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Editorial

The OPUS Journal of Society Research (OPUS JSR) brings together a diverse range of theory, practice, and research in the pursuit of understanding human behavior in its social context. The interdisciplinary viewpoint lays the groundwork for presenting and establishing a holistic relationship with other disciplines, concepts, and methods. The OPUS JSR allows researchers to use an interdisciplinary approach to present different interpretations and alternative points of view. The theoretical frameworks that underpin the analyses and interpretations of the subjects under study are as important as the intersection of disciplines. This framing can lead to greater clarity of multiple, even contradictory findings, allowing for a better understanding of social dynamics that would otherwise be invisible if scholars concentrated on a single set of theoretical dynamics.

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RESEARCH ARTICLE

Relationship between Self-Esteem, Area of Study, Phubbing, and Perceived Social Media Addiction among University Students

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Abstract

Due to its increasing importance in our lives, it is crucial to gain a comprehensive understanding of social media. This study contributes to the existing literature by examining data from the Gulf region in the Middle East. The study focuses on self-esteem, phubbing, area of study, and how students perceive themselves in terms of social media addiction. Hierarchical regression analysis was employed to examine the role of self-esteem, phubbing, and area of study (Science, Engineering, Social Science) in predicting perceived social media addiction, following an exploratory analysis. The results indicate that both phubbing and area of study were significant predictors of reported social media addiction. Specifically, compared to students with science majors, those with engineering and social science majors reported being 10% and 13% more addicted to social media, respectively. Additionally, students who reported engaging in phubbing rarely, sometimes, often, or always perceived themselves as being 10%, 19%, 26%, and 33% more addicted to social media, respectively, compared to those who reported never engaging in phubbing.

Keywords: *addiction, phubbing, social media, self-esteem*

Öz

Hayatımızdaki artan önemi nedeniyle sosyal medyayı kapsamlı bir şekilde anlamak kritik bir öneme sahiptir. Bu çalışma, Ortadoğu ve Körfez bölgesine ait verileri inceleyerek, mevcut literatüre katkı sağlamaktadır. Çalışma, benlik saygısı, phubbing, eğitim alanı ve öğrencilerin sosyal medya bağımlılığı açısından kendilerini nasıl algıladıklarına odaklanmaktadır. Çalışmada keşifçi bir analizin ardından, hiyerarşik regresyon analizi kullanılarak, algılanan sosyal medya bağımlılığını tahmin etmede benlik saygısı, phubbing ve eğitim alanının (Fen Bilimleri, Mühendislik, Sosyal Bilimler) rolü incelenmiştir. Sonuçlar hem phubbing hem de çalışma alanının, algılanan sosyal medya bağımlılığının önemli belirleyicileri olduğunu göstermektedir. Özellikle, fen bilimleri alanında okuyan öğrencilere kıyasla mühendislik ve sosyal bilimler alanındaki öğrenciler, sosyal medyaya sırasıyla %10 ve %13 daha fazla bağımlı olduklarını belirtmektedir. Bunun yanında, nadiren, bazen, sık sık ve her zaman phubbing yaptığını bildiren öğrenciler, hiç phubbing yapmadığını bildirenlere kıyasla kendilerini sosyal medyaya sırasıyla %10, %19, %26 ve %33 daha fazla bağımlı olarak algıladıklarını ifade etmektedir.

Anahtar Kelimeler: *bağımlılık, phubbing, sosyal medya, benlik saygısı*

Introduction

Technology has advanced significantly in recent years. The relationship we have with technology is reciprocal; as we adapt to it, it likewise changes us (Miller et al., 2016). The Internet emerged together with the development of technology. According to Miller et al. (2016), "polarization between public and private media started to change with the introduction of the Internet" (p. 2). The use of smartphones has been linked to the use of social media (David & Roberts, 2017; Kuss & Griffiths, 2017). The many new communication channels that have emerged, such as Twitter, Instagram, and Facebook (Okdie & Ewoldsen, 2018), which enable the dissemination and migration of content, are one factor that raises cell-phone usage (Miller, 2016). When asked if they were addicted to their phones, 41% of students between the ages of 13 and 17 said they were (Rideout & Robb, 2012). