

## **A Structural Equation Modeling among Stress, Fear of Negative Evaluation and Decision Making Styles**

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**ABSTRACT:** *The objective of this study is to examine the relations of the stress, fear of negative evaluation, avoidant decision making and dependent decision making among a group of university students that have moderate economic status. The study group consists of 330 participants who are students of public university. Our study was based on voluntary participation. 56% of participants were female and 44% participants were male. We used Structural Equation Modeling for the data analysis. The results were  $X^2/df=1.564$ ;  $GFI=0.88$ ;  $CFI=0.94$ ;  $RMSEA=0.04$ ;  $SRMR=0.05$ . The goodness of fit provided evidence that the hypothesized model was stable. All estimated path coefficients were significant. We found that the avoidant decision making and the dependent decision making have a positive impact on the fear of negative evaluation and the fear of negative evaluation has positive impact on the stress. The avoidant decision making style and the dependent decision making style explained %10 of the variation in the fear of negative evaluation. All these three variables explained %20 of the variation in the stress. The fear of negative evaluation plays a mediating role for avoidant decision making style and the dependent decision making style on the stress.*

**Keywords -** *Structural Equation Modeling, Decision Making Style, Fear of Negative Evaluation, Stress*

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### **I. INTRODUCTION**

People can encounter stressful situations every day. Stress mostly adversely affects human life and it can be caused by different reasons. Even though decrease of stress is a goal for many people, stress can either hinder or motivate performance. Its effect depends on the perception of the singular (Campbell, Svenson & Jarvis, 1992).

Pessimism, negative self-talk, unrealistic expectations, perfectionism, and a lack of assertiveness, an inability to accept uncertainty are six common internal causes of stress. The other common signs of stress; cognitive (memory problems, inability to concentrate, poor judgment, seeing only the negative), emotional (moodiness, short temper, agitation, feeling overwhelmed, sense of loneliness and isolation and depression), physical (aches and pains, diarrhoea or constipation, nausea, dizziness, chest pain and rapid heartbeat, loss of sex drive and frequent colds), behavioral (eating more or less, sleep too much or too little, isolation from others, procrastinating or neglecting responsibilities, using alcohol or cigarettes to relax and nerves habits such as biting nails or pacing). Stress is an organism's response to a stressor such as an environmental condition or a stimulus. Stress is a body's way to react to a challenge. Stress typically describes a negative condition or a positive condition that can have an impact on an organism's mental and physical well-being (Masareik, Roman, Roman & Toefy, 2014).

Existing theories of stress underline that stress is associated with an assessment of the demands of a specific situation as related to the individual's capacity or mental resources to deal or cope with these demands. This means that perception of stress can change over time because it is a personal reaction. For instance, driving a car can be very stressful in heavy traffic in the first place, but it gets less stressful as the driver gains experience and gets used to the traffic situation (Thunholm, 2008). When stress is perceived negatively, it may become linked to physical and mental illness. Stress can affect health performance (Campbell, Svenson & Jarvis, 1992).

Decision-making is the ability to choose alternatives based on the values and preferences for a given object. Additionally, it is a process of making choices among competing courses of action (Masareik, Roman, Roman & Toefy, 2014). According to the Scott and Bruce (1995) decision making style is the learned habitual response pattern exhibited by an individual when confronted with a decision situation (Thunholm, 2008). Scott and Bruce have identified five different decision-making styles. One of them is avoidant decision making style is characterized by attempts to avoid decision making whenever possible (Thunholm, 2004). Avoidant decision making style is characterized by delay and denial (Tat et al., 2010). Another style is dependent decision making style. It is characterized by a search for advice and direction from others (Scott & Bruce, 1995). Persons, who are dependent on other persons in the decision process, have less flexibility in planning and accomplishing their decision-making errands. This would cause less control over the decision process and its outcomes (Allwood & Salo, 2012).

