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An Investigation of the Factors That Affect High School Students' Attitudes Towards Social Media by CHAID Analysis*

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ABSTRACT

Purpose: The purpose of this study is to determine the level of attitude of high school students towards social media and the variables that have an effect on these attitudes. **Research Methods:** In this study, the relational screening model was the descriptive method that was used. The data were collected by the "Social Media Attitude Scale." In the data analysis, the two-step cluster analysis and CHAID analysis (Chi-square Automatic Interaction Detector) were used. **Findings:** According to the results of the CHAID analysis, the most effective variable on high school students' attitudes towards social media was "students' dream job." The other variables that affected attitudes towards social media were as follows: student's grade level, having a computer, the purpose of computer use, the mother's educational level, the father's educational level and the father's job. In addition, it was found that students had a moderate attitude towards social media. The effect size and relational degree for each significant variable was calculated. **Implications for Research and Practice:** As a result of the analyses, it was found that the level of high school students' attitudes towards social media was a moderate/threshold level and that their dream jobs had an effect on these attitudes. In order to determine whether these variables had significance in practice, the effect sizes and relational degrees for each significant variable were calculated. According to the calculations, effect sizes were large and medium, and their relational degrees were also high and moderate.

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Introduction

Thanks to the development of communication technologies, the internet has become the most popular communication environment where our daily lives have been affected from a very early age (Altunay, 2010). Online content from every area--such as education, healthcare, military, entertainment and science (Kenanoglu and Kahyaoglu, 2012)—has reshaped social, economic, and cultural life as well as interpersonal relations (Ozmen, Akuzum, Sunkur and Baysal, 2012). Within this context, it is seen that the internet and its usage is an important factor.

The internet technology that developed at the end of 21st century was, in the beginning, a one-way communication tool that traditional communication methods were supposed to use; thereafter, the development called Web 2.0, which enabled a user to communicate with other users and to interact with the network he/she was in redirected the internet technology and has enabled large masses of people to adopt the internet's usage area (Buyuksener, 2009). New applications have arrived thanks to Web 2.0. One of these applications is defined using terms such as "social networks," "social communication networks," or "social networking sites" (Otrar and Argin, 2014). Social networks serve as a public area for the internet as well as an environment where personal communication takes place (Solmaz ve Gorkemli, 2012). Social media stands out as the most ideal environment in terms of being easily accessible and allowing persistent updates (Ozturk and Talas, 2015). Social media that has become widespread with Web 2.0, which turns the internet into a networking environment, provides a potential power in terms of maximizing communication and interaction.

The use of social networking sites not only in daily life but also in education has provided this kind of content to often be handled in literature (Karademir and Alper, 2012). To give an example from the literature, Aijan and Harsthone (2008) stated that the use of social networks would be beneficial in educational activities. In another research, it was expressed that educational systems should be updated by benefiting from young individuals' interests and tendencies towards communication technologies (Gulsecen, Gursul, Bayrakdar, Cilengir and Canim, 2010). The research involving students' habits surrounding using social networking sites (students aged 9-16) was investigated and performed in partnership with Middle East Technical University and Information Technologies and Communications Authority (2011). It was determined that 66% of the individuals in the research group used social networking sites at least one time a day and they spent at least 72 minutes a day on these social networking sites (ODTU and TIB, 2011). In view of this research, it is true that individuals spend a lot of time on the internet. Another result of this research is that daily lives and the time spent on study times of the individuals who used social networking sites was adversely affected.

The foundations of the social network applications on education were based on different learning approaches because of both their nature and their functions and the factors they had. Ferdig (2007) stated that social network applications were closely related to many pedagogic points in constructivism and asserted that they supported pedagogic approaches such as active learning, social learning, societies of practice and

learning societies. Selwyn (2007) and Albion (2008) asserted that social networks provided students an opportunity to join new networks in terms of cooperative learning and these networks were appropriate for informal learning in their nature.

In the research done by Togay, Akdur, Yetisken and Bilici (2013) where prominent examples of social media applications were evaluated, it was aimed to determine whether the use of social media in university education was effective and helpful. The researchers provided 60 students with educational support based on social media. As a result, it was determined that the support of educational processes via social media was effective in students' learning and it facilitated learning processes and developed educational processes.

