

Scuba Divers' Motivations and Involvement: A Research on Turkey*

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ABSTRACT

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Turkey is situated in a temperate zone and encircled by seas on three sides. Accordingly, scuba diving became an important component of the country's tourism. The main purposes of this study is to investigate scuba divers' motivations and to determine their involvement levels with scuba diving. The relationship between scuba divers' motivations and involvement was also investigated. Within the framework of these purposes, "Modified Involvement Scale" developed by Kyle et al. (2007) and Todd et al.'s (2001) *Motivation Scale* were used. In the research, convenience sampling was used from the non-probability methods and 311 survey forms were collected through both web-based questionnaires and face-to-face interviews from scuba divers in Turkey. To examine the impacts of motivations on scuba divers' involvement with scuba diving regression analysis was utilized from methods of multivariate data analysis. According to the research findings, motivations of scuba divers can be analyzed in six headings namely, "escape", "learning", "stature", "social interaction", "personal challenge" and "adventure". In addition, the findings of this research showed that scuba divers' involvement with this activity can be examined in four dimensions be it, "attraction", "centrality", "identity" and "social bonding". According to the results of regression analysis performed, while attraction dimension is affected by escape and adventure, centrality dimension is affected by escape, learning and social interaction. In addition, escape, learning and stature has an impact on identity dimension. Lastly, learning, social interaction and adventure have an impact on social bonding dimension. Based on the research results, recommendations for future studies and tourism practitioners were suggested.

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Türkiye'nin ılıman kuşakta yer alması ve üç tarafının denizlerle çevrili olması, tüplü dalış etkinliğini ülke turizminin önemli bir bileşeni haline getirmiştir. Bu araştırma, Türkiye'de tüplü dalış etkinliğine katılan bireylerin güdülerini ve ilgilenimlerini ortaya çıkarmayı amaçlamaktadır. Bu çerçevede anket formu aracılığıyla hem yüz yüze görüşme tekniğinden hem de elektronik ortamlardan yararlanarak 311 katılımcıdan veri toplanmıştır. Bireyleri tüplü dalış etkinliğine yönelten güdülerin, ilgilenimleri üzerindeki etkisini ölçmek için çok değişkenli nicel veri analizi yöntemlerinden çoklu regresyon analizi kullanılmıştır. Araştırmadan elde edilen bulgulara göre, bireyleri tüplü dalış etkinliğine yönelten güdüler; "kaçış", "öğrenme", "imaj", "sosyalleşme", "kişisel mücadele" ve "macera" şeklinde tespit edilmiştir. Bunun yanı sıra bireylerin etkinliğe karşı ilgilenimleri; "çekicilik", "yaşam tarzına yakınlık", "kimlik" ve "sosyal bağlanma" boyutlarıyla açıklanabilmektedir. Yapılan analiz sonuçlarına göre, bireylerin tüplü dalış etkinliğine çekicilik düzeyinde ilgi göstermelerinde kaçış ve macera güdüsü etkiliyken, bireylerin bu etkinliği yaşam tarzına yakın olarak görmelerinde ise kaçış, öğrenme ve sosyalleşme güdüleridir. Ayrıca, bireylerin bu etkinliğe ilgi göstererek kim olduklarını sergileme yönünde hareket etmelerinde, kaçış, öğrenme ve imaj güdülerinin etkili olmaktadır. Son olarak, bireylerin gösterdiği ilgi sonucu bu etkinliğe sosyal açıdan bağlanmalarında, öğrenme, sosyalleşme ve macera güdüsü etkili olmaktadır. Çalışmanın devamında gerek tüplü dalış etkinliğini konu edinen ileriki çalışmalara, gerekse turizm sektöründeki uygulayıcılara öneriler sunulmuştur.

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1. Introduction

Today's increasing demands for personal/tailor-made tourism products and services have led to the emergence of the demands for alternative tourism services with fewer participants. Scuba diving activity, which is regarded as a kind of special interest tourism, has been studied by many researchers within the context of adventure tourism (Dimmock, 2009; Kler, 2007; Meisel and Cottrell, 2003). Since adventure tourism, a type of alternative tourism, is identified with concepts, such as *excitement*, *obscurity*, *risk* and *interaction with the nature*, it differs from other types of tourism (Bennett, 2002; Buckley, 2007; Sung, 2004; Weber, 2001). Scuba diving activity, which involves factors, such as interaction with nature, excitement and risk, has become an increasingly popular activity among other adventurous activities (Meisel and Cottrell, 2003). Historically dating back to 5th Century B.C., diving was initially an essential instrument for meeting both the basic and economic needs for some civilizations. By means of the diving equipment that has evolved along with the advancing technology, the diving activity itself has become an economic currency.

