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ANGER AND ANXIETY AS PREDICTORS OF DECISION-MAKING STYLES

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ABSTRACT

The objective of this study is to investigate the relationship between decision-making styles among university students and their levels of trait anger and trait anxiety. Additionally, the study attempts to assess the extent to which trait anger and trait anxiety might predict decision-making styles. The study group comprised 560 students from different faculties of Osmaniye Korkut Ata University, who were selected on a voluntary basis. Among the student population, there were 301 female students and 259 male students, with a mean age of 21.73 years. The data for this study was obtained through an online platform, utilizing a personal information form as well as several established psychological assessment tools, including the Melbourne Decision-Making Questionnaire, Trait Anger and Anger Expression Styles Scale, and State and Trait Anxiety Inventory. The present study employed the relational screening model, a quantitative research approach. The study employed Multiple Regression Analysis to examine the associations between the Pearson Correlation Coefficient and both the dependent variable and predictor factors. The research yielded findings indicating negative correlations between the average scores of vigilance decision-making style and the average scores of trait anger and trait anxiety. Additionally, a significant positive relationship was observed between the average scores of buck-passing, procrastination, and hypervigilance styles and the average scores of trait anger and trait anxiety. Furthermore, it was found that the mean scores of trait anger and trait anxiety were significant predictors of the mean scores of vigilance, buck-passing, procrastination, and hypervigilance styles. The aforementioned conclusions were deliberated over and analyzed by investigations of a similar nature. Subsequently, recommendations were put out for prospective investigations.

Keywords: Decision-making styles, trait anger, trait anxiety.

INTRODUCTION

The process of making decisions encompasses a significant phase in the life cycle of a persons. People encounter numerous challenges in their day-to-day existence. Given these challenges, individuals must make decisions impacting their professional and personal spheres. The complexity of these challenges might vary as they are influenced by multiple variables (Rue & Byars, 2012). Hence, certain judgments can be reached expeditiously, while others may require a more protracted deliberation period. Furthermore, an individual's emotional state can also influence the cognitive process of decision-making. Hence, it is plausible that variations exist between the choices made during a state of emotional stability and those made under different emotional states. During decision-making, individuals may employ decision-making methods that are influenced by their emotional state, whether consciously or unconsciously.

Decision-making is defined as choosing one of the possible options. In other words, it is referred to as "choice" (Connor & Becker, 2003). Rollinson (2005) states that decision-making behavior cannot be talked about if there is no more than one option. It is expected that the decision-making situation will be difficult, that this difficulty will be felt by the individual, that there are options, and that people will have reached the independence to choose one of them (Kuzgun, 1992). Decision-making is generally an action, and during this action, individuals are influenced by internal and external factors and develop several habits based on their past experiences. After a while, these reveal the decision-making styles of individuals. Individuals' decision-making styles emerge from life experiences combined with learning. The concept of style is expressed as habit. Decision-making style determines how we make decisions based on our learned habits in decision-making situations (Driver et al., 1990). In other words, the individual point of view, which shows the general attitude of the individual towards the problems that have arisen, is his unique approach.

Upon analysis of the literature, it becomes evident that researchers identify several decision-making styles and establish their foundations on diverse theoretical frameworks. Scott and Bruce (1995) classified decision-making styles into five distinct types: rational, intuitive, avoidant, dependent, and spontaneous (instantaneous). The modes identified by Janis & Mann (1977) encompass alertness, buck-passing, procrastination, and hypervigilance. Kuzgun (2017) classified these styles as intrinsic, rational, undecided, dependent, and panicky. Different individuals employ diverse decision-making strategies based on their unique personality traits. The styles above indicate an individual's approach, response, and behavior when confronted with decision-making (Philips et al., 1984). The vigilance decision-making style, categorized as one of the various decision-making styles, pertains to an individual's meticulous approach to gathering information, conducting analysis, and making a decision.

On the other hand, the buck-passing decision-making style involves a tendency to procrastinate, wherein the individual avoids taking responsibility for decision-making and instead relies on others. Similarly, procrastination entails the individual's inclination to postpone and neglect the decision-making process altogether. Lastly, the

hypervigilance style of making decisions refers to the tendency to make hasty decisions when faced with time constraints.

Decision-making styles are generally grouped into two groups: positive and negative. In the case of decision-making, a positive decision-making style is used when the decision is made by applying the decision-making steps, and a negative decision-making style is used when one of the decision-making steps is skipped, when sufficient time is not allocated or when responsibility is transferred to someone else. Individuals can apply to one of these styles according to the situation they are in. Many factors influence individuals' use of positive and negative styles. Age, gender, time factor, education level, personal characteristics, and emotions can be counted as variables affecting decision-making styles (Can, 2009; Heilman et al., 2010; Yaşar, 2016).

