here it should be noted that there are use and non-use values in environmental resources. Although it was discussed in previous chapters, a little discussion should be given here in order to refresh and clearly classify the coastal areas if it is located under the non-use value or use value heading. The term of non-use value reveals the value people derive from economic goods (private goods, public goods or natural resources) independent of any use whereas the use value can be described as which people may derive from direct use of the good. Krutilla (1967) has first stated the term of non-use values based on observations revealing the much of the local population on his region has put a value on any goods or national resources just for their existence even they do not use it directly. He also has stated that people take benefits of them through imaginary enjoyment of these areas and as a result, have a positive willingness to pay (WTP) for government to exercise good stewardship of the land (Carson, 2000). This means that people derive

benefit from environmental assets through reading about them, watching documentary series of them or participating the talks about them and carrying out scientific researches about them. The theory indicates that natural resources have positive values even they are not used directly in daily life or any of the time in the life.

In order to answer the question if coastal areas can be evaluated in non-use or use-value for-people, it is necessary to make a regional and individual assessment. In this case, if the coast is used directly by the residents or prospective residents in the region, and if the result of this use generates set of income then it is classified as use value. However, if a value is produced without using the coastal area in any way, here the non-use value is mentioned. For instance, even a person who lives in Izmir but has never gone to the coastal region generates an income from tourists who have arrived by cruise tours, it is called a non-use value and someone who feels inner peace by watching the sea view from a distance also experiences the non-use value. However, there is a use value if a person operates a café on the coastal area or a portmarina operator produces a value directly using the coastal resources.

In the second part of the research, social marketing and corporate social responsibility literature have been searched and the variables of social responsibility marketing have been revealed and these variables have been tested by binary logistics regression tests separately for coastal areas WTP and port facility WTP. The categorical variables deduced from social marketing and corporate social responsibility have been listed and asked to the participants in Likert's 5 Scale.

Thus, the responsibilities of the facilities located in coastal areas in terms of social responsibility marketing have been revealed. Tests such as dimension reduction (Factor Analysis), t-test, chi-square test, ANOVA test and Binary Logistics Regressions have been processed through SPSS 23 software in order to make inferences on social responsibility marketing aspects of coastal areas. Figure 13 illustrates the steps of the researches.



Figure 13: Parts and Steps of the Research

Source: Created by the Author

## 3.2.1. The Research on Valuation of Coastal Areas

As stated earlier, the research has two parts and the first part is on the social valuation of coastal areas. Within the framework of this part, the inner part of the İzmir Gulf has been valued by using one of stated preference methods; contingent valuation method. The contingent valuation method has already been explained in details within the scope of this chapter. In this chapter, the method itself has been explained in details and required steps done for the field study have been given.

The content validity, construct validity, expectations based validity and overall reliability of the findings are discussed in this section. Embedding effect which considered as a main validity concerns for contingent valuation method has also been discussed. Some comparisons and pilot study results have been presented in order to strengthen the findings.

The following paragraphs will clarify the contingent valuation method theoretically and conceptually and the required steps to carry out the contingent valuation study along with the workflow processed will be summarized. The sampling process and pilot study carried out in the field have been given in details. The findings of the field study will be given in Chapter Four. The related concepts, terms and methods used additionally are to be explained where necessary.

## **3.2.1.1.** Historical Backgrounds of Contingent Valuation

As stated earlier, the well-designed questionnaire is the only and approved way contingent valuation method to acquire people's willingness to pay or willingness to accept for the amendments It should be noted that the method has already promoted itself after its application for the affair related to maritime industry: Exxon Valdez. To look back to the historical developments of the contingent valuation method it can be analyzed systematically starting from 1940's. The method is rooted back to 1940's that scientists started to debate considering the people's preferences on valuation of non-market goods (Hoyos and Mariel, 2010).

A book Resource Conservation: Economics and Policy, by Ciriacy-Wantrup (1952) can be considered as a first book on environmental economics which proposed and supported using "direct interview methods" which can be considered as

the fundamentals of contingent valuation method. Nevertheless, economists like Friedman and Samuelson have interiorized that direct interview method could lead to irrational responses and has bias about the method. Davis (1963) implemented the first contingent valuation survey on value of recreation in Maine woods. Besides that, authors started to use contingent valuation method on health and transport economics to gather preferences of people over the common goods of public.

Moreover, the method was started to be used in more socially sensitive subjects as amendments in environmental sources, recreational usage of common lands, air quality and waste management (Hoyos and Mariel, 2010). The debatable literature of the contingent valuation method had first created by Cameron and James (1987).

In 1970's and 1980's the contingent valuation method became important in the United States especially for economic and social valuation. Meanwhile, a law -*Comprehensive Environmental Response, Compensation and Liability Act of 1980*had been accepted in order to indemnify the potential damages of the environmental resources. This law enabled victims to protect their rights on non-use values and litigation against suspect party (Portney, 1994) Exxon Valdez oil spill happened in Alaska on 24 March 1989 and according to the above mentioned Law, the state of Alaska litigated the company for the indemnity of non-use values. The court empowered a council to calculate the loss of non-use values and the indemnity amount. Contingent valuation method was chosen as an assessment method by the council. In addition, Exxon and distinguished oil companies had been sponsored an array of anti-contingent valuation method activities and conferences that examine the validity of the method (Hausman, 1993). Authors against the contingent valuation method considered the internal consistency problem but did not offer something to solve it (Hausman and Diamond, 1994).

On the other hand, Blue Ribbon Panel of the National Oceanic and Atmospheric Administration (NOAA) co-organized a conference and overhauled all aspects of contingent valuation. After the conference the committee created a checklist for contingent valuation surveys to increase reliability and announced that: "*CV studies can produce estimates reliable enough to be the starting point for a judicial or administrative determination of natural resource damages including lost* 

*passive-use value*" (Hoyos and Mariel, 2010). All of these debates and especially the checklist issued by NOAA made enormous contribution to the academic and administrative adherence of contingent valuation method.

#### **3.2.1.2. Economic Theory of Contingent Valuation Method**

Contingent valuation (CV) method is based on the concept of welfare economics in general since surveys consolidate a monetary value of welfare associated with a specific change in an environmental asset (Hoyos and Mariel, 2010).

The well-designed questionnaire is the only and approved way for contingent valuation method to acquire people's willingness to pay or willingness to accept for the amendments on environmental good. Besides that, contingent valuation data collection instrument is able to measure and assess the willingness to pay value which is also the measure of welfare related with the amendment of an environmental good (Hoyos and Mariel, 2010; Mitchell and Carson, 2005). From this perspective contingent valuation method is also the subject of welfare economics field.

As stated in previous parts, the contingent valuation method gathers people's willingness to pay or willingness to accept towards an amenity on environmental goods quality via data collection instruments. All of these data are supposed to be probabilistic according to the economic model that tries to explain willingness to pay distribution and to increase the utility (Carson and Hanemann, 2005). But they are random. The distribution function of willingness to pay mainly depends on the question format of the contingent valuation method (Hoyos and Mariel, 2010). The open-ended format is the common question format and then the cumulative distribution function ( $G_c$ ) of willingness to pay is;

## $\Pr(WTP = A) = G_c(A)$

Where; WTP is willingness to pay, A is the amount that the respondents stated and  $G_c$  is the cumulative distribution function.

## 3.2.1.3. Willingness to Pay and Willingness to Accept

"Monetary payment" and "monetary compensation" are the fundamental tools that researchers practice in order to measure the benefits and losses of changes that occurred in the environmental goods and these tools are implemented by asking willingness to pay (WTP) and willingness to accept (WTA) questions to the participants (Bargmann and Tremml, 2007). As discussed earlier, contingent valuation method is based on questions that respondents answer by stating willingness to pay or willingness to accept on hypothetical changes in some public goods (Maharana et. al, 2000; Hailu et. al, 2000, Noonan, 2003). From environmental amenities to public policy and welfare analysis main concerns of the contingent valuation researches range a variety of fields and approximately for three decades researchers have been applying this method over the public goods (Cao, Ren, and Du, 2010) and the main problems in all of these applications have been focused on the debate regarding which approach should be used in contingent valuation method; willingness to pay or willingness to accept? (Hanneman, 1991).

The main difference between "willingness to pay" and "willingness to accept" is that "willingness to pay" asks the people to pay for a change in environmental good and "willingness to accept" asks compensation amount to give up using environmental good or service. Defining an impressive willingness to pay question is somehow a difficult task. It is necessary that the "willingness to pay" question should be well structured, there should be no expressions that can cause prejudice, and the researcher should not divert a participant to the specific amount especially in open ended questions (Hoyos and Mariel, 2010). Generally willingness to pay values usually exceed willingness to accept values (Carson, et al. 1998). It should be underlined here that, normally same study must give the same result regardless of the usage of willingness to pay or willingness to accept but willingness to accept studies usually give greater value than the willingness to pay studies (Vatn and Bromley, 1994).

## **3.2.1.4. Data Collection Instrument**

In the questionnaire of the study, the participants have been asked to answer significant questions. These questions are classified according to their qualifications and each section is numbered differently. A1, A2, ..., B1, etc. have been used for sub-questions of each section where the letters A to F have been used in naming the six sections. Forming the questionnaire form took around five months; on January 9<sup>th</sup> 2017 through June 5<sup>th</sup> 2017.

Section A and section C is directly about the valuation of coastal areas and the section B is formed in order to get the participants' insights on the scenario and assess the participants' relation to the coastal areas by asking their frequency of the visits to the specific coastal areas and familiarity of some related terms.

It should be noted here, the flow of questions on the questionnaire form and typical follow-up questions have been adapted from the research survey dealing with the environmental valuation of Isahaya Bay Wetland in Japan carried out by The Nagasaki University and the Kyushu Kyoritsu University (Ahmed and Gotoh, 2006)

### 3.2.1.4.1. Contingent Valuation Method Scenario

As stated above, the very first section of the contingent valuation questionnaire form has contained the hypothetical scenario created to state the amendments of the common public goods. This scenario can be named as the core of the questionnaire and is supposed to provide unclouded knowledge on the amendments to be valued (Hoyos and Mariel, 2010) and the tradeoff that the respondent is asked to make should be a reasonable one (Carson, 2000). Enough and appropriate amounts of information must be transferred to the respondent. Valuation questions and scenarios should make the respondents feel that his/her participation in the survey will have an influence on the authorized body's decision on the subject he/she stated the opinion about (Carson, 2000). Contingent valuation survey should present well-designed hypothetical scenario to the respondents that offer amendments on quality and quantity of the public good or services. After that, the willingness to pay questions are asked to infer the stated social value of the common good. Therefore the related questions and hypothetical scenario have been prepared punctiliously in this research.

Creating a beneficial contingent valuation questionnaire scenario requires comprehensive workflow (Mitchell and Carson, 2005). Focus groups and face-toface in-depth interviews to control appropriateness after creating the scenario, pilot studies, pretests, simplifying technical terms for the public to understand constitute only a few of these difficult tasks (Carson, 2000), and all of these tasks aim to redesign the questionnaire in order to make the respondent understand it easily.

In this dissertation, it has been concluded to select a coastal area within the province of Izmir while preparing the scenario of the contingent valuation questionnaire. This coastal area has to be visited or used by the majority of the population, and at the same time it has to be occupied in the daily life of the majority of the population according to the literature mentioned above. After eliminating some alternatives, the inner Gulf of İzmir has been selected as a public good to be altered and presented to the participants to be valued since it has the highest population density of İzmir and has about 30% of the population of İzmir (App. 4 millions). Besides, the inner bay is very rich in terms of transportation possibilities and everyday more than 800,000 people move within this area or pass transit using the stated region. The contribution of the coastal area of the inner bay to the city's social life and urban economy is enormous.

What is to be done after choosing the appropriate coastal area is to provide a hypothetical change that will allow participants to value this area. Creating an efficient contingent valuation scenario and underlying the change of the public good means writing a short and well-designed story about the problem or situation that is the main concern of the study, and then offering distinctive alternatives for the respondent (Whittington, 2002) and let the respondent accept or reject these alternatives – willingness to pay or not-.

In this research, the researcher have chosen to built a theme park located in any part of the Inner Gulf of Izmir. This theme park is to be a well-designed recreation facility in the coastal area where approximately 800,000 people transit daily and 1.2 million people live as local residents. Therefore, the scenario has been designed in four parts as follows;

- i. The current situation and importance of specified coastal area,
- ii. The information on the new theme park,
- iii. The problems that would be encountered during the establishment of the recreational theme park,
- iv. The benefits that the local residents and the coastal areas would gain economically and socially.

The draft of the first part of the scenario that gives the current situation of the selected coastal area has been as follows with the satellite photo of Inner Gulf of Izmir; *İzmir Gulf is a place which has been hosted by various civilizations for centuries.* Considering the natural, economic and historical values it possesses, it is positioned as one of the most important sea areas of Turkey. The total sea surface area of the Gulf is 960 km<sup>2</sup> and the coastline length is 464 km. İzmir Gulf is evaluated in two parts as outer and inner bay. The inner bay, which is shown in the map below and extends from Sasalı to Bayraklı, has the highest population density of İzmir and has about 30% of the population of 4 million. Besides, the inner bay is very rich in terms of transportation possibilities and everyday more than 800,000 people move within this area or pass transit using the stated region. The contribution of the coastal area of the inner bay to the city's social life and urban economy is enormous. In addition, İzmir Gulf is the only water route that can be passed by the vessels calling Izmir Alsancak port.

The draft of the second part of the scenario that gives the information on the new theme park has been as follows; *this questionnaire, which is being presented to you, contains a scenario that does not actually exist. According to this scenario, decision-makers are planning a recreational and play-based project on the coastal area in the inner bay. In the scope of the project in the scenario, the coastal area will be surrounded by game parks, eating and drinking places, recreational areas and berths for tour boats. Therefore the attraction center will be established. This theme park is going to be the third largest theme park in Europe and it will be free under six year-old children. The theme park budget is built up by the mixed structure that contains local municipality and central government.* 

The draft of the third part of the scenario that gives information about the problems that would be encountered during the establishment of recreational theme park has been as follows; according to the scenario, during the project; -if necessary- riprap works will be carried out, there may be interventions that could affect the ecological balance on the coastal area, there can be interruptions in public transport in mandatory situations and commercial activities on the coast and daily life may be negatively affected. In addition to these, a number of operations that negatively affect the quality of drinking water and the quality of the air can be realized. One of the public services which the project will affect mostly is sea transport.

The draft of the fourth part of the scenario that gives information on the benefits that the local residents and the coastal areas would gain economically and socially has been as follows; *However, after the completion of the project it is expected that new employment opportunities will be create, and also the area which is appointed for recreational and leisure activities on the coast will be expanded. It is also expected that the growth of the İzmir economy, the increase in the gross domestic product of the region, and the creation of a touristic attraction center."* 

The language and the technical specifications of the scenario has been simplified for the respondents to be understood easily according to the Carson's (2000) suggestions. In addition to this, in different parts of the questionnaire form participants have been informed four times about the fact that such a scenario does not actually exist.

After simplification processes, the first part of the scenario that gives information about the current situation of the selected coastal area has been formed as follows; "*İzmir Gulf is a place which has been hosted by various civilizations for centuries. Considering the natural, economic and historical values it possesses, it is positioned as one of the most important sea areas of Turkey. The total sea surface area of the Gulf is 960 km<sup>2</sup> and the coastline length is 464 km. <i>İzmir Gulf is evaluated in two parts as outer and inner bay. The inner bay, which is shown in the map below extends from Sasali to Bayrakli*"

After simplification processes, the second part of the scenario that gives information on the new theme park has been given as follows; "*This questionnaire, which is being presented to you, contains a scenario that does not actually exist.* According to this scenario, decision-makers are planning a recreational and play-

based project on the coastal area in the inner bay. In the scope of the project in the **scenario**, the coastal area will be surrounded by theme parks, eating and drinking places, recreational areas and berths for tour boats. Therefore the attraction center will be established."

After simplification processes, the third part of the scenario that gives information about the problems that would be encountered during the establishment of recreational theme park has been stated as follows; "According to the scenario, during the project; -if necessary- riprap works will be carried out, there may be interventions that could affect the ecological balance on the coastal area, there can be interruptions in public transport in mandatory situations and commercial activities on the coast and daily life may be negatively affected." In order to assess the value given to the port itself and port services, which is one of the aims of the dissertation, the expressions stating that the port services would be adversely affected during the construction stage of the theme park have been added to this part of the scenario as follows; "One of the public services which the project will affect mostly is sea transport. Land-based freight traffic on the port may be affected while the project is under way, port operations may be interrupted from time to time and there may be a decrease in the number of vessels calling the port."

After simplification processes, the fourth part of the scenario that gives information on the benefits that the local residents and the coastal areas would gain economically and socially has been expressed as follows; "... However, after the completion of the project it is expected that new employment opportunities will be created and also the area which is appointed for recreational and leisure activities on the coast will be expanded."

# 3.2.1.4.2. Determining Elicitation Format, Payment Vehicle and Valuation Questions

The literature of contingent valuation offers different kinds of elicitation formats which can be regarded as the key elements of contingent valuation scenario and make it rational and comprehensive. The reliability and validity of the contingent valuation method depends on the elicitation format chosen. Mitchell and Carson (2005) have offered different elicitation formats as; open-ended question, the bidding game, the payment card, and the "take it or leave" approach. The open-ended format includes a direct question to the participants to state their maximum willingness to pay. The other elicitation format "take it or leave" which the participants are asked if their true willingness to pay value is higher or lower than the amount presented by the researcher (Mitchell and Carson, 2005).

In order to increase the productivity of the willingness to pay questions the bidding game format has been used. In the bidding game format, the respondents are consecutively asked to state their maximum WTP: "would you be willing to pay X for this item?". If the answer is yes, a new question with a higher value is asked, and if the answer is no, a new question with a lower value is asked. In spike model, prior to the elicitation question, individuals are asked if they would pay anything (Hanemann and Kanninen, 1999). A payment card format works while a questionnaire form is running on the field that the card lists the possible willingness to pay amount is shown to the participants and leads them to choose one of it for their maximum WTP (Hoyos and Mariel, 2010).

To sum up the elicitation formats; bidding game asks a sequence of questions until the maximum is found and it can suffer from starting point bias. Payment card includes range of possible values and can be encountered by starting point bias again. Open-ended question reflects the maximum willingness to pay without any directives and starting point bias. Wonderful application of the questionnaire is needed to get maximum benefit.

In this research, the "willingness to pay" has been chosen to be asked to the participants in order to get the direct answers since there has been a change in the environmental good subjected to the hypothetical scenario presented in the questionnaire form. This willingness to pay question has been asked in open ended elicitation format and during the implementation of the questionnaire no diverting manner has been treated by the researcher. The willingness to pay question has been recorded.

The questionnaire of contingent valuation should also employ payment vehicle to obtain willingness to pay or willingness to accept a monetary value for securing an environmental outcome (Cummings et al. 1986) and it directly acts upon the reaction of participants to the willingness to pay questions (Mitchell and Carson, 2005). The payment vehicle should be chosen appropriates to the sample by means of culture, social life and laws in order not to increase the prejudice over the valuation questions and not to lead to protest values (Mitchell and Carson, 2005). Payment vehicle should be fair and appropriate with the environmental good and should also be acceptable in the given cultural structure.

Coercive payment vehicles and voluntary payment vehicles are the main types of the payment vehicles on contingent valuation method. Taxes, governmental trust funds, entry charges, water, electricity and utility bills are the coercive payment vehicles whereas donations and gifts are the voluntary ones. (Garrod and Willis, 1999).

There are three rational conditions in choosing the appropriate payment vehicles. These are,

(1) The suitability of the payment to the elicitation of use and/or non-use values;

(2) The credibility of the payment vehicle;

(3) The acceptability of the payment vehicle (Green and Tunstall, 1999).

Compulsory payments, such as taxes and entry fees, can cause people to repress and quantify psychologically irrational amounts. Therefore, donation is a method used by many studies.

The section C is the most important section of the questionnaire and is directly related with the valuation part of the contingent valuation method. The Willingness to Pay (WTP) questions have been asked in this section and it needs to be explained in details. First of all, a short description has been given on the reason why the amount of money is demanded from the participants as follows:

"According to the scenario, a fund will be created to reduce the negative effects of the project. This fund can be contributed voluntarily. This fund will be used as a resource in; taking measures to protect the ecological balance, struggles to reduce traffic and parking problems, practices aimed at protecting and increasing existing employment, creation of alternative social recreation areas and taking measures to ensure that the port is least affected during and after the project. In this research, the payment vehicle in the contingent valuation questionnaire has been designed as a donation to the fund established to remove the possible negative environmental effects that would arise during the construction of the hypothetical coastal rehabilitation project. After reading the short description given above, the participant has been asked "According to this; how many Turkish Liras (TL) would you donate to this fund for only once?" to state the amount of the money they would donate or state the unwillingness (refusing) to pay. In this research, the open-ended and bidding game elicitation formats have been used together. At first sight the core valuation question is typical open-ended question but after stating amount or refusing, the second question has been asked to the participants. The Second willingness to pay question for "Yes" respondents has been that if they would accept to pay an additional 10% amount of donation they have written to the previous question to be used only in taking measures to reduce the project's impacts on port operations. This question aimed to clarify and assess the social value of the port.

The second question asked to the "No" respondents is a typical bidding game question aimed to convince the participants to pay specific amount -95 Turkish Liras (TL)- as "*would you donate to this fund 95 TL for only once*". It is also a typical willingness to accept question. After all, the third chance to the "No" respondents have been given as an option in the follow-up question that they can specify another willingness to pay amount if 95 TL is much more for their income. This question aims to give participants an idea about the normal value (range) of the willingness to pay amount so that it prevents protest bids and starting point bias.

This mixed structure of elicitation format aims;

- i. To overcome the disadvantages of open-ended questions,
- ii. To assess the social value of the port apart from the coastal area,
- iii. To divert the ones who are unwilling to pay by offering a specific amount,
- iv. To make them feel free even offering a second open-ended willingness to pay question at the end of the valuation section.

The important point in stating the WTP amount has been that the participant should have considered their income. They have been warned in text as *"Please"* 

*consider your budget*" at the latter end of the WTP question so respondents have been made aware of their personal budget constraints.

The responses that participants have given to the valuation questions have created a huge dataset for the measurement of aggregate value of the coastal area in monetary terms, value per square meters and per meters.

## 3.2.1.4.3. Follow-Up Questions

Follow-up questions are strongly advised by the researchers especially for the studies that use the binary contingent valuation. Kartman and his friends have proved with their studies that willingness to pay question with follow-up questions give meaningful results (Kartman, Stålhammar, and Johannesson, 1997). Follow-up questions ask the participants about their motivation on refusing or accepting the willingness to pay questions and they have been asked to get more insights (Green, Jacowitz, Kahneman, and McFadden, 1998). NOAA panel on contingent valuation method has strongly advised to ask the reason for willingness or refusing the pay (Arrow et al. 1993). The aim of follow-up questions is to assess the reasons for responses to the willingness to pay questions and should be well established and varied (Curtis, 2001).

In some willingness to accept cases follow-up questions propose the respondents if they are willing to accept lower or upper amounts. In this case participants may feel that he/she is the "bargaining" situation and it directly effects the value results (Kang, Haab, and Interis, 2013). Beside this, some follow-up questions are included in the surveys of contingent valuation studies in order to evaluate the protest responses which are given as zero willingness to pay or outstanding values of willingness to pay regardless of the income of the respondents (Jorgensen and Syme, 2000). In addition to these formats, follow-up questions are asked to take any senses about the valuation preferences of the participants such as behavior patterns at high willingness to pay responses (Parsons and Myers, 2016).

## 3.2.1.4.3.1. Follow-Up Questions before the Valuation Questions

In sub-section B1, the participant has first been asked about the relationship with the coast. In this context, the participant has been asked whether he or she lives on the coast or not, was working on the coast or not, his/her frequency of visiting/using the coastal area. In other words, the aim and frequency of the coastal use have been asked and the participants have been offered the opportunity to mark more than one option.

Before the willingness to pay questions sub-section B2 and B3, two more follow up questions had been asked to the participants. These questions are adapted from Ahmed and Gotoh, (2006). In this research, authors investigate the cost-benefit analysis of some rehabilitation projects by using contingent valuation method.

In sub-section B2, some terminological concepts have been given to the participants and asked them to mark according to the awareness degree. In this context, "*Coast Line, Coastal Area, Port, Shipyard, Ecology, Social Value and Sustainable Development*" terms have been given to the participants and the awareness degrees have been collected.

In sub-section B3, the question "In the light of the information given to you, which of the following possible effects / expectations do you expect from this project?" has been asked. The participants have been offered fifteen options ranged from several possible positive effects to negative ones and have a chance to mark more than one option and to write down their own ideas in the "other" option.

## 3.2.1.4.3.2. Follow-Up Questions by Valuation Questions

As stated earlier, in this research set of four follow-up questions has been asked to the participants. Two of them were asked in Section B and these question are given above. The two of these follow up questions are asked after the willingness to pay questions in Section C and to understand the reasons for willingness to pay and willingness not to pay. In these questions, some alternatives have been presented to the participants and the other option have also been presented as well in order to get the accurate reason for the willingness to pay or willingness not to pay. After asking the core "valuation" Yes-No question, the questions that reflects the "contingent" nature of the method has been revealed. Two more different questions have been asked for the "yes" and "no" respondents. Both the "yes" and "no" respondents have to express their reason for willingness or refusing to pay. Different options have been given in two different questions and writing down openended ideas in the "other" option was available for both groups.

### 3.2.1.4.3.3. Follow-Up Questions after the Valuation Questions

The section D is another important section of the questionnaire. This section includes three subsections. In the first subsection D1, if the participant were the director of the project it was questioned which of the statements would be the advice to the project owners prior to the others. The statements offer that (*i*). *Project should be planned with the least impact on the port (ii)*. The project should be conducted without interrupting urban traffic. (*iii*). The damage to the environment by the project should be minimized. (*iv*). The project should be completed as soon as possible. In another subsection D2, participants have been asked to mark the three most important of the eight possible effects expected from the project. These effects are listed as follows; noise pollution, marine pollution, ecological damage, scenic view of the city, infrastructural effect, traffic effect, psychological effect historical / cultural effect.

The sub-section D3 is about the social responsibility marketing and will be given in detail on the related part of the dissertation. The other section is section E which involves profile questions of the participants. In addition to classic profile questions such as age, gender, income and occupation, the participants have been asked to state the number of children, whether they have been voluntarily worked in a non-governmental organization that is established for the benefit of the environment, or whether they have given financial support for such a charity. Section F is the last open-ended section which enables the participants to state their suggestions.

## 3.2.1.4.4. Validity of Data Collection Instrument

Reliability and validity are substantial factors to test the correctness of contingent valuation responses (Freeman, 1993; Arrow et al. 1993). Mitchell and Carson (2005) argue in their study that some types of validities should be tested in order to deal with several biases on contingent valuation method. However they point out that not all validity types are equally important and no significant test is enough to prove the validity. These tests include, content validity, criterion validity, construct validity and convergent validity (Mitchell and Carson, 2005). Criterion validity can be measured if only the good valued is bought and sold in actual market since it is based on comparison of stated willingness to pay and actual willingness to pay. Therefore the criterion validity has not been assumed in this research.

The other literature on validity of contingent valuation method is by Pearce and Özdemiroglu (2002) where the scholars have listed the validity types as content validity and construct validity. Construct validity constitutes two other validity types and these are convergent validity and expectations-based validity (Pearce and Özdemiroglu, 2002). All of these validity types have been tested for this research and it will be given in details below. Figure 14 shows the type of validities on contingent valuation method.





Source: Pearce and Özdemiroglu, 2002.

## 3.2.1.4.4.1. Content Validity on Valuation Questions

This type of validity directly depends on the clearness of the scenario, logical and intelligent questions that do not create prejudices, and enable the participant to answer thoughtfully and truly (Pearce and Özdemiroglu, 2002). Providing the information accurately and enough to the participants is another key variable of the content validity and "*the first step toward achieving a valid contingent valuation measure - if validity is achievable at all - is to develop a high quality scenario*" (Bishop and Romano, 1998).

"As pointed out earlier, a useful tool to check for the accuracy of estimates is the use of focus groups, pre-tests or pilot surveys, aimed to obtain indications about the clearness, unambiguity, plausibility, meaningfulness, and completeness of the CVM scenario. Therefore, the assessment of content validity is largely subjective, but despite that, it is a necessary condition for verifying the criterion and construct validity of the CVM results" (Bishop and Romano, 1998). As noted earlier, criterion validity could not be assumed for this research since it depends on the comparison of willingness to pay values of spatial studies. The other components of the content validity is sampling that it should be assessed from the correct target population and adequately sampled (Pearce and Özdemiroglu, 2002).

Content validity should enable the participants to give thoughtful answers to the willingness to pay questions. Therefore, choosing appropriate elicitation format and payment vehicle are the two main components of the content validity. (Pearce and Özdemiroglu, 2002). In this research, the environmental good to be valued is coastal area and there have been no similar carried out research on the same coastal area before; so, no benchmark is possible. Because of these stated reasons, the elicitation format has been chosen as an open-ended question that there is no starting point's value to apply for other elicitation formats. Similarly, the payment vehicle has been chosen as a donation since bill payments and taxes have negative and obligatory appearances in participants mind. This negative perception could have yielded to negative bias so that the volunteer-based approach has been adapted. From the point of sampling, it can be seen that the target population and the sample size have been chosen according to the accepted and proven literature and theories specifically for contingent valuation method.

## 3.2.1.4.4.2. Construct Validity

Construct validity is another type of validity that can be measured in contingent valuation method. This type of validity mainly compares the results' suitability with the results of the other methods offered by the related literature (Mitchell and Carson, 2005) where possible (Pearce and Özdemiroglu, 2002). In this research, this type of comparison can be considered as impossible since the construct validity literature of contingent valuation underlines that the comparable researches should be done on the same good.

