

## ANALYSIS OF THE EFFECT OF RELIGIOSITY ON SUBJECTIVE WELL-BEING\*

### DİNDARLIĞIN ÖZNEL İYİ OLUŞ ÜZERİNDEKİ ETKİSİNİN ANALİZİ

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#### ABSTRACT

The study aims to investigate how religiosity and demographic variables affect the components of life satisfaction (cognitive subjective well-being) and happiness (emotional well-being) which constitute subjective well-being. Data obtained from the World Values Survey is used in the study and the estimates are made by using sequential logit regression method. In the study, "religiosity" which is accepted as a variable expressing subjective well-being is preferred to be used as a holistic concept that is effective on the social and spiritual life of the individuals rather than using it as a general concept. In this context, religiosity is discussed in three different components; social integration, divine interaction, and existential certainty. One of the most crucial findings of the study is that life satisfaction and happiness is affected by the components of religiosity in different manners. Although there is a positive relationship between religiosity and subjective well-being, questioning the social maladjustment (drugs, tobacco, crime, etc.) encountered in more religious regions constitutes the starting point of the study.

**Keywords:** Subjective Well-Being, Happiness, Life Satisfaction, Religiosity, Sequential Logit Regression.

**JEL Classification Codes:** Z12, I31.


#### ÖZ

Bu çalışma, öznel iyi oluşu oluşturan yaşam doyumu (bilişsel öznel iyi oluş) ve mutluluk (duygusal iyi oluş) bileşenlerini dindarlık ve demografik değişkenlerin nasıl etkilediğini araştırmayı amaçlamaktadır. Çalışmada Dünya Değerler Anketi'nden elde edilen veriler kullanılmış ve tahminler sıralı logit regresyon yöntemi kullanılarak yapılmıştır. Bu çalışmada öznel iyi oluşu ifade eden bir değişken olarak kabul edilen "dindarlığın" genel bir kavram olarak değil, bireylerin sosyal ve manevi yaşamında etkili olan bütüncül bir kavram olarak kullanılması tercih edilmiştir. Bu bağlamda dindarlık; sosyal entegrasyon, ilahi etkileşim ve varoluşsal kesinlik olmak üzere üç farklı bileşende ele alınmaktadır. Araştırmanın en önemli bulgularından biri, yaşam memnuniyeti ve mutluluğun dindarlığın bileşenlerinden farklı şekillerde etkilendiğidir. Dindarlık ile öznel iyi oluş arasında pozitif bir ilişki olmasına rağmen, daha dindar bölgelerde karşılaşılan toplumsal uyumsuzluğun (uyuşturucu, tütün, suç vb.) sorgulanması çalışmanın çıkış noktasını oluşturmaktadır. Bu kapsamda dindarlık öznel iyi oluşu etkileyen değişken olarak bu çalışmada ele alınmıştır.

**Anahtar Kelimeler:** Öznel İyi Oluş, Mutluluk, Yaşam Memnuniyeti, Dindarlık, Sıralı Logit Regresyon

**JEL Sınıflandırma Kodları:** Z12, I31.

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## GENİŞLETİLMİŞ ÖZET

### Amaç ve Kapsam:

Bu çalışmada, öznel iyi oluş ile dindarlık arasındaki ilişkisinin açıklanması amaçlanmaktadır. Modelde bağımsız değişken olarak kabul edilen dindarlığın (kontrol değişkenleri ile birlikte), bağımlı yani açıklayıcı değişken olan öznel iyi oluşu etkileyip etkilemediğinin sorgulanması araştırmanın temel amacını oluşturmaktadır. Bu bağlamda, Dünya Değerler Araştırması (World Value Survey)'nın altıncı dalgasından elde edilen veriler ile özellikle psikoloji literatürünün duygusal ve bilişsel bileşen olarak iki boyutta incelediği öznel iyi oluş analiz edilerek, dindarlığın öznel iyi oluş üzerindeki etkisinin olup olmadığı araştırılmıştır. Burada ve birçok literatürde, duygusal öznel iyi oluş (kişisel mutluluk), duyguların ve durumların göstergesi olarak kabul edilmekte ve çoğunlukla yaşam kalitesinin geçici değerlendirilmelerine dokunan nispeten spontane yanıtları yansıtmaktadır. Yaşam memnuniyeti ise, ideal yaşam koşullarını ve gerçek yaşam koşullarını içermekte ve bireylerin, ideal yaşam koşullarına ne ölçüde ulaşabildiğinin analizi sorgulanmaktadır. Kısacası bu çalışmada, dindarlık ve öznel iyi oluş arasındaki çok yönlü ilişkinin incelenmesi amaçlanmaktadır. Daha önceki birçok çalışmada dini inanç ve öznel iyi oluş arasındaki bağılılığın dolaylı bir şekilde olduğu ifade edilmiştir. Oysa dinin refah üzerindeki etkisi, dolaylı olabildiği gibi doğrudan da olabilmektedir. Özellikle, bireydeki varoluşsal kesinlik din algısının davranış ve tutum çıktısı, bireyin yaşam memnuniyetini önemli derecede etkilemektedir. Yine elde edilen bulgulara göre, bireylerdeki sosyal entegrasyon ve ilahi etkileşim din algıları, bireylerin mutluluk düzeylerini doğrudan etkileyebilmektedir.