According to Gazzaniga et al. (2018), the initiation of any activity aimed at achieving a certain objective is predicated upon the conscious determination to pursue this objective. Various perspectives have been posited regarding the significance of emotions in the cognitive processes involved in individual decision-making. Based on this perspective, certain emotions and certain events combine to produce some learning, and the person is quicker to predict the consequences of future events (Damasio, 1996). In the decision-making process, emotions influence how information is processed (Baron, 2023; Loewenstein & Lerner, 2003; Simon, 1986) and is the source of four problems for the decision-maker (Byrnes, 2014). The first of these problems is when emotions bring some aspects of the decision to the fore or exclude other aspects of the decision. In other words, in the case of a decision, the person pays attention to some of the options due to the emotions he experiences and cannot evaluate other options. This situation causes the individual to make decisions without fully trying the alternatives. Secondly, emotions can lead to variable value judgments. For example, when the decision-maker is calm, he or she may consider an outcome partially important. However, if a person is angry, ambitious, jealous, or has similar emotions, the same result may temporarily seem more important to that person's eyes than it normally is. The third problem is that emotions have a distracting function. Emotions such as anger, guilt, or sadness are emotions that do not easily leave a person's mind. These feelings prevent the person from achieving their goals. For example, a person who is angry with a co-worker may get stuck in an incident where he is angry with his friend instead of finishing important tasks at work. According to the fourth problem, emotions are so related to things that are in memory that positive emotions are related to positive behaviors; negative emotions are associated with negative behavior. Therefore, emotions serve as clues to the restoration of certain types of behavior. As Simon (1986) points out, when emotions are experienced in extremes, attention is distracted, and the individual is more likely to set emotional goals.

Individuals encounter challenges in daily existence and exhibit diverse cognitive, emotional, and behavioral responses when attempting to resolve these issues. Anger is a common emotional response exhibited by individuals when confronted with challenging circumstances. Upon consulting the psychology dictionary, one encounters the definition of anger as "an exceedingly intense adverse emotion experienced in circumstances such as encountering obstacles, facing aggression, perceiving threats, experiencing deprivation, or encountering

restrictions, which typically manifests as various forms of aggressive conduct directed towards the individual or entity responsible for its occurrence" (Budak, 2000). According to Geçtan (2016), anger is an emotional response that occurs when individuals see a discrepancy between their expectations and the outcomes, they believe they deserve or when individuals feel that someone, they hold in high regard fails to meet their expectations. People frequently experience emotions of wrath in their daily existence. In contrast to prevailing knowledge, it is widely acknowledged that the experience of rage is a universally observed and typical emotional condition (Cenkseven, 2003). While rage is an inherent human emotion, it occasionally exhibits a framework that functions as a means of self-preservation, safeguarding personal boundaries and resisting acts of injustice. However, rage can also serve various roles, including pursuing power and control, evasion of responsibility, and impairment of communication abilities (Şahin, 2005).

In studies on decision-making in the state of anger, it has been found that participants make different decisions between risky situations in which they make different assessments, angry individuals tend to personalize goals, act biased, and act intuitively (Angie et al., 2011; Bodenhausen et al., 1994: DeSteno et al., 2004; Lerner & Keltner, 2001). Anger also causes people to be careless in their thoughts, prone to immediate action, and optimism about a successful decision (Fischhoff et al., 2005; Harmon-Jones et al., 2003; Lerner & Tiedens, 2006; Small & Lerner, 2008). In situations of anger, regardless of whether the decisions at hand anything have to do with the source of the anger, decisions can take shape and guide behavior. On the other hand, anger also has a motivating aspect. It prepares the individual to take action to change the situation, eliminate problematic components, and restore the situation. Anger can also be associated with the urge to hurt a target (Lerner & Tiedens, 2006).

One of the important emotions in the decision-making process is anxiety. Considering the general definition of anxiety, it is defined as uneasiness or irrational fear that occurs as a symptom of any fear of danger. The most fundamental difference between anxiety and fear is that while the object is certain in fear, the object is not certain in anxiety (Budak, 2000). Anxious people seem to be constantly afraid of something; they have a delusional attitude (Dağ, 1999). Anxious people tend to find the possibility of a negative situation, however small, extremely unacceptable. This is called intolerance of uncertainty (Dugas et al., 2001). In daily life, individuals may be forced to make decisions by evaluating limited information, insufficient time, opposite emotions, and some uncertainty about the outcome (Koerner & Dugas, 2006). When the decision-making process is evaluated from this perspective, it may cause people who are prone to anxiety or who have a low level of tolerance in the face of uncertainty to enter into a stressful and challenging mood in the choices they will make in a world where the outcome will rarely be guaranteed.