The purpose of this study is to determine the variables that are effective in high school students' attitudes towards social media. When literature was reviewed, it was seen that teenagers used social media actively and perceived it as an indispensable part of their lives (Ari, Yilmaz and Bektes, 2016; Aydin, 2016; Sahin, Kaynakci and Aytop, 2016). Within this context, the attitudes of individuals towards social media are essential. Within the scope of this study, the variables that have not been observed before were taken into consideration in terms of the attitudes towards social media. In addition, this study will contribute to the literature of interest in terms of effect sizes of the variables that have an effect on attitude.

In this regard, it is important to determine the attitude level of high school students who spend a considerable amount of time on the internet involved with social media and the factors that affect these attitudes. In this sense, the following question will be answered:

1. What are the attitude levels of high school students towards social media and which variable(s) is/are effective in the attitude of high school students?

Method

Research Design

In this study, the relational screening model that is one of the descriptive methods was used because this study tries to determine the attitude level of high school students towards social media and the factors that affect these attitudes (Buyukozturk, Cakmak, Akgun, Karadeniz and Demirel, 2013). Relations identified with this model cannot be interpreted as a real cause-and-effect relationship.

Research Sample

The population of the study that aims to determine high school students' attitudes towards social media and the factors affecting these attitudes consists of students who studied at high schools bound to Batman provincial directorate for national education during the 2015-2016 educational years. The sample of the study consists of 640 female and 954 male students (1594 students in total) who were chosen by the maximum variation sampling method, one of the non-random sampling methods. Different types

of high schools were chosen not only to incorporate both successful and unsuccessful students, but also to increase the representation of the population. In addition, the incomes of the students in different high schools were chosen to maximize the variation. The reason the study sample was chosen from Batman province was accessibility to the sample. The demographic information for the sample is given at Tables 1 and 2.

Table 1

Frequencies and Percentages for Independent Variable

Variables	Variable Categories	Frequency	Percentage
Student's Gender	Male	954	59.8
	Female	640	40.2
Student's Age	15	512	32.1
	16	148	9.3
	17	382	24.0
	18	427	26.8
	19	125	7.8
Dream Job	Teacher	202	12.7
	Doctor	472	29.6
	Security Staff	77	4.8
	Engineer	294	18.5
	Lawyer	172	10.8
	Architect	74	4.6
	Other	303	19.0
Monthly Income	1500 TL and below	513	32.2
	1501 – 3000 TL	838	52.6
	3001 – 5000 TL	177	11.1
	5001 TL and above	66	4.1
The Frequency of Mobile Phone Use	Low (two hours or less a day)	324	20.3
	Moderate (2 – 5 hours a day)	229	14.4
	High (more than 5 hours a day)	1041	65.3
The State of Computer Use	Yes	389	24.4
	No	1205	75.6
The Purpose of Computer Use	To play games	190	11.9
	To do homework	441	27.7
	Social networking sites	470	29.5
	To study	235	14.7
	Others (film, music etc.)	258	16.2
Grade	9th grade	544	34.1
	10th grade	376	23.6
	11th grade	281	17.6
	12th grade	393	24.7
Total		1594	100

A simple look at Table 1 reveals that 40.2% of the students are female and 58.9% of them are male, that their ages ranges from 15 to 19, that they have different dream jobs, and that their income level is moderate. Table 1 also shows that most students have no

personal computer, they use computers for different purposes, and they are in different grades.

Table 2

Frequencies and Percentages for Independent Variable

Variables	Variable Categories	Frequency	Percentage
Mother's level of education	Illiterate	591	37.1
	Literate	166	10.4
	Primary School Graduate	549	34.4
	Secondary School Graduate	154	9.7
	High School Graduate	92	5.8
	University Graduate	36	2.3
	Post Graduate	6	0.4
Father's level of education	Illiterate	96	6.0
	Literate	96	6.0
	Primary School Graduate	658	41.3
	Secondary School Graduate	289	18.1
	High School Graduate	252	15.8
	University Graduate	186	11.7
	Post Graduate	17	1.1
Mother's job	House wife	1538	96.5
	Officer	8	0.5
	Teacher	7	0.4
	Nurse	14	0.9
	Retired	3	0.2
	Other	24	1.5
Father's Job	Farmer	433	27.2
	Officer	135	8.5
	Policeman	13	0.8
	Teacher	26	1.6
	Doctor	13	0.8
	Soldier	31	1.9
	Worker	272	17.1
	Retired	38	2.4
	Craftsman	221	13.9
	Driver	39	2.4
	Other	373	23.4
Total		1594	100

From Table 2, we see that the educational level of the participants' parents is not high and most of the participants' mothers are housewives and their fathers have different jobs.