### Yöntem:

Çalışmada, yaşam memnuniyeti ve mutluluğu etkileyen ve bağımsız değişken olarak kabul edilen dindarlık ise, yine literatürden alınan destek ile, sosyal entegrasyon, ilahi etkileşim ve varoluşsal kesinlik olmak üzere üç ana başlık altında kategorize edilmiştir. Araştırmanın dine ait bu üç kategorinin her birinin öznel iyi oluşu etkileyip etkilemediği ve etkiliyorsa ne yönde etkilediği sorusu, literatürdeki öznel iyi oluş ve dindarlık arasındaki ilişkinin açıklanmasına katkı sağlamayı hedeflemektedir. Yaşam memnuniyeti ölçeğinde, 'Genel olarak bugünlerde hayatınızdan ne kadar memnunsunuz? Şimdi size göstereceğim cetvelde, son derece memnun ve tatmin olmuş hissediyorsanız '10', hiç memnun değilseniz '1' olmak üzere bir puanlama yapınız' sorgusu kullanılırken; mutluluk ölçeğinde, 'Bugünlerde, genel olarak mutlu olup olmadığınızı söyler misiniz? Mesela şu okuyacağım şıklardan hangisi, bugünlerdeki genel mutluluk durumunuzu en iyi tarif ediyor? Çok mutluyum, biraz mutluyum, pek mutlu değilim, ya da hiç mutlu değilim' ölçeği kullanılmıştır. Bağımsız değişken olarak kabul edilen dindarlık ise, dinin üç farklı yönünün, öznel iyi oluş üzerindeki etkisinin dikkate alınmasıyla oluşturulmuştur. Dini katılım ya da dindarlığın öznel iyi oluşa etkisi incelenirken, dindarlık; sosyal entegrasyon, ilahi etkileşim ve varoluşsal kesinlik olmak üzere üç farklı şekilde ele alınmıştır. Dindarlığın sosyal entegrasyon boyutu; 'a) Müslümanlar için: Cenazeler dışında bugünlerde camiye ne kadar sık gidiyorsunuz? b) Müslüman olmayanlar için: Cenazeler, evlenmeler, vaftizler dışında bugünlerde sinagoga/kiliseye ne kadar sık gidiyorsunuz?' ölçeği ile dindarlığın ilahi etkileşim boyutu; 'Cenazeler, evlenmeler dışında ne sıklıkta dua edersiniz?' ölçeği ile ölçülürken; dindarlığın varoluşsal kesinlik boyutu ise; 'Gene din konusunda, şu iki görüşten hangisine daha çok katılırsınız? 1) Din esas olarak, ölümden sonrasına, yani öteki dünyaya anlam kazandırır. 2) Din esas olarak, bu yaşadığımız bu dünyaya anlam kazandırır' ölçekleri kullanılarak analiz yapılmıştır.<sup>2</sup>

### Bulgular:

Sonuç olarak elde edilen ölçeklerin analizi ile gözlemlenmiş korelasyonların sebepsel etkiler olarak gösterilmesinden dolayı tahmin sonuçları kısmi korelasyonlar olarak yorumlanması hedeflenmiştir. Çalışmada sıralı lojistik ekonometrik analiz kullanılarak, din ile öznel iyi oluş arasındaki bağlantı üç aşamalı bir şekilde incelenmiştir. Modele, demografik, ekonomik ve bazı kurumsal özelliklerinin tahmini sonuçlarının da dahil edilmesi ile dinin 'sosyal entegrasyon, ilahi etkileşim ve varoluşsal kesinlik' boyutunun, yaşam memnuniyeti ve mutluluk arasında ilişkisinin olup olmadığının ortaya çıkması amaçlanmıştır. Kısacası yapılan çalışmada dindarlık ile öznel iyi oluş arasındaki ilişki üç farklı şekilde analiz edilmiştir. Sosyo ekonomik, kurumsal ve sosyo demografik faktörlerle birlikte dindarlığın sosyal, ilahi etkileşim ve varoluşsal kesinlik bileşenleri ayrı ayrı kategorize edilerek, öznel iyi oluş ve dindarlık arasındaki ilişki incelenmiştir. Öznel iyi oluş ise yaşam memnuniyeti ve mutluluk olarak iki ayrı kategoride incelenmiştir. Bu şekildeki bir analiz sonucunda birbirinden ayrı yorumlara sahip olan altı farklı analiz bulguları ortaya çıkmıştır. Bu kapsamda, dindarlık ile öznel iyi oluş arasındaki ilişki açıklanırken elde edilen istatistiksel sonuçlar; dinin sosyal entegrasyon bileşeninin mutluluk ile istatistiksel olarak anlamlı ilişki içerisinde iken yaşam memnuniyeti ile istatistiksel olarak anlamlı ilişki içerisinde olmaması, ilahi entegrasyon yolu ile dindarlığın hem mutluluk hem de yaşam memnuniyeti ile istatistiksel olarak anlamlı ilişkide olması, aynı zamanda varoluşsal kesinlik yolu ile dindarlığın mutluluk ile değil yaşam memnuniyeti ile istatistiksel anlamlı ilişkide olmasıdır.

### Sonuç ve Tartışma:

Çalışmanın çıkış noktası, dindarlığın yoğun olarak yaşandığı bölgelerde suç oranlarının ya da kanuna uymayan davranışların sorgulanması ile başlamıştır. Bu bakış açısı ile incelendiğinde dinin boyutlara ayrılarak öznel iyi oluş üzerindeki etkisinin değerlendirilmesinde fayda görülmüştür. Dinin yaşam deneyimlerine olan etkisi incelendiğinde dini yorumların daha düşük düzeyde eğitim ve gelire sahip kişiler arasında daha karmaşık bilişsel becerilerini telafi etmeye yönelik bir araç olabileceğine dair istatistiksel kanıtlar mevcuttur. Çalışmanın literatüre olan katkısı ise, dindarlığın öznel iyi oluş üzerindeki etkisi açıklanırken dindarlığı oluşturan bileşenlerin hangi öznel iyi oluş bileşenini etkilediğinin detaylandırılmasıdır. Örneğin kurulan modeller sonucunda elde edilen yorumlar, dinin sosyal yönünden elde edilen mutluluk ya da duygusal iyi oluşun inancın kendisi ile ancak kısmi boyutta ilişkili olduğunu göstermiştir.