In the case of anxiety, the decision maker may evaluate the options quickly, erratically, and incompletely. Based on their conclusions on Janis's model, Keinen (1987) and Keinen et al. (1987) state that anxiety can harm the decision-maker's evaluation of options in three ways. The first is the tendency to finish early or to make decisions without considering all options; the second is unsystematic screening or a tendency to evaluate options irregularly; the third is time constriction or less time for each option than necessary. In case of anxiety, the best

option may be overlooked because the decision is made without examining all options. The main differences between overstimulated people and those who are not in this emotional state are due to differences in how the factors that cause stress are cognitively assessed and the mechanisms for coping with them (Lazarus, 1991). In short, anger, anxiety, and stress affect the form and content of a decision (Byrnes, 1998).

The objective of this study is to investigate the correlation between decision-making styles exhibited by university students and their levels of trait anger and trait anxiety. Additionally, the study attempts to identify the extent to which trait anger and trait anxiety can be used to predict decision-making styles. In accordance with the aforementioned objective, an inquiry was conducted to obtain responses to the subsequent inquiries:

- The statistical analysis revealed a strong correlation between the average total scores of decision-making styles (vigilance, buck-passing, procrastinating, hypervigilance) and the average total scores of trait anger and trait anxiety.
- Trait anger and trait anxiety were found to substantially impact the average total scores and decision-making styles, including being vigilance, buck-passing, procrastination, and hypervigilance.

METHOD

Research Model

The present study used a descriptive research design utilizing the relational screening model to investigate the influence of trait anger and trait anxiety on decision-making styles among university students. Relational screening models are theoretical frameworks utilized in research endeavors with the objective of ascertaining the existence and/or extent of alterations between two or more variables (Karasar, 2010). The present study examined the relationship between the Vigilance, Buck-passing, Procrastinating, and Hypervigilance subscales of the Melbourne Decision-Making Questionnaire as dependent variables, and the Trait-State Anger and Trait Anxiety Scales as independent factors.

Universe and Sample

The scope of this study encompasses undergraduate students enrolled at Osmaniye Korkut Ata University during the academic year of 2022-2023. Sampling is a process of selecting a subset of individuals or items from a larger population in a probabilistic manner. In this case, the sampling method employed is simple random sampling, which involves each member of the population having an equal chance of being selected for inclusion in the sample (Handwerker, 2005). The study cohort comprised 560 students who voluntarily pursued their education across many faculties. Among the student population, it was observed that 301 individuals, accounting for 53.8% of the total, were identified as female, while 259 individuals, representing 46.3% of the total, were identified as male. The average age of the students was determined to be 21.73 years.

Data Collection Tools

Melbourne Decision-Making Questionnaire (MDMQ)

Mann et al. (1997) developed a scale with the purpose of assessing the self-esteem and decision-making styles of individuals when confronted with decision-making in conflict scenarios. The scale is comprised of two components. The initial segment of the study aims to assess the degree of self-esteem exhibited in the process of decision-making, while the subsequent segment aims to evaluate the various styles employed in decision-making. The second segment of the scale was employed in this investigation. The second section comprises four distinct subscales. The subscales encompassed in this study are Vigilance, Buck-passing, Procrastinating, and Hypervigilance. The scale items utilized in this study adhere to the 3-point Likert type, where respondents are required to indicate their agreement level on a range of options. The scoring system for these items is as follows: "true" is assigned a score of 0, "sometimes true" is assigned a score of 1, and "not true" is assigned a score of 2. The Vigilance and Buck-passing subscales are assessed using six items each, and the Procrastinating and Hypervigilance subscales are assessed using five items each. The second segment of the scale comprises a cumulative sum of 22 elements. The minimum score achievable on the Vigilance and Buck-passing subscales is 0, whilst the maximum score is 12. Similarly, the minimum score attainable on the Procrastinating and Hypervigilance subscales is 0, with a maximum score of 10. The attainment of a high score across all subscales suggests that the decision-making approach employed is appropriate and relevant. The Cronbach alpha coefficients for the Vigilance, Buck-passing, Procrastinating, and Hypervigilance subscales were determined to be .80, .87, .81, and .74, respectively.

Çolakkadıoğlu and Deniz (2015) conducted the process of adapting the scale to the Turkish context. The study was conducted on a cohort of 650 university students who volunteered to participate, with an average age of 21.2 years. Confirmatory Factor Analysis (CFA) was conducted on the five-factor model. The analysis revealed that the fit indicators data adequately described the model, as all items were appropriately assigned to their respective factors. The factor loads ranged from .30 to .72, indicating a satisfactory fit between the items and their corresponding factors in their original form. The Cronbach alpha coefficient for the MDMQ was determined to be .82, .77, .75, and .79 for the Vigilance, Buck-passing, Procrastinating, and Hypervigilance styles, respectively. The test-retest consistency for these styles was found to be .82, .75, .83, .71, and .72, respectively, in the same order. Furthermore, it was observed that the correlations between item scores and total scores ranged from .62 to .70 for the Vigilance sub-scale, .42 to .61 for the Buck passing sub-scale, .50 to .65 for the Procrastinating sub-scale, and .57 to .68 for the Hypervigilance sub-scale. The aforementioned findings collectively indicate that the Turkish scale structure is deemed appropriate for utilization.