Research Instruments and Procedures

"Social Media Attitude Scale (SMAS)," which was developed by Otrar and Argin (2013), was used to determine high school students' attitudes towards social media. Socio-demographic information on students was collected via a "Personal Information Form" organized by the researcher.

The psychometric properties of the scale are as follows. The scale consists of six negative items and 17 positive items (23 items in total) and it has four factors (sharing necessity, social competence, social isolation and relation with teachers). It is a self-report scale. Factors account for 52.65% of the variance. For internal consistency, the Cronbach Alpha coefficient was estimated as .85 for the whole scale. Test-retest correlation coefficient was found to be significant (r=.83; $p<.001$) (Otrar ve Argin, 2014). As a result, it is stated that the measurements obtained using the measurement tool are valid and reliable.

The reliability and validity analyses were repeated for the present sample. For validity, a confirmatory factor analysis (CFA) was used. The number of students who participated in the confirmatory factor analysis was 1594 in total. Before conducting CFA, in order to test the assumption of multivariate normal distribution assumption for the data multivariate skewness (Zs) and kurtosis (Zk), multivariate $\chi 2$ and relative multivariate kurtosis (RMK) were estimated. In the present study, the assumption of the multivariate normal distribution was violated (Zs= between -11.207 and 14.654, Zk = between -10.577 and 0.625, $\chi 2$ = between 51.443 and 215.139, RMK = 1.135). Because the assumption of the multivariate normal distribution was violated, the Satorra-Bentler $\chi 2$ (S-B $\chi 2$) value was estimated by Robust Maximum Likelihood (MLR) as the parameter estimation method (Brown, 2015). To handle missing data, an EM (Expectation Maximization) algorithm was used. In addition, the outliers were excluded from the data set. One of the assumptions of CFA for unbiased estimations is that indicators/variables do not have a multicollinearity problem. In order to check this assumption, the bivariate correlations between variables were examined and these correlations ranged from -.427 to .534. As these correlation values were not higher than .85, multicollinearity did not exist (Cokluk, Sekercioglu & Buyukozturk, 2014, p. 277). Another assumption for unbiased estimation of CFA models is to have adequate sample size. This measurement tool was applied to 1594 individuals; therefore, this study has an adequate sample size. After these assumptions were tested and met, CFA analysis was conducted.

In order to test model-data fit, the Goodness of Fit Index (GFI≥0.90), the Adjusted Goodness of Fit Index (AGFI≥0.90), and the Root Mean Square Error of Approximation (RMSEA≤0.08) were taken into consideration (Brown, 2015). According to the confirmatory factor analysis, GFI, AGFI, RMSEA were calculated as 0.77, 0.72, and 0.054, respectively. GFI and AGFI values were below the nominal criterion of 0.90 and the main reason for these low values was because of the violation of the multivariate normality assumption. Comparative Fit Index (CFI) and Non-Normed Fit Index (NNFI) values are taken into consideration when multivariate normality assumption is violated. As a result, NNFI was estimated as 0.97 and CFI was estimated as 0.97;

these values indicated model-data fit. When these analyses were taken into consideration, model-data fit was considered to be reasonable and a four-factor measurement model was validated.