<sup>2</sup> Bu çalışmada dindarlığın alt boyutlarını ölçmeye ilişkin sorular, 'Religious involvement and subjective well-being' (Ellison,1991) adlı çalışmadaki yöntem izlenmiştir. Öznel iyi oluşu belirleyen sorularda ise Diener ölçeği (1985) kullanılmıştır.

## 1. INTRODUCTION

The significance of "subjective well-being" has gradually increased in the literature of economics as the production of goods and services -the underlying constituent of economic activities- is pegged to happiness (Veenhoven, 1996). Since religiosity is considered as a factor affecting both the economic preferences of individuals and subjective well-being, the relationship between religiosity and subjective well-being has been tried to be explained in this study (Steiner et al., 2014).

It is possible to say that the examination of religiosity and subjective well-being in social sciences (Durkheim, 2013) starts with the analysis of the relationship between religiosity and psychological happiness (Ellison, 1991, p. 80). In the aforementioned study, denominational distribution of the religious participation and other measures of collective religious participation is related with the suicide ratios (Bainbridge, 1989; Pescosolido, 1989). In a second research series, the impacts of institutional religious participation and private religiosity on the individual life quality is examined (Ellison, 1991, p. 80).

No consensus has been built about the net impact of religiosity on the subjective well-being so far. (Steiner et al., 2014). However, it is stated that the religiosity has an impact on subjective well-being in different perspectives. These are:

- Religiosity offers a social environment to people in holy places, thus it may provide social support,
- Religiosity gives advice or imposes rules to regulate interpersonal relations. Thus, it may create a divine framework,
- Religiosity may provide a consistency in human behavior by providing a holistic perception of here and after-life and it may give a meaning to the temporary life in the world (Ellison, 1991, p. 80).

The impact of religiosity on subjective well-being includes conceptual and empirical differences, however it is not mutually exclusive. (Ellison, 1991, p. 81). Available information related with the net impact of religiosity on the subjective well-being has been extended in various ways. Particularly, examination of direct impact of existential certainty on subjective well-being (which is not mentioned in other studies) provided awareness to the study.

This study will be revealing the availability of many factors which affects subjective well-being as in the previous studies. It is even possible to say that rather than the literature explaining the impact of religion on the economy, the literature explaining the impact of religion on the subjective well-being is expressed more explicitly. (Steiner et al., 2014). In almost every study conducted, it has been stated that there is a statistically significant and positive correlation between the religion and subjective well-being (Lima and Putnam, 2010). However, the studies differ from each other on the point that by which subjective well-being component should be explained by religiosity component or factor.

For example, Ellison and Linda (1991) states that churchgoers have more welfare compared to other religious individuals. Because religious individuals who go to church regularly have similar beliefs such as the habit of helping each other. Again, in many studies conducted, literatures related to social identity and social assistance has been obtained the same results and Ellison (1991) displayed similar arguments. This studies state that in case of social assistance, the individual will acquire a spirit having social identity emotions. (Lima and Putnam, 2010).

It is stated in many studies that, going before God, and feeling close to the God and the idea or feeling to establish a communication with God because of the prayers conducted are the factors positively impacting subjective well-beings of the individuals. In a further study, Rew and Wong (2006) reviewed 43 research included in the related studies between 1998 and 2003 and it is determined that practicing religious rituals have a positive impact on behavior and attitudes (Kaya & Küçük, 2017).

Existential certainty dimension of religiosity has a similar positive impact on life satisfaction of individuals and makes life meaningful. Therefore, the existential certainty component of religiosity was interpreted by accepting that "the religion primarily adds life meaning and aim and subjective well-being takes its shape in line with this meaning and aim (Emmons et al., 1998). Besides, it is accepted by many researchers in the literature that subjective well-being and existential certainty dimension of the religion has a statistically significant correlation (Emmons et al, 1998). Multidimensional relationship between religiosity and subjective well-being is examined in the related literature. It is aimed to provide a clearer understanding of the impact of religion on the subjective well-being with the model created. The component of religiosity is created under three main topics which are social integration,

divine interaction and existential certainty and the impact of these on the subjective well-being which consists of two components which are life satisfaction (cognitive), and happiness (emotional) is analyzed.

Relationship between religiosity and subjective well-being is examined in three ways by Ellison (1991). Social, divine interaction and existential certainty components of religiosity are categorized separately with socio-economic, institutional and socio demographic factors and the correlation between subjective well-being and religiosity is examined. Once again in this study, subjective well-being is examined in two different categories: life satisfaction and happiness.

The religiosity is examined under three components (social integration, divine interaction, and existential certainty) and the subjective well-being is examined under two components (life satisfaction and happiness) by Ellison (1991) and in this research. According to the analysis results; the religiosity through social integration and divine interaction together with socio-economic, institutional, and socio-demographic factors has a statistically significant correlation with happiness. However, religiosity through existential certainty does not have a statistically significant correlation with happiness. Once again, similarly religiosity through existential certainty and divine interaction together with socio-economic, institutional, and socio-demographic factors has a statistically significant correlation with life satisfaction. However, religiosity through social integration does not have a statistically significant correlation with life satisfaction.

The starting point of this study is to question the underlying reasons of high crime rates or illegal behaviors in the areas where people are mostly religious although there is positive correlation between religiosity and subjective well-being. In this point of view, it is found to be useful to evaluate the impact of religion on subjective well-being by separating it into dimensions. If the impact of religion on life experience is examined, there is statistical evidence that religious interpretations may be a tool to compensate for more complex cognitive skills (such as crime rate) among people with lower education and lower incomes (Pollner, 1989).