Trait Anger and Anger Expression Styles Scale (TA-AESS)

Spielberger (1983) devised a scale for the purpose of assessing individuals' anger levels and their preferred mode of expressing this emotion. The scale is comprised of two components, namely Trait Anger and Anger Expression Styles. The Trait Anger Scale (TAS) was employed in the present investigation. The scale items used in this study are of the 4-item Likert type. Participants are asked to rate each item on a scale ranging from "It does not define at all (1)" through "It defines a little (2)", "It defines quite a lot (3)", and "It fully defines (4)". The scale comprises a total of ten elements, and a score ranging from 10 to 40 is obtained. Elevated scores are indicative of a heightened degree of trait anger. The Cronbach's alpha coefficient of the scale was determined to be .88, as reported by Spielberger in 1988.

Özer (1994) conducted the process of adapting the scale to the Turkish language. The initial study encompassed a cohort of 296 individuals. The study's participants encompassed a diverse range of individuals, including university students, high school students, administrators, and persons seeking psychiatric counseling services. As a result of the low factor loads observed for three chemicals in the initial investigation, it became necessary to re-express these items. Following the aforementioned revisions, the second iteration of the application involved the administration of the scale to a sample size of 81 individuals, with subsequent evaluation of its validity. Factor analysis was conducted on a sample consisting of 98 universities and 134 vocational high school students, with the third application being the focus of analysis. The conducted research revealed that the Cronbach alpha coefficient of the TA-AESS ranged from .67 to .92. The factor analysis results indicate that the structure of the original scale is preserved.

State and Trait Anxiety Inventory (STAI)

Spielberger (1983) devised an inventory with the purpose of assessing individuals' emotional states in both specific circumstances and overall. The scale is comprised of two distinct portions. Two inventories are commonly used to assess anxiety: the State Anxiety Inventory and the Trait Anxiety Inventory. The Trait Anxiety Inventory (TAI) was employed in the present investigation. The Trait Anxiety Inventory is a 4-item Likert scale that utilizes a scoring system ranging from "Rarely (1)" through "Sometimes (2)", "Most of the time (3)", and "Almost always (4)". The inventory consists of a total of 20 items, and a score ranging from 20 to 80 is recorded. A high score on an assessment can be indicative of elevated levels of trait anxiety. The Cronbach's alpha coefficient of the scale was determined to be 0.87.

The process of adapting the scale to the Turkish language was conducted by Öner and Le Compte in 1983. The conducted research revealed that the scale exhibited a range of reliability coefficients, specifically ranging from .83 to .87. Additionally, the reliability of the item was observed to fall within the range of .34 to .72. Moreover, the test-retest reliability was discovered to vary between .71 and .86 across different intervals of 10, 15, 30, 120, and 365 days, as examined within five distinct groups. The study revealed a positive association of .62 between

state and trait anxiety ratings. In the criterion validity study, a comparison was made between persons who had received a psychiatric diagnosis and those who had not. The analysis revealed a substantial difference in the mean scores of trait anxiety, indicating that the measure effectively differentiated between the two groups. Research has indicated that the State-Trait Anxiety Inventory (STAI) has demonstrated applicability.

Research Process

After obtaining the ethics committee approval numbered 2023/6/8 from the ethics committee of Osmaniye Korkut Ata University, the research data collection process started. The scales included in the research were developed using online survey tools. The introductory part of the form included the research objectives, the scales used in the study, the details of the scales, the voluntary consent form, and comprehensive contact information, including the full e-mail address. Informed consent was obtained from each participant before answering the survey questions in the study; it was stated that they were not obliged to answer the study questions if they wished. In the study, State and Melbourne Decision-Making Questionnaire (MDMQ), Trait Anxiety Inventory (STAI), and Trait Anger and Anger Expression Styles Scale (TA-AESS) scale items were given, respectively. The researcher collected data between 01 June 2023 and 18 June 2023. Necessary approval was obtained from the ethics committee for the study. Study participants were recruited through social media platforms and with the help of academic advisors. A group of 572 university students participated in the survey.

Data Analysis

The dependent variable in this study was the cumulative scores of the decision-making styles sub-scale of the MDMQ. The independent variables consisted of the cumulative scores of the Trait Anger and Trait Anxiety Scales. The study employed the technique of Multiple Regression Analysis. Multiple regression analysis is a statistical technique used to assess the degree to which two or more independent variables together contribute to the prediction of a dependent variable (Büyüköztürk, 2017). The analysis focused on examining the links between the dependent variable and predictor factors using the Pearson Correlation Coefficient. The analysis of the acquired data was conducted using the SPSS 27.0 software package.