As a sub heading of construct validity, convergent validity requires that different valuation method results on the same good would give the same willingness to pay results (Aktera, Brouwerb, Chowdhuryc, and Azizd, 2007). Methods like hedonic pricing and travel cost method should be applied to the coastal area of the Inner-gulf of İzmir in order to calculate the convergent validity and therefore construct validity of the research. Consequently, construct validity and convergent validity measurement tools are not possible to implement for the framework and history of this research.

Expectation-based testing is the most commonly used sub-type of validity under the construct validity in researches using contingent valuation method and have some tools and considerations such as scope insensitivity, respondent's income and embedding (Pearce and Özdemiroglu, 2002). These tools are derived from the economic theory of contingent valuation and applicable via observations and basic statistical calculations.

Expectations-based validity of contingent valuation method is first concerned by Kahneman and Knetsch (1992) to underline the embedding validity concept they explained that the the valued environmental good should reflect the same characteristics or not be the part of broader area (Kahneman and Knetsch, 1992). Kahneman and Knetsch argue that such effects pose a major threat to the validity of Contingent Valuation studies; a conclusion supported by a number of other contingent valuation researchers (Desvousges, et al., 1993; Diamond et al., 1993 and Hausman and Diamond, 1994).

According to the expectations based validity, as respondent's income increases the willingness to pay increases as shown in Table 12. In this research, the basic regression test shows that willingness to pay increases by the increasing of the respondent's income.

Table 12: Linear Regression Between Monthly Income and Willingness to Pay Values

Model	В	Std. Error	Sig.	R	R Square
(Constant)	-79,694	82,666	,050	,120	,014
Monthly Income (TL)	,059	,030			

Source: Created By the Author Based on SPSS 23 outputs

According to Table 12, the regression relationship between willingness to pay and monthly income is positive and significant those, 1 unit (1 TL) increase in the current income increases the willingness to pay 0.059 units (0,059 TL). In consequence, this variable of construct validity is approved in this research.

Furthermore, the NOAA panel declared that embedding effect is the most important tool regarding the reliability of the method (Arrow *et al.*, 1993). As Pearce and Özdemiroğlu (2002) stated "*embedding (also known as nesting), which occurs when WTP does not vary between two alternative 'offers', one of which contains a quantity of a good that is also included in the second offer which has another good as well. The first quantity is said to be embedded in the second bundle of goods.*" To sum up, the public good should be described in details containing its quantity and quality and even if it includes any other important facility or area that can affect the willingness to pay preferences (Loomis, Lockwood, and DeLacy, 1993). In other words, if there are so many resources over the area subjected to the scenario, the ability of these resources to increase the value of that region must be known (Hoehn, 1991).

From the embedding effect side, in the research, the first good asked to be valued was coastal area and the second bundle of good is "port" so it could create an embedding effect. To overcome the possible embedding effect, instead of asking a second willingness to pay question about the port, this questionnaire includes a second statement addressing the port to be answered by "Yes" respondents to the first willingness to pay question. This statement asks if they would accept to pay an additional 10% amount of donation they have written to willingness to pay question to be used only in taking measures to reduce the project's impacts on port operations. By asking this second question the possible embedding effect is suppressed and people are urged to state their willingness to pay or unwillingness to pay towards port operations. Here "No" respondents have been eliminated since they are not willing to pay in any case and "port" has no embedding effects on their willingness to pay already.

Scope insensitivity is desired to be tested as a result of the scenario. It takes place if only in the situation that WTP has no change with regard to the quantity of the good offered to be valued (Pearce and Özdemiroglu, 2002). There is no specific size of coastal area for valuation in the questionnaire of this research. Therefore, it is assumed that the willingness to pay will not depend on the size of the coastal area, and then the scope insensitivity of this research is not subject to be calculated.

## 3.2.1.4.5. Reliability of Contingent Valuation Questions

Although the hypothetical scenario has been well designed and pre-tested, it is accepted by the literature that reliability of the contingent valuation questions mainly depends on how the scenario is understood by the participant (Desvousges, et al, 1993). Roddewig and Frey (2006) claims that following actions can be carried out in order to measure the reliability of the contingent valuation method: "*i*) *comparison of the prices actually paid in an entire fully informed market place to the prices predicted for that marketplace by contingent valuation surveys done before the market became fully informed, ii*) *comparison of the prices actually set or paid for individual properties by fully informed survey participants, iii*) comparison of the *prices actually set or paid by other sellers or buyers who can be determined to have possessed the same (or more) information at the date of sale or purchase as the survey participants and therefore to have been as fully informed as survey*  *participants.*" It is clear that, these actions offered above are mainly applicable to the real estate market since they depend on the comparison of prices.

The reliability measurement of the coastal area valuation research is also very important. As stated in the first Chapter, one of the suggestions that Roddewig and Frey (2006) underlines to measure the reliability of contingent valuation studies is "… comparison of the prices actually set or paid by other sellers or buyers who can be determined to have possessed the same (or more) information at the date of sale or purchase as the survey participants and therefore to have been as fully informed as survey participants (Roddewig and Frey, 2006)." Therefore, it is clear that, the action offered above is mainly applicable to the real estate market since they depend on the comparison of prices.

Nevertheless, in this research, coastal area is to be valued and it has no market. Though the coastal area cannot be traded in real estate market, the value of the coastal area per square meter can be compared to the square meters of the neighboring areas. Although the calculated value is a social value, making this comparison is very important and compulsory to calculate the reliability of the study as the literature of the method has offered.

After taking the willingness to pay responses, the total value assigned to the natural good will be measured. In order to calculate the aggregate value, respondent's choices are to be generalized to the population (Loomis, 1987). The monthly mean WTP should be converted into an annual figure to estimate the annual flow of benefits but in this dissertation the value is obtained from the participants as donation for one time and aggregate social value of the coastal area has been calculated. Aggregation of the willingness to pay results have been the subject of ongoing debates in the contingent valuation literature but the main frame of calculating aggregate value is given by Hanley and his friends (1997). According to them, there are two requirements to meet in order to calculate aggregation of willingness to pay value. First of all, the population must be relevant and this relevance should be decided according to the two criteria; i) the common benefits of public should be affected by the change on natural goods and ii) the population should live in the same administrative geographical location (Hanley, Shogren, and White, 1997). After the first one is satisfied, secondly the mean value of the sample's
willingness to pay can be multiplied by the population of the region and then the aggregate value is calculated. In this step, the income level and education level of the participant are very important and should reflect the same characteristics with the population (Hanley et al., 1997).

The two requirements mentioned above have been met for this dissertation. So the following equation and formula which illustrates the steps to reach the aggregate social value of Gulf of Izmir can be used;

$$f(WTP) = \frac{\sum nv}{\sum n} \times P$$

in which; "WTP" is willingness to pay, "n" is the number of participants, "v" is the per capita social value accepted by the participants, and "P" is the population of İzmir. The per capita social value of the coastal area has been found 34.10 Turkish Liras as a result of the research. This value does not represent the value of any specific area, but the value of any area large enough to involve theme park stated in the scenario on the gulf of Izmir. Here, if the values are written to the equation 145,936,985 is found as a social value of the any area in the inner gulf of İzmir coasts.

In order to be able to assess the reliability of the research, it is necessary to compare 145.936.985 Turkish Liras -aggregate value of the selected coastal areawhich is the value that occurs when the per capita willingness to pay value is multiplied with the İzmir population- with the market prices in the coastal area of inner Gulf of İzmir.

In the scenario section, the size of the amusement park laid out is not specified hence the resulting social value has not been unitized. In order to unitize the value, the areas of similar parks established in coastal areas around the world have been examined. First of all, Kültürpark has been located in 420.000 m<sup>2</sup> area (KTB, 2019) which is the nearest theme park to the expressed one in scenario. Second, Bursa Reşat Oyal Kültürpark has some similar characteristics with the theme park offered in the research. This park has been located in 400.000 m<sup>2</sup> area (Bursa Metropolitan Municipality, 2019). Third, Gardaland is another theme park located in the north-eastern Italy coastal area and covers an area of 445.000 m<sup>2</sup> (European Best

Destinations, 2019). The fourth and the last, Shenzhen Happy Valley theme park occupies an area of 350,000 square meters (China Highlights, 2019).

As discussed above, approximate 400,000 m<sup>2</sup> is evaluated as an appropriate area for the proposed theme park. Therefore, the social value of one square meter is;

$$\frac{145,936,985\,\mathrm{TL}}{400,000\,m^2} = \sim 365\,\mathrm{TL}$$

365 TL has been found as the social value of one square meter for 400.000 m<sup>2</sup> theme park in coastal area. To make comparison of the prices actually set for individual properties (Roddewig and Frey, 2006), an investigation has been made on Turkey's most extensive web site on real estate. This investigation has been carried out in Konak, Karşıyaka, Bayraklı, Balçova, Narlıdere, Güzelbahçe and partially in Karabağlar region which are located in the inner gulf of Izmir. 647 land areas for sale have been listed in these regions and the price per square meter has been calculated as 2052 TL.

$$\frac{\sum price \ per \ m2}{\sum number \ of \ land \ for \ sale} = \frac{1,327,893 \ TL}{647} = 2,052 \ TL$$

The average price of 2,052 TL is fairly low when comparing 365 TL- the social value of one square meter-. Although this low level means that people put less value to the coastal area, the average price will rise if the park area is lowered. According to the results, the value will be equalized if the park project area is approximately 71,120 m<sup>2</sup>. In other words, people agree to build a theme park located in maximum 71,120 m<sup>2</sup> area.

$$\frac{145,936,985 \text{ TL}}{Desired \text{ park area}} = 2,052 \text{ TL} \rightarrow Desired \text{ park area} = \frac{145,936,985 \text{ TL}}{2,052 \text{ TL}} = 71,120m2$$

Another reliability measurement technique is described by Aktera et al., (2007). Testing the reliability of contingent valuation method mainly grounded on explanatory competency of the variables on explaining the regression model that

willingness to pay responses are regarded reliable if the variables deducted from the literature can explain the preponderance of willingness to pay responses. These kinds of reliability tests are applied to the variables and willingness to pay responses in findings session under the logistics regression heading. The reliability issue will also be discussed at that part of the dissertation.

## 3.2.1.5. Sampling and Pilot Study

The target population is all the individuals to whom the results of the survey are to be estimated (Dong, 2013). Direct use and non-use values are the determinants of the target population since it is the sum of these two groups. Geographically, direct use values are tied to the local residents and potential visitors whereas the other population of the city can be regarded as non-use value holders (Bateman et al.2002.) The members of the target population have equal opportunity to be the sample of the contingent valuation questionnaire (Carson, 2000).

Sample of the research should be selected attentively and considerations should enable that it represents the overall population of the region (Lee and Kang, 2016).

The target population is İzmir's overall population in the research. In the research, the sample is stratified to reflect the socio-demographic characteristics of the target population. To follow advices by NOAA Panel in 1993, the questionnaire has been administered by researcher himself to a representative sample of the target population. The respondents have been selected by stratified random sampling (proportional to the population of the İzmir metropolitan district) based on the parameters of the population characteristics (sex, age, education, location) derived from national census statistics. This proportional stratification helps to reduce the potential sampling error and increases the likelihood of generating a representative sample of the target population. Table 13 gives general information about the probability sampling types for contingent valuation method.

Table 13:	Types of	Probability	Sampling	for Contingent	Valuation Method
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Form of sampling	Method	Advantages
Simple random	Each member of the sample has the same possibility to be selected	Simple
Systematic	Select every <i>k</i> th element from a randomly ordered population frame.	Simple
Stratified	Sample is selected from distinct sub populations. Each distinct sub population's rate over the population is calculated to establish the overall sample.	Conclusions can be aggregated for each of the sub populations group.
Clustered –Multi Stage	Population is divided into 'clusters' but only a random sample of the clusters is selected.	Appropriate for the surveys with large populations.

Source: Pearce and Özdemiroglu, 2002.

In determining the size of the sample, the formula stated by Vaughan and Darling (2000) has been used. The optimum sample size formula is based on the amount of acceptable tolerable error in the mean willingness to pay as follows;

$$N = (z_{\sigma/2}, \sigma)/E$$

Where;

N; desired sample size

z; 95 % confidence interval statistics. 1,96 at 5 % significance level, two-sided.

 $\sigma$ : Standard deviation of income of the target population

E: Acceptable error percentage of willingness to pay and accounted over the average household income of the target population.

The variables in the formula have been collected from various sources. The standard deviation of income or the target population has been taken from the academic article by Filiztekin and Çelik (2010) which is assumed by the year of 2003 and for the Aegean Region as 4,147 TL (Filiztekin and Celik, 2010). The average household income of İzmir is 19,689 TL (www.tuik.gov.tr).

The acceptable error in this research has been kept between the 1,42 % and 2,42 %. Therefore the sample size is located in the specific interval. If the formula is run for 1,40 % error;

$$N = \left(\frac{(1.96x4,147)}{19,689x0.0140}\right)^2 = -869$$

And for 2,40% error;

$$N = \left(\frac{(1.96x4,147)}{19,689x0.0242}\right)^2 = -295$$

As a consequence, the sample size should have been between 295 and 869. In order to reach the appropriate sample size, 1,250 people have been reached and 567 of them have accepted to respond to the questionnaire. 567 respondents means that this study predicts the willingness to pay with 1.7 % acceptable error in 95 % confidence interval as seen in the following calculation;

$$567 = \left(\frac{(1.96x4,147)}{19,689xE}\right)^2 \to E \sim 0.017$$

## **3.2.1.5.1.** Determining the Sample and Research Area

As stated earlier the respondents have been selected by stratified random sampling (proportional to the population of the İzmir metropolitan district) based on the parameters of the population characteristics (sex, age, education, location) derived from national census statistics. This proportional stratification helps to reduce the potential sampling error and increases the likelihood of generating a representative sample of the target population.

In the research, first of all, İzmir has been divided into three region as;

i. districts located and close to the Inner Gulf of İzmir,

- ii. districts located and far away from the Inner Gulf of İzmir
- iii. district that is not located in the Inner Gulf of İzmir.

Table 14 shows these districts with their population, share of them on the İzmir population and the number of samples to be taken from each province after proportioning. When the population of these three groups is proportioned to the population of İzmir, the number of samples to be taken from each province is revealed. The maximum sample size at 1.42 % acceptable errors at willingness to pay in 95 % confidence interval was 845 and this sample size has been distributed according to their share on population of İzmir.

The districts located and close to the Inner Gulf of İzmir include, Konak, Karşıyaka, Bayraklı, Balçova, Narlıdere, Güzelbahçe and partially Karabağlar which constitutes 29,91 % of İzmir population. The districts located and far away from the Inner Gulf of İzmir include Çiğli, Buca, Bornova and partially Karabağlar which constitutes 35.57 % of İzmir. The other towns conclude the third group that is not located in the Inner Gulf of İzmir and represents 34.52 % of İzmir population. Table 14 shows the proportioned sample sizes from each of the towns classified.

## **Table 14:** Districts, Populations and Sample Sizes

Name of Group	Name of Districts	Population	Share	Sample Size
	Konak	363,181	8.49%	73
ii.	Karşıyaka	342,062	7.99%	68
1 Sea	Bayraklı	314,402	7.35%	63
G he UP	Balçova	78,442	1.83%	16
to t ner	Narlıdere	66,269	1.55%	13
G. G. J. J. J. J. J. J. J. J. J. J. J. J. J.	Güzelbahçe	31,429	0.73%	6
CIG	Karabağlar (Partial)	84,138	1.97%	17
	Total	1,279,923	29.91%	256
	Çiğli	190,607	4.45%	38
P 2 ay 1 Sult	Buca	492,252	11.50%	98
O O Sea	Karabağlar (Partial)	396,652	9.27%	79
<b>3R</b> ar <i>i</i> nno	Bornova	442,839	10.35%	89
	Total	1,522,350	35.57%	304
	Torbalı	172,359	4.03%	34
	Menemen	170,090	3.97%	34
	Gaziemir	136,373	3.18%	27
	Ödemiş	132,241	3.09%	26
	Kemalpaşa	105,506	2.47%	21
	Bergama	102,961	2.41%	21
	Aliağa	94,070	2.20%	19
ll <sup>*</sup>	Menderes	89,777	2.10%	18
Ū	Tire	83,829	1.96%	17
JP 3	Urla	64,895	1.52%	13
0 Lin	Kiraz	43,859	1.02%	9
GR	Dikili	41,697	0.97%	8
ji.	Çeşme	41,278	0.96%	8
Not	Seferihisar	40,785	0.95%	8
	Bayındır	40,258	0.94%	8
	Selçuk	35,991	0.84%	7
	Foça	31,061	0.73%	6
	Kınık	28,271	0.66%	6
	Beydağ	12,391	0.29%	2
	Karaburun	9,812	0.23%	2
	Total	1,477,404	34.52%	295
İZN	AİR TOTAL	4,279,677	100.00%	855
]	FARGET SAMPLE (GR	OUP 1 + GROUP 2	2)	560

Sources: Compiled by the author from the data provided by TUİK Note:\* has been omitted In Table 14, the third group of towns – Not in the İnner Gulf of İzmir- has been omitted since they are located out of the inner gulf of İzmir border. The rest two districts constitute the 560 sample sizes that can predict the willingness to pay with 1.7 % acceptable error in 95 % confidence interval as given in previous part.

Figure 15 shows the districts of Izmir. The red districts show "Far Away districts to the Sea in Inner Gulf", blue districts show the "Close to the Sea in Inner Gulf". The blue points in Karabağlar district show partial engagement to the "Close to the Sea in Inner Gulf" sample of group. The other point that has to be highlighted is that Çiğli is taken as far away districts to the sea in inner gulf despite it has coastline since there is no access to the coastal area in Çiğli. Most of the coastal area consists of wetlands and agricultural fields.



Figure 15: Geographical Distribution of Districts of İzmir Subject to the Sampling

Source: Compilled from Google Earth Pro

## 3.2.1.5.2. Pilot Study

As Bishop and Romano's research advises, the pilot surveys have been carried out on contingent valuation method and willingness to pay questions. As stated earlier, some simplifications have been handled on scenario, willingness to pay and follow-up questions (Bishop and Romano, 1998).

Before the pilot study, face-to-face and mail interviews have been carried out with a group of experts consisting of academicians and officers on related governmental bodies. The aim of these interviews is to simplify the scenario and wording of the questionnaire while asking the right questions to the right sample and the details of these interviews are stated in Table 15.

Name of Expert	Universities / Bodies and Departments	Date	Communication
Prof. Dr. Yalçin ARISOY	DEÜ Civil Engineering	22.06.2017	Face to Face
Prof. Dr. Ebru ÇUBUKÇU	DEÜ City and Regional Planning.	20.06.2017	Face to Face
Prof. Dr. Durmuş Ali DEVECİ	DEÜ Maritime Business Administration	17.06.2017	Face to Face
Prof. Dr. Okan TUNA	DEÜ Logistics Management	16.06.2017	Face to Face
Assoc. Prof. Dr. Gül Denktaş ŞAKAR	DEÜ Logistics Management	17.06.2017	Face to Face
Assoc. Prof. Dr İ. Güray YONTAR	DEÜ Public Administration	21.06.2017	Face to Face
	Ministry of Transport		
Hıdır İlyas KARABIYIK	Maritime Affairs and	02.06.2017	E-Mail
	Communications		

 Table 15: Interviews with several Experts on Questionnaire

Source: Created by the Author

Table 15 shows the name and duty of the experts and also the type of interviews and dates as well. The Contingent Valuation questionnaire has been tested by pilot study and reformed according to the results. Particularly, elicitation and payment methods have been reselected after the pilot study application. The first pilot study has been carried out by 34 respondents on the sample from the rural area of the city. The urban cafes and small markets have been chosen, profiles set low to make the scenario understandable. After applying 30 questionnaire the mean willingness to pay on the coastal area has been found 28.65 TL and the general

understanding level of the scenario is acceptable level. Some results are given in Table 16.

Variable / Question	No. of Respondents / Average	No. of Respondents	Share (%)
	Men	19	55.9
Gender (n=34)	Women	15	44.1
	Retired	6	17.6
	Officer	4	11.7
Occurrentian al Distribution (n. 24)	Farmer	6	17.6
Occupational Distribution (n=34)	Unworked	7	20.5
	Housewife	7	20.5
	Other	4	11.7
	Primary and Elementary School	12	35.2
Educational Distribution $(n-24)$	High School	10	29.4
Educational Distribution (n=34)	Vocational School	4	11.7
	Bachelor Degree	8	23.5
Willingness to $Pay(n-24)$	Yes	12	35.2
winnighess to Pay (II=34)	No	22	64.8
Conder of Supportors (n-12)	Men	5	41.7
Gender of Supporters (II=12)	Women	7	58.3
	For the next generation	2	16.6
D CHEIP D	For new employment opportunities	3	25
Reason of Willingness to Pay $(n-12)$	To Preserve the port	4	33.3
(11-12)	To Preserve the ecological balance	2	16.6
	To be Minimally affected in daily life	4	33.3
	Not interest me at all.	3	13.6
<b>Decomposition</b> $(n-22)$	I cannot afford	6	27.2
Reason of Opposition (n=22)	To preserve the port	5	22.7
	Other (Municipality must do it )	8	36.4
Understanding the scenario $(n-24)$	Yes	30	88.2
Understanding the scenario (II-34)	No	4	21.8
In favor of the scenario $(n-24)$	Yes	24	70.6
In favor of the scenario (II=54)	No	10	29.4
Yearly Income (TL) (n=34)	1,633	TL	
Mean WTP (TL) (n=34)	28.65	TL	
Age in Years (n=34)	48		

Table 16: Summary of the Results from Pilot Study of the Willingness to Pay Questions

Source: Created by the Author

According to the results seen in Table 16, 55.9 % of the participants are male and 44.1 % are female and the average age is 48. The average annual income of the group is 19,600 TL. While the 35 % of the sample is primary and secondary school graduate, it has 65 % high school and upper education.

While 35.2 % of the sample is willing to pay any amount, 64.8 % has rejected to pay. 58.3 % of the group who are willing to pay is female. 33.3 % of the

respondents who explained their willingness to pay indicate that they are willing to pay because they pay attention to the port and 25 % indicate that they accept to pay for the creation of new employment opportunities. 22.7 % of the group who deny payment indicate that they are against the project because they foresee the damage to the port operations and therefore they would not pay. Another 36.4 % of the rejecting group state that the cost to be offset by the project should be paid by the municipality even though they have not been offered such an option in questionnaire form.

## 3.2.2. The Research on Social Responsibility Marketing of Coastal Areas

The second part of the research consists of social responsibility marketing aspects of the coastal areas. Within the framework of this part, the literature has been reviewed for the social marketing and corporate social responsibility disciplines in order to deduce the variables to include in the data collection instrument. Content analysis and frequency analysis have been carried out in order to infer the variables from the related literature.

The main aim of this part of the research is to measure the social responsibility marketing aspects of coastal areas and state the variables that coastal facilities have the responsibility on changing value of the coastal areas. To hand on these aims, hypothetical tests, Anova tests, T-Tests, logistics regression tests, dimension reduction (Factor analysis) have been processed over the data. The following paragraphs will explain all the mentioned methods conceptually and required steps to apply these methods and summarize the workflow processed by the author. The findings of these studies will be given in Chapter Four. The related concepts, terms and methods that are used additionally are to be explained where necessary.

## 3.2.2.1. Content Analysis and Data Collection Instrument

It has already been mentioned that the research consists of two different parts connected with each other. One of these is the valuation-related part explained in detail on the previous parts. The second part of the research is about determining the social responsibility marketing variables and measuring the perception these variables for the facilities in the coastal areas. The second part of the research also consists of testing some hypothesis directly related with the willingness to pay questions included in the first part of the research. These hypotheses are stated as a major hypothesis of the research and they are to be tested in this section.

At the first step, the variables from social marketing and corporate social responsibility fields have been deduced by content analysis in order to clarify social responsibility marketing variables to be tested in the questionnaire form.

The majority of research in the social sciences depends on the careful reading of the written materials and content analysis which is carried out on these materials should be objective, systematic and general (Holsti, 1969). Content analysis is analysis and test method (Smith, 1975) that emerged in the US at the beginning of the century in order to analyze the impact of media tools such as newspapers and radio (Bilgin, 2014). Content analysis is the method of counting the previously determined concepts in a specific tool subject to the research and the purposes of using these concepts are not questioned in the content analysis method (Fiske, 1996). It is basically a technique in which qualitative data is converted into quantitative terms and it is the sum of effective means to summarize, compare, standardize, compare, or translate existing data (Smith, 1975).

Content analysis is the process of summarizing the basic content of the written information at hand and the messages it contains (Krippendorf, 1984). This method which is frequently used in the field of social sciences can be defined as a systematic technique in which some words of texts such as books, book chapters, historical documents, letters, newspaper headings and texts are summarized with smaller content categories (Simon and Burstein, 1985). For the content analysis, first of all the resources to be applied should be determined and collected. After the collection of the sources, the determination of the units subject to content analysis is carried out (Neuman, 2010).

The stages of a content analysis include (Weber, 1988):

- To determine the text in which content analysis will be made,
- To determine the research questions, the hypothesis or the objectives,

- To determine the sample,
- To determine the category and the coding method,
- To conduct the content analysis and the interpret the results.

Yıldırım and Şimşek also define the stages of content analysis as follows (Yıldırım and Şimşek, 2008);

- Coding of the data,
- Finding the categories,
- Arranging codes and categories,
- Interpreting the findings.

In this research, to interfere the related variables of the proposed term "social responsibility marketing", the content analysis on "social marketing" and "corporate social responsibility" literature has been carried out. After reading the related and selected articles of the fields, the variables have been deducted for both disciplines. In order to get social responsibility marketing variables; social marketing and corporate social responsibility variables are cross tabulated and a total of 39 variables have been selected among 53 total variables. The 13 of the selected variables are from the corporate social responsibility discipline and the 26 of them are deduced from the social marketing literature.

After cross tabulation, selected variables have been turned into statements in the very last part of the Section D. In this section, thirty nine variables of social marketing and corporate social responsibility marketing have been listed and participants have been asked "whether the responsibilities of the coastal facilities in terms of mentioned variables were important in increasing the value of our coasts". The scale ranged from 1 to 5 where 1 is absolutely agree and 5 is absolutely disagree. This section is going to be given in detail in the following paragraphs.

## **3.2.2.1.1.** Content Analysis for Social Marketing

As seen in Table 17, 35 articles in the field of social marketing have been reviewed and 27 variables defined. The frequencies of these variables are stated in Table 16. According to Table 18, "Attitude / Behavior Change" has the most frequency that 26 articles have mentioned it. This is not an unusual situation that the

main aim of the social marketing is to assess an attitude or behavior change of the people. "Public Health" and "Influence People Behavior" are another variables 22 times mentioned in the related articles. "Social Change" and "Socially Beneficial" are mentioned in articles 16 and 15 times respectively. While "Well-Being (Welfare) of People /Community" has been mentioned 14 times, "Individually Beneficial", "Promotion" and "Environmentally Friendly Service Production" were mentioned 12 times in articles. "Ethical Considerations / Moral Considerations" and "Exchange of Resources (Welfare Exchange)" have been mentioned 11 and 10 times respectively.

Variables that have least frequencies in the articles are "Environmentally Significant Behavior", "Creating Common Public Area", "Socio-Economic Concerns" and "Influencing Policy Makers". These variables have been mentioned 3 times each but it does not mean that these are the least important variables for social marketing fields. After cross-referencing the corporate social responsibility variables with the social marketing variables the matching numbers will give the importance of each variable.

Social Marketing variables deduced from the related literature are grouped into eight sub-headings. These sub-headings are; "Public Health", "Attitude and Behavior Change", "Thoughts and Decision Change", "Economic and Social Benefits", "Marketing Orientation", "Ethics", "Environmental Sensitivity" And "Communication". Table 18 shows these groups of variables and their names.

Variables under the headings of public health are; "Preservation of Public Health", "HIV (AIDS) Prevention", "Bans on Smoking in Public / Antismoking Interventions" And "Quality of Life".

Variables that make up the attitude and behavior change heading are; "Attitude / Behavior Change", "Influence People's Behavior" and "Awareness Development".

Thoughts and decision change variables are; "Influencing Policy Makers", "Change of Ideas", "Socio-Economic Concerns", "Social Change", "Change of Lifestyles", "Exchange of Resources (Welfare Exchange)" and "Social Value Creation". Economic and social benefits variables are; "Well-Being (Welfare) of People /Community", "Socially Beneficial", "Individually Beneficial" and "Creating Common Public Area".

Marketing orientation group of variables consist of; "Consumer Orientation" and "Promotion". Environmental sensitivity variables contain; "Environmentally Friendly Service Production", "Reducing Energy Consumption" and "Environmentally Significant Behavior".

Ethics as an independent group of variable includes; "Ethical Considerations / Moral Considerations" and "Incentive to be Involved in Social Marketing Campaign". Finally, communication heading consists of; "Public Relation" and "Effective Communication" variables. All groups and dedicated variables for each groups can be seen in Table 19.