Table 3

Model Fit Indices for the Model (Kline, 2011, p.208)

Fit Indices	Good Fit Range	Acceptable Fit Range	Estimates	Model Fit Value of This Study
χ^2/df	$0 \leq \chi^2/df < 2$	$2 \leq \chi^2/df \leq 5$	709.96/203=3.49	Acceptable Fit
RMSEA	0≤RMSEA<0.05	0.05≤RMSEA≤0.10	0.05	Good fit
NNFI	0.95≤NNFI≤1.00	0.90 ≤NNFI< 0.95	0.97	Good fit
NFI	0.95≤NFI≤1.00	0.90 ≤NFI< 0.95	0.97	Good fit
CFI	0.95 ≤CFI≤ 1.00	0.90 ≤CFI< 0.95	0.97	Good fit
SRMR	0≤ SRMR <0.05	0.05≤ SRMR ≤0.10	0.08	Acceptable Fit

Cronbach α ve McDonald ω coefficients were calculated in order to prove evidence of reliability in terms of internal consistency for the estimates obtained from 23 items. While Cronbach α coefficient is calculated for a one-factor scale, Stratified Cronbach α coefficient is calculated for the scales that have more than one factor (Tan, 2009).

The Cronbach's alpha can be interpreted as a lower bound to real reliability because it will be equal to the real reliability of the test only if the items are parallel or tau-equivalent or essentially tau-equivalent (Traub, 1994). Therefore, McDonald developed an appropriate reliability coefficient for congeneric measures. This coefficient (McDonald ω) is also called construct reliability and obtained from CFA. McDonald ω coefficient is suggested instead of Cronbach alpha coefficient in order to have proof of the reliability of the measures where congeneric measures exist (Osburn, 2000). In this context, the McDonald ω coefficient is used in the study.

Table 4

Reliability Values Obtained from the Present Study and the Original Form for the Scale

Subscales	Stratified Cronbach α	Cronbach α		McDonald ω	
	This study	This Study	Original Study	This Study	Original Study
Sharing Necessity	--	.710	.805	.800	--
Social Competence	--	.772	.814	.807	--
Social Isolation	--	.654	.792	.842	--
Relation with Teachers	--	.750	.814	.696	--
Whole Scale	.751	--	.852	--	--

When reliability values were investigated, it could be derived that acceptable results were obtained for both subscales and the whole scale. As seen in Table 4, McDonald ω coefficient is higher than Cronbach α coefficient because McDonald ω coefficient is more suitable for congeneric measurements. This is also valid for this

study. The reason for using Cronbach α coefficient is to compare the estimate obtained in this study with the original scale. As a result, it can be inferred from these statistics that adequate proofs for validity and reliability were obtained.

Data Analysis

CHAID analysis and two-step cluster analysis were used in data analysis. Two-step cluster analysis was conducted to convert continuous data collected from the scale into nominal data so as to determine the variables that affected high school students' attitudes towards social media. The reason CHAID analysis was used in data analysis is as follows (Kayri, 2007): a) CHAID analysis is effective in classifying categorical data, b) every variable in the data is categorical, and c) it is possible that data sets are not from the same population. Two-step cluster analysis divides data sets into two homogeneous subgroups. Dividing heterogeneous data sets into homogeneous subgroups or clusters ensures statistical studies have better results (Kayri, 2007).

What is intended here is not to fail homogeneity and normality assumptions that classical regression should meet. When analyzing data consisting of the large sample size, because of the violation of homogeneity assumption, an estimate obtained from a regression model may not reflect reality. Therefore, dividing data into subgroups and investigating possible classified subgroups can provide better results and the assumption of homogeneity is satisfied. In this respect, a regression equation obtained by CHAID analysis is exempt from familiar assumptions (normality, linearity, additivity and homogeneity) because the whole population can be divided into nodes via an iteration algorithm (Kayri and Boysan, 2007; Kim, 2009). CHAID analysis uses Chi-square ($\chi 2$) statistics as the relationship and interactions between independent variables are handled. Chi-square statistics handles the dependency between variables (Kirk, 2008). For the independent variables that had a significant chi-square statistic, their relation degree with outcome variable and effect sizes were calculated. Contingency coefficient (C) is used in Chi-square statistics in order to estimate the relationship between variables. Contingency coefficient is interpreted as Pearson correlation coefficient and defined as follows:

$$C = \sqrt{\frac{\chi^2}{\chi^2+N}} \quad (1)$$

Effect size was defined by Cohen (1988). This statistic helps the researchers make a judgement (Kirk, 2008). Effect size is defined as follows:

$$d = \sqrt{\frac{\chi^2}{N}} \quad (2)$$

Cut-off points for a scale can be determined by two-step cluster analysis. In this context, the sample of the present study was divided into three clusters and two cut-off points were estimated. These cut-off points were 63.5 and 82.5, respectively. The point interval 0-63.5 represents a negative attitude towards social media, 63.5-82.5 represents a moderate attitude towards social media and 82.5-115 represents a positive attitude towards social media. Also, as it has been stated in literature (Pehlivan, 2006), CHAID analysis is highly effective in classifying categorical dependent variables; total

scale scores that are continuous in this study were transformed into a categorical variable by two step cluster analysis.