The responses to the scales were examined prior to doing data analysis. The participants identified some data points within the dataset that were deemed to be inaccurate, erroneous, or incomplete. Consequently, these identified data points were subsequently excluded from the dataset. The Mahalanobis distance values were assessed in order to identify any outliers that violate the assumptions of linearity and normalcy, which are necessary for conducting Multiple Regression Analysis. It was found that no extreme values were observed. In order to assess the normality assumption of the data, the researchers analyzed the skewness and kurtosis coefficients. The resulting values for the skewness and kurtosis coefficients of both the overall scores and sub-dimensions of the variables are presented in Table 1.

Table 1. Skewness and Kurtosis Values of the Total Scores and Sub-Dimensions of the Variables

Variables	Skewness	Kurtosis
MDMQ Vigilance	-.007	-.774
MDMQ Buckpassing	.050	-.609
MDMQ Procrastinating	.155	-.947
MDMQ Hypervigilance	-.305	-.626
Trait Anger	.043	-1.138
Trait Anxiety	.040	-.939

The study reveals that the skewness and kurtosis values fall within the range of +1.5 and -1.5, indicating that the variables satisfy the assumption of normalcy. The scattering diagrams were analyzed to assess the linearity of the data, revealing that the predictor variables exhibited linear binary correlations with the dependent variable. The study investigated the correlation coefficients between the total scores of the decision-making styles subscales of the Melbourne Decision-Making Questionnaire (MDMQ) and the total scores of the Trait Anger and Trait Anxiety Scales. The Pearson Moments Multiplication Correlation Coefficient was used for this analysis. Upon examination of the correlation values, it was ascertained that all of the values were below .80. The study revealed that the tolerance values for all dependent variables were determined to be 0.788. Additionally, the variance inflation factor (VIF) values were calculated to be 1.269, while the confidence interval (CI) values were between 1 and 12.053. Based on the findings, it was concluded that there was no issue of multicollinearity among the predictor variables. In order to assess the presence of autocorrelation, the Durbin-Watson statistic was utilized. The computed Durbin-Watson values for the variables of attention, avoidance, procrastination, and hypervigilance were found to be 1.716, 1.837, 1.571, and 1.504, respectively. The study findings revealed that the values falling within the range of 1.5-2.5 satisfied the prescribed criteria and no evidence of autocorrelation was seen.

FINDINGS

Table 2 presents the descriptive data for the Decision-Making Styles subscales of the MDMQ and the Trait Anger and Trait Anxiety Scales among university students. Table 2 presents the descriptive data for the Decision-Making Styles subscales of the MDMQ and the Trait Anger and Trait Anxiety Scales among university students.

Table 2. Skewness and Kurtosis Values of the Total Scores and Sub-Dimensions of the Variables

Variables	N	Lowest	Highest	$\bar{x}$	SS
MDMQ Vigilance	560	0	12	5.79	2.76
MDMQ Buckpassing	560	2	12	6.84	2.17
MDMQ Procrastinating	560	2	9	5.62	1.53
MDMQ Hypervigilance	560	0	10	6.11	2.16
Trait Anger	560	10	38	25.21	6.96
Trait Anxiety	560	25	69	48.89	10.11

Upon analyzing the subscales' scores within the scales utilized in the study, it becomes evident that the MDMQ Vigilance sub-scale exhibited a minimum score of 0 and a maximum score of 12. The arithmetic mean for this sub-scale was 5.79, with a corresponding standard deviation of 2.76. Similarly, the MDMQ Buck-passing sub-

scale displayed a minimum score of 2 and a maximum score of 12. The arithmetic mean for this sub-scale was 6.84, accompanied by a standard deviation of 2.17. Furthermore, the MDMQ Procrastination sub-scale yielded a minimum score of 2 and a maximum score of 9. The arithmetic mean for this sub-scale was determined to be 5.62, with a standard deviation of 1.53. The MDMQ Hypervigilance sub-scale also demonstrated a minimum score of 0 and a maximum score of 10. The arithmetic mean for this sub-scale was 6.11, with a corresponding standard deviation of 2.16. Moving on to the Trait Anger Scale, it was observed that the lowest score recorded was 10, while the highest score reached 38. The arithmetic mean for this scale was computed as 25.21, with a standard deviation of 6.96. Lastly, the Trait Anxiety Inventory exhibited a minimum score of 25 and a maximum score of 69. The arithmetic mean for this inventory was 48.95, accompanied by a standard deviation of 10.11.

The study employed Pearson correlation coefficients to analyze the associations between the total scores of the Decision-Making Styles subscales of the MDMQ and the total scores of the Trait Anger and Trait Anxiety Scales among university students. The results of these calculations are then given in Table 3.