## Source: Created by the Author

quality of life														x					х						х				x							4
bans on smoking in public / antismoking interventions						х		x				x							х		х	x	x	x	х			х					x	х		6
Preservation of Public Health	х	х	х		х	х	х	х			х				х	х			х		х		х		х		х	х			х	х	х	х	х	22
Public Relations				х						х				x	х		x					x	х								х			х		9
noinovər¶ (ZUIA) VIH						х	х	x								х																x	x		x	7
Creating common Public Area																									х	х								х		3
consumer orientation		x			х						х								х							х				х	х					7
Individual Benefit					х		х	х					х	х		х					х					х		х		х			x		х	12
Social benefit		X		Х	Х	х	х	Х	Х	Х		Х		Х		Х				х					х	х							x			15
Environmentally Significant Behavior							х						х		х																					3
Reducing Energy Consumption				х				х			х		х																							4
Promotion		х			х				х		х			х		х			х		х						х					х		х	х	12
госпичея		х											х	х													х			х					х	6
anəmqoləvəb ssənərswA		x								х	х																					х			x	5
Social Change	х		х	х		х			х					х		х		х	х	х			х			х		х	х		х			х		16
Change of Lifestyles	х	х				x			х		x								x				x			x										~
Change of Ideas		х	х	х							х					х							х									х				7
Social Value Creation				x		x								x		х				х			x			x										7
well-being (Welfare) of people /community				х	х	x		х		х	х				х	х					х			x		x				х	x			х		14
Exchange) of resources (Welfare Exchange)		x				x				х	х										х					x	x	х		х					x	10
Environmental concerns / factors / environmentally friendly service production	x	x					x	x			x					х		х					x					x	х				x	х		12
stresonos simonose-oiso2		x									x																									2
Effective Communication												х				х			х						х			x								5
Influencing policy makers							х																	х					х							3
Influence People's Behavior			х	х	х	х	х	х	х			х	х	х		х			х	х	х	х	х	х		х					х	х	х	х		22
Attitude / Behavior Change		х	х	х	х	х		х	х	х	х	х		х		х		х	х	х	х		х	х	х	х	х	х	х	х				х	х	26
Ethical / moral considerations				x		x	х	x	х	x					x		х		х		x													x		11
VARIABLES																																				
SOCIAL MARKETING LITERATURE VARIABLES REFERENCES STUDIES	Vallack (1984)	cefebvre and Flora (1988)	Aalafarina and Loken (1993)	undreasen (1994)	sright (2000)	trenkert (2002)	Andreasen (2002)	Zabuk and Nakiboğlu (2002)	urtoglu (2007)	Choi, Eldomiaty and Kim (2007)	eattie and Peattie (2009)	Valsh, et. al. (2009)	cennedy (2010)	bann (2010)	)zkaya (2010)	Jagla (2010)	lastings, Angus and Bryant (2011)	arrigan, Moraes and Leek (2011)	tayın ve Akbulut (2012)	undreasen (2012)	4arshall (2013)	arvanta, et al. (2013)	cestane (2014)	tucker, Brinol and Petty (2015)	i, Newcombe and Walton (2015)	ingh, Saini and Majumdar (2015)	ujihira, Kubacki, and Ronto (2015)	dgar, Huhman and Miller (2015)	biroscak et al (2015)	lee (2016)	bertner, Araujo, Bahia and Bouzas	Colarossi, et. al (2016)	Carins, Rundle-Thiele, Fidock (2016)	jordon, Bennett, Lefebvre (2016)	ewak and Singh (2017)	FREQUENCY VALUE/35

## Table 17: Studies on Social Marketing and Variables

No	Most Frequently Mentioned Variables	Frequency
1	Attitude / Behavior Change	26
2	Influence People Behavior	22
3	Social Change	16
4	Socially Beneficial	15
5	Well-Being (Welfare) of People /Community	14
6	Individually Beneficial	12
7	Promotion	12
8	Environmentally Friendly Service Production	12
9	Ethical Considerations / Moral Considerations	11
10	Exchange of Resources (Welfare Exchange)	10

Table 18: Most Frequently Mentioned Variables in Social Marketing Literature

Source: Created by Author

Table 19: Group of Social Marketing Variables

Group Name	Variables
Public Health	Prevention of Public Health
	HIV (AIDS) Prevention
	Bans on Smoking in Public / Antismoking Interventions
	Quality of Life
Attitude and Behavior	Attitude / Behavior Change
Change	Influence People's Behavior
	Awareness Development
Idea and Decision	Influencing Policy Makers
Change	Change of Ideas
	Socio-Economic Concerns
	Social Change
	Change of Lifestyles
	Exchange of Resources (Welfare Exchange)
	Social Value Creation
Economic and Social	Well-Being (Welfare) of People /Community
Benefits	Socially Beneficial
	Individually Beneficial
	Creating Common Public Area
Marketing Orientation	Consumer Orientation, Promotion
Ethics	Ethical Considerations / Moral Considerations
	Incentives to be Involved in Social Marketing Campaign
Environmental	Environmentally Friendly Service Production
Sensitivity	Reducing Energy Consumption
	Environmentally Significant Behavior
Communication	Public Relation, Effective Communication

Source: Created by Author

## 3.2.2.1.2. Content Analysis for CSR

Corporate social responsibility studies are mostly in multidisciplinary characteristics and are available in a wide range of different fields from phycology to marketing. 30 corporate social responsibility studies have been analyzed and 26 variables have been deduced from the literature. These studies and variables are listed in Table 20.

As seen in Table 20, the sources from which 26 variables have been deduced . These sources have been listed historically. At the end of the table the total frequencies of the variable is written. Least frequency number does not mean that the variable is less important.

Corporate Social Responsibility variables deduced from the related literature are grouped into six sub-headings. These sub-headings are; "Public Health", "Benefits", "Welfare and Satisfaction", "Communication", "Legitimacy and Ethics" and "Socially Responsible Organizations". Table 21 shows these groups of variables and their names.

Variables under the headings of "Public Health" are; "Preservation of Public Health", "Safety", "Emissions" And "Integration of Social and Environmental Concern". Variables that make up the "Benefits" heading are; "Relational Benefits", "Inter-organizational Benefits" and "Social/Community Benefits".

"Welfare and Satisfaction" variables are; "Community Satisfaction", "Investors Well-Being", "Welfare of Employees", "Investment Value" and "Financial Success", "Communication" variables are; "Community Relation", "Public Relation" and "Use of Communication Channels".

"Legitimacy and Ethics" group of variables consist of; "Public Trust", "Ethical Concern", "Legitimacy", "Public Value" and "Public Image and Corporate Reputation". "Socially Responsible Organizations" variables contain; "Pressure to act Socially Responsible Manner", "Organizational Responsibility", "Awareness Development", "Socially Responsible Investments", "Voluntary Engagement" and " Consumer Attitude and Behavioral Responses"

The frequencies of each variables are stated in Table 22. According to Table 22, "Protection of Environment" has the most frequency mentioned in 23 articles. "Ethical Concerns" and "Public Image and Corporate Reputation" are other variables

16 times mentioned in the related articles. "Voluntary Engagement" and "Community Well Being" are mentioned in articles 13 and 12 times respectively. While "Legitimacy" has been mentioned 10 times, "Consumer Attitude and Behavioral Responses", "Use of Communication Channels" are stated 9 and 8 times respectively. "Socially Responsible Investments", "Financial Success", "Welfare of Employees" and "Social / Community Benefits" are mentioned 7 times in articles.

Variables that have least frequencies in the articles are "Relational Benefits", "Inter-Organizational Aspects", "Public Trust" and "Safety". All of these variables are mentioned 2 times. "Pressure to Act Socially Responsible Manner" and "Emissions" are mentioned 3 times. The variables which are mentioned 4 times are "Investors Well-Being", "Organizational Responsibility" and "Public Relations". After cross-referencing the corporate social responsibility variables with the social marketing variables the matching numbers will give the importance of each variable.

# Table 20: Studies on Corporate Social Responsibility and Variables

|                                              |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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Ariza and Sanckez (2016)xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx | hallan, Nazari, Zarei and Raseh         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         < | Instant Possige (2016)         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x | energe Gosekt and Jong (2016)         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x <th< td=""><td>n. Bartlet and McDonald (2016)         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         x         <th< td=""><td>in Wu, Chen and Fang (2016)         in Xu, Chen and Fang (2016)         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         in Xu         i</td><td>n. 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(2006)IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII</td><td>jundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundjundju</td><td>signed bread(20)         i         i         i         i         i         i         i         i         i         i         i         i         i     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Source: Created by the Author

Group Name	Variables
Public Health	- Prevention of Public Health
	- Safety
	- Emissions
	- Protection of Environment
Benefits	- Relational Benefits
	- Inter-organizational Benefits
	- Social/Community Benefits
Welfare and	-Community Satisfaction
Satisfaction	-Investors Well-Being
	-Welfare of Employees
	- Investment Value
	-Financial Success
Communication	-Community Relation
	-Public Relation
	-Use of Communication Channels
Legitimacy and Ethics	-Public Trust
	-Ethical Concern
	-Legitimacy
	-Public Value
	-Public Image and Corporate Reputation
Socially Responsible	-Pressure to act Socially Responsible Manner
Organizations	-Organizational Responsibility
	-Awareness Development
	-Socially Responsible Investments
	-Voluntary Engagement
	-Consumer Attitude and Behavioral Responses

Table 21: Group of Corporate Social Responsibility Variables

**Source:** Created by the Author

Table 22: Most Frequently Mentioned Variables in Corporate Social Responsibility

Literature

No	Most Frequently Mentioned Variables	Frequency
1	Protection of Environment	23
2	Ethical Concerns	16
3	Public Image (Corporate Reputation)	16
4	Voluntary Engagement	13
5	Community Well Being	12
6	Legitimacy	10
7	Consumer Attitude and Behavioral Responses	9
8	Use of Communication Channels	8
9	Socially Responsible Investment	7
10	Financial Success	7
11	Welfare of Employees	7
12	Social / Community Benefits	7

Source: Created by the Author

## **3.2.2.1.3.** Cross Tabulation of Variables

In order to get social responsibility marketing variables; social marketing and corporate social responsibility variables are cross tabulated in Table 23. In the cross-tabulation, social marketing variables explained by each social responsibility marketing variables are indicated. For instance, "Voluntary Engagement" variable of corporate social responsibility explains the "Awareness Development" variable of social marketing. Some social marketing variables are explained by more than one corporate social responsibility variables. For example, the variable of "Common Public Area" has been explained by ten corporate social responsibility variables ranging from "Community's Well Being" to "Legitimacy".

To determine the cross tabulation of all variables, conceptual bindings and the relational degree in the source of the variables are considered. For example, the variable of "Public Health" has been mentioned twenty-one times in social marketing literature. In cross tabulation, it is explained by six different variables of corporate social responsibility. These six variables are, "Reducing Energy Consumption", "Environmentally Significant Behavior", "Socially Beneficial", "HIV Prevention", "Quality of Life" and "Public Health" itself. These six variables have been determined by scanning twenty-one articles identified as the sources of the "Public Health". These scans have been made on the main subject, purpose and key words of the source article.

After a long process of identifying each variable, Table 23 has been created as cross table of all variables expressed in social marketing and corporate social responsibility literature. By having a short look at Table 23, "Community's Welfare", "Community Benefits" and "Public Value" are the corporate social responsibility variables which explain much more social marketing variables. Whereas "Community's Welfare" and "Community Benefits" are explaining ten variables of social marketing, "Public Value" is explaining eleven variables.

## Table 23: Cross Tabulation of Variables

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Source: Created by the Author

According to Table 23, social marketing variables of "Social Benefit", "Bans on Smoking in Public", "Quality of Life" are the most explained ones by corporate social responsibility variables. Accordingly, "Preservation of Public Health", "Creating Common Public Area", "Consumer orientation", "Individual Benefit" and "Environmentally Significant Behavior" are equally explained. Variables such as "Public Relations", "Reducing Energy Consumption", "Social Change" and "Promotion" are following the previous ones. It should be noted that being explained by more variables does not mean that variable is more important. Here, this analysis shows the relativity of the variables from two different disciplines of social marketing and corporate social responsibility. For instance, the social marketing variable of "Ethical / Moral Considerations" are explained by just one variable of corporate social responsibility marketing variables but ethical considerations can be accepted as most important topic of the subject.

This analysis has been carried out to verify and crosscheck the consistency of the concepts of social marketing and corporate social responsibility in order to reach the social responsibility marketing variables. Results of this cross tabulation analysis have been used to characterize the statements of the questionnaire settled to clarify the social responsibility marketing aspects of coastal areas.

As a consequence, thirteen variables have been chosen out of corporate social responsibility variables and twenty six variables have been chosen from the social marketing variables in order to be involved in the questionnaire form. Table 24 illustrates the variables chosen from both disciplines

Table 24: Selected Variables from Both Disciplines

CORPORATE SOCIAL	SOCIAL MARKETING
RESPONSIBILITY	
SOCIAL RESPONSIBILITY MARKETING	
1. Social Responsibility	1. Incentives to the Social
2. Public Trust	Responsibility
3. Welfare of Employees	2. Safety
4. Legitimacy	3. Moral
5. Protection of Environment	4. Encouraging Environmentally
6. Public Image	Significant Behavior
7. Community Satisfaction	5. Influencing People's Behavior
8. Value of Investment	6. Influencing Policy Makers
9. Investors Well-Being	7. Effective Communication
10. Voluntary Engagement	8. Responding Socio-Economic
11. Creating Inter-organizational Benefits	Concerns
12. Organizational Responsibility	9. Well-Being (Welfare) of People
13. Financial Success	/Community
	10. Exchange of Resources (Welfare
	Exchange)
	11. Social Value Creation
	12. Influence People's Ideas
	13. Influence People's Lifestyles
	14. Contribution to Social Change
	15. Awareness Development
	16. Promotion
	17. Incentives to be Involved in Social
	Marketing Campaign
	18. Reducing Energy Consumption
	19. Creating Social Benefits
	20. Creating Individual Benefits
	21. Consumer Orientation
	22. Creating Common Areas for Public
	23. Public Relations
	24. Preservation of Public Health
	25. Bans on Smoking
	26. Quality of Life

Source: Created by the Author

These variables stated in Table 23, have been asked to the participants if the coastal facilities' responsibility on following variables is important to increase the value of coastal areas. The findings of the research will be discussed in the findings.

## **3.2.2.2. Factor Analysis**

Another method used in the research is factor analysis (Dimension reduction). Factor analysis method is the statistical analysis method to convert highly correlated data structures to a smaller number of independent data structures, group the independent variables that explain the dependent variables and identify common factors (Büyüköztürk, 2002). Factors are common dimensions created as a result of the factor analysis (Cerit, 2000).

There are two types of factor analyses; exploratory factor analysis and confirmatory factor analysis. The explanatory factor analysis is mostly used to test the construct validity of newly created scales, and it aims to reach less unobserved factors based on the observed variables in the scale (Bryne, 1998). Besides new testing, factor analysis may be used to prove the validity of recently tested construct and variables (Tabachnick and Fidell, 2007).

The Barlett's test and the Kaiser-Meyer-Olkin (KMO) are the tests to evaluate the data if they are suitable for the exploratory factor analysis (Law, Daud, Hamid, and Haron, 2017). Factor load value obtained by factor analysis is a coefficient explaining the relationship of variables with factors. It is expected that the load values will be high in the factors they belong to (Kline, 2005). The Kaiser-Meyer-Olkin (KMO) test is used to test the suitability of the sample size for factor analysis. KMO values are stated excellent if the values are between 0.9- 1.00; very good if the values are between 0,80- 0,89; good if the values are between 0.70- 0.79; moderate if the values are between 0,60- 0,69; and weak if the values are between 0.50- 0.59 (Alpar, 2011).

When social marketing aspects are considered, the dissertation's subject is related to behavior change and the factor analysis can be regarded as the main methods in the behavioral science studies (Jung, 2013). Besides that, the scale created within the framework of this dissertation is needed to be tested since the construct of the scale is new and created by the author. Therefore, the exploratory factor analysis is to be applied to the data collected for the research. In addition to these reasons of using factor analysis, the number of variables tested in the data collection instrument is relatively high and it should be reduced to ease the analysis and to classify the related dimensions.

## 3.2.2.3. Logistics Regression Method

Logistics Regression is a way to deal with relationships among factors in a condition that the dependent variable is categorical and binary logistic regression is a type of logistic regression that investigates dependent variable with two complementary outcome (success or failure, pay or not to pay, etc). (Maxwell and Obinna, 2018). Logistic regression is usually used for the following objectives (Garson, 2014);

- to predict a categorical dependent variable on the basis of continuous and/or categorical independent variables;
- to determine the effect size of the independent variables on the dependent variable;
- to rank the relative importance of independent variables;
- to assess interaction effects;
- to understand the impact of covariate control variables.

Logistic regression is among the most preferred analysis method since it does not require constraints and pre-requisitions such as normality and homogeneity tests (Press and Wilson, 1978). The main aim of a logistic regression model is to clarify and understand the causes of the binary response (dependent variable) on the basis of one or more predictors (Hilbe, 2009).

As a subtype of logistics regression, binary logistic regression is used for the analysis of dependent variables that consists of two values often used as 0 and 1 which represents absolute divergence between two variables such as "female or male" and "high and low" or "yes or no" (Garson, 2014). Besides this, logistic regression types both binary and multinomial merely require one dependent variable and just binary logistic regression response variable have to have two categories as stated above (Pampel, 2000).

Logistic regression models have to be tested if they are fit to data just like any other regression models and the process is called "logistics fit analysis" or "goodness-of-fit (GOF)". Nevertheless, R<sup>2</sup> values do not implicit and give an insight about the logistic fit analysis (Hilbe, 2009). In logistic regression, Hosmer-Lemeshow GOF tests are used in order to test logistics fit analysis proposed by Hosmer and Lemeshow in their book (Hosmer and Lemeshow, 2000). The lower Hosmer-Lemeshow statistics together with p-value greater than 0.05 proves that there is low variability and excellent fit (Hilbe, 2009).

Selection of predictor variables in a regression model which effects the results can be regarded as a common problem in formulating logistics regression analysis (Zellner, Keller, and Zellner, 2007). Stepwise methods are the way of variable selection to the logistic regression model and their processing principle Stepwise methods are usually used to select predictors among the huge number of variables and there are two main types of stepwise methods available (Hilbe, 2009);

- Backward Stepwise Method,
- Forward Stepwise Method,

The backward stepwise method is one of the ways of selecting variables and it includes all variables included in the model and omits some variables step by step one at a time. At each step, the least significant variable is omitted and this process repeats until all variables have significance level (Zellner et al., 2007). Forward stepwise method commences the creation of model starting with only the constant, and adding a variable selecting from the stated variable pool which are mostly contributing to the models fit until all variables are tested (Hilbe, 2009).

In literature, most of the backward studies are related with the public health and specifically on antibiotic use (Syrogiannopoulos et al., 2011), injury risk (Izudi, Ninsiima, and Alege, 2017; Mordiffi, Kent, Phillips, and Choon Huat, 2018), disaster preparedness (Lam, et. al, 2018), maternal nutrition (Louvigne et al., 2018), fatality rates (Farzadfard et al., 2018), traumatic symptoms and depression (Evren, Umut, and Evren, 2017; T. Liu et al., 2017; Michetti, Prentice, Rodriguez, and Newcomb, 2017; Verdolini et al., 2017), Organ Donation (Fontana, Massari, Giovannini, Alfano, and Cappelli, 2017) and obesity (Hashemipour, Esmailzadehha, Mohammadzadeh, and Ziaee, 2016). The reason for intensive application of backward stepwise method on the public health field is to test the effects of new models together with pre-determined variables and proposed one(s). It puts all the variables into the logistics regression model and then eliminating the weakest related ones and at the end the most significant ones that explain the dependent variable create the logistics regression model. In this research, it is almost the same that the variables deducted from the related literature of "social marketing" and "corporate social responsibility" are tested by the logistics regression method and in order to analyze the proposed term "social responsibility marketing"

Forward stepwise method literature also consists of mainly health studies and these studies focus on the treatment ways and preventive measures of the illnesses. For instance these studies are about; tuberculosis treatment (Luies, Reenen, Ronacher, Walzl, and Loots, 2017), injuries treatment (Shitara et al., 2017), early predictors of disabilities (Spina et al., 2017), hepatitis-C treatments (Khosravi et al., 2019), alcohol dependence treatments (Schoepf and Heun, 2015), lifestyle behavior health dependence (Walter, 2014), obsessive-compulsive disorder characteristics (Tripathi et al., 2018), and environmental temperature and fatality dependence (Peters et al., 2019). Science of geology is another discipline that uses the forward stepwise method (Costanzo, Chacón, Conoscenti, Irigaray, and Rotigliano, 2014). Studies that apply logistics regression do not have to apply stepwise methods so that above mentioned list of literature is short and limited to health related studies. The other studies can create their own logistics regression models or test their own proposed models.

Despite this intense literature, an ongoing debate has been on the stage for both methods and decision criteria on which to apply. According to the definitions inferred from the huge compilation of literature, backward stepwise method has been preferred to apply the data set of this research. Nevertheless, it has also been concluded to use forward stepwise method to address the differences between the two methods. By doing so, another contribution to the literature of the related methodology has been made.

## 3.2.2.4. Analysis with ANOVA and Independent Sample T-Tests

Variance is the unit of the scattering of results in a distribution and it is a common measure of variation (Abbott, 2017). ANOVA (stands for analysis of variance) is the type of statistical analysis method to analyze the well collected data and the main aim of the ANOVA test is to figure out the factors that support most or

least (Lind, 2006). According to Welham (2015) it is the main method to interpret the linear models and as can be understood from its name the main dimensions of ANOVA are to analyze, separate and compare the all variation resources (Welham et. al, 2015). These sources of variances that ANOVA works on are (Abbott, 2017);

- the variation that exists within each sample group,
- the variation between each sample group and the overall (grand) mean,
- the total variance from all sources.

One-way ANOVA works and tries to analyze only one factor (Montgomery, 2013). In one-way ANOVA, collected data set are divided into different groups and just one variable are tested (Sahu, 2013). To implement the ANOVA test, the main prerequisite to be controlled by the researcher is normal distribution of variance ant it is evaluated by looking into the skewness and kurtosis (Abbott, 2017).

Skewness is used to monitor if the frequencies of the data set is balanced or skewed to the right or left. positive skewness means that distribution of frequencies trail to the right and negative skewness states left (Doanne and Seward, 2011). The interpretation of the values is made by looking up to skewness value and standard error of skewness value together. If the value calculated dividing the skewness value over the standards error of skewness the result gives the skewness index and to label the distribution "normal" it should be between 2.50 and 3.00 (Abbott, 2017). Kurtosis is another type of indicator to assess the normal distribution of the frequencies that shows the vertical distribution (De Carlo, 1997). The interpretation of the kurtosis value is made by the same processes of skewness and the kurtosis index between 2.50 and 3.00 is regarded as the distribution is normal (Abbott, 2017).

Independent sample T-test is another important method employed in this dissertation to test the hypothesis with very basic aim; comparison of means of two groups (Abbott, 2017). To process the independent sample T-test accurately it is needed to have continuous dependent (test) variable with much or less normal distribution and categorical independent variable (Stockemer, 2019). In SPSS software, the output table of independent sample T-test gives significance values on Levene Test for equality of variances which consist of two alternatives as "equal variances" and "not equal variances" and this equality is interpreted according to the

significance values of Levene Test (Ho, 2018). If the Significance value of the Levene Test is greater than 0.05 (95 % confidence interval) variances are assumed equal. After all, the 2-tailed significance value of t-test equality of mean is interpreted and if this value is less than 0.05 the H° hypothesis is not supported (Abbott, 2017).

## **3.3. THE MODEL OF THE RESEARCH**

The research has been designed in two separate sections but the data have been collected by the same questionnaire form. In the first part of the research (Figure 16) the social value of the coastal area was calculated by the returns to the WTP questions from the coastal users, the local residents and the potential visitors. This part of the research is divided into two separate sections from the perspective of results as; the social value of the coastal area is expressed in monetary terms in the first section while the value of the İzmir port is calculated in the second section.

In the second part of the research, the responses of the same sample are used to reveal the variables of social responsibility marketing aspects of the coastal area. The variables deduced from the social marketing and social responsibility marketing literatures have been tested by asking to the participants. As noted in previous heading, 39 variables are deduced from the related literatures in order to be tested by the sample. This process has been given in details in the previous related part of the dissertation.

Seven main hypotheses were formulated for first section and six main hypotheses for the second section of the research. These hypotheses, which are constructed in accordance with the purpose of dissertation, will be tested separately under the heading of the findings. Hypotheses for each part of the research are as follows in which first number indicates the number of the part in the study whereas the last number represents the number of the hypothesis;

*H1.1*: Willingness to pay decisions for coastal area is significantly different according to the income level of the people.

*H1.2*: Willingness to pay amounts for coastal area is significantly different according to the gender of the people.

*H1.3*: Willingness to pay amounts for coastal area is significantly different according to the age group of the people.

*H1.4*: Willingness to pay amounts for coastal area is significantly different according to the occupation of the people.

*H1.5*: Willingness to pay amounts for coastal area is significantly different according to the education level of the people.

*H1.6*: Willingness to pay amounts for coastal area is significantly different according to the having children or not

*H1.7*: Willingness to pay amounts for port area is significantly different according to the income level of the people.

**H2.1**: There is a relationship between the coastal area WTP decisions and responses to the statement of coastal businesses have a social responsibility role on increasing the value of the coastal area

**H2.2**: There is a relationship between the coastal area WTP decisions and responses to the statement of coastal businesses have public trust role on increasing the value of the coastal area

**H2.3**: There is a relationship between the coastal area WTP decisions and responses to the statement of coastal businesses have role of influencing the people's ideas on increasing the value of the coastal area

H2.4: There is a relationship between the coastal area WTP decisions and responses to the statement of coastal businesses have role of being consumer oriented on increasing the value of the coastal area

H2.5: There is a relationship between the coastal area WTP decisions and responses to the statement of coastal businesses have role of assessing quality of people's life on increasing the value of the coastal area

**H2.6**: There is a relationship between the coastal area WTP decisions and responses to the statement of coastal businesses have role of influencing people's behaviors on increasing the value of the coastal area







## **CHAPTER FOUR**

## **RESEARCH FINDINGS AND DISCUSSION**

## 4.1. RESEARCH FINDINGS

As stated earlier, the research has been carried out in two parts. Therefore, the findings of the research will be given separately. Firstly, the findings of the research on valuation of coastal areas are going to be given in details. Secondly, the findings of the research on social responsibility marketing on coastal areas and hypothesis testing results are going to be given. Meanwhile, the factor analysis results are to be given here in order to reduce the dimensions of the research.

Consequently, findings on valuation of coastal areas and social responsibility marketing will be given in order to reach the aims of the research. Independent sample t-Tests, ANOVA tests, Binomial Logistics Regression analysis have been used in this section to test the significant differences between willingness to pay of the respondents and social responsibility marketing variables and value of portcentric area.

## 4.1.1. Findings of Research on Valuation of Coastal Areas

To assess the social value of the coastal areas, willingness to pay amounts have been collected from the respondents by presenting hypothetical scenario on coastal areas. After analyzing the data, the mean willingness to pay for coastal areas, aggregate social value of the coastal area per square meters and per meter have been calculated. Although these values give some insights about the social value of the coastal areas, the main purpose is to relate these values with the other variables asked by follow-up questions to the respondents. All these monetary social values should be explained by both demographic and socio-economic profile of the respondents and the other characteristics asked by the follow-up questions.

## 4.1.1.1. Descriptive Statistics of Sample

As stated earlier, the sample of the study has been selected by stratified random sampling (proportional to the population of the İzmir metropolitan district) based on the parameters of the population characteristics (sex, age, education, location) derived from national census statistics. Both studies used the same survey instrument and were in field concurrently. Total of 567 questionnaires forms took approximately 5 months between 2017, June 25<sup>th</sup> and 2017, December 25<sup>th</sup> and to conduct. In this process, 1268 people have been asked to be participant and 589 forms have been obtained. 567 of the forms were valid and have no missing values. Therefore, approximate 44,7 % return rate has been reached in conducting the questionnaire. The questionnaire forms have been collected by the researcher himself by means of a face-to-face interview. Age, gender and location of residence are the quotas but the first 300 questionnaires have been collected randomly in the common areas such as shopping malls, squares and public transport stations. The rest of the questionnaires have been applied in the houses of the participants, in the neighborhood small markets and in the muhtars offices.