In this study, while explaining the impact of religiosity on subjective well-being, answers to unasked questions in the literature are looked for by elaborating the subjective well-being component which is affected by the components of religiosity. For example; the results of religiosity through divine interaction or existential certainty revealed that the basic reason of increase in happiness is not the moral relation established with God, but it is the friendships established as a result of religious organizations. In this way, individuals may have the opportunity to attain greater happiness not being obliged to be an absolutely religious person. In this case, people rather need a close friendship network (Steiner et.al., 2014, p. 133).

In the first part of this study, theoretical and empirical structure of subjective well-being and religiosity in the explanation is mentioned. In the second part of this study, data and econometric methods used in the research is explained and in the third part established model and this study is composed of there parts findings obtained is explained.

## **2. THEORETICAL AND EMPIRICAL SUB-STRUCTURE IN THE EXPLANATION OF THE RELATIONSHIP BETWEEN RELIGIOSITY AND SUBJECTIVE WELL-BEING)**

If the related literature is reviewed, it is inevitable to say that religiosity has a direct or indirect impact on life satisfaction and happiness of the individual. In this study, religious components which impact subjective well-being are divided into three components as social integration component of religion, divine interaction component and existential certainty component.<sup>3</sup>

### **2.1. Social Integration**

Religiosity may become a crucial factor of social integration when it is internalized with the values, norms, customs, and behavioral models in a society. When considered from this point of view, welfare increase of the individual because of participation in religious activities becomes inevitable. Religiosity may provide welfare increase of the individual in four ways by providing social integration (Ellison, 1991):

<sup>3</sup> In religion, a person can find a holistic information scheme about his own quality and place in the universe and can see his own beginning and end. Therefore, religiosity can affect subjective well-being both directly and indirectly (Demir, 2013).

- Churches, synagogues, or mosques offer institutional settings for similar social relationships among people with similar tendencies. Because religious institutions foster friendships and social networks which may develop more compared to secular environments. Once again, the role of religious institutions in providing social integration is in line with other voluntary organizations.
- The members of a religious society may have the opportunity to utilize greater and more confident, informal social networks in order to get support in hard times. In addition to this, programs and personnel of religious institutions may often provide useful information and financial aid at the problem-solving stages of coping with stress.
- Social integration has a feature including social control. Religious societies may support basic features of health habits, interpersonal and inter-family relations, business relations and personal lifestyles facilitating welfare. The participants may internalize these norms, however, those who do not abide these norms may be subject to informal social sanctions.
- Religious societies participate in ritual prayers which have collective meaning and significance. Thus, collective prayer experience may strengthen a group of specific believers and may increase centrality of personal life experiences in the interpretation of religion.

Research may exhibit differences in terms of the reasons of having higher subjective well-being levels of people who regularly attend religious services. According to some studies, the basic reason of religiosity to increase subjective well-being stems from social network and support provision of religion to people

## 2.2. Divine Interaction

Most of the studies conducted on religiosity and subjective well-being focuses on social dimension of the religion<sup>4</sup>, however, the number of studies demonstrating the impact of religious rituals (e.g., prayer, meditation etc.) on subjective well-being is less. In the literature studies conducted, the impact of divine interaction dimension of religion on subjective well-being can be examined in three different perspectives (Ellison 1991, p. 81).

- An individual may find solution to the "lonesomeness" problem which may cause psychological disorders such as depression etc. by implementing religious rituals as divine interaction. Pollner (1989) stated that the individuals may establish relations at a divine dimension as much as they establish social relations by obtaining a divine value while seeking solutions to the lonesomeness problem. Religiosity through divine interaction is experienced by being identified with religious figures. Individuals interpret problems related with their lives omnisciently under the enlightenment of the holy books but still in accordance with their personal situation and own perspective (Ellison, 1991, p. 81).
- Secondly, religiosity through divine interaction has the characteristics to strengthen self-respect and self-sufficiency of individuals. Being recognized and appreciated by a divine value may create awareness of the person and thus the person feels worthy. This enables permanent life satisfaction which goes beyond life (Capps, 2002).
- Thirdly, it is proposed that the perceived welfare understanding can be developed by ascribing new meanings to the welfare understanding of people by regulating and foreseeing events because of attaining religiosity through divine interaction. Thus, the contribution of relations established by divine values to the personal well-being may be possible through reinforcement of religious values or rituals (Ellison 1991, p. 81; Pollner, 1989).

## 2.3. Existential Certainty

The existentialist perspective on life emphasizes the significance of the meaning of life and the choices related with life since it actively constructs the living conditions of the individual. The existentialist perspective through religious point of view determines an aim for the individual among possibilities. And the individual organizes his/her life in line with this aim to ensure maximum level of life satisfaction (Ayten, 2012).

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<sup>4</sup> It is necessary to determine whether religious social networks have an effect on general social networks or how religious dimensions affect subjective well-being on other subjective well-being. Social networks and strong religious identities derived from religious participation are key factors mediating the positive relationship between religion and subjective well-being. People with religious affiliations are happier because they frequently attend religious services and form intimate social networks in religious communities (Lima and Putnam 2010).

Existential certainty dimension of religion has a similar positive impact on life satisfaction of individuals and makes life meaningful. Therefore, the existential certainty component of religiosity was interpreted in this study by accepting that "the religion primarily adds life meaning and aim and subjective well-being takes its shape in line with this meaning and aim (Emmons et al., 1998). Besides, it is accepted by many researchers in the literature that subjective well-being and existential certainty dimension of the religion has a statistically significant correlation. (Ellison, 1991).