Table 3. Correlation Values Between MDMQ Subscales and Trait Anger Scale and Trait Anxiety Inventory

Variables	1	2	3	4	5
MDMQ Vigilance	-				
MDMQ Buck-passing	-.591**	-			
MDMQ Procrastinating	-.408**	.426**	-		
MDMQ Hypervigilance	-.494**	.427**	.335**	-	
Trait Anger	-.544**	.489**	.317**	.431**	-
Trait Anxiety	-.392**	.437**	.313**	.449**	.461**

**p<.01

The present study investigated the associations between the total scores of the MDMQ Decision-Making Styles sub-scale and the total scores of the Trait Anger and Trait Anxiety Scales. Results revealed a significant negative-oriented correlation between the Vigilance sub-scale and both Trait Anger ($r = -.544$, $p < .01$) and Trait Anxiety ($r = -.392$, $p < .01$). Additionally, a significant positive-oriented correlation was found between the Buck-passing sub-scale and both Trait Anger ($r = .489$, $p < .01$) and Trait Anxiety ($r = .437$, $p < .01$). Furthermore, a positive-oriented correlation was observed between the Procrastination sub-scale and both Trait Anger ($r = .317$, $p < .01$) and Trait Anxiety ($r = .313$, $p < .01$). Lastly, a positive-oriented correlation was identified between the Hypervigilance sub-scale and both Trait Anger ($r = .431$, $p < .01$) and Trait Anxiety ($r = .449$, $p < .01$).

A multiple linear regression analysis was conducted to assess the degree to which the predictor variables, namely the total scores of the Trait Anger Scale and Trait Anxiety Inventory, predicted the scores on the Vigilance, Buck-passing, Procrastinating, and Hypervigilance sub-scales of the MDMQ. Table 4 displays the outcomes of a multiple regression analysis conducted on the total scores of the Vigilance sub-scale of the MDMQ and the total scores of the predictor variables.

Table 4. Multiple Regression Analysis of Predictive Variables with the MDMQ Vigilance Sub-Scale

Variables	B	SH_B	β	*T*	*P*	Binary r	Partial r
Constant	12.807	.500	-	25.622	.001	-	-
Trait Anger	-.183	.016	-.462	-11.738	.001	-.544	-.410
Trait Anxiety	-.049	.011	-.179	-4.551	.001	-.392	-.159
R= 0.567	R^2 = 0.321	ΔR^2= 0.319	$F_{(2\text{-}557)}$ = 131.859	p = .001			

Upon analysis of Table 4, it was observed that all predictor factors considered in the research exhibited a significant predictive effect, accounting for 32% of the variance in the overall score of the Vigilance sub-scale of MDMQ (R=0.567, R2= 0.321, F(2,557)=131.859, p<.001). The standardized regression coefficients (β) indicate the relative order of importance of predictor variables, with trait anger (β= -.462, p<.001) and trait anxiety (β= -.179, p<.001) being the most significant factors.

Table 5 illustrates the outcomes of a multiple regression analysis conducted on the total scores of the Buckpassing sub-scale of the MDMQ and the total scores of the predictor variables.

Table 5. Multiple Regression Analysis of Predictive Variables with the MDMQ Buck-passing Sub-Scale

Variables	B	SH_B	β	*T*	*P*	Binary r	Partial r
Constant	1.135	.401	-	2,832	.005	-	-
Trait Anger	.114	.013	.365	9.123	.001	.489	.361
Trait Anxiety	.058	.009	.269	6.722	.001	.437	.274
R= 0.545	R^2 = 0.297	ΔR^2= 0.294	$F_{(2\text{-}557)}$ = 117.379	p = .001			

Upon analysis of Table 5, it was seen that all predictor factors considered in the research had a significant predictive relationship with 32% of the variance in the total score of the Buck-passing sub-scale of MDMQ (R=0.545, R2= 0.297, F(2.557)=117.379, p<.001). According to the standardized regression coefficients (β), the predictor variables can be ranked in terms of their relative relevance as follows: trait anger (β= .365, p<.001) and trait anxiety (β= .269, p<.001).

Table 6 illustrates the outcomes of a multiple regression analysis conducted on the total scores of the Procrastination sub-scale of the MDMQ and the total scores of the predictor variables.

Table 6. Multiple Regression Analysis of Predictive Variables with the MDMQ Procrastination Sub-Scale

Variables	B	SH_B	B	*T*	*P*	Binary r	Partial r
Constant	2.833	.313	-	9.039	.005	-	-
Trait Anger	.048	.010	.220	4.952	.001	.317	.205
Trait Anxiety	.032	.007	.211	4.760	.001	.313	.198
R= 0.368	R^2 = 0.136	ΔR^2= 0.133	$F_{(2\text{-}557)}$ = 43.735	p = .001			

Upon analysis of Table 6, it was shown that all predictor factors considered in the research had a significant predictive relationship with 32% of the variation in the overall score of the Procrastination sub-scale of the MDMQ. The correlation coefficient (R) was found to be 0.368, indicating a moderate positive relationship. The coefficient of determination (R2) was calculated to be 0.136, suggesting that the predictor variables accounted for 13.6% of the total variance. Furthermore, the statistical test conducted yielded an F-value of 43.735 with

2.557 degrees of freedom, which was highly significant (p<.001). The standardized regression coefficients (β) indicate the relative order of importance of predictor variables. In this study, the variables trait anger (β= .220, p<.001) and trait anxiety (β= .211, p<.001) were shown to have the highest levels of relevance.