Table 25 summarizes the general characteristics of the sample group in age, gender, income level, occupation, location and education. The number of respondents is 567 and no missing value has been gathered from the respondents in profile questions. The gender allocation shows that 284 (50.1%) of the respondents are male and 283 (49 %) are female. Occupational distribution of the respondents reveals that 221 (39 %) of the respondents are unemployed and 193 (34 %) are workers in private sector. 38 (6.7 %) respondents are retired, 35 (6.2 %) participants are government officers and 80 (14.1 %) participants stated their occupations as "other" ranging from housewife to student. 43 of other respondents ranged from primary school to doctorate degree. According to the results, 53 (9.3 %) of the respondents have high school degree. 194 (34.2 %) of the respondents have bachelor degree and 14 (1.9 %) have master degree and just 2 (0.4 %) have PhD degree. The residency quotas stated earlier in Chapter Three have been actualized.
# Table 25: Sample Characteristics

Gender (n=567)         Men         284         50.1           Women         283         49.9           Linemployed         221         39           Private Sector         193         34           Occupational Distribution (n=567)         Retired         38         6.7           Officer         35         6.2         0ther         80         14.1           Private Sector         193         34         8.3         5.7           Officer         35         6.2         0ther         80         14.1           Private Sector         194         34.2         34.2         34.2           Maser Degree         194         34.2         34.2         34.2           Maser Degree         11         1.9         PhD         2         0.4           Balçova         15         2.6         33         14.6           Buca         100         17.6         15         2.6           Bayrakh         65         1.1         15         2.6           Bayrakh         65         1.1         14.6         14.6           Buca         100         17.6         15         2.6           Sociation	Indep	endent Variable	No. of Respondents	Share %
Gender (n=567)         Women         283         49.9           Unemployed         221         39           Private Sector         193         34           Brivar Sector         38         6.7           Officer         35         6.2           Other         80         14.1           Frimary and Elementary School         53         9.3           High School         260         45.9           Vocational School         47         8.3           Bachedor Degree         194         34.2           Master Degree         114         1.9           PhD         2         0.4           Bachedor Degree         114         1.9           PhD         2         0.4           Bayrakin         65         11.5           Bornova         83         14.6           Buca         100         17.6           Çiğli         39         6.9           Gazelbahçe         6         1.1           Karabağlar         101         17.8           Karyaka         66         11.6           Konak         79         13.9           Narlıdere         13 <t< th=""><th></th><th>Men</th><th>284</th><th>50.1</th></t<>		Men	284	50.1
Unemployed         221         39           Private Sector         193         34           Private Sector         193         34           Reired         38         6.7           Officer         35         6.2           Other         80         14.1           Primary and Elementary School         53         9.3           High School         260         45.9           Vocational Distribution (n=567)         Bachelor Degree         114         1.9           PhD         2         0.4         34.2           Master Degree         11         1.9         9.3           PhD         2         0.4         34.2           Master Degree         11         1.9         9.3           PhD         2         0.4         34.2           Baryakh         65         11.5         2.6           Baryakh         65         11.5         2.6           Baryakh         65         11.5         2.6           Baryakh         65         11.5         2.6           Gizelbahçe         6         1.1         1.1           Karsyaka         66         1.1.6         1.1	Gender (n=567)	Women	283	49.9
Private Sector         193         34           Retired         38         6.7           Officer         35         6.2           Other         80         14.1           Primary and Elementary School         53         9.3           High School         260         45.9           Vocational School         47         8.3           Bachelor Degree         194         34.2           Master Degree         11         19           PhD         2         0.4           Balcova         15         2.6           Bayrakh         65         11.5           Bornova         83         14.6           Buca         100         17.6           Çiğli         39         6.9           Güzelbahçe         6         1.1           Karabglar         101         17.8           Karyyaka         66         11.6           Karyyaka         66         11.6           Karyyaka         66         11.6           Karyyaka         66         11.6           Karyyaka         66         11.6           Karyyaka         66         11.6           <		Unemployed	221	39
Occupational Distribution (n=567)         Retired         38         6.7           Officer         35         6.2           Other         80         14.1           Primary and Elementary School         53         9.3           High School         260         45.9           Vocational School         47         8.3           Bachelor Degree         194         34.2           Master Degree         11         1.9           PhD         2         0.4           Balgova         15         2.6           Bayrakh         65         11.5           Bornova         83         14.6           Buca         100         17.6           Çiğli         39         6.9           Güzelbahçe         6         1.1           Karsyışka         66         1.6           Karşışışka         66         11.6           Konak         79         13.9           Age (n=567)         Between 18-25         153         27           Between 33-40         129         22.8           Between 14-19         66         11.6           Between 30-64         66         11.6		Private Sector	193	34
Officer         35         6.2           Other         80         14.1           Primary and Elementary School         53         9.3           High School         260         45.9           Vocational School         47         8.3           Bachelor Degree         194         34.2           Master Degree         11         1.9           PhD         2         0.4           Barbelor Degree         11         1.9           PhD         2         0.4           Bayrakh         65         11.5           Bornova         83         14.6           Buca         100         17.6           Çiğli         39         6.9           Gäzelbahçe         6         1.1           Karabağlar         101         17.8           Karabağlar         101         17.8           Karsiyaka         66         11.6           Between 26-32         134         23.6           Between 32-0         134         23.6           Between 50-64         66         11.6           Between 50-64         66         11.6           Between 50-64         66         11.6 <td>Occupational Distribution (n=567)</td> <td>Retired</td> <td>38</td> <td>6.7</td>	Occupational Distribution (n=567)	Retired	38	6.7
Other         80         14.1           Primary and Elementary School         53         9.3           High School         260         45.9           Bachelor Degree         194         34.2           Bachelor Degree         11         1.9           PhD         2         0.4           Bargere         11         1.9           PhD         2         0.4           Bayrakh         65         11.5           Bornova         83         14.6           Buca         100         17.6           Çiğli         39         6.9           Güzelbahçe         6         1.1           Karabağlar         101         17.8           Karşıyaka         66         11.6           Konak         79         13.9           Narlıder         134         23.6           Between 18-25         153         27           Between 18-25         153         27           Between 18-25         134         23.6           Between 32.0         129         22.8           Between 50-64         66         11.6           Oder than 64         19         34      <		Officer	35	6.2
Primary and Elementary School         53         9.3           High School         260         45.9           Vectorial Distribution (n=567)         Vectorial School         47         8.3           Bachelor Degree         194         34.2           Master Degree         11         1.9           PhD         2         0.4           Balçova         15         2.6           Bayrakh         65         11.5           Bornova         83         14.6           Buca         100         17.6           Çiği         39         6.9           Güzelbahçe         6         1.1           Karabağlar         101         17.8           Karşuyaka         66         11.6           Konak         79         13.9           Nartılcre         13         2.3           Between 18-25         153         27           Between 32-00         129         22.8           Between 32-01         129         22.8           Between 32-02         134         23.6           Between 32-03         129         22.8           Between 32-04         19         3.4           Betw		Other	80	14.1
High School         260         45.9           Vocational School         47         8.3           Bachelor Degree         194         34.2           Master Degree         11         1.9           PhD         2         0.4           Sachelor Degree         11         1.9           PhD         2         0.4           Sachelor Degree         11         1.9           PhD         2         0.4           Sachelor Degree         11         1.9           PhD         2         0.4           Sachelor Degree         11         1.9           PhD         2         0.4           Sachelor Degree         11         1.9           Sachelor Degree         11         1.9           Sachelor Degree         11         1.5           Bayrakli         65         11.5           Bornova         83         14.6           Buca         100         17.6           Gizelbahce         6         1.1           Karabaglar         101         17.8           Karsyaka         66         11.6           Konak         79         13.9		Primary and Elementary School	53	9.3
Educational Distribution (n=567)         Vocational School         47         8.3           Bachelor Degree         194         34.2           Master Degree         11         1.9           PhD         2         0.4           Balçova         15         2.6           Bayraklı         65         11.5           Bornova         83         14.6           Buca         100         17.6           Çiğli         39         6.9           Güzelbahçe         6         1.1           Karsyyaka         66         1.1           Karşiyaka         66         1.6           Karşiyaka         66         1.6           Karşiyaka         66         11.6           Karşiyaka         13         2.3           Between 18-25         153         27           Between 18-25         153         27           Between 14-29         66         11.6           Dider than 64         19         3.4           Between 14-29         66         11.6           Between 10-100 TL         382         67.4           Between 10-100 TL         33         5.8           Between 10-100		High School	260	45.9
Bachelon Degree         194         34.2           Master Degree         11         1.9           PhD         2         0.4           Balçova         15         2.6           Bayraklı         65         11.5           Bornova         83         14.6           Buca         100         17.6           Çiğli         39         6.9           Gizelbahçe         6         1.1           Karabağlar         101         17.8           Karşiyaka         66         11.6           Konak         79         13.9           Age (n=567)         Between 18-25         153         27           Between 26-32         134         23.6           Between 33-40         129         22.8           Between 33-40         129         22.8           Between 33-40         129         22.8           Between 14-9         66         11.6           Older than 64         19         3.4           Between 1601 TL - 3200 TL         382         67.4           Between 1601 TL - 2500 TL         33         5.8           Between 1601 TL - 2500 TL         33         5.8 <t< td=""><td>Educational Distribution (n=567)</td><td>Vocational School</td><td>47</td><td>8.3</td></t<>	Educational Distribution (n=567)	Vocational School	47	8.3
Master Degree         11         1.9           PhD         2         0.4           Balçova         15         2.6           Bayraklı         65         11.5           Bornova         83         14.6           Buca         100         17.6           Çiğli         39         6.9           Güzelbahçe         6         1.1           Karabağlar         101         17.8           Karşıyaka         66         11.6           Konak         79         13.9           Narlıdere         13         2.3           Between 18-25         153         27           Between 32-40         129         22.8           Between 32-40         129         22.8           Between 14-49         66         11.6           Older than 64         19         3.4           Between 50-64         106         11.6           Dider than 64         19         3.4           Between 260 TL         382         67.4           Between 201 TL - 3200 TL         138         19.0           Between 201 TL - 3200 TL         33         5.8           Between 1601 TL-2500 TL         108 <td></td> <td>Bachelor Degree</td> <td>194</td> <td>34.2</td>		Bachelor Degree	194	34.2
PhD         2         0.4           Balçova         15         2.6           Bayraklı         65         11.5           Bornova         83         14.6           Buca         100         17.6           Çiğli         39         6.9           Güzelbahçe         6         1.1           Karabağlar         101         17.8           Karşiyaka         66         11.6           Konak         79         13.9           Narhdere         13         2.3           Between 18-25         153         27           Between 18-25         153         27           Between 14-9         66         11.6           Between 14-9         66         11.6           Between 14-9         66         11.6           Between 14-9         66         11.6           Between 14-9         66         11.6           Between 160 TL         382         67.4           Between 160 TL-2500 TL         108         19.0           Between 2501 TL - 3200 TL         108         19.0           Between 2501 TL - 3200 TL         33         5.8           Between 2501 TL - 3200 TL <td< td=""><td></td><td>Master Degree</td><td>11</td><td>1.9</td></td<>		Master Degree	11	1.9
Balçova         15         2.6           Bayraklı         65         11.5           Bornova         83         14.6           Buca         100         17.6           Çiğli         39         6.9           Gizelbahçe         6         1.1           Karabağlar         101         17.8           Karjışaka         66         11.6           Konak         79         13.9           Narlıdere         13         2.3           Between 18-25         153         27           Between 26-32         134         23.6           Between 26-32         134         23.6           Between 14-49         66         11.6           Older than 64         19         3.4           Between 50-64         66         11.6           Between 1601 TL-2500 TL         108         19.0           Between 1601 TL-2500 TL         108         19.0           Between 2501 TL - 3200 TL         33         5.8           Between 1601 TL-2500 TL         108         19.0           Between 1601 TL-2500 TL         24         4.2           Greater than 4600         20         3.5           Be		PhD	2	0.4
Bayrakh         65         11.5           Bornova         83         14.6           Buca         100         17.6           Çiğli         39         6.9           Güzelbahçe         6         1.1           Karabağlar         101         17.8           Karşiyaka         66         11.6           Konak         79         13.9           Narlıdere         13         2.3           Between 18-25         153         27           Between 26-32         134         23.6           Between 33-40         129         22.8           Between 33-40         129         22.8           Between 50-64         66         11.6           Older than 64         19         3.4           Between 50-64         66         11.6           Older than 64         19         3.4           Between 3201 TL - 3200 TL         382         67.4           Between 3201 TL - 4600 TL         24         4.2           Greater than 4600         20         3.5           Number of Child (n=567)         Have No Child         340         60           Have 1-3 Children         204         35.9 <td< td=""><td></td><td>Balçova</td><td>15</td><td>2.6</td></td<>		Balçova	15	2.6
Bornova         83         14.6           Buca         100         17.6           Çiğli         39         6.9           Güzelbahçe         6         1.1           Karabağlar         101         17.8           Karjıyaka         66         11.6           Konak         79         13.9           Narlıdere         13         2.3           Between 18-25         153         27           Between 26-32         134         23.6           Between 33-40         129         22.8           Between 41-49         66         11.6           Older than 64         19         3.4           Between 0-1600 TL         382         67.4           Between 1601 TL-2500 TL         108         19.0           Between 2501 TL - 3200 TL         33         5.8           Between 3201 TL - 4600 TL         32         5.8           Between 3201 TL - 4600 TL         20         3.5           Monthly Income (n=567)         Have No Child         340         60           Have No Child         340         60         14.2           Greater than 4600         20         3.5         14.2           Mont		Bayraklı	65	11.5
Buca         100         17.6           Cigli         39         6.9           Güzelbahçe         6         1.1           Karabağlar         101         17.8           Karşıyaka         66         11.6           Konak         79         13.9           Narlıdere         13         2.3           Between 18-25         153         27           Between 26-32         134         23.6           Between 33-40         129         22.8           Between 33-40         129         22.8           Between 30-64         66         11.6           Older than 64         19         3.4           Between 0-1600 TL         382         67.4           Between 101 TL-2500 TL         108         19.0           Between 201 TL - 4600 TL         24         4.2           Greater than 4600         20         3.5           Number of Child (n=567)         Have No Child         340         60           Have No Child         340         60         14.1           Average Age in Years         34.1         35.9           Have 4-7 Children         23         4.1		Bornova	83	14.6
		Buca	100	17.6
(n=567)         Güzelbahçe         6         1.1           Karabağlar         101         17.8           Karşıyaka         66         11.6           Konak         79         13.9           Narlıdere         13         2.3           Between 18-25         153         27           Between 26-32         134         23.6           Between 33-40         129         22.8           Between 33-40         129         22.8           Between 41-49         66         11.6           Older than 64         19         3.4           Between 0-1600 TL         382         67.4           Between 10.1 TL-2500 TL         108         19.0           Between 2501 TL – 3200 TL         33         5.8           Between 3201 TL – 4600 TL         24         4.2           Greater than 4600         20         3.5           Number of Child (n=567)         Have No Child         340         60           Have No Child         340         60         14.1           Average Age in Years         34.45 Years         55.9           Have 4 -7 Children         23         4.1	Location	Çiğli	39	6.9
Karabağlar         101         17.8           Karşıyaka         66         11.6           Konak         79         13.9           Narlıdere         13         2.3           Between 18-25         153         27           Between 26-32         134         23.6           Between 33-40         129         22.8           Between 41-49         66         11.6           Between 50-64         66         11.6           Older than 64         19         3.4           Between 1601 TL-2500 TL         108         19.0           Between 3201 TL - 4600 TL         24         4.2           Greater than 4600         20         3.5           Between 3201 TL - 4600 TL         24         4.2           Greater than 4600         20         3.5           Number of Child (n=567)         Have No Child         340         60           Have 1-3 Children         204         35.9         14.1           Average Age in Years         34.45 Years         4.1	(n=567)	Güzelbahçe	6	1.1
Karşıyaka         66         11.6           Konak         79         13.9           Narlıdere         13         2.3           Between 18-25         153         27           Between 26-32         134         23.6           Between 33-40         129         22.8           Between 41-49         66         11.6           Detween 50-64         66         11.6           Older than 64         19         3.4           Between 1601 TL-2500 TL         108         19.0           Between 3201 TL - 4600 TL         382         67.4           Between 3201 TL - 4600 TL         24         4.2           Greater than 4600         20         3.5           Between 0-1600 TL         340         60           Have No Child         340         60           Have No Child         340         60           Have No Child         340         60           Have A - 7 Children         23         4.1           Average Age in Years         34.45 Years		Karabağlar	101	17.8
Konak         79         13.9           Narlıdere         13         2.3           Between 18-25         153         27           Between 26-32         134         23.6           Between 33-40         129         22.8           Between 41-49         66         11.6           Between 50-64         66         11.6           Older than 64         19         3.4           Between 0.1600 TL         382         67.4           Between 1601 TL-2500 TL         108         19.0           Between 2501 TL - 3200 TL         33         5.8           Between 3201 TL - 4600 TL         24         4.2           Greater than 4600         20         3.5           Number of Child (n=567)         Have No Child         340         60           Have 1-3 Children         204         35.9         35.9           Have 4 -7 Children         23         4.1           Average Age in Years         34.45 Years         34.45 Years		Karşıyaka	66	11.6
Narlıdere         13         2.3           Between 18-25         153         27           Between 26-32         134         23.6           Between 33-40         129         22.8           Between 41-49         66         11.6           Between 50-64         66         11.6           Older than 64         19         3.4           Between 1601 TL         382         67.4           Between 2501 TL - 3200 TL         108         19.0           Between 3201 TL - 4600 TL         24         4.2           Greater than 4600         20         3.5           Have No Child         340         60           Have 1-3 Children         204         35.9           Have 4 -7 Children         23         4.1		Konak	79	13.9
Between 18-25         153         27           Between 26-32         134         23.6           Between 33-40         129         22.8           Between 41-49         66         11.6           Between 50-64         66         11.6           Older than 64         19         3.4           Between 0-1600 TL         382         67.4           Between 1601 TL-2500 TL         108         19.0           Between 3201 TL - 3200 TL         33         5.8           Between 3201 TL - 4600 TL         24         4.2           Greater than 4600         20         3.5           Have No Child         340         60           Have 1-3 Children         204         35.9           Have 4 -7 Children         23         4.1		Narlıdere	13	2.3
Age (n=567)         Between 26-32         134         23.6           Between 33-40         129         22.8           Between 41-49         66         11.6           Between 50-64         66         11.6           Older than 64         19         3.4           Between 0-1600 TL         382         67.4           Between 1601 TL-2500 TL         108         19.0           Between 2501 TL - 3200 TL         33         5.8           Between 3201 TL - 4600 TL         24         4.2           Greater than 4600         20         3.5           Have No Child         340         60           Have 1-3 Children         204         35.9           Have 4 -7 Children         23         4.1		Between 18-25	153	27
Age (n=567)       Between 33-40       129       22.8         Between 41-49       66       11.6         Between 50-64       66       11.6         Older than 64       19       3.4         Between 0-1600 TL       382       67.4         Between 1601 TL-2500 TL       108       19.0         Between 2501 TL - 3200 TL       33       5.8         Between 3201 TL - 4600 TL       24       4.2         Greater than 4600       20       3.5         Number of Child (n=567)       Have No Child       340       60         Have 4 -7 Children       23       4.1         Average Age in Years       34.45 Years       1111 46 TI		Between 26-32	134	23.6
Age (n=567)       Between 41-49       66       11.6         Between 50-64       66       11.6         Older than 64       19       3.4         Monthly Income (n=567)       Between 0-1600 TL       382       67.4         Between 1601 TL-2500 TL       108       19.0         Between 2501 TL - 3200 TL       33       5.8         Between 3201 TL - 4600 TL       24       4.2         Greater than 4600       20       3.5         Mumber of Child (n=567)       Have No Child       340       60         Have 4 -7 Children       23       4.1         Average Age in Years       34.45 Years       4.1		Between 33-40	129	22.8
Between 50-64         66         11.6           Older than 64         19         3.4           Older than 64         19         3.4           Between 0-1600 TL         382         67.4           Between 1601 TL-2500 TL         108         19.0           Between 2501 TL - 3200 TL         33         5.8           Between 3201 TL - 4600 TL         24         4.2           Greater than 4600         20         3.5           Have No Child         340         60           Have 1-3 Children         204         35.9           Have 4 -7 Children         23         4.1	Age (n=507)	Between 41-49	66	11.6
Older than 64         19         3.4           Between 0-1600 TL         382         67.4           Between 0-1600 TL         108         19.0           Between 1601 TL-2500 TL         108         19.0           Between 2501 TL - 3200 TL         33         5.8           Between 3201 TL - 4600 TL         24         4.2           Greater than 4600         20         3.5           Have No Child         340         60           Have 1-3 Children         204         35.9           Have 4 -7 Children         23         4.1           Average Age in Years         34.45 Years		Between 50-64	66	11.6
Between 0-1600 TL         382         67.4           Between 1601 TL-2500 TL         108         19.0           Between 2501 TL - 3200 TL         33         5.8           Between 3201 TL - 4600 TL         24         4.2           Greater than 4600         20         3.5           Have No Child         340         60           Have 1-3 Children         204         35.9           Have 4 -7 Children         23         4.1		Older than 64	19	3.4
Between 1601 TL-2500 TL         108         19.0           Between 2501 TL - 3200 TL         33         5.8           Between 3201 TL - 4600 TL         24         4.2           Greater than 4600         20         3.5           Have No Child         340         60           Have 1-3 Children         204         35.9           Have 4 -7 Children         23         4.1		Between 0-1600 TL	382	67.4
Monthly Income (n=567)         Between 2501 TL - 3200 TL         33         5.8           Between 3201 TL - 4600 TL         24         4.2           Greater than 4600         20         3.5           Have No Child         340         60           Have No Child         204         35.9           Have 4 -7 Children         23         4.1		Between 1601 TL-2500 TL	108	19.0
Between 3201 TL - 4600 TL         24         4.2           Greater than 4600         20         3.5           Have No Child         340         60           Have No Child         204         35.9           Have 1-3 Children         204         35.9           Have 4 -7 Children         23         4.1	Monthly Income (n=567)	Between 2501 TL – 3200 TL	33	5.8
Greater than 4600203.5Number of Child (n=567)Have No Child34060Have 1-3 Children20435.9Have 4 -7 Children234.1Average Age in Years34.45 Years		Between 3201 TL – 4600 TL	24	4.2
Have No Child     340     60       Number of Child (n=567)     Have 1-3 Children     204     35.9       Have 4 -7 Children     23     4.1		Greater than 4600	20	3.5
Number of Child (n=567)     Have 1-3 Children     204     35.9       Have 4 -7 Children     23     4.1       Average Age in Years     34.45 Years		Have No Child	340	60
Have 4 -7 Children     23     4.1       Average Age in Years     34.45 Years	Number of Child (n=567)	Have 1-3 Children	204	35.9
Average Age in Years     34.45 Years		Have 4 -7 Children	23	4.1
	Average Age in Years	34.	45 Years	
Average Monthly Income 1,111.40 IL	Average Monthly Income	1,1	11.46 TL	

Source: Created by the author based on SPSS 23 outputs

According to Table 25, age distribution shows that 153 (27 %) respondents are between 18-25 years old, 134 (23.6 %) are between 26-32 and 129 participants

are between 33-40 years old. The groups of 41-49 and 50-64 years have the same frequency of 66 (11.6 %) and 19 (3.4 %) of the respondents are older than 64 years old. Average age of the respondents is 34.45 years.

Monthly income of the respondents ranged from 0 to 10,000 TL. 382 (67.4 %) of the participants have a monthly income up to 1,600 TL. 108 (19 %) of them earn between 1,601 and 2,500 TL and 77 (13.5 %) of them earn more than 2,501 TL monthly. An average monthly income level of the whole sample is 1111.46 TL. Participants are also asked if they have a child and the results show that 340 (60 %) of them have no child, 204 (35.9 %) have 1 to 3 children and the rest 23 (4,1 %) have 4 to 7 children.

### 4.1.1.2. Mean Social Value of Coastal Area

The responses taken for the willingness to pay question should be translated into mean or median willingness to pay values (Vaughan, Russell, Rodriguez and Darling, 1999). If the sample of the contingent valuation method can be regarded as the representative of the population, mean willingness to pay can be attributed to the everyone (Vaughan, et al., 1999). The willingness to pay responses should be reasonable when comparing to the income level of the respondents. The aggregation of the willingness to pay value is not an easy job. Mean willingness to pay value is the traditional tools of estimating aggregate value and the median willingness to pay value is another standard tool to estimate the public choice criterion. It should be underlined here, mean WTP often gives larger results when compared to the median WTP (Carson, 2000). Open-ended format will give reasonable and appropriate results if the aggregation of the willingness to pay responses will be done by using mean willingness to pay responses (Vaughan, et al, 1999). As stated in the reliability subheadings of Chapter Three, the per capita social value of the coastal area has been found 34.10 Turkish Liras as a result of the research. The aggregate social value placed on a subject specific coastal area is calculated with following formula;

$$f(WTP) = \frac{\sum nv}{\sum n} \times P$$

In which; "WTP" is willingness to pay, "n" is the number of participants, "v" is the value accepted by the participants, and "P" is the population of İzmir. In Table 26, some findings related to willingness to pay questions have been given.

Table 26: Mean	Willingness to	Pay '	Value	for	Coastal Area
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Variable	n	Minimum Value	Maximum Value	Mean Value	Std. Deviation	Variance
Willingness to Pay For Coastal	567	0 TL	10 000 TL	34 10 TL	424 95 TL	180 582 TL
Area (TL)	507	0 IL	10,000 11	5 0 12	121.95 11	100,502 11

Source: Created by the author based on SPSS 23 outputs

According to Table 26, mean willingness to pay value for coastal area is 34.10 Turkish Liras. Minimum value of willingness to pay is 0 and the maximum value is 10,000 Turkish Liras. In this research, 10,000 Turkish Liras willingness to pay value has not been taken as protest bid since the respondent who has given this value has monthly income of 22,000 Turkish Liras and it is regarded as an acceptable willingness to pay amount for the stated income level. The standard deviation is 424.95 Turkish Liras and the variance of the willingness to pay values is 180,582 Turkish Liras. Normally, the standard deviation and variance values are high for the willingness to pay series where the minimum value is 0 and the maximum value is 10,000 TL.

Another question asked for "Yes" respondents in order to calculate the social value of the port has been that if they would accept to pay an additional 10 % amount of donation they have written to WTP question to be used only for taking measures to reduce the project's impacts on port operations. In Table 27, it can be seen the share of yes respondents for first "willingness to pay" question and then the yes respondents for the second "willingness to pay" question asked for the port area.

WTP for Coastal Area			WTP F	Total	
		No	Yes		
WTD	Vaa	Count	46	85	131
wIP Yes		% within WTP Yes	35%	65%	100.0%

#### Table 27: Share of Yes Respondents for Port Area in Total WTP Responses

Source: Created by the author based on SPSS 23 outputs

According to Table 27, 131 respondents are willing to pay for coastal area and 85 of these yes respondents (65 %) are also willing to pay extra 10 % for the port area.

Table 28 illustrates the mean willingness to pay value calculated by using the same formula used in mean WTP calculation of coastal area. For the port area, the mean value of willingness to pay is 19.03 TL. Minimum value of willingness to pay for port area is 0.1 and the maximum value is 1,000 Turkish Liras. The standard deviation is 108.24 Turkish Liras and the variance of the willingness to pay value is 11,716 Turkish Liras.

Table 28: Mean Willingness to Pay Value for Port Area

Variable	n	Minimum Value	Maximum Value	Mean Value	Std. Deviation	Variance
Willingness to						
Pay For Port	85	0.10	1,000 TL	19.03 TL	108.24 TL	11,716 TL
Area (TL)						

Source: Created by the author based on SPSS 23 outputs

While these monetary values do not make any sense by themselves, they can give some ideas about the value of the coastal areas and specifically port areas. However, the later sections will reveal different dimensions of research with the assessments to be made on these values. In the following sections, some assessments will be made if the willingness to pay value has any significant relation with the profile of the respondents. Before that, the next heading will calculate the aggregate value of the coastal area and port area.

## 4.1.1.3. Aggregate Social Value of Specific Coastal Area and Port Area

As stated in the previous headings, the per capita social value of the coastal area has been found 34.10 Turkish Liras as a result of the research. The total social value placed on a subject specific coastal area is calculated with the following formula;

$$f(WTP) = \frac{\sum nv}{\sum n} \times P$$

In which; "WTP" is willingness to pay, "n" is the number of participants, "v" is the value accepted by the participants, and "P" is the population of İzmir which is 4,279,677 in 2017 (TÜİK, 2018). Therefore the result is;

 $f(WTP_{total}) = 34.10 \times 4,279,677 = 145,936,985 TL$ 

In order to estimate the social value per  $m^2$  in specific coastal area, the total square meters of the Group 1 research area which is close to the sea in inner gulf has been examined. According to the Ministry of National Defense General Command of Mapping data the total square meters of the cities involved in this group is 476,000,000 m<sup>2</sup>. To figure out the social value per m<sup>2</sup> of the coastal area is divided by total surface square meters;

$$f(WTP_{per m^2}) = \frac{145,936,985 \, TL}{476,000,000 \, m^2} \cong 0.307 \, TL$$

The same formula is used to calculate the aggregate social value placed on a port area;

$$f(WTP) = \frac{\sum nv}{\sum n} \times P$$

In which; "WTP" is willingness to pay, "n" is the number of participants that are willing to pay for the coastal area, "v" is the value accepted by the participants, and "P" is the population of İzmir which is 4,279,677 in 2017 (TÜİK, 2018). Therefore the result is;

$$f(WTP_{only port}) = 19.03 \text{ TL} \times 4,279,677 = 81,442,253 \text{ TL}$$

This value is an extra willingness to pay value only for port area. In order to estimate the social value per m<sup>2</sup> in port area, first the total square meters of İzmir Port area has been found. According to the official web site of Turkish State Railways total square meters of the port is 635,000 m<sup>2</sup>. To figure out the social value per m<sup>2</sup> the aggregate social value of the port area is divided by total surface square meters;

$$f(WTP_{port \ per \ m^2}) = \frac{81,442,253}{635,000 \ m^2} \cong 128.25 \ TL$$

The value of 128.25 TL indicates that the port area has more social value than the any part of the coastal area in the inner Gulf of İzmir. This value is 1,020 times higher than the 0.307 TL which is social value per m<sup>2</sup> of the coastal area.

In this dissertation, the social value of the coastal area per meter has also been calculated. The length of coasts of all districts located in Group 1 and Çiğli from Group 2 have been deduced from the Dokuz Eylül University databases and the related study of Gier, Arisoy and Pazi published on 2010 (Yücel-Gier, Arisoy and Pazi, 2010). According to the resources, the actual coastal length and the beeline length of the regions are stated in Table 29. The beeline length of the regions has been deduced from the software of Google Earth Pro.

Table 29: Actual and Beeline Coastal Lengths of Districts

Name of The Districts	Actual Coastal Length (m)	Beeline Coastal Length (m)
Balçova	16,360	5,746
Narlıdere	10,090	8,883
Çiğli	74,760	24,354
Karşıyaka	10,180	6,947
Konak	19,160	11,660
Bayraklı	7,240	5,252
Güzelbahçe	7,490	6,167
Total	145,280	69,009

Source: Compilled From Gier, Arisoy and Pazi (2010) and Google Earth Pro

To figure out the social value per meter of the coastal area is divided by total meters;

$$f(WTP_{per \ actual \ m}) = \frac{145,936,985 \ TL}{145,280 \ m} \cong 1,004.52 \ TL$$
$$f(WTP_{per \ beeline \ m}) = \frac{145,936,985 \ TL}{69,009 \ m} \cong 2,114.10 \ TL$$

The average willingness to pay calculated over the beeline length of the coast is found 2,114.10 TL and the average willingness to pay calculated over the actual length of the coast has been found 1,004.52 TL. It can be underlined here per beeline value can be accepted as so close to the average market price per square meter which has been found 2,052 TL earlier under the reliability headings of Chapter Three. This imminence also proves the reliability of the valuation study.

#### 4.1.1.4. Frequency Analysis for Follow-Up Questions

As strongly advised by the literature of contingent valuation method, followup questions are asked to the participants in order to get insights on their WTP responses and thoughts about the hypothetical scenario. These questions are separated into the data collection instrument by asking before the valuation questions, by the valuation questions and after the valuation questions. At first, the frequency distribution of these questions is given below and then the results of some non-parametric tests processed on these questions will be given in details.

## 4.1.1.4.1. Follow up Questions on Scenario before Valuation Questions

In sub-section B1, just after the hypothetical scenario the participant has been first asked about the relationship with the coast. Each question has been asked separately and participants have been free to choose more than one alternatives. The findings of this statistics are stated separately in Table 30.