#### **2.4. Demographic Variables in the Explanation of the Relationship between Religiosity and Subjective Well-Being)**

Literature studies have revealed that demographic, economic and institutional features is very crucial in determining subjective well-being and institutional characteristics of individuals. Therefore, among the basic demographic variables indicated in the study "age, education, gender, marital status, income and the importance of living in a democratic country" are included as independent variables. According to these models about happiness (emotional subjective well-being), happiness decreases as age and education level increase. According to the marginal efficiency coefficients obtained, an increase in age and education level by one unit means happiness; It reduces the probability of being 'I=very happy'. In this case, the increase in age and education level in the established model is interpreted as decreasing happiness. If we look at the interpretation of the marginal efficiency coefficient in the income variable, since the coefficient is positive, an increase in the income level by one unit means happiness; 1 = I am very happy. In this case, in this model explained, there is a statistically significant positive relationship between income (absolute income) and happiness can be said to be. In other words, in these three models, absolute income increase is considered a factor that increases happiness.

### **3. MATERIALS AND METHOD**

The data used in this study are taken from the sixth wave of the World Values Survey (WVS).<sup>5</sup> The WVS consists of surveys including almost 100 countries. The survey used includes 27,850 people aged 16 and over residing as private households, regardless of their language, nationality, and legal status. The World Values Survey, which has a prominent position in the field of social sciences, is the most comprehensive research in the field of social sciences.<sup>6</sup> (Örmeci, 2016) Participants in this study were selected according to the three-stage sampling approach. In the first stage, households with 300 home addresses within 134 blocks were selected. In the second step, random numbers of households were selected from the list of 300 addresses. In the third stage, people to be interviewed in the household were selected using the Kish Grid 4 method.<sup>7</sup>

In this study, subjective well-being is evaluated in two different categories: life satisfaction and happiness. The impact of religiosity on happiness was researched with 27,850 data taken from the sixth wave of the World Values Survey using a sequential logistic regression model. The correlation between "age, education, gender, marital status, income and the importance of living in a democratic country" which are indicated among the basic demographic variables in the model and happiness are found to be statistically significant. Besides, the correlation between religiosity through existential certainty and happiness is not found to be statistically significant. However, religiosity through social interaction and divine interaction is found to be statistically significant. No statistically significant correlation was found only between religiosity through existential certainty and happiness.

Secondly, the impact of religiosity on life-satisfaction was researched with 27,850 data taken from the sixth wave of the World Values Survey using a sequential logistic regression model in this study. The correlation between "age, marital status, education, income and desire of living in a democratic country" which are among the basic demographic variables in the model and life-satisfaction are found to be statistically significant. Besides, the correlation between religiosity through existential certainty and life satisfaction is found to be statistically significant. However, the correlation between religiosity through social interaction, gender and life satisfaction is

<sup>5</sup> The 7th wave was preferred because it contains questions suitable for the model used in the research.

<sup>6</sup> Led by the prominent scientist Ronald Inlehart, this survey has been regularly conducted in 100 countries since 1981. The part of the survey related with Turkey is led by Prof. Yılmaz esmer from Bahçeşehir University. . . The aim of the survey is to understand the values and beliefs of people.

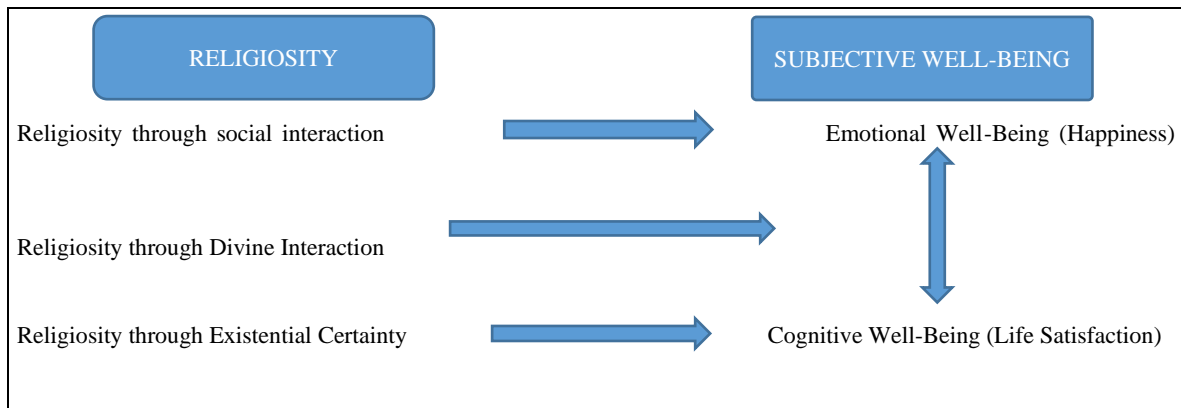
<sup>7</sup> The Kish grid or Kish selection grid is a method for selecting members in a household to be interviewed. It uses a predetermined table of random numbers to find the person to be interviewed. It was developed by statistician Leslie Kish in 1949.

not found to be statistically significant. No statistically significant correlation was found only between religiosity through social integration and relation of gender with life satisfaction

### 3.1. Data

The impact of religiosity on happiness was researched with 27,850 data taken from the sixth wave of the World Values Survey using a sequential logistic regression model in this study. In many of the previous studies, there was no clear opinion about the component of religion by which the impact of religion on subjective well-being to be explained. It is aimed to provide a clearer understanding of the impact of religion on the subjective well-being with the model created in this study. In this sense, the component of religiosity is created under three main topics which are social integration, divine interaction and Existential certainty and the impact of these on the subjective well-being which consists of two components which are life satisfaction (cognitive), and happiness (emotional) is analysed (Diener 1985).