The reasons CHAID analysis has been the most preferred tree diagram in practice are as follows: it provides highly powerful estimations by benefiting from large samples, it handles missing data in the variables, and because it is exempt from assumptions that are determined in the structural form of the model, it is an alternative non-parametric tree diagram to binary and multinominal logistic models (Dogan and Ozdamar, 2003). In addition, CHAID analysis can better reveal the effects of missing data in the model than other decision tree methods (Tanhan and Kayri, 2012). SPSS 21.0 and LISREL 8.80 packaged programs were used for data analysis. The SPSS Package program was used for descriptive statistics, CHAID analysis, and two step cluster analysis and the LISREL package program was used for confirmatory factor analysis.

Results

The level of high school students' attitudes towards social media and the variables that were effective in these attitudes were determined by CHAID analysis. In the model, the outcome variable is the categories (positive, moderate/threshold, negative) converted and obtained from the scale scores, and the independent variables are student's age, the frequency of mobile phone use, student's gender, student's grade level, monthly income, student's dream job, state of computer use, purpose of computer use, parent's educational level and parent's job.

CHAID analysis results are given in Figure 1. The percentages of having negative attitudes, moderate attitudes and positive attitudes were found to be 23.1%, 49.9% and 27.0%, respectively ($\chi 2$ (df) = 82.331(6), *adjusted-p = 0.000*). According to the tree diagram, the attitude level of the students was moderate.

The most effective variable on the attitudes of high school students towards social media was student's dream job ($\chi 2$ (df) = 82.331(6), *adjusted-p = 0.000*). According to analysis, students whose dream jobs were doctor and engineer had a more positive attitude towards social media than other students whose dream jobs were different. Furthermore, the attitudes of students whose dream job was lawyer were less positive towards social media than other students.

Figure 1. Tree diagram for the variables that have an effect on the attitudes of high school students towards social media.

According to Figure 1, it was established that a student's future job was one of the independent variables and having a personal computer, student's grade level, and mother's educational level were related. It was ascertained that the variable of having a personal computer had an effect on attitudes of the students whose dream job was categorized as "other" ($\chi 2$ (df) = 25.224 (2), *adjusted-p = 0.000*). It was also established that student's grade level had an effect on the attitudes of students who wanted to be a doctor or an engineer in the future and the students in ninth and twelfth grade had a positive attitude towards social media that the students in the tenth and eleventh grade ($\chi 2$ (df) = 18.925 (2), *adjusted-p = 0.001*). Likewise, it was determined that student's grade had an effect on the attitudes of the students who wanted to be architects, teachers, soldiers, and policemen ($\chi 2$ (df) = 29.901 (4), *adjusted-p = 0.000*). The variable that affected the attitudes of the individuals who wanted to be a lawyer was the mother's educational level ($\chi 2$ (df) = 14.316 (2), *adjusted-p = 0.012*).

In classification models, classification and risk tables provide an evaluation of how well the model works. The estimate value in a risk table is used to determine whether the classification model is appropriate/valid. As a result of the CHAID analysis, the risk estimate is 0.162 and its standard error is 0.009. Consequently, the model classifies approximately 83.8% of the students correctly.

CHAID analysis uses F and chi square statistics if the dependent variable is continuous and categorical, respectively. Chi square statistics was used because the dependent variable was a categorical variable in this study. Effect size and relation

degree are calculated for practical significance where chi square statistics is used. These coefficients can help a researcher make a judgment on whether the results are practically significant (Kirk, 2008, s.474). Chi square statistics can be used to estimate effect size and relation degree between variables. Relation degree and effect size were calculated by Equations 1 and 2, respectively. The relation degrees and effect sizes for the significant variables were given in Table 5.