#### Table 30: Relation to the Coastal Area

Statements	No - Percent	Yes / Percent
I Live in Coastal Area. (n=567)	397 - 70%	170 - 30%
I Work in Coastal Area. (n=567)	431 - 76%	136 - 24%
I Visit Coastal Area At least One Times Per Week. (n=567)	465 - 82%	102 - 18%
I Visit Coastal Area For Transportation. (n=567)	341 - 60,1%	226 - 39,9%
I Rarely Visit Coastal Area. (n=567)	527 - 92,9%	40 - 7,1%
I Never Visit Coastal Area. (n=567)	557 - 98,2%	10 - 1,8 %

Source: Created by the author based on SPSS 23 outputs

As stated in Table 30, participant's relation to the coastal area is relatively high in some aspects. For instance, only 1.8 % of the participants state that they never visit the coastal area. In this context, it should be clarified how many of the participants are both living and working on the coastal area. To get these values, cross tabulation has been created and it is presented in Table 31.

**Table 31**: Cross Table on Living and Working Relation with Coastal Area

I Live in		I work in coastal area		
Coastal Area	n	No	Yes	
No	397	326 (82.1%)	71 (17.9%)	
Yes	170	105 (61.7%)	65 (38.3%)	
Total	567	431	136	

Source: Created by the author based on SPSS 23 outputs

According to Table 31, 38.3 % of the participants living in coastal area and work in coastal areas as well. It should be underlined here the majority of those living in coastal area do not work in coastal area. Therefore, there is a daily traffic and human flow from the settlements of coastal areas to the inner and other parts of the city. It may require well-designed transportation network with ferry

transportation in both ends. Consequently, the scenario that foresights sudden interventions on public sea transportation may whip up participants interests and makes sense of responding carefully.

In sub section B2, some terms have been given to the participants and asked them to state awareness degree as "I know", "I have just heard", and "I do not know". The terms and their public recognition levels are presented in Table 32.

**Table 32**: Familiarity with the Selected Terms

Torm	Familiarity Degree				
Term	I Know - %	I Just Heard - %	I do not Know - %		
Coast Line (n=567)	325 - 57.3%	201 - 35.4%	41 - 7.2%		
Coastal Area (n=567)	320 - 56.4%	208-36.7%	39 - 6.9%		
Port (n=567)	387 - 68.3%	167 - 29.5%	13 - 2.3%		
Shipyard (n=567)	370 - 65.3%	176 - 31.0%	21-3.7%		
Ecology (n=567)	315 - 55.6%	204 - 36.0%	48 - 8.5%		
Social Value (n=567)	318 - 56.1%	197 - 34.7%	52-9.2%		
Economic Development (n=567)	330 - 58.2%	188 - 33.2%	49 - 8.6%		

Source: Created by the author based on SPSS 23 outputs

According to Table 32, participants are most familiar with the term "port" and "shipyard" and less familiar with the term "social value" and "economic development". It can be inferred from the findings that people are more familiar with the superstructure components of the coastal area and less with the beneficial side.

In sub-section B3, possible expectations and evaluations on the hypothetical project have been asked to the participants. It should be stated that participants had chance to select more than one amongst fifteen options and state their opinions on the "other" alternative. Table 33 presents the frequencies of the responses.

#### Table 33: Expectations and Evaluations on the Projects

Statamonta	Resp	onses	
Statements	No - %	Yes - %	n
The project is necessary for the development of İzmir	364 - 64.2%	203 - 35.8%	
The per capita national income in Izmir will be	406 71.6%	161 28 404	
increased	400 - 71.0%	101 - 28.470	
The project will create employment	360 - 63.5%	207 - 36.5%	
The number of recreational / entertainment places on	243 42.0%	324 57 104	
the coast will be increased.	243 - 42.970	524 - 57.170	
The quality of recreational / entertainment places on	270 47 6%	207 52 404	
the coast will be increased.	270-47.0%	297 - 32.4%	
In terms of marine tourism, an attraction center will	403 - 71 1%	164 - 28.9%	
be created	403 - 71.170	104 - 20.970	
The project will create green areas and contribute the	167 - 82 1%	100 - 17.6%	567
ecological balance	407 - 82.470	100 - 17.070	307
Sea pollution will be increased	427 - 75.3%	140 - 24.7%	
As the port is affected, it damages the economy of	188 85 7%	81 - 14 3%	
Izmir and Turkey.	400 - 05.770	81 - 14.370	
The coastal area will be polluted.	313 - 55.2%	254 - 44.8%	
The project will limit the use of the coastal area	386 - 68.1%	181 - 31.9%	
Employment will be decreased in the process of	126 75 104	141 24.0%	
project	420 - 73.1%	141 - 24.9%	
The project will affect the urban traffic negatively	399 - 70.4%	168 - 29.6%	
The per capita national income in Izmir will be	108 87 804	69 12 204	
decreased	+90 - 07.0%	09 - 12.2%	

Source: Created by the author based on SPSS 23 outputs

Table 33 shows that most stated possible effects are that the project will increase the number and quality of the recreational places on the coast. 57.1 % of the participants stated that the hypothetical project will increase the number of recreational / entertainment places on the coast and 52.4 % of them think that the project will also increase the quality of recreational / entertainment places on the coast. On the contrary, the two least stated options with the 12.2 % rate is the statement that says the project will decrease the per capita income of İzmir and with 14.3 % rate is the statement that says the port will be negatively affected and so it damages economy of İzmir and Turkey. Among the negative outcome effects, the most stated one with 44.8 % rate is that the project will pollute the coastal area. Besides that, eight participants stated the "other" option but have not written down any statements.

### 4.1.1.4.2. Follow up Questions on Scenario by Valuation Questions

While asking the valuation questions some follow-up questions have also been asked to the participants according to the responses given to the valuation questions. The first follow up question has been asked to the participants who are willing to pay for the coastal area in order to get the reason for acceptance in the section C2. Six alternatives with "other" option have been given to the participants and the results are as stated in Table 34.

 Table 34: Reasons of Willingness to Pay

I am Willing to Pay Because,	Frequency and Percent	n
I want to preserve the ecological balance	14 - 10.68%	
I want my daily life to be minimally affected during the project	15 - 11.45%	
I do not want the port to be affected negatively	24 - 18.32%	
I believe that I will have a better environment as a result of the project	25 - 19.08%	131
I am in a desire to leave a more livable city for the next generation	41 - 31.29%	
I want range and number of employment opportunities to increase	12 - 9.16%	
Other	0	

Source: Created by the author based on SPSS 23 outputs

As stated in Table 34, 131 of the respondents accepted to pay for the coastal area and 31.29 % of them stated the reason for accepting the WTP as they want to leave a more livable city for the next generation. Desire to live in a better environment and protecting the port from the possible negative outcomes of the projects are the other main motivations of WTP Yes respondents. Preserving ecological balance and increasing employment opportunities are the least stated support reasons of the project.

Another follow-up question asked for "Yes" respondents is located in section C3 and asks if they would accept to pay an additional 10% amount of stated donation to reduce the project's impacts on port operations. Under the heading of "Mean

Social Value of Coastal Area" the findings were given. To repeat, 85 (65 %) of the "yes" respondents to coastal area WTP questions are also willing to pay extra 10 % for the port area.

The third follow-up question by the valuation question in the section C4 has very different motivation. In this question 95 TL has been offered to the participants who are unwilling to pay for the first valuation question. Before asking the reason for unwillingness to pay, it is important to be sure that, the participant's last decision is rejecting to pay. It is also important to clarify the starting point for the amounts to pay in participant's mind. After this question, it has been found out that unwillingness to pay is the last decision of the participants since there are no participants to state "yes" for the willingness to pay the amounts of 95 Turkish Liras.

In the section C5, the reasons for unwillingness to pay have been asked to the participants. Four reasons have been proposed to the participants with "other" options. One of the questions that should be underlined is another valuation question listed among the reasons. It states "95 TL is relatively high and I can only afford .... TL" in the statements and the motivation of asking this kinds of question is totally the same that to assess the full unwillingness to pay of participants. The findings are illustrated in Table 35.

Table 35: Reasons of Unwillingness to Pay

I am Unwilling to Pay Because,	Frequency and Percent	n
I'm interested in the subject but I just do not want to contribute	220-50.45%	
95 TL is too much. I can only offer TL contribution.	0	126
The proposed Project does not interest me at all	75-17.20%	430
I do not support the project because I want the port to have no damage	123 - 28.21%	
Other	18-4.12%	

Source: Created by the author based on SPSS 23 outputs

According to Table 35, 50.45 % of the unwilling participants dis not state any reason despite they are interested in the project they just do not want to contribute. If

it is omitted and excluded, the main reasons for unwillingness to pay stated is protecting the port. 28.21 % of the unwilling participants state that they are not in favor of the project in order to protect the port operations from the project's possible negative effects. 4.12 % of the unwilling participants have selected the other option and written down their reasons as "local authorities should contribute", "I pay my taxes and I will not give any more money", "I cannot afford any contribution, sorry!".

## 4.1.1.4.3. Follow up Questions on Scenario after Valuation Questions

After asking valuation questions, there have been two parts asking the participants specific question. One of them is forcing them to give some advice to the project owners by putting themselves in the shoes of responsible person of the project whereas the other was asking about the possible outcomes of the project. These questions are very important to understand the participant's insights on the hypothetical scenario. In some aspects it tests the construct of the scenario. Other characteristics of these two questions were to force the participants to make an order of priority about the possible effects of the projects. In the question stated in the subsection D1, the four alternatives have been given to the participants and they have been asked to select the one prior to the others. The findings are stated as follows in Table 36.

Table 36: Advices to the Project Owners

The project should	Frequency and Percent	n
be planned with the least impact on the port	84 - 14.81%	
be conducted without interrupting urban traffic	143 - 25.22%	
not damage to the environment or these damages should be minimized	280-49.38%	567
be completed as soon as possible.	60 - 10.58%	

Source: Created by the author based on SPSS 23 outputs

According to Table 36, most participants with the rate of 49.38 % agree that project should not give harmful effects to the environment or these effects should be minimized. They also state that -with 25.22 % rate- project should be conducted without interrupting urban traffic and project should be planned with the least impact on the port with the rate of 14.81 %.

In the question stated in the sub-section D2, participants have been asked to mark the three most important of the eight possible effects expected from the project. The findings are stated as follows in Table 37.

 Table 37: Most Expected Effects of the Project

Europeted Effects of The Duciest	Resp	onses	
Expected Effects of The Project	No - %	Yes - %	n
noise pollution	256 - 45.1%	311 - 54.9%	
marine pollution	175 - 30.9%	392-69.1%	
ecological damage	337 - 59.4%	230-40.6%	
Scenic view of the city	422 - 74.4%	145 - 25.6%	567
infrastructural effect	449 - 79.2%	118-20.8%	307
traffic effect	333 - 58.7%	234 - 41.3%	
psychological effect	400 - 70.5%	167 - 29.5%	
historical / cultural effect	467 - 82.4%	100-17.6%	

Source: Created by the author based on SPSS 23 outputs

According to the findings shown in Table 37, marine pollution, noise pollution and traffic effect are stated as the first three possible expected environmental effects of the project with rates of 69.1 %, 54.9 % and 41.3 % respectively. On the contrary, the least expected effects of the project are historical / cultural effect and infrastructural effect with rates of 17.6 % and 20.8 % respectively.

In the very last part of the questionnaire form, participants have been asked about their relation with the environmental charities. The frequencies of these questions are stated in Table 38.

#### Table 38: Voluntary Participation

Statamenta	Resp	onses	
Statements	No - %	Yes - %	п
Have you voluntarily participated in an environmental protection activity in the last two years	506 - 89.2%	61 – 10.8%	567
Have you voluntarily supported environmental community financially in the last two years	505 - 89.1%	62 - 10.9%	307

Source: Created by the author based on SPSS 23 outputs

According to Table 38, 89.2 % of the participants have not worked for the environmental protection activity and 89.1 % of them have not been supported such a charity financially. Any other relation with the WTP will be analyzed under the parametric analysis headings.

#### 4.1.1.5. Hypothesis Tests of Valuation Study

In this section, some statistical tests will be carried out in order to test the hypotheses established for the valuation study. The hypotheses are stated in Chapter 3 and to remind all hypotheses are stated again within the tables. In general, the hypotheses are about the differences of the willingness to pay amounts according to some stated demographic characteristics of the sample.

For hypothesis H1.1, ANOVA test is to be applied since there are more than two categories for the independent variable. The significance level (sig.) of the test of homogeneity is above 0.05 confidence interval, so it is concluded that the variances of these four income level groups are equal. In the cases of equal variances Gabriel Test can be applied in order to test the hypothesis. According to the Gabriel test results, willingness to pay amounts for coastal area is significantly different according to the income level of the people which means the H1.1 hypothesis is supported. To look for the differences, the means of willingness to pay responses given by the fourth income group -which consist of high income participants-, is statistically different from the other three income groups. Table 39 illustrates the results.

	XX/TD		<b>T</b>	Standard	t-Test Findings			
Hypothesis	Groups	n=567	Income Mean	Standard Deviation	Levene Test Sig. Value	t	Sig. (p)	
H1.1: Willingness to pay decisions for coastal area is	No	436	1,027.56	1,435.50				
significantly different according to the income level of the people	Yes	131	1,520.45	2,369.01	0.050	-2.260	0.025	

 Table 39: T-Test Results for Hypothesis H1.1

Source: Created by the author based on SPSS 23 outputs

According to Table 39, willingness to pay responses given by the participants differs according to their monthly income. Normally, the participants those earning more money are more willing to pay than the others. Participants who state yes to willingness to pay question earn average 1,520 TL in a month whereas no respondents' average monthly earning is 1,027 TL. Therefore the hypothesis is supported.

For hypothesis H1.2, t-Test has been applied since the independent variable of gender has two categories. According to Table 40, the mean of willingness to pay amounts state by female participants are 13.02 TL whereas male participants' mean is 55.11 TL.

	Condon		млъ	Ston Jon J	t-Test Findings			
Hypothesis	Groups	n=567	W I P Mean	<b>Deviation</b>	Levene Test Sig. Value	t	Sig. (p)	
H1.2: Willingness to pay amounts for coastal area is	Female	283	13.02	32,973	0.020	1 1 9 2	0.228	
significantly different according to the gender of the people.	Male	284	55.11	599,328	0.029	-1,182	0.238	

**Table 40**: t-Tests Results for Hypothesis H1.2

Source: Created by the author based on SPSS 23 outputs

According to Table 40, for hypothesis H1.2, The significance level (sig.) of the Levene test for is below 0.05, so it is concluded that the variances of these two groups are different. The value of t in the line that says "equal variances not assumed" will be taken into account in case of different variances. This means that the level of significance (p) corresponding to the value of t is 0.238, which is greater than the critical value of 0.05, so it appears that people's willingness to pay amounts have not got significant relationship with their genders which means the hypothesis is not supported.

As shown in Table 41, for hypothesis H1.3, ANOVA test is to be applied since there are more than two categories for the independent variable of age.

Hypothesis	Age Groups	N (567)	WTP Mean (TL)	Test of Homogenity	Tukey Test				
nypotnesis	(Range)			Sig.	Age		Mean Difference	Sig.	
	1 (18-25)	153	21.35	0.111			2	6.540	
H1.3: Willingness to pay amounts for coastal area	2 (26-32)	134	14.81			3	-65.740		
	3 (33-40)	129	87.09				3 171		
is significantly different according to the	4 (41-49)	66	18.18		1	4	5.171	0.039	
age group of the people.	5 (50-64)	66	17.12				5	4.232	
	6 (65+)	19	27.37			6	-6.015		

Table 41: ANOVA Results for Hypothesis H1.3

Source: Created by the author based on SPSS 23 outputs

According to Table 41, the significance level (sig.) of the test of homogeneity is above 0.05 confidence interval, so it is concluded that the variances of these four income level groups are equal. In the cases of equal variances Tukey test can be

applied in order to test the hypothesis. According to the Tukey test results, the significance value is 0.039 and so willingness to pay amounts for coastal area is significantly different according to the age level of the people which means the H1.3 hypothesis is supported.

For hypothesis H1.4, ANOVA test is to be applied since there are more than two categories for the independent variable of occupation. Findings are shown in Table 42.

Hypothesis	Occupation	n	WTP	Test of Homogenity		Games-Howell Test				
Typotnesis	Groups	=567	Mean	Sig.	Оссир	pation Groups	Mean Dif.	Sig.		
	Private Sector	193	77.67			Officer	58,81			
H1.4: Willingness	Officer	35	18.86		Private	Retired	60,56	,535		
for coastal area is significantly different according to the	Retired	38	17.11	,047	Sector	Unemployed	70,79			
occupation of the people	Unemployed	221	6.88			Other	58,71			
	Other	80	18.96							

Table 42: ANOVA Results for Hypothesis H1.4

Source: Created by the author based on SPSS 23 outputs

According to Table 42, the significance level (sig.) of the test of homogeneity is below 0.05 confidence interval, so it is concluded that the variances of these five occupation level groups are not equal. In the cases of unequal variances Games-Howell test can be applied in order to test the hypothesis. According to the Games-Howell test results, the significance value is 0.535 and so willingness to pay amounts for coastal area is not significantly different according to the occupation of the people which means the H1.4 hypothesis is not supported.

For hypothesis H1.5, Table 43 summarizes the results of ANOVA test applied to the data since there are more than two categories for the independent variable of education.

Table 43: ANOVA Results For Hypothesis H1.5

Hypothesis	Education Groups (Name of the level)	N (567)	WTP	Test of Homogeneity		ŗ	Fukey Test	
Trypomesis		(307)	(TL)	Sig.	Educat Grou	ion ps	Mean Difference	Sig.
	1 Primary and Elementary School	53	220.85			2	204.53	0.017
H1.5:	2 High School	260	16.32			3	200.42	0.170
pay amounts for coastal area is	Vocational School	47	20.43					
significantly different according to the	4 Bachelor Degree	194	11.49	,053	1	4	209.35	0.018
according to the education level of the people.	5 Master Degree	11	13.64			5	207.21	0.677
	6 PhD	2	25.00			6	195.84	0.988

Source: Created by the author based on SPSS 23 outputs

According to the results of ANOVA Test in Table 43, the significance level (sig.) of the test of homogeneity is above 0.05 confidence interval, so it is concluded that the variances of these six education level groups are equal. In the cases of equal variances Tukey Test can be applied in order to test the hypothesis. According to the Tukey test results, willingness to pay amounts for coastal area is significantly different according to the education level of the people which means the H1.5 hypothesis is supported. To look for the differences, the means of willingness to pay responses given by primary education group -which consist of lowest education-, are statistically different from the second and fourth education groups those who represent high school and bachelors respectively.

For hypothesis H1.6, t-Test have been applied since the independent variable of gender has two categories. According to Table 44, the mean of willingness to pay amounts stated by the ones without children are 12.56 TL whereas participants with children is 66.37 TL.

Table 44: t-Tests Results For Hypothesis H1.6

			<b>1</b> 1/(TD	Stern level	t-Test Findings		
Hypothesis	Children	n=567	W I P Mean	Deviation	Levene Test Sig. Value	t	Sig. (p)
H1.6: Willingness to pay amounts for coastal area is significantly different	No	340	12.56	70.456	0.021	1 212	0.026
according to the having children or not	Yes	227	66.37	665.632	0.021	-1.213	0.020

Source: Created by the author based on SPSS 23 outputs

Table 44 shows that significance level (sig.) of the Levene test for hypothesis H1.6 is below 0.05, so it is concluded that the variances of these two groups are different. The value of t in the line that says "equal variances not assumed" will be taken into account in case of different variances. This means that the level of significance (p) corresponding to the value of t is 0.026, which is lower than the critical value of 0.05, so it appears that people's willingness to pay amounts have got significant difference with their situation of being parents. It is obvious the participants that have children propose more willingness to pay amounts than the ones have not got any children. Therefore, the hypothesis is supported.

For hypothesis H1.7, ANOVA test is to be applied since there are more than two categories for the independent variable of income. Table 45 summarizes the ANOVA results.

Hypothesis	Income Levels (Range) (TL)	N (567)	WTP Mean	Test of Homogenity						
Trypotnesis		(007)		Sig.	Income Le	vel	Mean Difference	Sig.		
H1.7: Willingness to pay for amounts port area is significantly different according to the income level of the people.	1 (0-1600)	382	13.81	0.870				1	417.85 TL	
	2 (1601-3000)	139	23.56		4	2	408.10 TL	0.000		
	3 (3001-4000)	22	19.32			_				
	4 (4001+)	24	431.67			3	412.34 TL			

Source: Created by the author based on SPSS 23 outputs

According to Table 45 the significance level (sig.) of the test of homogeneity is above 0.05 confidence interval, so it is concluded that the variances of these four income level groups are equal. In the cases of equal variances Tukey Test can be applied in order to test the hypothesis. According to the Tukey test results, willingness to pay amounts for port area is significantly different according to the income level of the people which means the H1.7 hypothesis is supported. As a result the high level of income group are more willing to pay.

### 4.1.1.6. Hypothesis Tests of Social Responsibility Marketing Research

In this section, some statistical tests will be carried out in order to test the hypotheses established for the social responsibility marketing research. The hypotheses are stated in Chapter 3 and to remind all hypotheses are stated again within the tables. In general, the hypotheses are generated to test the differences between the willingness to pay decisions and responses given to the social responsibility marketing variables on Likert-scale.

Since all the hypotheses will be tested according to the willingness to pay decision, all hypotheses tests are illustrated in one table in order to compare the results. Table 46 sums up the findings of testing the hypotheses generated for the social responsibility marketing part of the research.

Hynothesis	WTP	n-567	Variable	Standard	t-Test Findings			
Hypothesis	Groups	n=307	Mean	Deviation	Levene Test Sig. Value	t	Sig. (p)	
H2.1	No	436	3.4748	0.9997	0,000	-5.396	0.000	
	Yes	131	3.9924	0.8274				
H2.2	No	436	3.4725	1.0019	0,001	-3 601	0.000	
	Yes	131	3.8244	0.9071		-5.001		
H2 3	No	436	3.4450	1.1221	0,000	-5 882	0.000	
112.5	Yes	131	4.0687	0.8430		5.002		
H2 4	No	436	3.4243	1.0040	0,000	-6 500	0.000	
112.1	Yes	131	4.0534	0.8532		0.500		
H2 5	No	436	3.6422	1.0956	0,000	5 210	0.000	
H2.5	Yes	131	4.1832	0.8394		-3.210		
H2 6	No	436	3.4794	1.0557	0.000	-5.628	0.000	
112.0	Yes	131	4.0458	0.8400	0,000	-5.028	0.000	

Table 46: t-Tests Results For Hypothesis H2.1, H2.2, H2.3, H2.4, H2.5 and H2.6

Source: Created by the author based on SPSS 23 outputs

According to the findings stated in Table 46, for hypothesis H2.1, The significance level (sig.) of the Levene test is below 0.05, so it is concluded that the variances of these two groups are different. The value of t in the line that says "equal variances not assumed" will be taken into account in case of different variances. This means that the level of significance (p) corresponding to the value of t is 0.000, which is lower than the critical value of 0.05, so it appears that responses to the statement of coastal businesses have a social responsibility role on increasing the value of the coastal area differ according to the WTP decisions. Participants who have stated willingness to pay for the coastal areas also stated that coastal businesses have a social responsibility role on the coastal area stronger than the participants who have stated unwillingness to pay.

For hypothesis H2.2, the significance level (sig.) of the Levene test is below 0.05, so it is concluded that the variances of these two groups are different. The value of t in the line that says "equal variances not assumed" will be taken into account in

case of different variances. This means that the level of significance (p) corresponding to the value of t is 0.001, which is lower than the critical value of 0.05, so it appears that the responses to the statement of coastal businesses have public trust role on increasing the value of the coastal areas differ according to the WTP decisions. Participants who have stated willingness to pay for the coastal areas have also stated that coastal businesses have public trust role in increasing the value of the coastal areas stronger than the participants who have stated unwillingness to pay.

For hypothesis H2.3, The significance level (sig.) of the Levene test is below 0.05, so it is concluded that the variances of these two groups are different. The value of t in the line that says "equal variances not assumed" will be taken into account in case of different variances. This means that the level of significance (p) corresponding to the value of t is 0.000, which is lower than the critical value of 0.05, so it appears that responses to the statement of coastal businesses have role of changing the ideas of people on increasing the value of the coastal area differ according to the WTP decisions. Participants who have stated willingness to pay for the coastal areas also have stated that coastal businesses have role in changing the ideas of people in increasing the value of the coastal area stronger than the participants who stated unwillingness to pay.

For hypothesis H2.4, the significance level (sig.) of the Levene test is below 0.05, so it is concluded that the variances of these two groups are different. The value of t in the line that says "equal variances not assumed" will be taken into account in case of different variances. This means that the level of significance (p) corresponding to the value of t is 0.000, which is lower than the critical value of 0.05, so it appears that responses to the statement of coastal businesses have role in being consumer oriented on increasing the value of the coastal area differ according to the WTP decisions. Participants who have stated willingness to pay for the coastal areas also have stated that coastal businesses have role in being consumer oriented in increasing the value of the participants who have stated unwillingness to pay.

For hypothesis H2.5, the significance level (sig.) of the Levene test is below 0.05, so it is concluded that the variances of these two groups are different. The value

of t in the line that says "equal variances not assumed" will be taken into account in case of different variances. This means that the level of significance (p) corresponding to the value of t is 0.000, which is lower than the critical value of 0.05, so it appears that responses to the statement of coastal businesses have role of assessing quality of peoples life in increasing the value of the coastal area differ according to the WTP decisions. Participants who have stated willingness to pay for the coastal areas also have stated that coastal businesses have role in assessing quality of people's life on increasing the value of the coastal area stronger than the participants who stated unwillingness to pay.

For hypothesis H2.6, the significance level (sig.) of the Levene test is below 0.05, so it is concluded that the variances of these two groups are different. The value of t in the line that says "equal variances not assumed" will be taken into account in case of different variances. This means that the level of significance (p) corresponding to the value of t is 0.000, which is lower than the critical value of 0.05, so it appears that responses to the statement of coastal businesses have role of changing the peoples behaviors on increasing the value of the coastal area differ according to the WTP decisions. Participants who have stated willingness to pay for the coastal areas have also stated that coastal businesses have role in changing the people's behaviors in increasing the value of the coastal area stronger than the participants who stated unwillingness to pay. Consequently, hypothesis H2.1, H2.2, H2.3, H2.4, H2.5 and H2.6 have been all supported.

#### **4.1.1.7.** Analysis for Follow-Up Questions of Valuation of Coastal Areas

Some follow of questions have been asked to the participants and these questions have been introduced in details under the questionnaire design heading. One of them has been asked to measure the participants' awareness on some terminologies. Table 47 illustrates the relationship between the awareness of the participants about the term "coast line" and their willingness to pay decision.

WTP	n	Awar	eness of Coa	st Line	Pearso	on Chi-S	Square
Groups		Familiar	Just Heard	Not familiar	Value	Df	Sig.
No	436	243 (55.7%)	171 (39.2%)	22 (5%)	20.857	2	0.000
Yes	131	82 (62.6%)	30 (22.9%)	19 (14.5%)	20.037	2	0.000
Total	567	325 (57.3%)	201 (35.4%)	41 (7.2%)			

Table 47: Chi-square Results For Awareness of the Term "Coast Line"

Source: Created by the author based on SPSS 23 outputs

According to the findings stated in Table 47, there is a significant difference in the awareness of the participants the term "coast line" and their willingness to pay. The significance value is lower than 0.05. 62.6 % of the WTP Yes respondents are familiar with the term where as 22.9 % has just heard the term and %14,5 have no idea. From the other perspective, 41 participants are not familiar with the term "port" and 19 of them are WTP yes respondents. It means that 46.34 % of these unfamiliar participants are WTP Yes respondents. 82 of the 325 familiar respondents are WTP Yes respondents that means just 25.23 % of the familiar respondents are WTP Yes respondents. Table 48 illustrates the relationship between the awareness about another term "social value" and willingness to pay decision.

WTP	n	Aware	eness of Socia	Pearso	n Chi-S	quare	
Groups		Familiar	Just Heard	Not familiar	Value	df	Sig.
No	436	235 (53.9%)	170 (39%)	31 (7.1%)	20 142	2	0.000
Yes	131	83 (63.4%)	27 (20.6%)	21 (16%)	20.142	2	0,000
Total	567	318 (56.1%)	197 (34.7%)	52 (9.2%)			

Table 48: Chi-square Results For Awareness of the Term "Social Value"

Source: Created by the author based on SPSS 23 outputs

According to the findings shown in Table 48, there is a significant difference in the awareness of the participants the term social value and their willingness to pay since the significance value is lower than confidence interval, 0.05. 63.4 % of the WTP Yes respondents are familiar with the term whereas 20.6 % have just heard the term and 16 % have no idea.

Another term which is asked is "port". Table 49 illustrates the relationship between the awareness about the term "port" and willingness to pay decision.

WTP	n	Awareness of Port			Pearso	n Chi-S	Square
Groups		Familiar	Just Heard	Not familiar	Value	df	Sig.
No	436	282 (64.7%)	143 (32.8%)	11 (2.5%)	20 142	2	0.000
Yes	131	105 (80.2%)	24 (18.3%)	2 (1.5%)	20.142	2	0,000
Total	567	387 (68.3%)	167 (29.5%)	13 (2.3%)			

Table 49: Chi-square Results For Awareness of the Term "Port"

Source: Created by the author based on SPSS 23 outputs

According to Table 49, there is a significant difference in awareness about the term port and willingness to pay since the significance value is lower than 0.05. 80.2 % of the WTP Yes respondents are familiar with the term whereas 18.3 % have just heard the term and 1.5 % have no idea.

Another important follow-up question has been asked to the participants in order to reveal the interaction of the respondents to the coastal areas and the results are shown in Table 50.