Figure 1. Model Setup of the Research



### 3.2. Models and Method

In this study, subjective well-being is evaluated in two different categories: life satisfaction and happiness. The impact of religiosity on happiness was researched with 27,850 data taken from the sixth wave of the World Values Survey using a sequential logistic regression model. The correlation between "age, education, gender, marital status, income and the importance of living in a democratic country" which are indicated among the basic demographic variables in the model and happiness are found to be statistically significant. Besides, the correlation between religiosity through existential certainty and happiness is not found to be statistically significant. However, religiosity through social interaction and divine interaction is found to be statistically significant. No statistically significant correlation was found only between religiosity through existential certainty and happiness.

Secondly, the impact of religiosity on life-satisfaction was researched with 27,850 data taken from the sixth wave of the World Values Survey using a sequential logistic regression model in this study. The correlation between "age, marital status, education, income and desire of living in a democratic country" which are among the basic demographic variables in the model and life-satisfaction are found to be statistically significant. Besides, the correlation between religiosity through existential certainty and life satisfaction is found to be statistically significant. However, the correlation between religiosity through social interaction, gender and life satisfaction is not found to be statistically significant. No statistically significant correlation was found only between religiosity through social integration and relation of gender with life satisfaction

#### 3.2.1. Dependent Variables Used in the Model

Subjective well-being, which is significant in social psychology and evaluated in two distinct categories as emotional and cognitive, is included in the model as a dependent variable (Ellison, 1991). It has been used in the research in this way as emotional subjective well-being is displayed with cognitive subjective well-being in the World Values Survey. Emotional subjective well-being, in other words happiness, consists of relatively spontaneous responses indicating temporary assessment of life quality. On the other hand, cognitive subjective well-being, in other words life satisfaction, includes implicit comparisons between ideal living conditions and real-

life conditions. This scale, in which life is evaluated as a whole, includes relatively stable evaluations (Diener 1985).

After the descriptive statistical analysis was conducted, subjective well-being, which is accepted as a significant variable in the psychology literature and evaluated in two distinct categories as cognitive and emotional components, was selected as the dependent variable. The response of cognitive subjective well-being has an ordinal scale structure since it is in the form of  $Y = 0,1,2, \dots, 10$  and in ascending order. The answers of emotional and subjective well-being are in the form of  $Y = 1$  (I am very happy), 2 (I am a little happy), 3 (I am not very happy), 4 (I am not happy at all) and they are in descending order. And this variable also has an ordinal scale structure. Due to the ordinal structure of the dependent variables (life satisfaction and happiness), an ordered logit regression model was implemented in this research. Happiness scale is sorted from very happy scale to not happy at all scale (1: very happy, 2: slightly happy, 3: not very happy, 4: not happy at all) as descending variable, whereas life satisfaction scale is sorted from the dissatisfaction scale to the extremely satisfaction scale (1: not satisfied at all, 2,3,4, ..... 10: feeling extremely pleased and satisfied) as an ascending variable

### 3.2.2. Basic Independent Variables Used in the Model

In this study, the impact of three components of religion on subjective well-being was researched. Religiosity Through Social Integration which is one of the components of religiosity was measured with the following questions: a) For the Muslims; How often do you go to the mosque nowadays apart from funerals? b) For non-Muslims: How often do you go to the synagogue/church nowadays, except for funerals, marriages, and baptisms? The answers are in a descending order: 1 (more than once a week), 2 (once a week), 3 (once a month) .....7 (Never: almost never)<sup>8</sup>

Religiosity through Divine Interaction which is another component of religiosity was measured with the following question: How often do you pray except for funerals and marriages? The answers are in a descending order: 1 (several times a day), 2 (once a day), 3 (several times a week) ..... 8 (Never: almost never)

The Religiosity through existential certainty which is another component of Religiosity was measured with the following questions. Which one of them is more acceptable for you? 1. Does Religion essentially give meaning to the eternal checkout, that is the hereafter? 2. Does religion essentially give meaning to this world in which we live? As mentioned earlier, this scale was chosen according to the existential certainty definition in the literature, and it is a foresight for further studies.

### 3.2.3. Other Independent Variables Used in the Model

Literature studies have revealed that demographic, economic and institutional features is very crucial in determining subjective well-being and institutional characteristics of individuals (Ellison, 1991). Therefore, "age, gender, marital status, education" indicated among basic demographic variables and "income", which is accepted within the economic characteristics of individuals, and finally "importance of living in a democratic country", which is evaluated within the institutional characteristics are included as independent variables in the study...

### 3.2.4. Method

Since the concepts of life satisfaction and happiness are categorical dependent variables, the ordinal logit model was seen as a suitable analysis method for this research. As there are two dependent variables included in the research, two different models are established. The first model explains the relationship between happiness and religiosity, and the second model explains the relationship between life satisfaction and religiosity.

## 4. FINDINGS AND RESULTS

The correlation between "age, education, gender, marital status, income and the importance of living in a democratic country" which are indicated among the basic demographic variables in the model and happiness are found to be statistically significant. Besides, the correlation between religiosity through existential certainty and happiness is not found to be statistically significant. However, the correlation between religiosity through social integration and divine interaction is found to be statistically significant.

<sup>8</sup> Only one question was used in the model.



Once again, using the same data the impact of religiosity on life satisfaction was researched using a sequential regression model. The correlation between the age, marital status, education selected in the model; income accepted among the economic characteristics of the individuals and "importance of living in a democratic country" which is evaluated among institutional characteristics and life satisfaction was found to be statistically significant. No statistically significant correlation was found only between religiosity through social integration and relation of gender with life satisfaction.