Table 6 displays the outcomes of a multiple regression analysis conducted on the total scores of the Hypervigilance sub-scale of the MDMQ, as well as the total scores of the predictor variables.

Table 7. Multiple Regression Analysis of Predictive Variables with the MDMQ Hypervigilance Sub-Scale

Variables	B	SH_B	B	*T*	*P*	Binary r	Partial r
Constant	.569	.406	-	1.399	.162	-	-
Trait Anger	.088	.013	.284	6.951	.001	.431	.283
Trait Anxiety	.068	.009	.318	7.766	.001	.449	.313
R= 0.515	R^2 = 0.265	ΔR^2= 0.263	$F_{(2.557)}$ = 100.518	p = .001			

Upon analyzing the data presented in Table 7, it is evident that all predictor variables considered in this study exhibited a significant predictive relationship with 26% of the variance observed in the overall score of the Procrastination sub-scale of MDMQ (R=0.515, R2= 0.265, F(2.557)=100.518, p<.001). According to the standardized regression coefficients (β), the predictor variables can be ranked in terms of their relative relevance as follows: trait anxiety (β= .318, p<.001) and trait anger (β= .284, p<.001).

CONCLUSION and DISCUSSION

This study investigated the association between university students' decision-making styles, trait anger, and trait anxiety. The findings revealed significant negative correlations between the average scores of the vigilance decision-making style and the average scores of trait anger and trait anxiety. Additionally, positive correlations were observed between the average scores of buck-passings, procrastinating, and hypervigilance decision-making styles and the average scores of trait anger and trait anxiety. Furthermore, it was found that the mean scores of trait anger and trait anxiety were significant predictors of the mean scores of vigilance, buck-passing, procrastinatioan, and hypervigilance styles.

The study revealed significant negative correlations between the average trait anger scores, the first variable under investigation. Additionally, significant positive correlations were observed between the average scores of vigilance decision-making styles and the average scores of buck-passing, procrastinating, and hypervigilance styles. Upon examination of the literature, it becomes evident that there exists research that provides support for this finding. Anger is an affective reaction that exhibits a range of intensity, from mild to strong, in response to external stimuli viewed as disruptive. Trait anger, conversely, is characterized as the inclination to encounter feelings of anger in many circumstances and can be assessed as a disposition and response (Speilberger, 1999). The vigilance decision-making style, classified as a positive approach to decision-making, entails the careful acquisition of information, thorough analysis, and subsequent decision-making process prior to concluding. One approach to decision-making that aims to circumvent negative decision-making styles entails individuals

refraining from assuming responsibility for making decisions and instead relying on others to fulfill their expectations. Conversely, the procrastinating decision-making style involves individuals deliberately delaying or disregarding the process of making decisions. On the contrary, the hypervigilance decision-making style pertains to the act of making impulsive decisions when faced with time constraints. The expected outcome of the study is the presence of significant negative associations between trait anger and vigilance decision-making styles, as well as significant positive associations with negative decision-making styles. This finding is consistent with previous research conducted by Feigenson & Park (2006), Kligyte et al. (2009), Lerner et al. (2015), Nunez et al. (2015), and Tiedens and Linton (2001). Individuals who exhibit a propensity for experiencing anger in response to various events are inclined to interpret their surroundings in a particular manner, thereby influencing their decision-making processes. In essence, these individuals exhibit behavior guided by specific views rather than engaging in the acquisition of diverse information across varying circumstances. Simultaneously, individuals exhibiting this behavior may exhibit a tendency to assess decisions and generate alternatives in order to mitigate their subjective perception of immediacy rather than engaging in the collection of objective facts throughout the process of option generation. According to evaluation theories, it is posited that emotions have the potential to exert an influence on decision-making processes. According to Nunez et al. (2015), it has been observed that anger is associated with heightened certainty and a tendency to absorb information more superficially. According to Tiedens & Linton (2001), the experience of rage has resulted in a cognitive narrowing effect, impacting how information is processed and thus influencing subsequent decision-making processes. Consequently, a correlation exists between anger and a pervasive feeling of certainty regarding its source and a robust inclination to pursue favorable results (Harmon-Jones et al., 2003). Hence, individuals in such circumstances are not anticipated to employ objective assessments and adopt positive decision-making approaches.