Table 50: Chi-square Results of Relation with The Coastal A	Area
-------------------------------------------------------------	------

I live in coastal		oastal area	Pearso	n Chi-	Square	
Groups	п	No	Yes	Value	df	Sig.
No	436	316 (72.4%)	120 (27.6%)	20 857	2	0.000
Yes	131	81 (61.84%)	50 (38.16%)	20.007	2	0.000
Total	567	397 (70%)	170 (30%)			

**Source:** Created by the author based on SPSS 23 outputs

According to Table 50, there is a significant difference between willingness to pay and living in the coastal area. Surprisingly participants those living in the coastal area are unwilling to pay. 38 % of the WTP Yes respondents are living in the coastal area whereas the 61.84 % do not live in coastal area. It means that the majority of the WTP "yes" respondents do not live in the coastal area.

No other significant relationship has been realized between the willingness to pay and the other groups that work in coastal areas and use the coast to access transportation modes.

# 4.1.2. Findings of Research on Social Responsibility Marketing on Coastal Areas

In this section, the findings of the second part of the research; social responsibility marketing on coastal areas will be revealed. First of all, the reliability of the research is to be addressed and then the statistical analyses of the data are to be held in order to reach the stated aim of the research. T-test, chi-square tests, ANOVA tests, factor analysis and logistics regression analysis will be handled in this part of the research.

# 4.1.2.1. Reliability of Research on Social Responsibility Marketing on Coastal Areas

The reliability of the Likert-scale questions of the research is processed by calculating Cronbach Alpha value. Table 51 illustrates the Cronbach alpha value of the five Likert scale questions addressing the responsibilities of coastal facilities in assessing the social responsibility marketing of coastal areas.

Table 51: Reliability Analysis of the Questionnaire Part D3

Part of the Questionnaire	No. of Variables	Cronbach Alpha Value
D3	39	0.972

Source: Created by the author based on SPSS 23 outputs

As seen in Table 51, 0.972 Cronbach alpha value is well acceptable in social sciences (Altunişik, et.al, 2007). The high reliability of this part of the study strengthens the expectation that the measurement will yield consistent results.

### 4.1.2.2. Distribution of Frequencies of Variables

Table 52 illustrates the distribution frequencies of 39 variables listed in the D3 part of the questionnaire. The mean and standard deviations of the responses to the 39 expressions stated in the 5-point Likert scale are shown in table 51 (1: Absolutely Disagree, 5: Absolutely Agree).

#### Table 52: Mean of the Variables

Variables	n	Mean	Std. Deviation
Social Responsibility	567	3.59	0.986
Public Trust	567	3.55	0.991
Welfare of Employees	567	3.58	0.966
Legitimacy	567	3.65	1.000
Protection of Environment	567	3.65	1.060
Public Image	567	3.60	1.070
Community Satisfaction	567	3.55	1.088
Value of Investment	567	3.53	1.061
Investors Well-Being	567	3.54	1.080
Voluntary Engagement	567	3.62	1.066
Creating Inter-organizational Benefits	567	3.65	1.034
Organizational Responsibility	567	3.60	1.074
Financial Success	567	3.61	1.073
Incentives to the Social Responsibility	567	3.65	1.094
Safety	567	3.64	1.133
Moral	567	3.59	1.125
Encouraging Environmentally Significant Behavior	567	3,62	1.088
Influencing People's Behavior	567	3.61	1.037
Influencing Policy Makers	567	3.55	1.049
Effective Communication	567	3.66	1.010
Responding Socio-Economic Concerns	567	3.63	1.014
Well-Being (Welfare) of People /Community	567	3.66	1.030
Exchange of Resources (Welfare Exchange)	567	3.63	1.036
Social Value Creation	567	3.68	1.045
Influence People's Ideas	567	3.59	1.095
Influence People's Lifestyles	567	3.63	1.077
Contribution to Social Change	567	3.64	1.061
Awareness Development	567	3.60	1.097
Promotion	567	3.66	1.072
Incentives to be Involved in Social Marketing Campaign	567	3.68	1.078
Reducing Energy Consumption	567	3.75	1.102
Creating Social Benefits	567	3.65	0.961
Creating Individual Benefits	567	3.57	0.922
Consumer Orientation	567	3.57	1.006
Creating Common Areas for Public	567	3.68	0.994
Public Relations	567	368	0.978
Preservation of Public Health	567	3.69	1.003
Bans on Smoking	567	3.66	1.037
Quality of Life	567	3.77	1.066

Source: Created by the author based on SPSS 23 outputs

As seen in Table 52, The participants in the study answered the questions with an average of more than 3.5 in general terms. The highest mean in the study (Mean: 3.77) is for the variable whether the coastal facilities are responsible for raising the "quality of life". The lowest mean in the study (Mean: 3.53) is for the variable of "value of investment" which tests the value of investment is important to raise the value of the coastal area.

#### 4.1.2.3. Factor Analysis of Variables

To assess the main dimensions of social responsibility marketing variables of coastal social value, factor analysis has been carried out to all the variables asked to the participants. 39 variables have been inputted to the analysis and seven factor groups dimensions have been created according to the results. The interpretation of the findings was made by the guidance of Cerit (2000) and Büyüköztürk (2003) (Cerit, 2000; Büyüköztürk, 2007).

Kaiser-Mayer-Olkin (KMO) coefficient and Bartlett test for sphericity have been found significant for factor analysis to be reliable. Table 53 represents these coefficients.

Name of the Test	Coefficient
Kaiser-Mayer-Olkin (KMO) Test	0.951
Bartlett Test for Sphericity Approximate Chi. Square	19,311.668
Degrees of Freedom (df)	0.741
Sig.	0.000

Table 53: Kaiser-Mayer-Olkin (KMO) coefficient and Bartlett Test

Source: Created by the author based on SPSS 23 outputs

According to the Table 53, KMO coefficient is 0.951. Since this value is above 0.500, it can be stated that the data is appropriate for factor analysis application (Field, 2005). When the Bartlett Sphericity Test results are examined, it is seen that the chi-square value obtained is significant at confidence interval level.

Table 54 illustrates the factor loadings of thirty-nine variables, alpha values that state reliability degrees for each factor groups and as a whole, means and standard deviations of each variable. In this factor analysis, thirty-nine variables have been turned into seven factor groups.

#### Table 54: Factor Groupings and Factor Scores

Factor Groupings	Alpha	Mean*	Sd	Factor Loadings						
General Reliability	0.972			1	2	3	4	5	6	7
1. Social Change and Awareness	0.923									
Development										
Influence People's Ideas		3.59	1.095	0.5730						
Influence People's Lifestyles		3.63	1.077	0.6788						
Contribution to Social Change		3.64	1.061	0.7003						
Awareness Development		3.60	1.097	0.7472						
Promotion		3.66	1.072	0.7752						
Involving in Social Marketing Campaign		3.68	1.078	0.7206						
Reducing Energy Consumption		3.75	1.102	0.6059						
2. Communication and Social Value Creation	0.917									
Influencing People's Behavior		3.61	1.037		0.6209					
Influencing Policy Makers		3.55	1.049		0.6109					
Effective Communication		3.66	1.010		0.6503					
Responding Socio-Economic Concerns		3.63	1.014	İ	0.7069	1	İ	l	1	1
Well-Being (Welfare) of People /Community	1	3.66	1.030		0.6837	1			1	
Exchange of Resources (Welfare Exchange)		3.63	1.036		0.6572	1		1		1
Social Value Creation		3.68	1.045		0.5354					
3. Public Trust and Welfare	0.915									
Social Responsibility		3.59	0.986			0.7565		1		
Public Trust		3.55	0.991			0.7699				
Welfare of Employees		3.58	0.966			0.7570				
Legitimacy		3.65	1.000		/	0.7660				
Protection of Environment		3.65	1.060		7	0.6320				
4. Ethics and Organization	0.906		-							
Organizational Responsibility	-	3.60	1.074				0.6079			
Financial Success	1	3.61	1.073	-			0.6381			
Incentives to the Social Responsibility		3.65	1.094		- /		0.7159			
Safety		3.64	1.133				0.7412			
Moral		3 59	1.125				0.6584			
Encouraging Environmentally Significant Behavior		3.62	1.088				0.5333			
5. Investment Value and Community Satisfaction	0.899									
Public Image		3.60	1.070					0.5524		
Community Satisfaction		3.55	1.088	1	1			0.6551		1
Value of Investment		3.53	1.061					0.7437		
Investors Well-Being		3.54	1.080	1				0.7620		
Voluntary Engagement		3.62	1.066	1	1			0.5131	1	1
Creating Inter-organizational Benefits		3.65	1.034	1	1			0.5503	1	1
6. Public Relations and Benefits	0.873			1	1				1	1
Creating Social Benefits		3.65	0.961						0.6743	
Creating Individual Benefits		3.57	0.922						0.7593	
Consumer Orientation		3.57	1.006	1	1				0.7971	1
Creating Common Areas for Public		3.68	0.994	1	1				0.5816	1
Public Relations	1	3.68	0.978	1	1	1	1	1	0.4957	1
7. Public Health	0.873			1		1	1	t		1
Preservation of Public Health		3.69	1.003	<u> </u>		1	<u> </u>	t	1	0.6596
Bans on Smoking	1	3.66	1.037	<u> </u>		1	<u> </u>	t	1	0.7029
Ouality of Life		3.77	1.066	1	1				1	0.7299
		1	1.000	I			I	I		0.7277

\*5-point likert scale: 1=completely disagree; 5=completely agree

Source: Created by the author based on SPSS 23 outputs

Table 54 illustrates the seven factor groups inferred from the factor analysis of variables deduced from social marketing and corporate social responsibility literature by content analysis. The findings of factor analysis will be presented in the following paragraphs. The seven factor groupings are stated as follows in order of their reliability;

- Social Change and Awareness Development
- Communication and Social Value Creation

- Public Trust and Welfare
- Ethics and Organization
- Investment Value and Community Satisfaction
- Public Relations and Benefits
- Public Health

These seven factor groupings explain 72.14 % of the variance of the data set. The highest factor scores have been found in the variables of consumer orientation (0.7971), promotion (0.7752), public trust (0.7699), legitimacy (0.7660) and investor's well-being (0.7620).

From the perspectives of the mean deduced from the responses given to the data collection instrument; quality of life (3.77), reducing energy consumption (3.75), preservation of public health (3.69), creating common areas for public (3.68), public relations (3.68), social value creation (3.68) and involving in social marketing campaign (3.68) variables have the highest mean values. To evaluate the variables that have greater mean values, there are no variables from the third, fourth and fifth factor groups. These are public trust and welfare, ethics and organization, investment value and community satisfaction groups respectively. It should be stated that two of three members of public health factor group have the highest mean and these are quality of life (3.77) and preservation of public health (3.69).

In the first factor group, variables of "Influence People's Ideas", "Influence People's Lifestyles", "Contribution to Social Change", "Awareness Development", "Promotion", "Involving in Social Marketing Campaign" and "Reducing Energy Consumption" have been located and the name of the factor is "Social Change and awareness Development". The Cronbach alpha value of the group is 0.923.

The second factor group was named as "Communication and Social Value Creation" and the variables located in this group are listed as "Influencing People's Behavior", "Influencing Policy Makers", "Effective Communication", "Responding Socio-Economic Concerns", "Well-Being (Welfare) of People /Community", "Exchange of Resources (Welfare Exchange)" and "Social Value Creation". The Cronbach alpha value is 0.917.

The third factor group consists of "Social Responsibility", "Public Trust", "Welfare of Employees", "Legitimacy" and "Protection of Environment" variables and the name of the factor group is assigned as "Public Trust and Welfare". The reliability of the factor groups is 0.915.

The fourth factor group is the group of "Organizational Responsibility", "Financial Success", "Incentives to the Social Responsibility", "Safety", "Moral", "Encouraging Environmentally Significant Behavior" variables and the name of the group is "Ethics and Organization". Cronbach alpha value of 0.906 states that the reliability of the factor group is in acceptable level.

"Public Image", "Community Satisfaction", "Value of Investment", "Investors Well-Being", "Voluntary Engagement" and "Creating Inter-organizational Benefits" are the variables of the fifth factor group and the name of "Investment Value and Community Satisfaction" is given to the group. The cronbach alpha value of the reliability is calculated as 0.899.

"Creating Social Benefits", "Creating Individual Benefits", "Consumer Orientation", "Creating Common Areas for Public" and "Public Relations" are the variables of the sixth factor group and "Public Relations and Benefits" is the name of the group. 0.873 is the reliability coefficient of the sixth factor group.

The last and the seventh factor group is named as a "Public Health" and the variables of this factor group are "Preservation of Public Health", "Bans on Smoking" and "Quality of Life". The Cronbach alpha value is calculated as 0.873.

# 4.1.2.4. Selection of Logistics Regression Model Variables for Coastal Area WTP

In this dissertation, the dependent variable is willingness to pay or not to pay. This dependent variable consists of two categories therefore the binary logistics regression model is to be established. Besides that, the backward likelihood ratio (LR) method and forward likelihood ratio method are used separately in all logistics regression processes in order to select the best fit variables. At the end, the findings and coefficients found by each methods have been compared and it has been found unworthy to include outcomes of forward LR does into the text of dissertation because the only difference between two methods is that while backward LR results presented that number of children variable should be selected for the model, forward LR did not result in this way. In order to classify and handle the process systematically, the backward method has been applied to every part of the questionnaire form separately and every data collected have been analyzed by Backward LR tests. Table 55 shows the Backward LR test results for the part B of the questionnaire.

**Table 55**: Backward LR Test Results between Part B1, B2, B3 and Coastal Area WTP

 Question

Variables Chosen	В	Standard error	Sig.	<b>Exp.</b> ( <b>B</b> )
Familiarity to the term "Port"	-0.804	0.239	0.001*	0.447
The project is necessary for the	0.945	0.224	0.000*	2.572
development of İzmir				
The project will limit the use of	-1.938	0.390	0.000*	0.144
the coastal area				
Constant	-0.215	0.325	0.508	0.807

\*Significant values in confidence interval of 95%

Source: Created by the author based on SPSS 23 outputs

According to Table 55, the statistically significant relations that occurred with the questions asked about the familiarity of the specific term (B2) and possible outcomes of the project (B3). For the part B2, the answers that are given to the familiarity of the term "port" and the coastal area WTP question have statistically significant relation. Therefore, this data has been chosen to be included in the binary logistics regression model. Additionally for the part B3, There is a significant relationship between the participants who think that the hypothetical project is necessary for development of İzmir and coastal area WTP. Finally another significant relationship occurs between the participants who believe the hypothetical project will limit the use of the coastal area and WTP responses for coastal areas.

To clarify the findings, participants who are familiar with the term "port" are 0.447 times less likely to pay for the coastal areas since they put a value to the port operations and believe that hypothetical scenario will affect the efficiency of port operations so they do not support the project. Similarly, participants who think that the project will limit the use of the coastal areas are 0.144 times less likely to pay for

the coastal areas. They also do not support the project and put less for the making the negative effects away off. On the contrary, the participants who think the project is necessary for development of İzmir are 2.572 times more likely to pay for the coastal areas and consequently they support the project and put more value to the coastal area.

For the part D, the backward LR test has been applied to part D1 and part D2 together. Part D3 has been taken separately since the number of variables is numerous and should be evaluated differently in the nature of the study. Table 56 shows the backward LR test results for the parts D1 and D2.

**Table 56**: Backward LR Test Results between the Parts D1, D2 and Coastal Area WTP

 Question

Variables Chosen	В	Standard error	Sig.	<b>Exp.</b> ( <b>B</b> )
Pollution of the Sea	-1.156	0.239	0.000*	0.315
Noise Pollution	0.629	0.237	0.008*	1.876
Constant	-0.811	0.173	0.000	0.444

\*Significant values in confidence interval of 95%

Source: Created by the author based on SPSS 23 outputs

According to Table 56, the statistically significant relations occurred with the questions asked in the part D2 on the order of the importance of the environmental effects of the project. The effects of "Pollution of the Sea" and "Noise Pollution" have statistically significant relation with coastal area WTP. Therefore, these two variables have been chosen to be included in the binary logistics regression model for coastal area WTP. To have detailed insights on the variables, it should be underlined here while noise pollution has positive correlation with the willingness to pay value, pollution of the sea has negative correlation. It shows that, participants do not support the project since it creates pollution of the seas so they are 0,315 times less likely to pay for the coastal area. The participants believe that noise pollution can be avoided by contributing to the fund. In other words, the participants who think that noise pollution is one of the possible environmental effects of the project are 1,876 times more likely to pay for the coastal areas. Consequently, the participants think

that sea pollution cannot be avoided by funding but he noise pollution can be decreased.

For the part D3, all 39 variables have been included in the backward LR test and the results are summarized in Table 57 below.

Table 57: Backward LR Test Results Between The Part D3 and Coastal Area WTP Question

Variables Chosen	В	Standard error	Sig.	<b>Exp.</b> ( <b>B</b> )
Social Responsibility	0.755	0.208	0.000*	2.127
Public Trust	-0.522	0.195	0.007*	0.593
Voluntary Engagement	-0.377	0.166	0.023*	0.686
Creating Inter-organizational Benefits	0.472	0.168	0.005*	1.603
Moral	-0.364	0.136	0.008*	0.695
Influencing People's Behavior	0.437	0.156	0.005*	1.548
Influence People's Ideas	0.330	0.131	0.012*	1.391
<b>Consumer Orientation</b>	0.463	0.133	0.000*	1.589
Quality of Life	0.308	0.137	0.025*	1.361
Constant	-7.042	0.846	0.000	0.001

\*Significant values in confidence interval of 95%

Source: Created by the author based on SPSS 23 outputs

Table 57 shows that "Social Responsibility", "Public Trust", "Voluntary Engagement", "Creating Inter-organizational Benefits", "Moral", "Influencing People's Behavior", "Influence People's Ideas", "Consumer Orientation" and "Quality of Life" variables are chosen in order to be included in the logistics regression model since they all have statistically significant relation with coastal area WTP. It should be stated here that, "public trust", "voluntary engagement" and "moral" variables have negative relation with willingness to pay decision, the others have positive relation. In short, the participants say the project that should establish public trust must be carried out with voluntary engagement and have moral and ethical considerations in order to create a value for the coastal area. Here are other important variables; "Influencing People's Behavior" and "Influence People's Ideas" which comprise the social marketing definition. Both of the variables have positive correlation with willingness to pay which means social marketing campaigns can be carried out in coastal areas. Participants those who think in this way are 1.548 and 1.391 times more likely to pay for the coastal area.
Backward LR test has also been applied to the part E which includes questions to clarify the socio-demographic characteristics of the participants. Table 58 summarizes the best fitted variables to select for the general model of the coastal area WTP.

Variables Chosen	В	Standard error (S.E.)	Sig.	Exp. (B)
Gender	-0.601	0.220	0.006*	0.548
Education	-0.307	0.111	0.006*	0.736
Number of Children	0.186	0.088	0.034*	1.205
Financial Support for Charities	-1.074	0.296	0.000*	0.342
Monthly Income	0.288	0.105	0.006*	1.334
Constant	1.840	0.718	0.010	6.300

**Table 58**: Backward LR Test Results between Profile Questions and Coastal Area WTP

 Question

\*Significant values in confidence interval of 95%

Source: Created by the author based on SPSS 23 outputs

According to Table 58, Backward LR test between profile questions and coastal area WTP question is resulted in displaying the statistically significant relation in "Gender", "Education", "Number of Children", "Monthly Income" and "Financial Support for Charities" variables. By taking these variables as a model, it can be said that participants who have children are 1.205 times more likely to pay for the coastal area and people who earn more want to pay more for coastal areas. The participants who financially supported any charity in the past two years are less likely to pay for the coastal area.

## 4.1.2.5. Binary Logistics Regression Model for Coastal WTP

In order to get substantive result from the binary logistics regression model for coastal area WTP, the backward LR tests have been applied to the variables and nineteen best fitted ones have been chosen. In this step, the model will be established and the findings are to be figured out. To summarize the model and give information about the significance and validity of the model, the nineteen independent variables are explaining the interval of 28.2 % and 42.7 % of total variance in the dependent variable (Cox and Snell R Square= 28,2 ; Nagelkerke R Square=42.7). These numbers shows that the model is meaningful and has statistical significance. Another coefficient that shows the fitness of the model is Hosmer and Lemeshow test. Here the significance value should be greater than the 0.05. In this model the value is 0.253 and it verifies the fitness of the model. Another verification of the model fitness is Percentage Accuracy in Classification (PAC) and this PAC value is 84.7 %. It means that by interpreting the variables the dependent variable can be predicted accurately in the rate of 84.7 %. After completing testing the validity and fitness of the model, Table 59 shows the binary logistics regression model that explains the coastal area willingness to pay behaviors of participants. In other words, these nineteen variables explain the social responsibility marketing aspects on coastal areas.

Variables	В	S.E.	Sig.	Exp. (B)
Social Responsibility	0.717	0,252	0.004*	2.048
Public Trust	-0.435	0.233	0.062	0.647
Voluntary Engagement	-0.476	0.189	0.012*	0.621
Creating Inter-organizational Benefits	0.444	0.187	0.018*	1.559
Moral	-0.489	0.155	0.002*	0.613
Influencing People's Behavior	0.304	0.178	0.088	1.355
Influence People's Ideas	0.420	0.151	0.005*	1.521
Consumer Orientation	0.378	0.148	0.011*	1.460
Quality of Life	0.323	0.161	0.045*	1.381
Gender	-0.689	0.265	0.009*	0.502
Education			0.321	
Education (1)	-1.937	1.691	0.252	0.144
Education (2)	-2.182	1.636	0.182	0.113
Education (3)	-2.325	1.682	0.167	0.098
Education (4)	-2.482	1.618	0.125	0.084
Education (5)	-3.873	1.901	0.042*	0.021
Number of Children	0.127	0.117	0.275	1.136
Monthly Income			0.247	
Monthly Income (1)	-1,125	0.685	0.101	0.325
Monthly Income (2)	-0.883	0.702	0.209	0.414
Monthly Income (3)	-0.714	0.799	0.372	0.490
Monthly Income (4)	-0.040	0.836	0.961	0.960
Financial Support for Charities	-1.283	0.373	.001*	0.277
The project is necessary for the development of İzmir	0.565	0.274	0.040*	1.759
The project will limit the use of the coastal area	-1.593	0.437	0.000*	0.203
Pollution of the Sea	-1.823	0.297	0.006*	0.439
Noise Pollution	0.514	0.297	0.084	1.672
Familiarity to the term "Port"			0.011*	
Familiarity to the term "Port" (1)	1.477	0.913	0.106	4.378
Familiarity to the term "Port" (2)	0.629	0.933	0.500	1.876
Constant	-0.300	2.157	0.889	0.741

Table 59.	Binary	Logistics	Regression	Model for	Coastal	Area WTP
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\*Significant values in confidence interval of 95%

Source: Created by the author based on SPSS 23 outputs

According to Table 59, statistical significances are observed between coastal area WTP and fourteen variables of "Social Responsibility", "Voluntary Engagement", "Creating Inter-organizational Benefits", "Moral", "Influence People's Ideas", "Consumer Orientation", "Quality of Life", "Gender", "Education", "Financial Support for Charities", "The project is necessary for the development of İzmir", "The project will limit the use of the coastal area", "Pollution of the Sea" and "Familiarity to the term Port" variables.

The results can be interpreted as follows;

The participants who think that social responsibility is an important role in the coastal facilities in increasing the value of coastal areas are 2.048 times more likely to pay for the coastal areas than who do not think so. Besides this, creating inter organizational benefits is another important role in the coastal facilities in increasing the value of coastal areas, and the participants who think in this way is 1.559 times more likely to pay for the coastal areas than who do not think so. The participants who think that influencing people's ideas, consumer orientation and quality of life are important roles of the coastal facilities in increasing the value of coastal areas are 1.521, 1.460 and 1.381 times respectively more likely to pay for the coastal areas than who does not think.

In contradiction to the above mentioned variables participants who think that voluntary engagement and moral are important roles on the coastal facilities in increasing the value of coastal areas are 0.621 and 0.613 times less likely to pay for the coastal areas.

By considering gender, in this model, male participants are 0,502 times less likely to pay for the coastal areas than the females. Education is another significant variable and the participants who have PhD degree are 0.021 times less likely to pay than the participants who have primary school degree.

Participants who think that the hypothetical project is necessary for the development of İzmir are 1.759 times more likely to pay for the coastal areas than who do not think so. In contradiction, the participants who think that the hypothetical project will limit the use of the coastal areas is 0.203 times less likely to pay for the coastal areas than who do not think so. Participants who have not donated to

environmental charities before are 0.277 times less likely to pay for the coastal areas than who have donated before. The participants who think that marine pollution is the most possible effect of the project are 0.439 times less likely to pay for the coastal areas than who do not think so. The participants who state that they are familiar with the term "port" are 4.378 times more likely to pay for the coastal areas than those who state they are not familiar.

# 4.1.2.6. Selection Logistics Regression Model Variables for Port Facility WTP

Under previous heading, the variables are selected by using backward LR test and the binary logistics regression model for coastal areas WTP has been established. In this step, the same process will be held in order to establish binary logistics regression model for port facility WTP. The backward LR method has been applied to every part of the questionnaire form separately and every data has been entered into backward LR tests. Table 60 shows the Backward LR test results for the part B of the questionnaire.

**Table 60**: Backward LR Test Results between Part B1, B2, B3 and Port Facility WTP

 Question

Variables Chosen		СE	<b>C</b> !~	Exp.
	Б	5.E.	51g.	<b>(B</b> )
Familiarity to the term "Economic Development"	1.017	0.480	0. <b>034*</b>	2.766
The project is necessary for the development of İzmir	1.644	0.563	0.003*	5.177
The quality of recreational / entertainment places on the coast will be increased.	-1.200	0.586	0.041*	0.301
The project will create employment	-1.043	0.621	0.093	0.353
In terms of marine tourism, an attraction center will be created	2.122	0.619	0.001*	8.350
The project will affect the urban traffic negatively	-3.056	1.007	0.002*	0.047
The coastal area will be polluted.	1.435	0.856	0.093	4.200
I live in the Coastal Area	2.158	0.696	0.002*	8.656
I work in the Coastal Area	1.890	0.689	0.006*	6.619
I visit the coastal area one times in a week at least	2.245	0.777	0.004*	9.438
I visit the coastal area two times in a month at least	2.406	0.835	0.004*	11.093
Constant	-3.011	1.010	0.003	0.049

\*Significant values in confidence interval of 95%

Source: Created by the author based on SPSS 23 outputs

According to Table 60, the statistically significant relations occurred with the questions about the relation with coastal areas (B1), the familiarity of the specific terms (B2) and possible outcomes of the project (B3). For the part B1, the answers to the port facility WTP question which are given by participants who visit the coastal area once in a week at least and two times in a month at least have significant relationship. For the part B2, the answers that are given to the familiarity of the term "economic development" and the port facility WTP question have statistically significant relation. Therefore, these data has been chosen to be included in the binary logistics regression model. Besides these, for the part B3, there is a significant relationship between the participants those think that the hypothetical project is necessary for development of İzmir and port facility WTP. The responses of participants who believe the hypothetical project will affect the urban traffic negatively, the quality of recreational / entertainment placed on the coast will be increased and in terms of marine tourism, an attraction center will be created have statistically significant relationship with port facility WTP.

To clarify the findings, the participants who are familiar with the term "economic development" are 2.766 times more likely to pay for the port facility. Similarly, the participants who think that the project is necessary for the development of İzmir are 5.177 times more likely to pay for the port facility since they put a value to the economic development of Izmir and believe that hypothetical scenario will affect the role of port in regional economic development so they are willing to pay. Nevertheless, the participants who think that the project will affect the urban traffic negatively are 0.047 times less likely to pay for the port facility. They are aware that donation is not enough to overcome the urban traffic effect that project causes. On the contrary, the participants who think that the project will create attraction center for marine tourism are 8.350 times more likely to pay for the port facility. The participants are aware that İzmir Alsancak Port has cruise tourism capacity and it needs to be developed by supporting infrastructural and superstructural rehabilitation projects. Besides all, the participants who work and / or live in the coastal area are 6.619 and 8.656 times more likely to pay for the port facility respectively. Even participants who visit the coastal area twice in a month support the port facility and 11.093 times more likely to pay for the port facility.

Just like in the coastal area WTP, backward LR tests, for the part D, the backward LR test has been applied to part D1 and part D2 together. Part D3 has been taken separately since the number of variables is numerous and should be evaluated differently in the nature of the study. Table 61 shows the backward LR test results carried out between the parts D1 and D2 and port facility WTP.

**Table 61**: Backward LR Test Results between the Parts D1, D2 and Port Facility WTP

 Question

Variables Chosen	В	S.E.	Sig.	Exp. (B)
Noise Pollution	0.811	0.382	0.034*	2.251
Traffic Effect	0.866	0.411	0.035*	2.376
Constant	-0.128	0.316	0.685	0.880

\*Significant values in confidence interval of 95%

Source: Created by the author based on SPSS 23 outputs

According to Table 61, the statistically significant relations occurred with the questions that asked in the part D2 which lead to the participants to order the importance of the environmental effects of the project. The effects of "Traffic Effect" and "Noise Pollution" have statistically significant relation with port facility WTP. Therefore, these two variables have been chosen to be included in the binary logistics regression model for port facility WTP.

Table 60 shows that, the participants who think that noise pollution and traffic effect can be counted as possible outcomes of the projects are 2.251 and 2.376 times more likely to pay for the port facility respectively. Although, the results regarding the traffic effect seem to the different from the previous analysis in Table 59, the latter traffic effect refers to the port centric traffic effects while the first one refers to the urban traffic. Therefore, the participants agree that port centric traffic effects can be tackled while the urban traffic is more strategic and needs broader perspective to cope up with.

For the part D3, all 39 variables have been included in the backward LR test for the port facility WTP and the results are summarized in Table 62 below.