Tourism is a human activity and behavior, which has advanced and has found itself a field of application in the last century, and there are intrinsic and extrinsic factors that lead to emergence of each human behavior (Rızaoğlu, 2012). Extrinsic factors include aspects, such as family, culture, and social boundaries. Intrinsic factors (psychological effects) include aspects, such as learning, motivation, involvement, perception, personality, and attitude, and are known as the key determinants of behavior (Odabaşı and Barış, 2011). Among other intrinsic factors, involvement and motivation have a significant place in understanding the behaviors of the consumers. Many researchers pinpoint that motivation is the key determinant of tourist behavior (Pizam and Mansfeld, 1999). While motivation shapes stimulated need, involvement is the sense of personal significance and level of interest perceived for that stimulus under certain conditions (Odabaşı and Barış, 2011). Therefore, it has become more of an issue to reveal the motivations and involvements that engage the scuba divers in this activity, and to understand the behaviors displayed by the divers in Turkey as consumers. Thus, all stakeholders in scuba diving sector will be able to take more effective decisions to develop marketing strategies. In this study, the demographic features, motives of participation, and involvement levels of the scuba divers in Turkey have been revealed. Last but not least, the relationship between these two dimensions have been analyzed by reviewing the influence of diving motivations of the divers when it comes to their involvement. From this point of view, the main objective of this study is to find out the effects scuba divers' motivations on their involvements.

Scuba Diving

It is hard to estimate the first contact of humans with the underwater world, however, it may be suggested that this initial contact dates back to 5.000 B.C. based on the mussel shells and various fish bones that were discovered together with the mummified/embalmed human remains found in Chile (Krestovnikoff and Halls, 2006). While the seas and the oceans were used as sources of food by some prehistoric and medieval civilizations, they were later investigated for commerce, science and explorations (Dimmock, 2009). The seas, which have particularly been serving as sources of food and as means of existence, reflect the cultural characteristics of some civilizations. The people, who used to live on the Greek Island Of Kalymnian around 4.500 B.C., experienced an economic system created by the divers collecting marine sponges in the Mediterranean Sea (Dimmock, 2009). The technological advancements are perpetual in the development of diving suits and scuba tanks, as it is in all other areas. The regulator, which is regarded as the first scuba diving equipment and known as “scuba”, was invented by Jacques-Yves Cousteau and Emile Gagnan in the early 1940s (Garrod and Gössling, 2008). With the invention of Cousteau and Gagnan, the equipment required for scuba diving developed into commercial products by the end of 1940s. As such, scuba diving began to arouse global interest and subaqueous life became accessible in mild or tropical climates, and even in The Polar Regions (Ecott, 2001 cited in Dimmock, 2009). According to the data of The World Tourism Organization - WTO, the global turnover of scuba diving industry is about \$4-6 billion (WTO, 2001). According to the statistics of Professional Association of Diving Instructors – PADI, over 900,000 people each year are trained to become scuba divers and receive their diving certificates (PADI, 2016). Today, scuba diving has become a significant and ever-growing element of the tourism market. Thus, scuba diving is regarded as an important part of both international and domestic tourism dynamism (Davis and Tisdell, 1995).

Mediterranean geography also has a deep-rooted maritime history. In Turkey, there are also shipwrecks that are historical heritage that emerged as a result of various naval battles. In addition, it has become one of the important routes of merchants in terms of maritime trade, since it is in a position that connects Asia to Europe. There are ships that came for commercial reasons to but sunk for some reasons in this geography. “Girne Wreck” and “Uluburun Wreck” are good examples for this situation. Such wrecks are historical heritage and arouse curiosity for those who want to dive. Rich underwater fauna and archaeological

remains in Turkey, has significant value in terms of scuba diving tourism (Demirtaş, 2012). Significant dive destinations for scuba diving tourism in Turkey can be summarized as follows (Culture and Tourism Ministry, 2020): Kemer (Antalya), Kalkan (Antalya), Sığan Adası (Antalya), Datça (Muğla), Marmaris (Muğla), Saros (Çanakkale), Gökçeada (Çanakkale), Bozcaada (Çanakkale).

Relationship Between Motivation and Involvement

Motivation is a significant process that plays a key role, since it is the triggering motivator behind the formation of tourist behavior (Crompton, 1979). In order to understand the purposes of the individuals when selecting destinations, and to understand how these purposes reflect on their preferences and behaviors, it is necessary to reveal the travel motives of the said group (Mansfeld, 1992).

Revealing the divers' motives is very important both for the development of the businesses in the diving industry and for marketing the destination effectively (Musa and Dimmock, 2013). For example, a study belongs to Wong et al. (2013) revealed significant differences between male and female scuba divers. Accordingly, the scuba diving industry should offer more dangerous and exciting products and services for male divers, and more entertaining and relaxing experiences for female divers.