Table 5

The effect sizes of significant variables and relation degrees

Variables	Effect Size (d)	Relation Degree (C)	Interpretation Criteria
Student's dream job	0.22	0.23	Large
State of computer use	0.28	0.29	Medium
Student's grade	0.28	0.29	Medium
Mother's educational level	0.28	0.29	Medium
Purpose of computer use	0.31	0.33	Medium
Father's job	0.35	0.37	Medium
Father's educational level	0.30	0.32	Medium

According to Table 5, it was found that a student's dream job that was the most effective significant variable for the attitudes of students towards social media had a large effect size and high relation degree.

Discussion, Conclusion and Recommendations

The purpose of the study was to determine the variables that had an effect on students' attitudes towards social media. In accordance with this purpose, the "Social Media Attitude Scale (SMAS)" developed by Otrar and Argin (2013) was used.

According to the findings of the study, it was determined that high school students had a moderate attitude towards social media. In literature, it has been established that students have a positive attitude towards social media and they use them actively (Ari, Yilmaz and Bektes, 2016; Aydin, 2016; Sahin, Kaynakci and Aytop, 2016; Calisir, 2015; Otrar and Argin, 2014; Vural and Bat, 2010; Buyuksener, 2009). In this context, the findings obtained from the study are in accordance with the literature.

The independent variables that were effective in the high school students' attitudes towards social media were as follows: student's dream job, having a computer, student's grade level, mother's educational level, the purpose of computer use, father's job and father's educational level. It was determined that the effect sizes were large and medium and relation degrees were high and moderate for the significant variables. The increase in mother's educational level causes students' attitudes towards social media to decrease. Karan (2006) emphasized that parents should encourage their children to make real friends and raise awareness of unwanted conditions on virtual platform. According to Berson (2000), having a positive attitude

towards social media depends on the guidance of the parents. In the study in which teachers' opinions on internet addiction were considered, Ulusoy (2017) stated that parents complained and they had the opinion that the students' education was negatively affected because students spent most of their time on the internet. It was emphasized that the parents especially should be included in the development of the habit of internet use (Olagunju, 2009). In a compilation study, Balci and Tezel-Sahin (2016) expressed that social media tools could be an effective way for teachers and students' parents to communicate. In this context, it was established that the findings of the research were supported by literature.

In terms of the purpose of computer use, it was found that the students who used computers to study and to share film, music and video had a more positive attitude towards social media than the students who used computers to prepare homework and to join social networking sites. In the research done by Togay, Akdur, Yetisken and Bilici (2012), it was stated that most of the university students claimed they found social media tools necessary, useful and easy and they increased their academic achievement. Similar results were also found by Kalafat and Goktas (2012).

The present study has some limitations. First, it would not be true to generalize the findings of the research to every high school student in Turkey because the sample was obtained from a single province. Second, the outcome variable and attitude in the study was a continuous variable and it was converted into a discrete variable via two-step cluster analysis. Within this context, it should be taken into consideration in future research. Third, there were a limited number of variables handled in the study. Therefore, more variables could be added for the future research.

In summary, the order of the effect size from highest to lowest for the variables that were effective in students' attitudes towards social media were sorted as follows: student's dream job, having a computer, student's grade level, mother's educational level, the purpose of computer use, father's job and father's educational level. It was determined that the purpose of computer use was an effective variable on students' attitudes towards social media.

Taking into account the attitude levels of high school students, social media should be a part of education and should be turned into an opportunity. Teachers can share their materials via social media, can assign homework through social media, and control its usage in the classroom. In this study, it has been found that there is no difference between students' attitudes towards social media in terms of their gender and age. The main reason for this finding may result from the fact that the number of male and female students is not equal. For future research, it is advised to use a balanced sample size in terms of gender.