Table 62: Backward LR Test Results Between The Part D3 and Port Facility WTP Que
----------------------------------------------------------------------------------

Variables Chosen	В	S.E.	Sig.	<b>Exp.</b> ( <b>B</b> )
Public Image	-1.375	0.399	0.001*	0.253
Value of Investment	0.903	0.354	0.011*	2.467
Voluntary Engagement	-0.645	0.312	0.038*	0.524
Financial Success	0.809	0.355	0.023*	2.246
Influencing People's Behavior	2.020	0.465	0.000*	7.535
Influencing Policy Makers	-0.832	0.398	0.037*	0.435
Well-Being (Welfare) of People /Community	1.338	0.460	0.004*	3.811
Welfare Exchange	-0.971	0.452	0.032*	0.379
Social Value Creation	-0.727	0.432	0.093	0.484
Incentives to be Involved in Social Marketing Campaign	-0.498	0.297	0.094	0.608
Constant	0.907	1.490	0.543	2.478

\*Significant values in confidence interval of 95%

Source: Created by the author based on SPSS 23 outputs

Table 62 exhibits that "Public Image", "Value of Investment", "Voluntary Engagement", "Financial Success", "Influencing People's Behavior", "Influencing Policy Makers", "Well-Being (Welfare) of People /Community", "Welfare Exchange", "Social Value Creation" and "Incentives to be Involved in Social Marketing Campaign" variables are chosen in order to be included in the logistics regression model since they all have statistically significant relation with port facility WTP.

It should be stated here that "value of investment", "financial success" and "influencing people's behavior" and "wellbeing of people and community" variables have positive relation with willingness to pay for port facility.. Findings underline that the participants who think that coastal facilities have a role in influencing people's behavior are 7.535 times more likely to pay for the port facility. It shows that the effects of port facilities on behavior change increases the value of coastal areas. Moreover, financial success and the high value of investment and wellbeing of society on coastal area sustain the value of port facility.

On the contrary, "public image", "voluntary engagement", "influencing policy makers" and "welfare exchange" have negative relation with willingness to pay decision for port facility. The findings state that the participants who underline the importance of voluntary engagement role in creating public image and influencing policy makers role on coastal areas put less value to the port facilities. It shows that the port business is located in the industrial environment and the voluntary engagement makes no sense for the value of coastal areas. In addition, influencing policy makers and welfare exchange are not allocated as the responsibilities of port facility in increasing the value of port centric area. It is obvious that they are assumed to be the macro level influence that will be created by the overall society. Profile questions of the questionnaire have also been included in Backward LR test for port facility WTP. Table 63 summarizes the best fitted variables to select for the general model of the port facility WTP.

**Table 63**: Backward LR Test Results Between Profile Questions and Port Facility WTP

 Question

Variables Chosen	В	S.E.	Sig.	<b>Exp.</b> ( <b>B</b> )
Gender	-0.843	0.415	0.042*	0.431
<b>Financial Support for Charities</b>	-1.407	0.608	0.021*	0.245
Age	0.039	0.015	0.010*	1.040
Constant	3.022	1.429	0.034	20.528

\*Significant values in confidence interval of 95%

Source: Created by the author based on SPSS 23 outputs

Table 63 monitors the results that, backward LR test between the profile questions and port facility WTP question is resulted in displaying the statistically significant relation in "Gender", "Financial Support For Charities" and "Age" variables.

The findings state that male participants are 0.431 times less likely to pay for the port facility and the participants who have not financially supported for charities before are 0.245 times less likely to pay for port facility. The finding also state that as the age increases one unit, the possibility of being willing to pay for port facility increases 1.040 times.

#### 4.1.2.7. Binary Logistics Regression Model for Port Facility WTP

In order to get substantive result from the binary logistics regression model for port facility WTP, the backward LR tests have been applied to the variables and twenty four best fitted ones have been chosen. In this step, the model will be established and the findings are to be written out. To summarize the model and give information about the significance and validity of the model, the twenty four independent variables are explaining the interval of 55.5 % and 76.4 % of total variance in the dependent variable (Cox and Snell R Square= 55.5; Nagelkerke R Square=76.4). These numbers shows that the model is meaningful and has statistical significance. Another coefficient that shows the fitness of the model is Hosmer and Lemeshow test. Here the significance value (p) should be greater than the 0.05. In this model, the value is 0.257 and it verifies the fitness of the model. Another verification of the model fitness is Percentage Accuracy in Classification (PAC) and this PAC value is 86.3 %. It means that by interpreting the variables the dependent variable can be predicted accurately in the rate of 86.3 %. After completing testing the validity and fitness of the model, Table 64 shows the binary logistics regression model that explains the port facility willingness to pay behaviors of the participants. In other words, these twenty-four variables explain the social responsibility marketing aspects of port facilities on coastal areas.

Variables	В	S.E.	Sig.	Exp. (B)
Age	0.034	0.042	0.414	1.035
Gender	-1.175	0.859	0.171	0.309
Financial Support for Charities	-0.559	1.037	0.590	0.572
Public Image	-1.776	0.710	0.012*	0.169
Value of Investment	0.222	0.652	0.734	1.249
Voluntary Engagement	-1.371	0.513	0.008*	0.254
Financial Success	0.633	0.548	0.248	1.883
Influencing People's Behavior	2.266	0.888	0.011*	9.645
Influencing Policy Makers	-1.606	0.815	0.049*	0.201
Well-Being (Welfare) of People	1.615	0.823	0.050*	5.027
/Community				
Welfare Exchange	-1.059	0.795	0.183	0.347
Noise Pollution	-0.174	0.950	0.854	0.840
Traffic Effect	-0.953	1.072	0.374	0.386
I visit the coastal area two times in a	1.812	1.403	0.197	6.122
month at least	0.640	1 202	0.057	14 144
I visit the coastal area one times in a week at least	2.649	1.392	0.057	14.144
I live in the Coastal Area	1.390	1.234	0.260	4.014
I work in the Coastal Area	1.707	1.069	0.010*	5.510
The project will affect the urban traffic negatively	-4.594	1.697	0.007*	0.010
In terms of marine tourism, an attraction center will be created	2.358	1.047	0.024*	10,567
The quality of recreational / entertainment places on the coast will be increased.	-0.986	1.085	0.364	0.373
The project is necessary for the	2.473	0.908	0.006*	11.862
development of İzmir				
Familiarity to the term "Economic			0.125	
Development"				
Familiarity to the term "Economic Development" (1)	-4.027	2.004	0.044*	0.018
Familiarity to the term "Economic	-2.669	1.914	0.163	0.069
Development" (2)			0.100	0.007
Constant	12.829	5.117	0.012	3.727

#### Table 64: Binary Logistics Regression Model for Port Facility WTP

\*Significant values in confidence interval of 95%

Source: Created by the author based on SPSS 23 outputs

According to Table 64, statistical significances are observed between port facility WTP and ten statements of; "Public Image", "Voluntary Engagement", "Influencing People's Behavior", "Influencing Policy Makers", "Well-Being (Welfare) of People/Community", "I Work in the Coastal Area", "The project will affect the urban traffic negatively", "In terms of marine tourism, an attraction center will be created", "The project is necessary for the development of İzmir", and "Familiarity to the term Economic Development".

The findings can be interpreted as follows;

The participants who think that public image is an important role of the coastal facilities in increasing the value of coastal areas are 0.169 times more likely to pay for the port facility than who do not think so. Besides this, influencing people's behaviors is another important role of the coastal facilities in increasing the value of coastal areas and the participants who think in this way are 9.645 times more likely to pay for the port facilities than who do not think so. The participants who think that voluntary engagement and influencing policy makers are important roles of the coastal facilities in increasing the value of coastal areas are 0.254 and 0.201 times respectively less likely to pay for the port facility than who do not think so. In addition to these, the participants who think that coastal areas have an impact on well-being of the people are 5.027 times more likely to pay for the port facility than who do not think so.

The participants who are working in the coastal areas are 5.510 times more likely to pay for the port facilities than who are not. The participants who think that the project will generate traffic jam are less likely to pay for the port facility than who do not think so. In contradiction to this relation, the participants who think that the project makes the coastal area an attraction center are 10.567 times more likely to pay for the port facility. The participants who evaluate the project as necessary for development are 11.862 times more likely to pay for the port facilities than who do not. Finally, the participants who state that they are familiar with the term "economic development" are 0.018 times less likely to pay for the port facilities than those who state they are not familiar.

Consequently, before the discussions, conclusions, contributions, constraints and further researches are presented; significant findings related to the whole research are given for the first and second part of the research in Table 65 and Table 66 respectively.

# Table 65: Summary of Findings Related to First Part of the Research

	Variables	Findings
	Mean WTP (Willingness to pay) for Coastal	34.10 TL
Μ	Area	
one	Aggregate WTP for Coastal Area	145,936,985 TL
tar	Mean WTP for Port Area	19.03 TL
y Fi	Aggregate WTP for Port Area	81,442,253 TL
indi	Coastal WTP per m <sup>2</sup>	0.307 TL
ngs	Port WTP per m <sup>2</sup>	128.25 TL
	WTP per Actual Meters	1,004.52 TL
	WTP per Beeline Meters	2,114.10 TL
	Hypothesis	Findings
Hy	Coastal WTP & Income Relation	Supported
pot	Coastal WTP & Gender Relation	Not Supported
hesi	Coastal WTP & Age Relation	Supported
is T	Coastal WTP & Occupation Relation	Not Supported
esti	Coastal WTP & Education Relation	Supported
ngs	Coastal WTP & Being Parent Relation	Supported
	Port WTP & Income Relation	Supported

Source: Created by the Author

# Table 66: Summary of Findings Related to Second Part of the Research

	Variables	Effects on the People's WTP
C C		Decision
Reg	Social Responsibility	2.048 times more likely to pay
al V gres	Creating inter-organizational Benefits	1.559 times more likely to pay
WT	Influence People's Ideas	1.521 times more likely to pay
n M	Consumer Orientation	1.460 times more likely to pay
[od_ogi	Quality of Life	1.381 times more likely to pay
stic	Voluntary Engagement	0.621 times less likely to pay
	Moral	0.613 times less likely to pay
	Influencing People's Behavior	9.645 times more likely to pay
Por La Neg	Well-being of Community	5.027 times more likely to pay
t W gis fod	Public Image	0.169 times less likely to pay
/TH tic el	Voluntary Engagement	0.254 times less likely to pay
	Influencing Policy Makers	0.201 times less likely to pay
	Hypothesis	Findings
Ξ	Coastal WTP & Social Responsibility Relation	Supported
ype	Coastal WTP & Public Trust Relation	Supported
othes	Coastal WTP & Influencing the People's Ideas	Supported
is T	Coastal WTP & Being Consumer Oriented	Supported
esti	Relation	
ngg	Coastal WTP & Quality of Life Relation	Supported
50	Coastal WTP & Influencing People's Behaviors Relation	Supported

Source: Created by the Author

#### **4.2. DISCUSSIONS**

The dissertation presents the social value of coastal areas in monetary terms considering the social responsibility marketing variables. The research has been carried out in two separate parts. The first part of the research has been conducted in order to calculate the social value of the coastal area in monetary terms. To reach the stated aim of the first part of the research, contingent valuation method has been applied by the data collection instrument including hypothetical scenario regarding the establishment of theme park in the appropriate part of the Inner Gulf of İzmir and the willingness of the participants to pay have been collected. In accordance with the literature of the contingent valuation method, follow-up questions have been added to the questionnaire. Some of these follow-up questions have been asked before the valuation questions, some of them have been included in the valuation questions and some have been asked afterwards. The second part of the research aims to reveal the social responsibility marketing variables in the coastal areas. To achieve the stated purpose, variables have been inferred from the literature of social marketing and corporate social responsibility disciplines and added to the questionnaire form. These variables have been phrased in the statements to ask the participants whether the coastal facilities have a role in increasing the value of the coastal areas within the framework of these variables.

To indicate the first part of the research, the findings regarding the willingness to pay amounts should be underlined first. Approximately all contingent valuation articles calculate the mean value of willingness to pay value in order to assess the aggregate value and to compare the results (eg. Donaldson, Thomas, and Torgerson, 1997; Halvorsen and Sœlensminde, 1998; Ojeda, Mayer, and Solomon, 2008; Pham et al., 2018; Woodward and Wui, 2001). This dissertation has also calculated the mean willingness to pay value for the coastal area in the framework of hypothetical scenario. The mean willingness to pay value is 34.10 Turkish Liras (TL). To clarify and compare the results with previous studies, this value should be converted into United States Dollars (USD) and European Currency (EURO). The currency rates in the first and last day of the field study have been taken from the Turkish Central Bank and the average value has been calculated as 1 USD is 3.60 TL

and 1 EURO is 3.91 TL (TCMB, 2019). Therefore, the mean willingness to pay value is;

$$f(WTP_{USD}) = \frac{WTP_{TL}}{Currency Rate} = \frac{34.10}{3.60} \cong 9.47 \text{ USD}$$

$$f(WTP_{EURO}) = \frac{WTP_{TL}}{Currency Rate} = \frac{34.10}{3.91} \approx 8.72 EURO$$

Since each willingness to pay studies show unique characteristics due to the different specifications of valued environmental good there have been no identical research with this dissertation. Nevertheless, some studies have valued the coastal areas and coastal projects have been chosen to compare the mean willingness to pay values. This dissertation's results of mean willingness to pay are in good agreement with Silberman and Klock's (1988) study that they have found out the mean willingness to pay value of the coastal rehabilitation project as 9.34 USD (Silberman and Klock, 1988). Similarly, the findings of the study carried out in order to value the coastal renewal projects alternatives in the United States states the mean willingness to pay values between 6.75 USD and 9.92 USD (Landry and Grant, 2003). Another close study in terms of mean willingness to pay value has been carried out in China to preserve recreational value of famous coastal zone. The findings state that mean willingness to pay value of the respondents is 10 USD (Liu et al., 2019). The study carried out in the same region also states out 7.27 USD mean willingness to pay value (Piriyapada and Wang, 2015). Another multinational study that shows the mean willingness to pay values of coastal protection in three countries (Greece, France and Italy) state that the maximum mean willingness to pay values are 1.99 EURO, 2.84 EURO and 3.86 EURO respectively (Koutrakis et al., 2011). The findings of this dissertation is also in line with the findings of the study carried out by Pakalniete and her friends (2017) that they have found 7.00 EURO mean willingness to pay value for the water quality of coastal areas (Pakalniete et al., 2017). The perfect fit is observed in terms of mean willingness to pay results between this dissertation and Zavala's and his friends' study (2018) that in the selected coastal region of Mexico the mean willingness to pay value was found 8,70 for the protection of coral reefs (Robles-Zavala and Chang Reynoso, 2018). It can be inferred from the results that the mean willingness to pay value of this dissertation is relatively higher than the studies carried out in the European coastal areas but nearly the same with the ones in United States, China and Mexico. It can also be said that, the values do not show huge differences for all regions. For instance, maximum mean willingness to pay value of 8.72 EURO found in this dissertation is just 4.38 times greater than the minimum value of 1.99 EURO in the analyzed articles.

Besides comparing the mean willingness to pay values, the rate of willingness to pay decision can also be compared with the related literature. In this dissertation, the findings state that 131 of 567 (23.10%) respondents declare that they are willing to pay. The exact opposite situation is found out in the study of Silberman and Klock (1988) that 61.6 % of the respondents stated their willingness to pay (Silberman and Klock, 1988). Similarly, in Liu's and her friends' study 80.8 % of the respondents are willing to pay for the coastal zone protection (Liu et al., 2019). Velasco and her friends (2018) figured out that 59 % of the respondents stated their willingness to pay in order to preserve coastal lagoon ecosystems (Velasco et al., 2018). In another study 70.2 % of the residents and 66.2 % of the tourists were willing to pay for restoration of coastal lagoons (De Wit, Rey-Valette, Balavoine, Ouisse, and Lifran, 2017). It should be stated here despite mean willingness to pay value of this dissertation is relatively the same as or higher than the other related studies, the rate of willingness to pay decision regardless of amounts stated is extremely lower than the other studies. Lack of protest bids confirms that each stated willingness to pay value is involved in the calculation of mean value.

By presenting the relationship between willingness to pay results and profile characteristics some tests have been processed. According to the findings, it is obvious that the participants who earn more money are more willing to pay than the others. This result is a good agreement with the majority of the contingent valuation studies. Similarly, the findings of the research have found no significant relationship between age groups and willingness to pay amounts which is for example the same in the related selected studies which have used contingent valuation method (Lee and Yoo, 2016; Schuhmann, Bass, Casey, and Gill, 2016; Velasco et al., 2018). On the contrary, a study for the coastal erosion control has found negative relationship

(Dribek and Voltaire, 2017) and positive relationship (Rodella et al., 2019) between the respondent's willingness to pay decision and age.

In this research another profile characteristic is the size of households that was asked by the number of children. As discussed in the literature, the parents with more children are more familiar with the environmental quality and concern the wellbeing of nature (Ahlheim and Schneider, 2013) so that, they are more willing the pay. It is the same for this study that for one unit increase in the number of children, there is % 20 increases in the probability of accepting willingness to pay for the coastal area. Regarding the gender of the participants, it has been found out in this research that male are willing to pay more amounts than the women, which is in good correlation with the findings of the study on preservation of national coastal areas in Italy (Rodella et al., 2019).

When considering the expectations of the project, the study is in good agreement with the study carried out in wetland area in Japan. In both studies most expected negative outcomes of the study are environmental damages (Ahmed and Gotoh, 2006). Environmental damages is a broader term, it should be stated here marine pollution (69.1 %), noise pollution (54.9 %) and traffic effect (41.3 %) are the three most expected environmental damages of the hypothetical project.

This dissertation has also calculated the mean willingness to pay value for the port area in the framework of hypothetical scenario. The mean willingness to pay value for the port area is 19.03 Turkish Liras (TL). To clarify and compare the results with previous studies, this value should be converted into United States Dollars (USD) and European Currency (EURO). The currency rates in the first and last day of the field study were taken from the Turkish Central Bank and the average value was calculated as 1 USD is 3.60 TL and 1 EURO is 3.91 TL (TCMB, 2019). Therefore, the mean willingness to pay value for the port area is;

$$f(WTP_PORT_{USD}) = \frac{WTP_PORT_{TL}}{Currency Rate} = \frac{19.03}{3.60} \approx 5.28 \text{ USD}$$

$$f(WTP_PORT_{EURO}) = \frac{WTP_PORT_{TL}}{Currency Rate} = \frac{19.03}{3.91} \approx 4.86 EURO$$

There have been limited numbers of studies that directly value the port area. Lee and Yoo (2016) have carried out a study that value the development project of the marina port in Korea and found out that mean willingness to pay as 1.6 USD (Lee and Yoo, 2016). Besides comparing the mean willingness to pay value for the port area, the rate of willingness to pay decision should also be underlined. The research of this dissertation is in line with the findings of the above mentioned study. The research of this dissertation has figured out that 85 of 567 (14.99 %) of the participants are willing to pay and similarly Lee and Yoo (2016) reveal that 16.60 % of the respondents are willing to pay for the port area. Another related study has been conducted in Korea as well. It is not directly related with the ports but tidal flats where the benefits of public are concentrated. According to the results of the study, 61.3 % of the respondents are unwilling to pay for the recreation of the tidal flats in Korea and the mean willingness to pay is 2.62 USD (Kim, Lim, and Yoo, 2017). It should also be stated for the research that, 68.3 % of the respondents have prior knowledge on the term port which is relatively higher in comparison with the unique port valuation study that the familiarity degree is 27 % for the marina port (Lee and Yoo, 2016). From this point of view the participants of the research have more prior knowledge on the valued coastal facility and it may lead to more reliable findings.

The second part of the research test the social responsibility marketing variables deduced from social marketing and corporate social responsibility disciplines. The findings of the research indicate that "quality of life" is the most important determinants of social responsibility marketing and it locates in the same factor group named "public health". These findings are in good agreement with the studies on both public health and social marketing. For instance a study focusing on public health and have figured out the role of social marketing campaigns in sustaining the quality of life (Choudhury, 2017). Another study has underlined the relationship between alcohol consumption and quality of life and proposed future social marketing initiatives for public health (Loo, Shi, and Pu, 2016). The findings also confirm the results of a research carried out on asthma disease and its effects on quality of life. A social marketing elements were tried to be clarified for the success of prevention of asthma and the quality of life was found as one of the determinants of social marketing campaigns asked to the participants by "Asthma Quality of Life"

questionnaire (Evers, Jones, Iverson, and Caputi, 2013). This referenced study of Evers and her friends also confirms the factor analysis findings of this dissertation. According to the research handled for this study, "Consumer Orientation" has the highest factor score and it is just in line with the findings of Evers and her friends' study that consumer orientation is the most important social marketing elements in public health social marketing campaigns and quality of life has been located under this heading (Evers et al., 2013).

Legitimacy is another variable with the highest factor scores (0,7660) and this finding is in accordance with another study that deals with the importance of the legitimacy in the social marketing campaigns (Mitchell, Madill, and Chreim, 2015). According to Mitchell and her friends, especially institutional relations need high level of legitimacy and this finding is confirmed by this research that coastal facilities need high level of legitimacy as well. It should be underlined here that "legitimacy" and "social responsibility" are in the same factor group named "public trust and welfare" which shows that these two variables have vital contribution to sustaining public trust and welfare.

Another discussion may arise from the definitions of social marketing concept. Influencing people's behavior and influencing people's ideas are the two major variables deduced from the several definitions of social marketing (Kotler and Lee, 2006; Andreasen, 1994; Dann, 2010) and these variables take place in both model structured for whole coastal area and port area with positive relation. To give detail, "influence people's ideas" is the related variable for coastal area model that people who give importance to this variable put 1.5 times more value to the coastal areas. In the other side, "influence people's behavior" is the related variable for port facilities model that people who give importance to this variable put 9.65 times more value to the port facilities. All of these findings are in good agreement with the accepted definitions of social marketing and it sounds that social marketing campaigns are the appropriate tools for coastal areas and coastal facilities to sustain the value of them.

#### **CONCLUSIONS AND RECOMMENDATIONS**

Coastal areas are dynamic geographical parts of the earth and location of the enormous population of the earth. This dynamic characteristic of the coastal areas is subject to the researches within the framework of disciplines ranging from sociology to economics including history, physics, chemistry, oceanography and so on. Besides being the subject of researches, coastal areas can also be accepted as natural resources that contribute to the overall ecology and well-being of people. Ecosystem services of coastal areas have vital importance on nutrition habits of other creatures and human as well. Besides of being used as a resource for the well-being of other living organisms, coastal areas – because of their nature- are also heavily used by maritime activities especially by the port businesses.

It should be noted here that, coastal areas are under the pressure of human activities ranging from settlements and touristic activities to manufacturing and recreational activities. Therefore, there is a social interaction between coastal areas and people. Additionally, regardless of level of interaction, even living on coastal areas or not, each member of the population has potential to use coastal areas directly or indirectly since coastal areas are common public goods. This potential brings about another social aspect to the coastal areas: Social value.

The aim of this study is to assess the social value of coastal areas in monetary terms and relate it to the social responsibility marketing variables. To reach the stated aim the research has been conducted in two parts. The first part of the research is to calculate the monetary social value and the second part of the research is carried out to assess the social responsibility marketing variables and their relation to the willingness of the participants to pay.

The first part of the research takes into account the willingness to pay responses given by the participants. After reading hypothetical scenario that put the details of the project on the coastal areas and getting the pros and cons of it, the respondents have been asked about their willingness to pay. The mean willingness to pay has been calculated as 34.10 TL and just 23.10 % of the participants were eager to accept to pay. There have been no logical refusing causes for the unwillingness to pay except stating the sensitivity on the port operations. People are aware of the

project's possible harmful effects on the port operations but state their willingness to pay responses differently. To sum up, people are aware of the importance of port itself and any reclamation project on the coastal areas will directly affect the port operations.

The mean willingness to pay responses regarding the port area is 19.03 TL which is lower than the overall coastal mean willingness to pay value. It should be stated here that, it does not mean that people put less value to the port area than the other parts of the coastal area. It can be interpreted as, 65 % of the yes respondents for the coastal areas are willing to pay are also yes respondents for the port area willingness to pay. It also sustains the reliability of yes respondents for coastal area willingness to pay since they are familiar with the port and majority of them also put value for the port area. From different points of view, if these values are calculated per square meters the value put on the per square meters of the port area (128.25 TL) are 417 times higher than the value put on coastal area (0.307 TL).

The findings show that male respondents and people with children are more willing to pay. This finding suggests that coastal areas are seen as social resources for the well-being of next generations. Another findings on relation between willingness to pay and age can be seen as a proof for this conclusion that the participants older than 65 are more willing to pay than the other groups if the willingness to pay response of 10,000 TL is omitted. This conclusion is reasonable since this age group represents the people with descendants.

The second part of the research takes into account the variables deduced from social marketing and corporate social responsibility as the two most related fields of social responsibility marketing. 39 variables have been chosen to be tested and the factor analysis results in classifying them under seven factor groups as; Social Change and Awareness Development, Communication and Social Value Creation, Public Trust and Welfare, Ethics and Organization, Investment Value and Community Satisfaction, Public Relations and Benefits, Public Health.

Two models were set in order to explain the value put to the coastal areas and to the port facility with the variables of social responsibility marketing and with the demographic characteristics of the respondents. To choose variables for these two models, each part of the questionnaires has been tested separately by Backward Stepwise Method of Logistics Regression. Although, the main evaluation will be made over the most recently emerging models, inferences can be made on small models established for the selection of variables.

The findings resulted by partially applied backward logistics regression for the coastal area indicate that, port operations are among the primary considerations of the people in evaluating the coastal projects. Another important consideration regarding the willingness to pay is if the project will contribute to the economic development or not. If the coastal project is convincing on that the project is beneficial, then the social value of the coastal area gets higher. In addition, pollution of the sea is the critical consideration for the evaluation of the project and therefore over pollution of the sea decreases the coastal social value. Noise pollution can be avoided by the contributions but pollution of the sea has relatively long lasting consequences. Another implication from the findings stated that the roles of coastal facilities including influencing people's behavior, people's ideas and social responsibility increase the social value of the coastal areas. The fact that the coastal facilities are customer oriented and take into account the quality of life increases the value of the coastal areas as well.

To interpret the findings resulted by partially applied backward logistics regression for the port facility, overall traffic in the coastal area is extraordinary problem and it decreases the social value of coastal area whereas the traffic for the port centric area can be avoidable through some measures. The possible projects on coastal areas will decrease the speed of port operations but at the same time these projects contribute to the economic development of the region. Especially the projects regarding the marine tourism should be carried out in the coastal areas in order to sustain the productivity of the port operations.

As a result of this dissertation; social marketing campaigns can be carried out in coastal areas and coastal facilities have social responsibility over the valuation of coastal areas. Besides that, people are aware of the possible effects of any projects carried out in the coastal areas and deals with the persistency of the effects. For instance, they know that pollution of the sea have long lasting effects and noise pollution is more eradicable and can be omitted by funding. Findings of the second part also show that people put the responsibility to the coastal facilities as the successors of quality of life and public health in general. They also suggest that coastal facilities have the responsibility of getting involved in social marketing campaign and reducing energy consumption. They believe that they are the common areas for public and social value creation takes places in coastal areas.

Identifying potential value changes of coastal areas on industrial base has been one of the main aims of this dissertation. As mentioned in this study, coastal areas host wide range of competing industries. This research was realized on limited industries on the coastal areas and valuation studies -equivalent to this research- can be carried out in all other branches of industries ranging from military to manufacturing, agriculture to mining and transportation. Besides, it is a necessity that the central government and related administrative bodies, which are decision-makers and policy makers on a national basis, should perform this kinds of research on macro level. In addition, municipalities with regional decision-making mission should execute related studies on a micro scale and guide local industries and investors.

As stated earlier in the main body of the dissertation, ethical considerations are the vital parts of coastal area management. According to the statements of participants collected during the field study phase, these considerations include respecting the every parts' right on coastal areas, contributing the pollution prevention efforts, transferring the benefits and beauties of coastal areas to the next generations and so on.

# ACADEMIC IMPLICATIONS

The thesis has made important contributions to the method used. If these are to be listed, the open-ended elicitation format has been preferred among the questioning formats for the Contingent Valuation for this thesis. While this format has some more advantages than some other methods such as enabling to calculate and generalize the willingness to pay value, it also has some weak points as stating protest bids for the questions. In this research no protest bids have been faced since the overall data collection process has been handled by researcher himself and via face to face contact. The researcher has frequently emphasized that the value to be stated should be said by considering the monthly income of the participants. In addition, this issue has been highlighted several times in the form of data collection tool.

Another contribution to the method has been to overcome the weak point in the literature, which is called as an embedding effect and reduced the reliability of the method. Accordingly, the port area was positioned as an important area to affect the participant's decision for the whole coast and the respondents who answered "yes" to the first valuation question were asked a further valuation question for the port. With this question, the participants were not asked to specify a direct amount but they were asked whether they could pay for the port facility just 10% of the value they specified for the whole coastal area. With this question, it was demonstrated whether the port is a coastal facility that increases or decreases the value given to the whole coastal area and prevent the port from being an embedding effect factor for the entire valuation process. The answers to this question have enabled the valuation of a separate coastal area and used to reveal the value of the port itself. In addition, the same data collection instrument is used to gather the data from the field for two different valuation studies.

Another contribution of the thesis to the method is to reveal the difference between backward and forward stepwise methods. According to this, the only difference between the two methods is that while backward stepwise method results present that number of children variable should be selected for the model while forward LR do not result in this way. This result proves that there is no difference between the two methods in cases where the number of variables is high.

Another aim of this study is to define social responsibility marketing as a new concept. Proposing a definition for the new concept can be accepted as the contribution to the marketing discipline. In order to make this definition based on the valuation of coastal areas, significant variables have been used in the model resulting from logistic regression analysis. According to this model; social responsibility marketing is the sum of socially responsible, moral and consumer oriented activities of social marketing and corporate social responsibility disciplines, aiming to voluntarily influence people's and organizations' ideas, enhance inter-organizational

benefits and quality of life. The same concept was also defined for the port as; social responsibility marketing for the port business is the sum of activities aiming to sustain public image of the port by affecting policy makers and to enhance welfare of the community by voluntarily influencing the people's behaviors. These two definitions are the results of the dissertation and are related to the coastal areas and port industry. The social responsibility marketing concept should be defined and discussed for many application areas such as recreational and protected areas.