In the trait anxiety variable, which is another component of this study, negative-oriented significant correlations were found between the total score averages of trait anxiety and the total score averages of vigilance decision-making style, and positive-oriented significant correlation was found with the total score averages of buck-passing, procrastination, and hypervigilance styles. Accordingly, examining the relevant literature, it was observed that the findings obtained from this study were consistent with other studies examining anxiety and decision-making styles.

In a study conducted in the literature, Çobanoğlu (2017) stated that various types of anxiety affect decision-making status and that the cognitive capacities of individuals who experience trait anxiety rather than situational anxiety decline and are adversely affected by this situation. This also affects the decision-making mechanisms that drop a person's attention dropped. In another study (White et al., 2015), it was found that anxiety affects people's cognitive prejudices and that individuals with high anxiety levels perceive the stimuli around them as more threatening than those with low anxiety levels. Individuals with high anxiety levels perceive their options as more threatening when regulating information from environmental stimuli. Soane et al. (2015) found that as people's anxiety levels increased, their behaviors toward seeking information decreased. In the study that

paralleled the findings in this study, buck-passing decision-making tendencies increased as people's anxiety levels increased (Chipcase & Chapman, 2017). In another study (Masureik et a., 2014), it was seen that individuals with high anxiety acted in a pre-emptive decision-making style. The same study observed that people's decision-making styles were highly prone to panic-style (hypervigilant) decision-making with the addition of anxiety and stress. In another study examining the decision-making styles of individuals experiencing Post Traumatic Stress Syndrome (PTSS), which occurs after the intense stress that people are exposed to during COVID-19, the role of anxiety as a moderator was examined. People with high anxiety levels have been observed to move away from rational, that is, careful decision-making processes. Individuals with low anxiety levels have been observed to be more prone to an vigilance decision-making style than individuals with high anxiety (Marques da Rocha et al., 2023). Based on the results of the studies found in the literature, it is thought that individuals with high anxiety levels adopt hypervigilance, postponing or avoiding decision-making styles to get rid of the conflict situation they experience in the decision-making process by assigning the responsibility to someone else or to get rid of the uncertainty as soon as possible.

In this study, the possible effects of anger and anxiety variables, which have a very important role in people's decision-making processes, on decision-making styles are discussed. In the studies in the relevant literature, the effects of the two variables on decision-making styles are relatively consistent, also consistent with the findings obtained as a result of this study. The feeling of anger restricts people's perspective on events, causing them to keep their perception mechanisms in a certain lens, becoming a cognitively vicious cycle in processing incoming information. The feeling of anxiety inhibits the decision-making processes in high-anxiety situations and causes people to turn to an buck-passing decision-making style; in addition, in cases where anxiety is combined with intense stress, individuals turn to a hypervigilance decision-making style. In light of all this information, this study has filled some gaps regarding the complex relationship of decision-making mechanisms with various variables. The undeniable role of emotions in decision-making styles dominated by cognitive processes and their possible effects on the process have been clarified by this study. Although there are studies on decision-making styles and anxiety in the literature, this study, which is patterned by adding anger as a strong emotion together with anxiety, addresses decision-making styles together with two strong emotions and analyzes the predictive relationship of decision-making styles with two variables, paving the way for possible mediator and moderator variables that may arise for subsequent studies. In addition to the contribution made to the academic literature, it emphasizes the importance of considering the role of possible emotions and different variables in the evaluation of the decision-making processes of individuals and not being prejudiced against the experts working in the field of practice. By observing how anger affects individuals' decision-making processes, remedial treatment methods can be recommended to help the individual adopt more positive decision-making styles. By following the same steps in the feeling of anxiety, the damage caused by the individual's high anxiety level on the positive decision-making style can be evaluated, methods of coping with the high anxiety level can be developed, and a positive method can be developed in decision-making styles that have an important place in all areas of life.

As a result, in this study, it was found that university students' trait anger and anxiety levels had a significant relationship with their decision-making styles and predicted their decision-making styles. This study focuses on two emotions that are effective in the decision-making mechanisms of people; besides anger and anxiety, it is crucial to investigate the effects of other emotions that are frequently experienced in daily life. The limitation of this study is that the effects of only two emotions were investigated in this study.

SUGGESTIONS

The human mind is a complex system. The cognitive mechanisms that are the main source of this system are closely linked to decision-making styles. Another mechanism that is linked to decision-making styles by invisible networks is emotions. The effect of emotions such as anger and anxiety experienced by the individual in his/her life on decision-making styles was examined, and the findings were discussed in the light of other studies in the literature. Examining other variables affecting decision-making styles in another study is crucial in clarifying the subject's nuances.

ETHICAL TEXT

In this article, the journal writing rules, publication principles, research and publication ethics, and journal ethical rules were followed. The responsibility belongs to the author for any violations that may arise regarding the article. Ethics committee approval of the article was obtained by Osmaniye Korkut Ata University/Social Sciences Scientific Research and Publication Ethics Committee with the decision dated 30.05.2023 and numbered 2023/6/8.

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