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Lise Öğrencilerinin Sosyal Medyaya Yönelik Tutumlarını Etkileyen Faktörlerin CHAID Analizi ile İncelenmesi

Atıf:

Karakaya, I., Sata, M., Corbaci, E. C., & Cetin, B. (2018). The investigation of the factors that affect high school students' attitudes towards social media by CHAID Analysis. *Eurasian Journal of Educational Research, 76, 21-40,* DOI: 10.14689/ejer.2018.76.2

Özet

Problem Durumu: İletişim teknolojilerinin gelişmesi ve özellikle internet, gündelik yaşamın akışında değişimin en fazla yaşandığı popüler iletişim ortamlarından biri olmuş ve çok erken yaşlarda hayatımızı etkilemeye başlamıştır. Eğitimden sağlığa, savunma alanından bilimsel çalışmaya ve eğlenceye kadar hemen her alanda yer alan internet sosyal, ekonomik ve kültürel yaşamı olduğu kadar kişilerarası etkileşimi de yeniden şekillendirmiştir. İnterneti paylaşım ortamına çeviren web 2.0 akımı ile giderek yaygınlaşan sosyal medya, iletişim ve etkileşimi üst düzeye çıkarması ile potansiyel bir güç meydana getirmektedir. Sosyal paylaşım sitelerinin sadece günlük yaşantıda değil aynı zamanda eğitim alanında kullanılması alanyazında sıkça ele alınan bir konu haline getirmiştir. Alanyazın incelendiğinde genç bireylerin sosyal medyayı etkin bir şekilde kullandığı ve günlük hayatın vazgeçilmez bir parçası olarak gördükleri belirtilmiştir. Bu bağlamda ortaöğretim düzeyindeki öğrencilerin sosyal medyaya yönelik tutumları ve bu tutum üzerinde etkili olan değişkenlerin belirlenmesi önemli görülmektedir. Bu çalışma kapsamında alanyazında dikkate alınmamış değişkenlerin sosyal medyaya yönelik tutum üzerinde etkisine bakılması önemli görülmüştür. Ayrıca tutum üzerinde etkili olan değişkenlerinin etki düzeylerinin dikkate alınması açısından ilgili çalışma alana katkı sağlamaktadır.

Araştırmanın Amacı: Bu çalışmanın amacı, lise öğrencilerinin sosyal medyaya yönelik tutumlarının hangi düzeyde olduğu ve bu tutum üzerinde etkili olan değişkenlerin neler olduğunu belirlemektir.

Araştırmanın Yöntemi: Lise öğrencilerinin sosyal medyaya ilişkin tutum düzeyleri ve bu tutumu etkileyen faktörlerin neler olduğunu ortaya koymaya yönelik olduğundan araştırmada betimsel yöntemlerden ilişkisel tarama deseni kullanılmıştır. Araştırmanın evrenini 2015-2016 eğitim öğretim yılında Batman ili milli eğitim müdürlüğüne bağlı liselerde okumakta olan öğrenciler, örneklemini ise seçkisiz olmayan örnekleme yöntemlerinden maksimum çeşitlilik örnekleme yöntemi ile seçilen 640 kız ve 954 erkek öğrenci olmak üzere toplam 1594 öğrenci oluşturmaktadır. Araştırmanın verisi "Sosyal Medya Tutum Ölçeği" kullanılarak toplanmıştır. Mevcut çalışma için ölçeğin güvenirlik ve geçerlik analizleri ilgili

örneklem için yeniden yapılmıştır. Ölçeğin geçerlik çalışması için doğrulayıcı faktör analizi (DFA) kullanılmıştır. Gerçekleştirilen analizler sonucunda, modelin veri ile kabul edilebilir bir uyum sağladığı ve ölçme modelinin ölçeğin dört faktörlü yapısına ilişkin geçerli ölçümler yaptığı söylenebilir. Ölçeğin 23 maddelik formundan elde edilen ölçümlerin iç tutarlılık anlamında güvenirlik düzeylerine ilişkin kanıtlar elde etmek üzere, ilgili ölçümler için McDonald ω, Cronbach α ve tabakalı Cronbach α değerleri hesaplanmıştır. Ölçümlere ilişkin hesaplanan güvenirlik katsayıları incelendiğinde, kabul edilebilir değerlerin elde edildiği söylenebilir. Bu çalışmada hem McDonald ω hem de Cronbach α katsayısının kullanılmasındaki temel neden ölçeğin orjinalinde elde edilen güvenirlik değerlerinin karşılaştırılması ve konjenerik ölçümlerde McDonald tarafından önerilen güvenirlik katsayısının daha tutarlı sonuçlar ürettiğinin gösterilmesi amaçlanmıştır. Veri analizinde, sırasıyla; ölçekten elde edilen toplam sürekli puanını kategorik puanlara dönüştürmede kullanılan iki aşamalı kümeleme analizi ve veri madenciliği yöntemlerinden biri olan CHAID analizi kullanılmıştır. Sürekli veri setinin kategorik veri formatına dönüştürülmesinin temel nedeni, CHAID analizinin kategorik veri setlerinde daha güçlü ve tutarlı sonuçlar üretme durumu dikkate alındığından bu yapılmıştır.