According to Orams (1999), activities such as line fishing, surfing, sailing and scuba diving are not only entertaining but these also provide individuals with an opportunity to socially and physically get away from their daily routines. Underlining the fact that the individuals participating in underwater tourism demographically differs from other individuals, Orams (1999) suggests that the motives of the scuba divers differ from the motives of the other individuals participating in other types of tourism.

In general, the motives of scuba divers arise due to intrinsic and extrinsic reasons, such as experiencing the underwater, fight/hassle, adventure, excitement, learning, social interaction, entertainment, escape and relaxation (Dearden et al., 2006; Meisel and Cottrell, 2004; Meyer et al., 2003; Todd et al., 2001).

The issue of involvement in marketing was initially addressed in the 1980s by researchers, such as Petty and Cacioppo (1981) and Zaichkowsky (1985). Other researchers, such as Selin and Howard (1988), Havitz and Dimanche (1990) and McIntyre and Pigram (1992) examined this issue in the field of tourism. Involvement is the interest or affinity of an individual towards an object depending on his/her needs, value judgments and fields of interest (Zaichkowsky, 1985). In another definition, involvement is defined as an intrinsic change of

state, which implies the amount of interest and stimulation prompted by means of a stimulus or a stimulating condition (Mitchell, 1979). In recreational terms, involvement means excitement, interest and motivation against a recreational activity or a product related to that activity. It is also tied to the stimulation of these motives and some certain stimulants. (Havitz and Dimanche, 1990 cited in Huang, 2013). One of the reasons that increase involvement in scuba diving activity is the desire of the divers to increase the varieties and skills. Accordingly, as the divers gain more experience, they want to dive in areas that require more challenges (submerged caves, walls, grooves, etc.) and skills (shark diving, cold water diving, underwater photography, etc.) (Ellegard, 2005).

Sherif and Cantril (1947) define motivation as a component of involvement. According to Iwasaki and Havitz (2004) cited in Chen et al. (2011), while motivation refers to the intensity of an individual's approach towards a certain activity, involvement is the overall measurement of the permanent approach towards that activity. With regard to tourism marketing, involvement is a state of unobservable motivation, stimulation and interest towards a product or an activity. This is prompted by a certain stimulant. Accordingly, leisure time involvement refers to the time the individuals dedicate to think about leisure time and recreation activity and the way those activities influence their behaviors (Havitz and Dimanche, 1990 cited in Chen et al., 2013). Along with motivation, which is one of the factors that influence the participation of individuals to a certain activity, involvement may also be regarded as another factor (Thapa et al., 2004). Iwasaki and Havitz (2004) and Sherif and Cantril (1947) consider motivation as one of the factors of involvement. The studies support the fact that there may be a relationship between the motives and involvements of the individuals participating in scuba diving activities.

2. Literature Review

Josiam et al. (1999) carried out a research on determining the relationship between push/pull motivation factors and involvement. According to the results of the research conducted on 795 students, who visited Panama, Florida in the spring break, the vacationers with high levels of push and pull motives also showed high levels of involvement. Kyle et al. (2006) attempted to determine the relationship between motivation and involvement through a study conducted on 424 participants in three different campgrounds. While the levels of involvement of the campers were determined with 15 statements from the six-dimensional scale of Kyle et al. (2004), the motives of the campers were revealed through 15 statements of Mandredo et al. (1996). According to the results of this study, the motives are significant

factors of involvement. However, all dimensions of motives in this study affect the dimensions of involvement on a meaningful level.

The only research in the literature that might provide some clues regarding motivation and involvement in terms of the individuals participating in scuba diving activities was conducted by Tschapka (2006). The researcher aimed to reveal the similarities and differences regarding the motives, involvement levels and activity preferences of the members of a diving club in Eastern Australia through cluster analysis method. The scuba divers in this research, which was conducted on 294 divers, were split into five different groups according to their involvement levels. Briefly, this research revealed that the participants in different clusters according to their involvement levels have different motives in general.

In order to determine the relationship between involvement and motives in Australia, Ritchie et al. (2010) conducted a research on 564 cyclist tourists. The involvement dimensions were classified according to involvement levels of the participants through cluster analysis method and it was observed that there were different motivation factors under each involvement dimension. In other words, it was observed that the tourists with different involvement level profiles had different motives. In order to determine the relationship between leisure time motives and involvement of college students in Taiwan and to reveal the effect of this relationship on leisure time satisfaction, Chen et al. (2013) conducted a research on 701 students with structural equation modeling. According to the results of this study, the motives of the individuals has a meaningful effect on leisure time involvement.