#### 4.1. Happiness and Religiosity Model

In the study, the correlations of the components of religiosity through social integration, religiosity through divine interaction, and religiosity through existential certainty with happiness (emotional well-being) were analyzed by using sequential logistic regression model. The marginal efficiency coefficient of the analysis was calculated. And according to the results of these coefficients, Table 1 was drawn up.

The impact of religiosity on happiness was researched with 27,850 data taken from the sixth wave of the World Values Survey using a sequential logistic regression model. The correlation between the socio-demographic, socio-economic, institutional and religiosity factors selected in the model and happiness was found to be statistically significant. No statistically significant correlation was found only between religiosity through existential certainty and happiness.

According to these models created in relation to happiness (emotional subjective well-being), as the age and education level increase, happiness decreases. According to the marginal efficiency coefficients obtained, one-unit increase in age and education levels decreases the probability of being '1 = very happy' of happiness. That is to say, in this case, it is interpreted in established model that the increase in age and education level decreases happiness. In these three models, males were coded as (1) and females (2) in the gender variable, and the coefficient of the gender factor (-) indicates that men are happier than women.

However, here the statistical significance of the model (2), that is the religiosity and happiness model through divine interaction, in the gender variable is higher than the other variables. This reveals that the role of the gender factor in explaining happiness by religiosity through divine interaction is more clear than other models. Once again in these models, the fact that the marriage variable is the happiness coefficient (-) means that the happiness increases in each scale towards marriage (due to the reverse coding of the happiness scale). That is to say, it is observed that marriage is evaluated as a factor increasing happiness in these models.

**Table 1.** Happiness and its Relationship with Religiosity

	<b>MODEL 1</b> <b>The Relation of Social</b> <b>Integration Factor of Religion</b> <b>with Happiness</b>	<b>MODEL 2</b> <b>The Relation of Divine</b> <b>Interaction Factor of Religion</b> <b>with Happiness</b>	<b>MODEL 3</b> <b>The Relation of Existential</b> <b>Certainty Factor of Religion</b> <b>with Happiness</b>
Age	-.00368*** (,0002)	-,00373*** (,0002)	-,0037431*** (,0002)
Education	-,00311** (,00124)	-,00316** (,00124)	-,0055438*** (,00123)
Gender	-,01285** (,00558)	-,01916*** (,00559)	-,0149901** (,00557)
Marital status	-,01378*** (,00136)	-,01352*** (,00136)	-,0137077*** (,00136)
Income	,03010*** (,00134)	,02991*** (,00134)	,0302203*** (,00134)
Democracy	,01142*** (,00134)	,1089*** (,00134)	,0113603*** (,00134)
Religiosity Factor	-,021074*** (,00135)	-,01698*** (,0012)	-,0063943 (,00488)

*P*<0.10\*, *P*0.05\*\*, *P*0.01\*\*\*<sup>9</sup>

<sup>9</sup> The smaller the p value, the greater the evidence of a statistically significant difference. p-value in the range of 0.01 to 0.05; There is a statistically significant difference. p value in the range of 0.001 to 0.01; There is a high level of significant difference. p value less than 0.001; There is a very high level of statistically significant difference. p-value in the range of 0.10 to 0.05; Boundary significance means marginally significant-.

When the interpretation of marginal efficiency coefficient in the income variable is taken into consideration, one-unit increase in income level increases the probability of being '1 = very happy' as the coefficient is positive. In this case, it is possible to say that there is a statistically positive significant correlation between income (absolute income) and happiness in this model explained. That is to say, absolute income increase is considered as a factor increasing happiness in these three models. Once again in this model, it is observed that there is a positive (due to reverse coding of the happiness scale) and statistically significant correlation between the "importance of living in a democratic country" scale and happiness.

#### **4.2. Life Satisfaction and Religiosity Model**

The second model established in the study explains the relationship between life satisfaction and religiosity. According to these models created in relation to life satisfaction as the age increases, life satisfaction decreases. According to the marginal efficiency coefficients obtained, one-unit increase in age increases the probability of being '1 = lowest scale of life satisfaction' of life satisfaction. That is to say, in this case, it is seen that in the established model that the increase in age decreases life satisfaction.

Education variable, which is one of the socio-demographic variables, differed in the life satisfaction model compared to happiness model. Here, that the marginal efficiency coefficient of the education variable is negative (-) means that a one-unit increase in the level of education decreases the probability of being "1 = the lowest scale of life satisfaction" in life satisfaction. That is to say, in this case, it is seen that in the established model that the increase in education level increases life satisfaction.

Unlike the happiness model, no statistically significant correlation was found in the life satisfaction models of gender. That means, being a man or a woman has no impact on life satisfaction. Here, that the marginal efficiency coefficient of the marital status variable is positive (+) means that a one-unit increase in the scale towards being single increases the probability of being "1 = the lowest scale of life satisfaction" in life satisfaction. Briefly, in this model established, marriage emerges as a variable that increases life satisfaction.

When the interpretation of marginal efficiency coefficient in the income variable is taken into consideration, one-unit increase in income level increases the probability of being '1 = the lowest scale of life satisfaction' as the coefficient is negative (-). In this case, it is possible to say that there is a statistically positive significant correlation between income (absolute income) and life satisfaction in this model explained similar to the happiness models. That is to say, absolute income increase is considered as a factor increasing life satisfaction in these three models.

As indicated previously, it is determined that the scale of "importance of living in a country with democratic management", which is accepted as an institutional variable, has a statistically significant correlation in the models established. That the coefficient of this variable is negative means that as the importance of living in a democratic country increases for a person, life satisfaction of that person also increases. Briefly, in these models, an increase in the desire to live in a democratic country is evaluated as a factor increasing life satisfaction, similar to the happiness models.