#### **PRACTICAL IMPLICATIONS**

Policy makers and coastal investors can be regarded as the two separate parties to be evaluated as practitioners. Policy makers can benefit from the outcomes of the thesis, particularly in the application of integrated coastal zone management practices and in the process of creating coastal inventory. Since these activities require social marketing campaigns and behavior change, the main principles stated as consequences of this thesis should be applied in social marketing campaigns.

Policy makers may benefit from the quality of life variable that coastal facilities have role on sustaining quality of life for the people. People's ideas can be changed based on the activities carried out in coastal areas so some social marketing activities may be held over the coastal facilities. In addition, coastal facilities have also implications on moral values of the societies. Besides these sociological outcomes, some administrative implications can be made on the results of the dissertation. For instance, policy makers can measure whether the project is necessary for the regional development or not and decide on the further steps for the ongoing projects.

Similarly, coastal investors may require public participation principles in order to apply to the coastal facilities and increase the value of their investment. The variables that increase the value of the coastal area may be beneficial for the coastal investors. For instance, being customer-oriented gives the investors competitive advantage within the discipline of marketing also increases value of the coastal areas and their investment as well. Voluntary engagement activities held on the coastal areas may also increase the value of the coastal areas. Being aware of the social responsibility functions of the coastal facilities may be beneficial for the investors planning to invest in coastal areas. Creating interorganizational benefits or benchmarking may increase the value of investment within the coastal areas.

Each investment includes a field size calculation, regardless of the area in which it is made. The thesis's answer to the, "How many square meters of investment must be carried out to achieve the highest social value?" question is a result that can be useful for both investors and policy makers. The result of the thesis enables the related parties to calculate the "desired investment area" to reach both the maximum investment area and highest social value. To accomplish the systematic calculation, the aggregate willingness to pay value should be calculated at first step. After that, actual price (p) per square meters should be calculated from the market sources. The following formula will give the desired investment area calculation regarding the social value of the investment.

 $\frac{Aggregate WTP \ value \ (AWV)}{Desired \ investment \ area \ (DIA)} = p \xrightarrow{\text{yields}} DIA = \frac{AWV}{p}$ 

Indeed, technical specifications and requirements may be different and may not allow the investors to reduce or enlarge the investment area according to the results of above mentioned formula. Nevertheless, this will give an insight to the investors and policy makers to adjust the field size of investments and make fine tunings on size-related matters. Here, the most difficult data to handle is actual per square meter price since it is not easy to gather the sale and purchase values of properties from the market.

As stated earlier, there is mass competition on the coastal areas carried out by a variety of industrial facilities. Port business is the one that locates on the research area. The willingness to pay for the port facility has been tested and found out that port business creates value for the coastal area. This value changes according to the social responsibility marketing variables applied by the port facilities. Furthermore, value that ports create for the coastal areas accelerates the change in people's behaviors towards coastal areas and effects on the policy makers those who have been empowered to plan coastal areas as well.

## LIMITATIONS AND FURTHER STUDIES

This research has some constraints related with its application area and disciplines. First, research was conducted in the limited coastal area named Gulf of Izmir in Turkey. Therefore, results and findings can be regarded as valid for these areas. Since the social value of coastal areas depending on various cultural, demographical and social characteristics, the aggregation of findings is limited with the application area geographically. Second, the value of coastal area was tried to be explained by the social responsibility marketing variables. Therefore the results are based on these variables and interpretation can only be made within the framework of this discipline. Nevertheless, coastal areas have multidisciplinary characteristics ranging from business to physics and history. Consequently, the proposal definition of social responsibility marketing is also limited with the coastal area and port business. It can be defined with broader perspective with the researches applied in different disciplines.

It should be noted as third constraint that, contingent valuation studies need to be compared with other studies in terms of value they make out. Nevertheless, there are no available studies carried out for the same coastal area and it is impossible to compare the findings of this dissertation with another study. As a further research, a valuation study regarding the same coastal area can be carried out in order to assess the reliability of this dissertation. To recommend the researchers, another valuation method can be used in that research to make double comparison; one with the values and one with the methods.

Besides constraints, there are future research possibilities for the researchers. First of all, since the coastal areas have multidisciplinary characteristics, other disciplines from social sciences such as management should be included in the research. Success factors for integrated coastal zone management practices can be explained by social responsibility marketing variables. Second, another method of valuation, especially travel cost method should be applied in order to value the coastal areas since the findings of this research should be compared with other research's results in order to be validated. Third, an index can be established regarding the social integration of coastal areas of different regions of the world. Some findings of this thesis can be used to establish this kind of index, but a study with broader perspective can be carried out in order to infer new variables. This index can monitors the social engagement level of coastal areas and provide useful data for coastal residents, potential visitors and investors.

As the further study recommendation for the competing industries on the coastal areas, other industries should be included to the research and comparisons can be made among these industries to figure out which sub-industry creates more value for the coastal areas. Choosing right investments for the right places and at the right time are the important components of the business establishment and conducting studies aiming to compare industrial facilities will enable the investors to have an insight about the planned investments and contribute to the decision making process. Carrying out these kinds of studies will also contribute to the integrated coastal zone management practices and policy makers' decisions. Further study recommendations also include some aspects related to the contingent valuation method itself. "Willinness to pay" have been used in order to collect the valuation responses in this research. The same construct can be processed with "willingness to accept" method and the results can be compared in order to confirm the literature that proves "willingness to accept" results may overrun the "willingness to pay" values.

As any other study conducted by contingent valuation method, the distinctive characteristics of method, elicitation format and payment method can be differentiated. For the further studies for instance, "willingness to accept" can be applied and the payment method can be "via tax" or "adding to the electricity bills". The application of these different approaches will differentiate the process and findings. Besides differentiating the elicitation format and payment method; the contingent valuation method can also be substituted by "travel cost method" and "hedonic pricing method". Nevertheless, if these methods were applied, the research area should also be changed due to the characteristics of above-mentioned methods. Applying these different methods contributes the reliability and validity of this research.

In addition to these further study recommendations, longitudinal research can be conducted with the framework of management discipline. Other types of competing industries rather than port industry can be included in these studies and different variables can be deduced in order to be used in integrated coastal zone management practices.

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### APPENDICES

### **APPENDIX 1: Data Collection Instrument in English**

Dear Participant,

This questionnaire will be evaluated for PhD dissertation entitled "Change in Valuation of Coastal Areas and Social Responsibility Marketing" under the guidance of Prof. Dr. A. Güldem CERIT at Dokuz Eylül University Social Sciences Institute Maritime Business Administration Department. The answers you give to the questions will in no way be used in any other study and will not bear any financial responsibility to you. Thank you for your time to participate the survey.

**Onur AKDAŞ** 

Research Assistant Dokuz Eylul University Maritime Faculty

### A. SCENARIO DESCRIPTION

İzmir Gulf is a place which has been hosted by various civilizations for centuries. Considering the natural, economic and historical values it possesses, it is positioned as one of the most important sea areas of Turkey. The total sea surface area of the Gulf is 960 km<sup>2</sup> and the coastline length is 464 km. İzmir Gulf is evaluated in two parts as outer and inner bay. The inner bay, which is shown in the map below and extends from Sasalı to Bayraklı,



This questionnaire, which is being presented to you, contains a **scenario** that is not actually existed. According to this **scenario**, decision-makers are planning a recreational and play-based project on the coastal area in the inner bay. In the scope of the project in the **scenario**, the coastal area will be surrounded by game parks, eating and drinking places, recreational areas and berths for tour boats. Therefore

the attraction center will be established.

According to the **scenario**, during the project; -if necessary- riprap works will be carried out, there may be interventions that could affect the ecological balance on the coastal area, there can be interruptions in public transport in mandatory situations and commercial activities on the coast and daily life may be negatively affected.

One of the public services which the project will affect mostly is sea transport. Landbased freight traffic on the port may be affected while the project is under way, port operations may be interrupted from time to time and there may be a decrease in the number of vessels calling the port.

However, after the completion of the project it is expected that new employment opportunities will be created and also the area which is appointed for recreational and leisure activities on the coast will be expanded.

### B. QUESTIONS ON SPECIFIED PROJECT AND COASTAL AREA

**B1.** Which of the following statements related to the subject coastal area defines your situation? (You can mark more than one option)

- □ I live in the specified coastal area.
- $\Box$  I work in the specified coastal area.
- □ I am neither living nor working in the specified coastal area, but I visit at least once a week
- □ I use this area only for transportation (road, sea or light rail system) every day
- □ I am neither living nor working in the specified coastal area, but I visit at least twice a month
- □ I visit the specified coastal area less frequently than those mentioned above.
- $\Box$  I never visit the specified coastal area.

**B2.** Please indicate your familiarity with the terms below by selecting the most appropriate option.

İsim / Terim	I Know	Just Heard	I Do Not Know
Coast Line			
Coastal Area			
Port			
Shipyard			
Ecology			
Social Value			
<b>Economic Development</b>			

**B3.** Please select the statements that describe your overall view of the project described above (You can choose more than one).

- □ The project is necessary for the development of İzmir
- □ The per capita national income in Izmir will be increased.
- □ The project will create employment.
- □ The number of recreational / entertainment places on the coast will be increased
- □ The quality of recreational / entertainment places on the coast will be increased
- $\Box$  In terms of marine tourism, an attraction center will be created

- □ The project will contribute the ecology due to the planned green areas
- □ Sea pollution will be increased
- □ As the port is affected, it damages the economy of Izmir and Turkey.
- $\Box$  The coastal area will be polluted.
- □ The project will limit the use of the coastal area.
- □ The project will create unemployment.
- □ Urban traffic will be affected negatively
- □ Income will be decreased.
- $\Box \quad \text{Other (Please specify)}$ 
  - .....

#### C. VALUATION QUESTIONS

According to the **scenario**, a fund will be created to reduce the negative effects of the project. This fund can be contributed voluntarily. This fund will be used as a resource in; taking measures to protect the ecological balance, struggles to reduce traffic and parking problems, practices aimed at protecting and increasing existing employment, creation of alternative social recreation areas and taking measures to ensure that the port is least affected during and after the project. According to this;

**C1.** How many Turkish Liras (TL) would you donate to this fund for only once? (Please consider your budget)

□ I would donate ...... TL. (*Please <u>do not answer</u> the questions numbered C4*)
 □ I would not donate (*Please <u>do not answer</u> the questions numbered C2 and C3*)

**Important Notice:** The amount you specify here does not bind you to pay since there is neither such a fund nor a project like this. It will just be entered as a data input to the scientific method.

**C2.** (*Only those who answered to the question numbered C1 as "I would donate ........ TL" will answer this question*)

Please mark the statement describing your willingness to pay the amount you wrote to question C1. (Please mark only one option)

- $\Box$  I want to preserve the ecological balance
- □ I want my daily life to be minimally affected during the project
- $\Box$  I do not want the port to be affected negatively.
- □ I believe that I will have a better environment as a result of the project
- $\Box$  I am in a desire to leave a more livable city for the next generation.
- □ I want range and number of employment opportunities to increase
- $\Box$  Others (please specify)

**C3.** (*Only those who answered to the question numbered C1 as "I would donate ....... TL" will answer this question*)

Would you accept an additional 10% amount of donation you have written to question C1 to be used only in taking measures to reduce the project's impacts on port operations?

 $\Box$  Yes  $\Box$  No

**C4.** (*Only those who answered to the question numbered C1 as "I would not donate" will answer this question*)

Would you accept to donate 95 (Ninety-Five) TL only once?

 $\Box$  Yes  $\Box$  No (If "No" please answer the question numbered C5)

**C5.** (Only those who answered to the question numbered C4 as "No" will answer this question)

Please mark one of the statements that best describes your reason for not donating to the fund.

- □ I'm interested in the subject but I do not want to contribute
- □ 95 TL is too much. I can only offer..... TL contribution.
- □ The specified proje does not interest me at all.
- □ I do not support the project because I want the port to have no damage
- □ Others (Please Specify).....

### **D. EFFECTS OF PROJECT**

**D1.** If you have a say on the project, which of the following statements have you suggested earlier than others?

- (Please mark only one option)
- □ Project should be planned with the least impact on the port
- □ The project should be conducted without interrupting urban traffic.
- □ The damage to the environment by the project should be minimized
- □ The project should be completed as soon as possible.

**D2.** Please put in the order of importance of 8 possible impacts given below regarding the environmental dimensions of the project.

1: Most Important	, 8: Least Impor	rtant					
Effect	Rank of	Effect	Rank of				
	Importance		Importance				
Noise Pollution		Infrastructural Effect					
Marine Pollution		Traffic Effect					
Ecological Damage		Psychological Effect					
Impact to the City		Historical / Cultural					
View		Effect					

D3. Please Evaluate numbered variables according to the scale given between 1 and 5.

The meanings of scale ranges are as follows:

(1) Completely Disagree (2) Disagree (3) No Idea (4) Agree (5) Completely Agree

Coastal facilities' responsibility on following variables is important to					
increase the value of coastal areas	(1)	(2)	(3)	(4)	(5)
1. Social Responsibility					
2. Public Trust					
3. Welfare of Employees					

<i>4</i> .	Legitimacy			
5.	Protection of Environment			
6.	Public Image			
7.	Community Satisfaction			
8.	Value of Investment			
<i>9</i> .	Investors Well-Being			
<i>10</i> .	Voluntary Engagement			
11.	Creating Inter-organizational Benefits			
<i>12</i> .	Organizational Responsibility			
<i>13</i> .	Financial Success			
14.	Incentives to the Social Responsibility			
15.	Safety			
<i>16</i> .	Moral			
17.	Encouraging Environmentally Significant Behavior			
18.	Influencing People's Behavior			
19.	Influencing Policy Makers			
20.	Effective Communication			
<i>21</i> .	Responding Socio-Economic Concerns			
<i>22</i> .	Well-Being (Welfare) of People /Community			
<i>23</i> .	Exchange of Resources (Welfare Exchange)			
24.	Social Value Creation			
25.	Influence People's Ideas			
26.	Influence People's Lifestyles			
27.	Contribution to Social Change			
28.	Awareness Development			
<i>29</i> .	Promotion			
30.	Incentives to be Involved in Social Marketing Campaign			
31.	Reducing Energy Consumption			

32. Creating Social Benefits				
33. Creating Individual Benefits				
34. Consumer Orientation				
35. Creating Common Areas for Public				
36. Public Relations				
37. Prevention of Public Health				
38. Bans on Smoking				
39. Quality of Life				
E. PROFILE INFORMATION E1. Please state your age				
<b>E2. Please state your gender.</b> □ Female  □ Male				
<b>E3. Please state the degree of education you have last graduated.</b> □ Primary □ Secondary □ Undergraduate □ Bachelor Degree □	MSc	PhD		
E4. Please state your number of children				
E5. Please state your employment □ Private Sector □ State Sector □ Retired □ Unempl (Please specify)	loyed	Oth	ners	

E6. Specify the city you reside in, the district and how long you live here.

I have been living in the city of ......for .... years / months.

E7. Please State the industry you are employed and experience period. (Please specify your sub sector after stating the industry).

I have been working for ...... years / months.

□ Please specify your sub sector

.....

E8. Have you voluntarily participated in an environmental protection activity in the last two years?

 $\Box$  Yes.  $\Box$  No.

E9. Have you voluntarily supported environmental community financially in the last two years?

 $\Box$  Yes.  $\Box$  No.

### E10. Please state your monthly income

**F. RECOMMENDATIONS Please specify the recommendations on the overall subject of the form.** 



### **APPENDIX 2: Data Collection Instrument in Turkish**

Sayın İlgili,

Bu anket formu Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Denizcilik İşletmeleri Yönetimi Anabilim Dalı'nda Prof. Dr. A. Güldem CERİT danışmanlığında yürütülmekte olan **"Kıyı Alanlarının Değerlendirilmesindeki Değişim ve Sosyal Sorumluluk Pazarlaması"** başlıklı doktora tezinin uygulama bölümünde değerlendirilecektir. Sorulara verdiğiniz cevaplar hiçbir şekilde başka bir çalışmada kullanılmayacak ve sizlere <u>kesinlikle</u> <u>maddi bir sorumluluk yüklemeyecektir</u>. Zaman ayırıp ankete katıldığınız için teşekkür ederiz.

**Onur AKDAŞ** 

Araştırma Görevlisi Dokuz Eylül Üniversitesi Denizcilik Fakültesi

#### D. SENARYONUN AÇIKLANMASI

İzmir Körfezi, yüzyıllardır çeşitli medeniyetlere ev sahipliği yapmış bir körfezdir. Sahip olduğu doğal, ekonomik ve tarihi değerler göz önüne alındığında Türkiye'nin en önemli deniz alanlarından birisi olarak konumlanmaktadır. Körfezin toplam deniz yüzeyi alanı 960 km², kıyı çizgisi uzunluğu ise yaklaşık 464 km'dir. İzmir Körfezi, dış ve iç körfez olarak iki bölümde değerlendirilir. Aşağıdaki haritada gösterilen ve Sasalı'dan Bayraklı 'ya kadar uzanan iç körfez gösterilmektedir.



Size sunulmakta olan bu anket formunda gerçekte var olmayan, kurgulanmış bir **senaryo** yer almaktadır. Bu **senaryo**ya göre, karar vericiler tarafından iç körfezde kıyı alanına eğlence ve oyun temalı bir proje planlanmaktadır. **Senaryo**daki proje kapsamında uygun görülecek kıyı alanına, oyun parkları, yeme-içme mekânları, mesire yerleri, dinlence alanları, gezinti teknelerinin yanaşması için iskeleler yapılacak ve bir çekim merkezi oluşturulacaktır. **Senaryo**ya göre proje esnasında, ihtiyaç halinde deniz doldurulabilecek, zorunlu hallerde toplu taşımada kesintiler olabilecek, kıyıdaki ekolojik dengeyi

etkileyebilecek müdahaleler gerçekleştirilecek, kıyıdaki ticari faaliyetler ve günlük yaşam belirsiz bir süre olumsuz etkilenebilecektir.

Projenin en çok etkileyeceği alanlardan biri de deniz taşımacılığı olacaktır. Proje devam ederken limandaki kara bağlantılı yük trafiği etkilenebilecek, liman operasyonları zaman zaman kesintiye uğrayabilecek, limana yanaşan ve ayrılan gemi sayısında azalmalar yaşanabilecektir.

Ancak projenin tamamlanmasından sonra yeni istihdam firsatlarının oluşması, kıyıdaki rekreasyon ve dinlence aktivitelerinin ve bunlara ayrılan alanın genişlemesi beklenmektedir.

### E. KIYI ALANI ve AÇIKLANAN PROJE İLE İLGİLİ SORULAR

### B1. Sözü edilen alanla ilgili aşağıdaki ifadelerden hangisi/hangileri sizin durumunuzu tanımlar? (Birden fazla seçeneği işaretleyebilirsiniz)

- □ Belirtilen kıyı alanında yaşıyorum.
- Belirtilen kıyı alanında çalışıyorum.
- □ Belirtilen kıyı alanında yaşayıp çalışmıyorum, ancak haftada en az bir kez giderim.
- 🗆 Bu alanı ulaşım (karayolu, denizyolu veya hafif raylı sistem) amacıyla kullanıyorum.
- □ Belirtilen kıyı alanında yaşayıp çalışmıyorum, ancak ayda en az iki kez giderim.
- □ Belirtilen kıyı alanına yukarıda ifade edilenlerden daha az sıklıkta giderim.
- □ Belirtilen kıyı alanına hiç gitmem.

### B2. Aşağıda yer alan isim veya terimlere aşinalığınızı en uygun seçeneği işaretleyerek belirtiniz.

İsim / Terim	Biliyorum	Sadece Duydum	Bilmiyorum
Kıyı Çizgisi			
Kıyı Alanı			
Liman			
Tersane			
Ekoloji			
Sosyal Değer			
Ekonomik Kalkınma			

### B3. Size verilen bilgiler ışığında, bu projeden aşağıdaki muhtemel etkilerden hangisini/hangilerini beklemektesiniz? (Birden fazla seçebilirsiniz)

- Proje İzmir'in kalkınması için gereklidir
- □ İzmir'de kişi başına düşen milli gelir yükselir.
- D Projenin istihdama katkısı olacaktır.
- □ Kıyıdaki dinlence / eğlence mekânlarının sayısı artar.
- □ Kıyıdaki dinlence / eğlence mekânlarının kalitesi artar.
- Deniz turizmi açısından bir çekim merkezi oluşturulur.
- □ Yeni yeşil alanlar oluşacağından ekolojiye katkı sağlar.
- □ Deniz kirliliğinin artmasına sebep olur.
- D Proje limanın çalışmasına engel yaratıp İzmir ve Türkiye ekonomisine zarar verir
- □ Kıyı alanı kirlenir.

- D Proje kıyı alanının kullanımını kısıtlar.
- □ Proje süresince istihdam azalır.
- □ Şehir içi trafik olumsuz etkilenir.
- □ İzmir'de kişi başına düşen milli gelir düşer.
- □ Diğer (Lütfen belirtiniz)

.....

#### F. DEĞERLEME SORULARI

**Senaryoya** göre, projenin olumsuz etkilerini azaltmaya yönelik bir fon oluşturulacaktır. Bu fona gönüllülük çerçevesinde katkı yapılabilmektedir. Oluşturulacak olan fon, alandaki proje çalışmaları süresince ve sonrasında; ekolojik dengeyi korumaya yönelik tedbirler alınmasında, trafiğin ve otopark sorununun en aza indirgenmesi için yapılacak çalışmalarda, var olan istihdamı korumaya ve arttırmaya yönelik uygulamalarda, alternatif sosyal dinlence alanlarının oluşturulmasında ve limanın projeden en az etkilenmesini sağlayacak tedbirlerin alınmasında kaynak olarak kullanılacaktır. Buna göre;

- C1. Oluşturulacak olan bu fona bütçenizi gözeterek bir defaya mahsus bir katkı yapacak olsanız kaç Türk Lirası yatırırdınız?
- □ ...... TL katkı yapardım. (Lütfen C4 ve C5 numaralı soruları <u>cevaplamayınız</u>)
- □ Herhangi bir katkı yapmazdım. (Lütfen C2 ve C3 numaralı soruları <u>cevaplamayınız</u>)
- Önemli Not: Burada belirteceğiniz tutarın hiçbir bağlayıcılığı yoktur. Çünkü ne böyle bir fon vardır, ne de böyle bir proje. Burada belirteceğiniz miktar bilimsel bir yönteme veri olarak girilecek ve sonucunda, belirtilen kıyı alanının sosyal değeri hesaplanacaktır.

### **C2.** (Bu soruyu sadece C1 numaralı soruya "...... TL katkı yapardım" yanıtı verenler yanıtlayacaktır)

## Yukarıda yazdığınız tutarı ödemeye olan istekliliğinizi açıklayan ifadeyi işaretleyiniz. (Yalnızca bir seçeneği işaretleyeniz)

- □ Ekolojik dengeyi korumak istediğim için.
- □ Proje sırasında günlük yaşantımın en az etkilenmesini istediğim için.
- Limanın olumsuz etkilenmesini istemediğim için.
- □ Proje sonucunda daha iyi bir çevreye sahip olacağımı düşündüğüm için.
- □ Gelecek nesillere daha yaşanabilir bir şehir bırakma arzusunda olduğum için.
- □ İstihdam alanlarının artarak çeşitlenmesini istediğim için.
- Diğer (Lütfen Belirtiniz).....

#### **C3.** <u>(Bu soruyu sadece C1 numaralı soruya "...... TL katkı yapardım" yanıtı verenler</u> vanıtlavacaktır)

Yalnızca limanın projeden etkilenmesini azaltacak tedbirlerin alınmasında kullanılmak üzere yukarıda yazmış olduğunuz katkı miktarının % 10'u kadar bir katkı daha istense kabul eder miydiniz?

 $\Box$  Evet.  $\Box$  Hayır.

C4. (Bu soruyu sadece C1 numaralı soruya "Herhangi bir katkı yapmazdım" yanıtı *verenler vanitlavacaktir)* Sizden bir defaya mahsus 95 (Doksan beş) TL ödemeniz istense kabul eder mivdiniz?  $\square$  Evet. □ Hayır (Cevabınız "havır" ise lütfen C5 numaralı soruyu yanıtlayınız) **C5.** (Bu soruvu sadece C4 numaralı soruva "Hayır" cevabı verenler yanıtlayacaktır) Kurulacak olan fona hiçbir katkı yapmama nedeninizi en iyi açıklayan ifadeyi işaretleyiniz. □ Konuyla ilgiliyim ancak fona katkı yapmak istemiyorum □ Bana sunulan 95 TL çok fazla ben en çok ...... TL katkı sunabilirim. □ Anlatılan proje beni hiç ilgilendirmiyor. □ Limanın zarar görmemesi için projeyi desteklemiyorum. □ Diğer (lütfen belirtiniz) .....

#### D. PROJENİN ETKİLERİ

- D1. Proje hakkında söz sahibi olsaydınız aşağıdaki ifadelerden hangisini diğerlerinden daha önce önerirdiniz? (Lütfen sadece birini seçiniz)
- □ Proje, limanı en az etkileyecek şekilde planlanmalıdır.
- □ Proje, şehir içi trafiği aksatmadan yürütülmelidir.
- □ Projenin çevreye vereceği zararlar en aza indirilmelidir.
- D Projenin mümkün olan en kısa sürede bitirilmesi gerekmektedir.

# D2. Proje'nin çevresel boyutları ile ilgili olarak verilen aşağıdaki 8 olası etkiden en önemli 3 tanesini işaretleyiniz.

lfade	lfade	
Gürültü Kirliliği	 Altyapı Etkisi	
Deniz Kirliliği	 Trafik Etkisi	
Ekolojik Zarar	 Psikolojik Etki	
Kentin Silüetine	 Tarihi / Kültürel	
Etki	Etki	

### D3. Bu bölümde size verilen 1-39 arasında numaralandırılmış ifadeleri karşılarında yer alan 1-5 arasında numaralandırılmış ölçekle değerlendiriniz.

Bu bölümdeki 1-5 arasındaki numaraların açılımı aşağıdaki gibidir: (1) Kesinlikle katılmıyorum (2) Katılmıyorum (3) Kararsızım (4) Katılıyorum (5) Tamamen katılıyorum

Kıyıla	rımızın değerinin artmasında kıyı tesislerinin leki konulardaki sorumluluğu önomlidir	(1)	( <b>2</b> )	(3)	(4)	(5)
aşagıu	aki konularuaki sorunnulugu onennult.	(1)	(4)	$(\mathbf{J})$	(4)	( <b>3</b> )
1.	Sosyal sorumluluk					
2.	Kamusal güven					
3.	Çalışanların refahı					
4.	Yasal olma					
5.	Çevre koruma					
6.	İmaj					
7.	Toplumsal tatmin					
<ol> <li>Yatırımın değeri</li> <li>Yatırımcının iş tatmini</li> <li>Sosyal sorumluluk projelerinde gönüllülük</li> <li>İlişkilerde karşılıklı fayda yaratmak</li> <li>İşletme içi sorumluluklar</li> <li>Finansal başarı</li> <li>Toplumun sosyal sorumluluğa teşvik edilmesi</li> <li>Emniyet</li> <li>Ahlak</li> <li>Toplumun çevreyi korumasının sağlanması</li> <li>Toplumun davranışlarını etkilemek</li> <li>Kamu idarelerinin kararlarını etkilemek</li> <li>Etkili iletişim</li> <li>Sosyo-ekonomik ihtiyaçlara cevap verme</li> <li>Toplumun düşüncelerini değiştirmek</li> <li>Sosyal değer yaratmak</li> <li>Sosyal değişime katkı sunmak</li> <li>Sosyal değişime katkı sunmak</li> <li>Toplumun farkındalığını geliştirmek</li> <li>Sosyal değişime katkı sunmak</li> <li>Sosyal değişime katkı sunmak</li> <li>Sosyal değişime katkı sunmak</li> <li>Sosyal değişime katkı sunmak</li> <li>Toplumun farkındalığını geliştirmek</li> <li>Sosyal fayda yaratılması</li> <li>Bireysel fayda yaratılması</li> <li>Topluma ortak alan yaratılması</li> <li>Halk sağlığının korunması</li> <li>Sigara kurallarına uyulması</li> <li>Yaşam kalitesini yükseltmek</li> </ol>						
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------	-------	------	-------	-----	
E. PROFİL BİLGİLERİ E1. Lütfen yaşınızı belirtiniz						
<ul> <li>E2. Lütfen cinsiyetinizi belirtiniz □ Kadın □ Erkek</li> <li>E3. En son mezun olduğunuz eğitim seviyesini belirtiniz</li> </ul>						
<ul> <li>☐ İlköğretim □ Ortaöğretim (Ortaokul veya Lise) □ Önli lisans □ Doktora</li> </ul>	sans	🗆 Lis	sans	□ Yük	sek	
E4. Varsa çocuk sayınızı belirtiniz						
E5. İş / Çalışma durumunuzu belirtiniz.						

## E6. İkamet ettiğiniz şehri, ilçesini ve ne kadar süredir burada yaşadığınızı belirtiniz.

🗆 Emekli

□ Özel sektör

🗆 Kamu

□ Çalışmıyor □ Diğer .....

.....ilinin ...... ilçesinde yaklaşık ...... Yıl / Ay'dır yaşıyorum.

## E7. Çalıştığınız sektörü ve toplam iş tecrübenizi belirtiniz. <u>(Lütfen sektör bilginizi</u> verdikten sonra alt sektörünüzü yazarak belirtiniz.)

□ Lütfen çalıştığınız alt sektörü belirtiniz

.....

E8. Son iki yıl içinde bir çevre koruma etkinliğine gönüllü olarak katıldınız mı?
□ Evet □ Hayır

E9. Son iki yıl içinde gönüllü bir çevre topluluğuna maddi yardımda bulundunuz mu?

□ Evet □ Hayır

E10. Aylık gelirinizi belirtiniz. ...... TL

## F. GÖRÜŞ VE ÖNERİLER

Yukarıda size uygulanan anketin konusu hakkında iletmek ve söylemek istediklerinizi lütfen yazınız