Chang and Huang (2012) conducted a research on 193 individuals participating in paragliding activity in Taiwan in order to determine the relationship between motives and involvement. Prime Correlation and Multiple Regression analyses were used in order to evaluate this relationship. The results shoe that, very strong and positive relationship was observed between the motives and involvements of the individuals participating in paragliding activity. Prebensen et al. (2012) conducted a research on 1152 tourists through structural equation modeling in order to determine the relationship between the motives, involvements and experiences of the tourists in Norway. While the motives of the participants were revealed through 14 motive statements of Beard and Ragheb (1983), the involvement levels of the participants were determined through 9 involvement statements from the studies of Laurent and Kapferer (1985), Kyle et al. (2006) and Kyle and Chick (2004). According to the results of the study, the motives of the tourists have a positive effect on their involvements. In other words, the tourists with higher motivation levels display more involvement in their experiences, or *vice versa*.

Bentz et al. (2016), revealed diver motivations in the Azores in relationship to demographic variables and level of specialization, based on a survey of 425 divers in five of the nine islands. Using cluster and principal components analysis, four diver clusters were determined: socializers, shark and manta divers, biodiversity seekers, and explorer divers. Social aspects of diving were important to both generalists and specialists. On the other hand the importance of underwater fauna did not increase with specialization. Divers' cultural background affected their motivations. The Azores archipelago, an emerging nontropical diving destination, featuring diving with large iconic species including sharks and manta rays, has a higher proportion of specialized divers than reported in other diving destinations and may receive divers displaced from increasingly degraded tropical reefs.

Dağlıoğlu and Sürme (2019), in their study, they revealed why tourists prefer underwater diving tourism. As a result of interviews with 11 people, participants generally prefer underwater diving tourism for reasons such as taking photos, getting to rest, getting to know underwater plants and animals, exploring different worlds, and getting away from work stress. Also, it has been observed that the most important effects of underwater diving tourism are the feeling of excitement and the feeling of pressure under water. In addition, it has been revealed that the experience of the non-gravity ambient and the feeling of peace are among the effects of underwater diving tourism. Palau-Saumell et al. (2019), investigate the influence of motivations on place attachment and the influence of place attachment on behavioral intentions within the same structural model. For this purpose an integrated model was developed to investigate these relationships by the authors. According to the results personal escape and personal seeking are the main motivations, and these factors influence place dependence and place identity. Other findings indicate that place dependence influences behavioral intentions more than place identity. In addition, the level of involvement in the activity moderates the links between constructs in some of the relationships. It is observed that the motives of the individuals have a significant impact on their involvements in various touristic activities. Drawing on this line, the hypothesis of this study to investigate the impacts of scuba divers' motivations on their involvements is as: Scuba divers' motivations have a significant impact on their involvements.

3. Methodology

The research was conducted on certified individuals, who participated in scuba diving activities in Turkey. The questionnaire form is composed of three parts. In the first part of the questionnaire form, the 6 dimensions (personal challenge, image, escape, learning, adventure,

social interaction) from Todd et al.'s study (2001) serves to determine the motives of the individuals participating in scuba diving activities, and five point Likert scale (1 Strongly Disagree – 5 Strongly Agree) containing 24 statements were used. In the second part of the questionnaire form, Kyle et al.'s (2007) "A Modified Involvement Scale" was used to determine the involvement levels of the individuals participating in scuba diving activities. This 5 point Likert scale (1 Strongly Disagree – 5 Strongly Agree) contains 5 dimensions (attraction, centrality, social bonding, identity expression, identity affirmation) and 15 statements. The last part of the questionnaire form contains 11 questions regarding the participation and demographic features of the individuals. Both face-to-face interview technique and electronic methods were used throughout the data collection process. As a sampling technique, convenience sampling, which is one of the non-probability sampling methods, was preferred. The data were analyzed through SPSS program over 311 participants. Explanatory factor analysis was used to reveal the dimensions regarding the motives and involvements of the individuals participating in scuba diving activities in Turkey. The reliability of the measurement was presented with Cronbach's alpha coefficient. Finally, multilinear regression analysis was used to determine the effect of the scuba diving motives of the individuals on their involvements.