The sequential logistic models used revealed differences in the explanations of religiosity components related with life satisfaction. There is a statistically significant correlation between religiosity through existential certainty and divine interaction and life satisfaction, however, there is no significant correlation between religiosity through social integration and life satisfaction. That is why this variable is not included in this model. In these three models, that the marginal efficiency coefficient of the marital status variable is positive (+) means that as the religiosity through divine interaction increases the probability of '1 = life satisfaction lowest scale' decreases. That means, this situation is interpreted as the increase in religiosity through divine interaction in the model increases life satisfaction. Similarly, if the regression model related to life satisfaction of religiosity through existential certainty is taken into consideration, it is seen that there is a statistically significant correlation. The change in the existential certainty dummy variable, in other words, the increase in the probability of giving meaning to this world compared to the other world decreases the probability of 1 = the lowest scale of life satisfaction. Briefly, religiosity through existential certainty appears as a variable that increases life satisfaction.

**Table 2.** Life Satisfaction and its Relationship with Religiosity

	<b>MODEL 1 The Relation of Social Integration Factor of Religion with Life Satisfaction</b>	<b>MODEL 2 The Relation of Divine Interaction Factor of Religion with Life Satisfaction</b>	<b>MODEL 3 The Relation of Existential Certainty Factor of Religion with Life Satisfaction</b>
Age	-,0000662*** (,00002)	,0000649*** (,00002)	,000071*** (,00002)
Education	-,0003126** (,00011)	-,0003684*** (,00011)	-,0002848*** (,00011)
Gender	-,000588 (,00049)	4.13e-06 (,00049)	-,000101 (,00049)
Marital status	0004985*** (,00012)	,0004982*** (,00012)	,0004541*** (,00012)
Income	-,0035537*** (,00017)	-,003536*** (,00017)	-,0035989*** (,00017)
Democracy	-,0032288*** (,00017)	-,0032224*** (,00017)	-,0032207*** (,00017)
Religiosity Factor	-,0000617 (,00012)	,0003357*** (,00011)	-,002457*** (,00044)

P<0.10\*, P0.05\*\*, P0.01\*\*\*

## 5. CONCLUSION

In this study, it is emphasized how the concepts of happiness and life satisfaction, which are components of subjective well-being, are affected by various economic, social and demographic factors. The data obtained from the World Values Survey was used in the study and the estimations were made using the ordinal logit regression method.

Relationship between religiosity and subjective well-being is examined in three ways. Social, divine interaction and existential certainty components of religiosity are categorized separately with socio-economic, institutional and socio demographic factors and the correlation between subjective well-being and religiosity is examined. Subjective well-being is examined in two different categories: life satisfaction and happiness. As a result of such kind of an analysis, six different analysis findings with distinct interpretations arises.

One of the statistical results obtained while explaining the relationship between religiosity and subjective well-being is that the social integration component of religion has a statistically significant correlation with happiness, but it does not have a statistically significant correlation with life satisfaction. Accordingly, it is revealed in the analysis results that the happiness of individuals increases as the people living in the same society, sharing the same beliefs, values and emotions establishes social networks and social support as a result of religiosity which provides social solidarity among individuals.

Another structure in which religiosity contributes to subjective well-being is the use of religiosity as a coping method. In this sense, individuals may get the power to positively change negative life events through divine interaction component of religiosity, which acts as a kind of meditation. This idea verifies that the type of religiosity through divine interaction has a statistically significant correlation both with life satisfaction and happiness according to the statistical results obtained in this study while the relationship between religiosity and subjective well-being is being explained.

Existential certainty component of religion denotes the third one of the statistical results obtained in the explanation of the relation between religiosity and subjective well-being and it is shown that this component has a statistically significant correlation with life satisfaction but does not have a statistically significant correlation with happiness. Since the existential certainty dimension of religiosity is measured by the religion adding meaning to life in this world, it is inevitable to make an evaluation of life as a whole. Therefore, the statistically significant and positive correlation between the existential certainty dimension of religiosity and life satisfaction matches up with the findings of the literature.

In this happiness and religiosity models established, it is observed that as the age and education level increase, happiness decreases. Once again in this happiness model, it is shown that there is a positive and statistically

significant correlation between the "importance of living in a democratic country" scale and happiness. Once again in this model, the fact that the happiness coefficient of the marriage variable (-) means that the happiness increases in each scale towards marriage (due to the reverse coding of the happiness scale). Briefly, it is stated that marriage is evaluated as a factor increasing happiness.

In the life satisfaction and religiosity models established, it is observed that life satisfaction decreases with age, however, it increases with the increase in education level. Unlike the happiness model, no statistically significant correlation was found in the life satisfaction models of gender. That means, being a man or a woman has no impact on life satisfaction. Once again, marriage and absolute income increase is considered as a factor increasing life satisfaction in these life satisfaction and religiosity models established. That is to say, the results obtained regarding marriage and absolute income do not show any difference in life satisfaction and happiness acquisitions. This situation creates an opposite condition to the Easterlin paradox. It is determined that the scale of "importance of living in a country with democratic management", which is accepted as an institutional variable, has a statistically significant correlation with life satisfaction. Briefly, in these models established, an increase in the desire to live in a democratic country is evaluated as a factor increasing life satisfaction, similar to the happiness models.

The relationship between religiosity and subjective well-being is included in a multidimensional framework, and religious activities realized with joint participation require deep research and explanation, including the spiritual experiences of individuals and their positive impact on mental health in general. Therefore, it is suggested that the scales measuring the components of religiosity in this study should be evaluated together with different dimensions. Particularly, as the existential certainty component of religiosity is a novel concept in the economics literature, it is a scale that is used just as a proposition albeit it does not show certainty. As well as this, it is considered that more comprehensive results and interpretations may emerge as a result of obtaining the demographic variables using different data.

## DECLARATION OF THE AUTHOR

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