Araştırmanın Bulguları: Lise öğrencilerin sosyal medyaya yönelik tutumlarının düzeylerini ve bu tutumları üzerinde etkili olan değişkenleri belirlemek için CHAID analizi kullanılmıştır. Kurulan modelde, bağımlı değişken ölçekten elde edilmiş toplam puanın kategorik hali (olumlu-orta/eşik-olumsuz şekli) bağımsız değişkenler ise öğrencinin yaşı, cinsiyeti, aylık gelir durumları, telefon kullanma sıklığı, sınıf düzeyi, gelecekteki meslek hayali, bilgisayar kullanma durumu, bilgisayar kullanma amacı, ebeveynin öğrenim durumu ve ebeveynin meslek durumları dahil edilmiştir. CHAID analizi kullanılarak yapılan analizler neticesinde, lise öğrencilerinin sosyal medyaya yönelik tutumları üzerinde etki düzeyi en yüksek olan bağımsız değişkenin "öğrencilerin gelecekteki meslek hayalleri" olduğu tespit edilmiştir. Analiz çıktıları incelendiğinde, gelecekte doktor ve mühendis olmak isteyen bireylerin diğer meslek gruplarından biri olmak isteyenlere göre daha olumlu bir tutuma sahip oldukları belirlenmiştir. Sosyal medyaya yönelik tutum üzerinde etkili olan diğer bağımsız değişkenler ise sırasıyla şu şekildedir; öğrencinin sınıf düzeyi, öğrencinin bilgisayarının olup olmaması, bilgisayarı kullanım amacı, annesinin öğrenim düzeyi, babasının öğrenim düzeyi ve babasının mesleği olduğu tespit edilmiştir. Ayrıca öğrencilerin orta düzeyde bir tutuma sahip oldukları belirlenmiştir. Anlamlı bulunan bağımsız değişkenler için etki büyüklüğü ve ilişki derecesi hesaplanmıştır.

Araştırmanın Sonuç ve Önerileri: Yapılan analizler sonucunda elde edilen bulgular incelendiğinde, lise öğrencilerinin sosyal medyaya yönelik tutumlarının orta/eşik düzeyde olduğu ve gelecekte hayal ettikleri meslek dallarının bu tutum üzerinde etkili bir değişken olduğu görülmüştür. Ayrıca öğrencinin sınıf düzeyi, öğrencinin bilgisayarının olup olmaması, bilgisayarı kullanım amacı, annesinin öğrenim düzeyi, babasının öğrenim düzeyi ve babasının mesleği bağımsız değişkenlerinin de sosyal medyaya yönelik tutum üzerinde etkili olduğu görülmüştür. Sonuçların

pratik anlamlılığı için anlamlı bulunan bağımsız değişkenlere ilişkin etki büyüklükleri ve ilişki dereceleri hesaplanmış ve sonuçlar raporlanmıştır. Yapılan hesaplamalara göre etki büyüklükleri büyük ve orta etkiye sahip iken, ilişki dereceleri de yüksek ve orta düzeyde ilişkili olarak bulunmuştur. Sosyal medyanın lise öğrencileri üzerinde ciddi bir etkisinin olduğu göz önüne alındığında, ebeveynlerin, öğretmenlerin ve diğer eğitim paydaşlarının eğitim ortamında bunları etkili bir şekilde kullanmaları gerektiği düşünülmektedir. Ayrıca lise öğrencilerinin sosyal medyaya yönelik tutumlarının olumlu yönde gelişmesi için anne ve babalarının yeterli bilgi birikimine sahip olmaları gerektiği düşünülmektedir.

Anahtar Kelimeler: CHAID analizi, etki büyüklüğü, tutum, sosyal medya.