4. Findings

4.1. Demographic characteristics of sample

A great majority of the participants were male (66.6%). When analyzed in terms of their educational backgrounds, it was observed that their educational levels were quite high. The data shows that about 68% of the participants either have a bachelor's degree or a master's degree. When the participants were analyzed in terms of their occupational/employment status, a great majority of the participants (19.3%) introduced themselves as executives or managers. This was followed by students (14.8%), workers (14%), employers (12.5%), civil servants (9%), retirees (8.7%), academic staff (7.7%), and the unemployed (2.3%), respectively. 8.7% of the participants were involved in other occupational activities. The average of age in this study was 36 and the monthly household incomes of the participants were approximately 5.000 TRY. According to the results reflecting the motives of participation of the individuals, CMAS (Confederation Mondiale Des Activites Subaquatiques) is the most preferred institution with 62.4%, which issues scuba diving certificates in Turkey. In addition, these findings show that SSI (Scuba School International)

trained 18%, and PADI trained approximately 15% of the scuba divers in Turkey. About 34% of the participants identified themselves as beginners, 39% identified themselves as advanced level scuba divers. 26.4% of the participants stated that they perform this activity as dive leaders. The participants have been interested in this activity for between one and forty years, and they dived between four and ten thousand times within this time period. Lastly, these individuals annually spend about 1.750 TRY for diving equipment and training, and about 3.400 TRY for touristic services.

4.2. Explanatory factor analysis results for scuba divers' motivations

24 items on this scale have been through reliability analysis before the factor analysis was applied to motivation scale. One of the coefficients taken into consideration during reliability analysis was the *total item correlation* value. It states whether each item correlates with the total score and reveals whether an item measures something different than the overall scale (Akbulut, 2010). Total item correlation coefficient should be positive and greater than 0.25. It is recommended that the items that fail to fulfill these conditions should be eliminated. (Alpar, 2010). Taking into consideration of these explanations, the statements in motivation scale were first evaluated in terms of total item correlation value, and it was decided to eliminate the following two statements: *it's sort of an impressive thing to do* (0.073) and *to collect interesting artifacts*. (0,016). Factor analysis was applied to the motivation scale with 22 statements remaining after the other two statements were eliminated due to low total item correlation values. As a result of the analysis, since “*to develop my diving skills*” item gave a load of 0.369 to the second factor and 0.465 to the third factor, it was regarded as a multi-loading item and thus, eliminated from the item analysis. Therefore, the factor analysis was repeated with the remaining 21 items. As it is seen in Table 1, a six-factor structure was obtained. This structure explains 68.071% of the total variance. The factors that were formed in terms of the value of the explained variance were listed as; (1) *Escape*, (2) *Learning*, (3) *Stature*, (4) *Social Interaction*, (5) *Personal Challenge*, (6) *Adventure*. While the KMO value of the motivation scale calculated within the context of this study was 0.810 shows that the data set had sufficient sampling size for factor analysis, the results of Bartlett Sphericity Test ($p = 0.000$) shows a sufficient relationship between the variables.

Table 1. Findings of Factor Analysis regarding the Motivation Scale in Scuba Diving.

Factors and Items	Factor Load	Eigenvalue	Variance %	Mean
Escape ($\alpha=0.940$)		3.031	14.434	4.30
To experience peace and tranquility	.916			
For relaxation	.901			
For a change from everyday life	.860			
Learning ($\alpha=0.756$)		2.664	12.684	4.28
To look at underwater animal and plant life	.799			
To learn more about the underwater environment	.749			
To see historically significant shipwrecks	.694			
To explore things	.634			
To study underwater geological formations	.629			
Stature ($\alpha=0.781$)		2.262	10.771	2.85
To use my equipment	.724			
To help keep me physically fit	.692			
To do something creative, such as take pictures or videos	.630			
To gain an experience I can look back on	.612			
Social Interaction ($\alpha=0.745$)		2.139	10.187	3.51
So I could do things with my friends and/or family	.814			
To meet new people	.751			
To share my skill and knowledge with others	.710			
Personal Challenge ($\alpha=0.755$)		2.109	10.044	2.99
To show myself that I can do it	.839			
Because I thought it would be a challenge	.791			
To give me a feeling of confidence in myself	.681			

Adventure ($\alpha=0.747$)		2.090	9.951	2.96
Because it is stimulating and exciting	.835			
For the adventure of it	.763			
Because of the risk involved	.716			
Total Variances Explained (%)		68.071		

Kaiser-Meyer-Olkin Measure of Sampling Adequacy: 0,810

Bartlett Sphericity Test/ Chi-square value: 2962.124, sd: 210, p: 0.000

4.3. Explanatory factor analysis results for involvement

Factor analysis was made on 15 items within the scale. As a result of the analysis, since “*I identify with the people and image associated with scuba diving*” statement of the involvement scale gave a load of 0.502 to the first factor and 0.492 to the fourth factor, it was regarded as a multi-loading item and thus, eliminated from the item analysis. Therefore, the factor analysis was repeated with the remaining 14 items and as it is seen in Table 2, a four-factor structure was obtained. The factors that were formed in terms of the value of the explained variance were listed as; (1) *Attraction*, (2) *Centrality*, (3) *Identity*, (4) *Social Bonding*. This structure explains 68.459% of the total variance. The KMO value of the involvement scale was calculated as 0.842. This shows that the data set had sufficient sampling size for factor analysis. The results of Bartlett Sphericity Test ($p = 0.000$) shows a sufficient relationship between the variables.