The possibility of being evaluated negatively by others in a society results in anxiety and fright for some persons. As a consequence of this dread, persons may experience feelings of apprehension and engage in compensatory coping behaviours to avoid perceived negative evaluation (Nonterah et al., 2015). Fear of negative evaluation defined by its creators as “apprehension about others’ evaluations, distress over their negative evaluations, avoidance of evaluative situations, and the expectation that others would evaluate oneself negatively. This doesn't mean that the subject believes they are performing badly. It means that they are afraid of having performance evaluated negatively by others (Watson & Friend, 1969 ; Crawford, Leuzinger, Brannon & Hamner, 2015).

The purpose of this study is to examine the relations of the stress, fear of negative evaluation, avoidant decision making and dependent decision making among a group of university students that have moderate economic status. In order to find the relations between variables the structural equation model was used.

## II. METHOD

### Study Participants

The study group consists of 330 participants who are students of public university. Our study was based on voluntary participation. 56% of participants were female and 44% participants were male. All of participants have the economic status as moderate.

### Instruments

In this study we used three scales; first one was the Decision Making Style Scale (DMS). This scale developed by Scott and Bruce (1995). It includes the following five styles: *Rational* (exhaustive information search, systematic evaluation of alternatives), *Intuitive* (unsystematic information processing and reliance on premonitions and feelings), *Dependent* (dependent on advice from others), *Avoidant* (tries to avoid making decisions), and *Spontaneous* (wants to reach a decision quickly). The Turkish version and validation of the DMS was performed by Taşdelen (2002). This scale had 24 questions. Dependent DMS subscale has got 4 items and the other subscales have got 5 items. All of the items are rated on a 5-point scale. In this study, we used only avoidant and dependent decision making styles. The reliability coefficient of avoidant DMS (Cronbach's alpha) was 0.85 and dependent DSM (Cronbach's alpha) was 0.85.

The second scale was Fear of Negative Evaluation Scale (FNES). Scale developed by Leary (1983) and adapted into Turkish by Çetin, Doğan and Sapmaz (2010). FNES has eleven items, which are rated on a 5-point scale. Higher scores indicate that the participant tends to behave in ways designed to avoid being evaluated unfavorably. In this study we found the internal consistency reliability (Cronbach's alpha) of this scale to be 0.88.

The third scale was Depression Anxiety Stress Scale (DASS). DASS is a 42-item, single, self-report measure of depression, anxiety and stress, developed by Lovibond and Lovibond (1995). The DASS-42, translated into Turkish by Uncu, Bayram and Bilgel (2007). The DASS is a 42-item instrument measuring current (within the past week) symptoms of depression, anxiety, and stress. Each of the three scales consists of 14 items answered by using 4-point likert - type, ranging from 0 (did not apply to me at all) to 3 (applied to me very much, or most of the time). Higher scores on each subscale indicate higher levels of depression, anxiety and stress. The total scores of each sub-scale were calculated by summing up the points of relevant items. Each sub-scale is scored separately. In this study, we used only stress scale, and the reliability coefficient of stress scale (Cronbach's alpha) was 0.88.

### Data Analyses

Structural equation modeling (SEM) was performed. SEM was used to show the effects of fear of negative evaluation, avoidant decision making style and dependent decision making style on stress. SEM specifies the direct and indirect effects among latent variables and is used to describe the amount of explained variance for each variable.

## III. FINDINGS

The results were  $X^2/df=1.564$ ;  $GFI=0.88$ ;  $CFI=0.94$ ;  $RMSEA=0.04$ ;  $SRMR=0.05$ . The goodness of fit provided evidence that the hypothesized model was stable. The best fitting solution is illustrated in Figure 1. The path coefficients are the standardized estimates of direct effects which are interpreted as standardized regression coefficients. All estimated path coefficients were significant. We performed Confirmatory Factor Analysis (CFA) for subscales of decision making styles. We found good fit for avoidant decision making style;  $X^2/df=0.663$ ;  $GFI=0.99$ ;  $CFI=1.00$ ;  $RMSEA=0.00$ ;  $SRMR=0.012$  and dependent decision making style;  $X^2/df=0.864$ ;  $GFI=0.99$ ;  $CFI=1.00$ ;  $RMSEA=0.00$ ;  $SRMR=0.009$ .

As it is seen in Figure 1, avoidant and dependent decision making styles directly affect fear of negative evaluation and indirectly effected stress. Fear of negative evaluation directly affect stress.