Table 2. Findings of Factor Analysis regarding the Involvement Scale in Scuba Diving.

Factors and Statements	Factor Load	Eigenvalue	Variance %	Mean
Attraction ($\alpha=0.905$)		2.543	18.161	4.13
Scuba diving is one of the most enjoyable things I do	.902			
Scuba diving is one of the most satisfying things I do	.876			
Scuba diving is very important to me	.810			
Centrality ($\alpha=0.855$)		2.527	18.048	3.42
Scuba diving occupies a central role in my life	.875			

I find a lot of my life is organized around scuba diving	.867			
To change my preference from scuba diving to another recreation activity would require major rethinking	.654			
Identity ($\alpha=0.741$)		2.503	17.879	3.28
Participating in scuba diving says a lot about whom I am	.782			
You can tell a lot about a person by seeing them scuba diving	.765			
When I participate in scuba diving, others see me the way I want them to see me	.706			
When I am scuba diving, I don't have to be concerned with the way I look	.526			
When I participate in scuba diving, I can really be myself	.509			
Social Bonding ($\alpha=0.754$)		2.012	14.372	3.60
Participating in scuba diving provides me with an opportunity to be with friends	.818			
I enjoy discussing scuba diving with my friends	.765			
Most of my friends are in some way connected with scuba diving	.664			
Total Variances Explained (%)		68.459		

Kaiser-Meyer-Olkin Measure of Sampling Adequacy: 0.842

Bartlett Sphericity Test/ Chi-square value: 2188.654, sd: 91, p: 0.000

4.5. Regression analysis results

The regression models which were established for the factors in involvement scale in order to analyze the effect of independent variables on each dependent variable are (1) *Attraction*, (2) *Centrality*, (3) *Identity*, (4) *Social Bonding*.

Table 3. Findings of Multiple Regression Analysis of the Attraction Factor as a Dependent Variable.

Independent Variables	Non-standardized Coefficients		Standardized Coefficients	t	p	Tolerance	VIF
	B	Std. Error	Beta				
Constant	1.296	0.319		4.060	0.000		
Escape	0.582	0.046	0.633	12.671	0.000	0.673	1.486
Learning	0.057	0.075	0.034	0.765	0.445	0.831	1.203
Stature	0.076	0.049	0.081	1.560	0.120	0.620	1.614
Social Interaction	0.036	0.051	0.034	0.708	0.480	0.749	1.336
Personal Challenge	0.020	0.043	0.022	0.479	0.633	0.766	1.305
Adventure	-0.107	0.044	-0.111	-2.420	0.016	0.805	1.242
R= 0.699 $R^2= 0.489$ Adapted $R^2= 0.479$ F= 48.499 p= 0.000							

The findings regarding the first regression model, which revealed the effect of independent variables on *attraction* as a dependent variable, are given in Table 3. Accordingly, the regression model turned out meaningful as a whole at $p < 0.05$ significance level with $F=48.499$ value. The *Adapted R²* value, which represents the determinacy coefficient of the model, shows that the independent variables could explain approximately 48% of the change on dependent variable. Beta value shows which independent variable has more effect on dependent variable within this model. Accordingly, while one unit of increase in *Escape* motive causes 0.63 unit of increase in attraction, one unit of increase in *Adventure* motive causes 0.11 unit of decrease in attraction.

Table 4. Findings of Multiple Regression Analysis of the Centrality Factor as a Dependent Variable.

Independent Variables	Non-standardized Coefficients		Standardized Coefficients	t	p	Tolerance	VIF
	B	Std. Error	Beta				
Constant	1.029	0.444		2.317	0.021		
Escape	0.154	0.064	0.157	2.408	0.017	0.673	1.486
Learning	0.258	0.104	0.146	2.479	0.014	0.831	1.203
Stature	0.015	0.068	0.015	0.226	0.821	0.620	1.614
Social Interaction	0.239	0.071	0.210	3.384	0.001	0.749	1.336
Personal Challenge	-0.087	0.060	-0.089	-1.454	0.147	0.766	1.305
Adventure	0.000	0.062	0.000	-0.007	0.994	0.805	1.242
R= 0.355 R ² = 0.126 Adapted R ² = 0.109 F= 7.290 p= 0.000							

The findings regarding the second regression model, where the *Centrality* factor was analyzed as a dependent variable, are given in Table 4. This regression model turned out meaningful as a whole at $p < 0.05$ significance level with $F=7.290$ value. As it is seen in the table, the *Adapted R²* value, which represents the determinacy coefficient of the model, was calculated as 0.109. When this model is analyzed, it is observed that the motivation factors *stature*, *personal challenge* and *adventure* do not have any effect on *centrality* as a dependent variable. However, *Escape*, *Learning* and *Social Interaction* factors have significant effects at $p < 0.05$ level. When the Beta coefficients are individually analyzed, it is observed that while one unit of increase in *Escape* motive causes 0.157 unit of increase in centrality factor, one unit of increase in *Learning* motive causes 0.146 unit of increase in aforementioned dependent variable. Finally, one unit of increase in *Social Interaction* motive causes 0.210 unit of increase in centrality factor.

Table 5. Findings of Multiple Regression Analysis of the Identity Factor as a Dependent Variable.

Independent Variables	Non-standardized Coefficients		Standardized Coefficients	t	p	Tolerance	VIF
	B	Std. Error	Beta				
Constant	0.937	0.321		2.918	0.004		
Escape	0.107	0.046	0.144	2.314	0.021	0.673	1.486
Learning	0.244	0.075	0.181	3.239	0.001	0.831	1.203
Stature	0.148	0.049	0.196	3.029	0,003	0.620	1,614
Social Interaction	0.019	0.051	0.021	0.363	0.717	0.749	1.336
Personal Challenge	0.038	0.043	0.052	0.889	0.374	0.766	1.305
Adventure	0.082	0.045	0.104	1.830	0.068	0.805	1.242
R= 0.457 $R^2= 0.208$ Adapted $R^2= 0.193$ F= 13.341 p= 0.000							

In the third model, the *Identity* factor was analyzed as a dependent variable, and the results regarding the effect of independent variables containing motive factors are given in Table 5. Accordingly, the regression model turned out statistically meaningful as a whole at $p < 0.05$ significance level with $F=13.341$ value. When the regression model is analyzed in terms of overall determinacy coefficient, the independent variables explain the change in dependent variable with 0.193 *Adapted R²* value. The effect of independent variables on dependent variable according to standardized beta coefficients is as follows: *Stature* (0.196), *Learning* (0.181) and *Escape* (0.144), respectively. These coefficients show the proportional effect of one unit of increase in independent variable on identity factor.

Table 6. Findings of Multiple Regression Analysis of the Social Bonding Factor as a Dependent Variable.

Independent Variables	Non-standardized Coefficients		Standardized Coefficients	t	p	Tolerance	VIF
	B	Std. Error	Beta				
Constant	1.037	0.329		3.152	0.002		
Escape	0.066	0.047	0.082	1.387	0.166	0.673	1.486
Learning	0.300	0.077	0.207	3.882	0.000	0.831	1.203
Stature	0.034	0.050	0.042	0.677	0.499	0.620	1.614
Social Interaction	0.379	0.052	0.409	7.256	0.000	0.749	1.336
Personal Challenge	-0.048	0.044	-0.060	-1.080	0.281	0.766	1.305
Adventure	-0.095	0.046	-0.113	-2.081	0.038	0.805	1.242
R= 0.527 $R^2= 0.278$ Adapted $R^2= 0.264$ F= 19.525 p= 0.000							

The findings regarding the last regression model, which shows the explanatoriness of the independent variables on *social bonding* factor as a dependent variable, are given in Table 6. It is observed that the regression model regarding the social bonding factor is meaningful because the significance level of F (19.525) value was calculated as $p < 0.005$. In addition, when we look at the *Adapted R²* value, which represents the overall determinacy coefficient of the model, we observe that the level of explanation for the change that occurred on the independent variables within the dependent variable was calculated as 0.264. When the last regression model is analyzed, it is observed that the motive factors *escape*, *stature* and *personal challenge* do not have any explanatory effect on *social bonding*, which represents the dependent variable. However, while one unit of increase in *Learning* motive causes 0.207 unit of increase in social bonding factor, one unit of increase in *Social Interaction* motive causes 0.409 unit of increase in the aforementioned dependent variable. Finally, one unit of increase in *Adventure* motive causes 0.113 unit of decrease in social attachment factor.