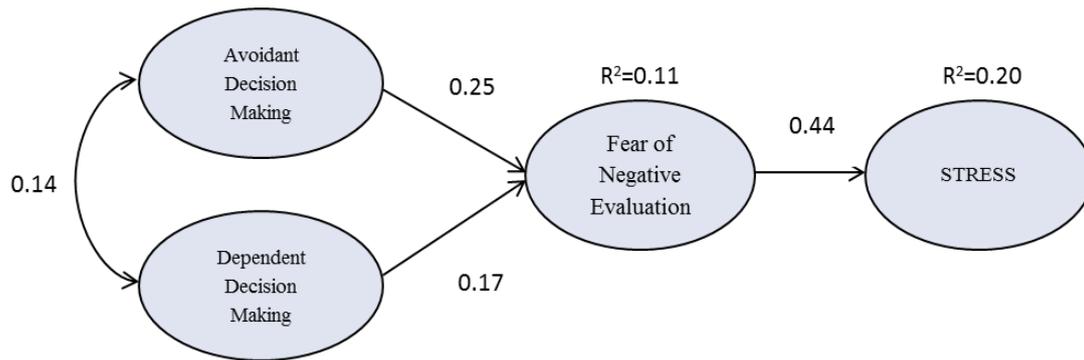


Fig 1. Structural Equation Model for Stress

The  $R^2$  value for fear of negative evaluation was 0.11. Avoidant decision making style ( $\beta=0.25$ ;  $p<.05$ ) and dependent decision making style ( $\beta=0.17$ ;  $p<.05$ ) had a strong positive effect on fear of negative evaluation. On the other word, 11% of the variance in fear of negative evaluation was explained by the direct effect of avoidant and dependent decision making style.

The  $R^2$  value for stress was 0.20. Fear of negative evaluation ( $\beta=0.44$ ;  $p<.05$ ) had a strong positive effect on stress. On the other word, 20% of the variance in fear of negative evaluation was explained by the direct effect of fear of negative evaluation and the indirect effect of avoidant and dependent decision making style.

#### IV. CONCLUSION

People have different decision making styles. Thus, it can be considered that people have different behaviors that occur in real life. These differences can affect indirectly the stress level of the person. Similarly, person who has high level of fear of negative evaluation has also higher stress level. In this study we were to examine the relationships among stress, fear of negative evaluation avoidant decision making and dependent decision making among university students. In order to find the relations between variables the structural equation model was used. Model shows that stress is positively affected by fear of negative evaluation.

We found positive correlation between avoidant decision making style and dependent decision making style. Similarly, Allwood & Salo (2012), Thunholm (2009), Gambetti et al. (2008), Galotti et al. (2006) have found same results in their study. Riaz, Riaz and Batool (2014) have found that statistically positive significant relation between stress dependent and avoidant decision making styles (Salo & Allwood, 2011). Thunholm (2008) was found to be associated with avoidant decision style and perceived stress.

We found that avoidant decision making style and dependent decision making style had not a direct effect on stress. Allwood & Salo (2011) have found that no statistically significant relation between stress and dependent decision making style. Allwood & Salo (2011) and Baval'ár & Orosová (2015) had found statistically positive significant relation between stress and avoidant decision making styles.

We found that stress is positively affected by fear of negative evaluation. Talhat & Aslam (2012) have found that fear of negative evaluation was positively correlated with psychological distress (i.e. depression, anxiety and stress). Karakashian, Walter, Christopher and Lucas (2006) and Mounce, Keogh and Eccleston (2010) have shown the positive relation between stress and fear of negative evaluation. Nonterah et al. (2015) have found that using by structural equation modeling in their studies for students that fear of negative evaluation was positively affected by stress. In this study the fear of negative evaluation plays a mediating role for avoidant decision making style and the dependent decision making style on the stress.

Our results show that relationships among stress, fear of negative evaluation and avoidant and dependent decision making styles. Avoidant decision making style and dependent decision making style had a positive effect on fear of negative evaluation. Fear of negative evaluation had a positive effect on stress. Fear and stress are negative emotions and fear of negative evaluation as seen in this study increases, stress increases. Results are consistent with human nature that when considered in real life.

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