5. Discussion and Conclusion

When the participants are analyzed in terms of gender distribution, it is observed that male divers are more interested in this activity in Turkey. In this sense, this study shares similarities with some other studies conducted in other countries. Researchers, such as Todd et al. (2001), Meyer et al. (2003), Meisel and Cottrell (2003), Tschapka (2006), also found out that the ratio of male participants was more than 60% in their studies. When the participants are analyzed in terms of their age groups, it is observed that the average of age is 36 and individuals between the ages 25 and 50 are the most common participants of this activity. The fact that scuba diving activity is very costly and expensive in terms of training, equipment and traveling expenses may be regarded as the reason of proportionately low levels of participation under the age 25. It may also be concluded that the educational levels of scuba divers in Turkey are quite high. As a result, a great majority of the participants take part in occupational groups that careerwise increase their social status. The fact that the participants are involved in careerist occupations carried the income levels above the average income level in Turkey. The results about demographic variables share similarities with some researches in the literature (Lucrezi et al., 2013; Meisel and Cottrell, 2003; Meyer et al., 2003; Todd et al., 2001; Tschapka, 2006).

Approximately 62% of the participants hold a scuba diving certificate in accordance with the criteria set by CMAS federation. It is observed according to experts' opinions that in terms of its costs for the consumers, CMAS provides scuba diving training programs in most cost-effective way possible in Turkey. Since CMAS is the largest scuba diving certificate provider in Turkey this may be linked to this cost-effectiveness. Approximately 39% of Turkish scuba divers are advance level divers. In other words, these individuals have one certificate of expertise in at least one specific class of scuba diving (shark diving, deep diving, wreck diving, etc.). In addition, 34% of beginner-level divers may be a good market opportunity for scuba diving sector. Because they have the potential to become advanced-level divers by participating in specialized training programs.

Revealing the motives that lead individuals to scuba diving will certainly contribute to understand the tourist's behavior. In Turkey, the main motives of the scuba divers are (1) *Escape*, (2) *Learning*, (3) *Stature*, (4) *Social Interaction*, (5) *Personal Challenge*, (6) *Adventure*. In other words, the individuals participate in scuba diving activity in order to meet their needs underlying those motives. Conversely the results differ from Todd et al.'s (2001) study. In that study, the reasons that lead the individuals to scuba diving are (1) *Personal*

Challenge, (2) *Stature*, (3) *Escape*, (4) *Learning*, (5) *Adventure*, (6) *Social Interaction*, respectively. Another way, which definitely contributed to understand the tourist's behavior, is the analysis of involvement levels of individuals towards a certain tourism activity. The scuba divers in Turkey show involvement to scuba diving activity with the following dimensions: (1) *Attraction*, (2) *Centrality*, (3) *Identity*, and (4) *Social Bonding*. However, these dimensions were prioritized in the involvement scale of Kyle et al. (2006) as follows: (1) *Attraction*, (2) *Centrality*, (3) *Social Bonding*, (4) *Identity Affirmation* and (5) *Identity Expression*.

The effect of motivation factors representing the independent variables on dependent variable was revealed by utilizing multilinear regression analysis. Accordingly, while *escape* and *adventure* motives have influence on individuals' interest in scuba diving at attraction level, *escape*, *learning* and *social interaction* motives have influence on the fact that the individuals consider it relevant to their life styles. In addition, *escape*, *learning* and *stature* motives have influence on individuals' tendencies towards exposing who they really are by showing an interest in this activity. Finally, *learning*, *social interaction* and *adventure* motives have influence on social bonding as a result of individuals' interest.

If we make an overall assessment regarding the effect of scuba diving motives on involvement, it is observed that *escape* and *learning* motives particularly stand out because these motives may have an influence on three factors of involvement. Another prominent motive is *personal challenge* because the *personal challenge* motive, which is one of the motives that lead individuals to scuba diving activity, did not have any influence on any involvement factors. The inter-dimensional relations within the context of this study show that the effect of scuba diving motives on the interest shown to this activity by the individuals change between approximately 10% and 50%. This also indicates that there are other factors that affect the involvements of individuals in scuba diving activity. Thus, it may be useful to analyze other consumer behaviors (personality, attitude, perception, etc.) that affect involvement in future studies. Turkey is a country surrounded on three sides by the sea and in the temperate zone. For this reason, carrying out studies on other water-based adventure tourism activities (rafting, windsurfing, sport fishing pioneer, etc.) can contribute significantly to the tourism sector of the country. This should be taken into account by the researchers in this field.

In line with the ultimate purpose of this study, the diving motives that have an influence on individuals' interest towards scuba diving are also revealed. These results, which indicate a relationship between the motives and involvement levels of scuba divers in Turkey, also

support the theory that examines the relationship between motive and involvement. Indeed, *escape* and *learning* motives have a profound effect on individuals' interest in scuba diving. In order to understand the behavior of divers as a consumer in Turkey, revealing the motives and involvement of scuba divers, are of great importance. Because in this way, all stakeholders in the scuba diving industry will be able to make more effective decisions in developing marketing strategies. This should be taken into account by all stakeholders in this sector and this activity should be promoted accordingly.

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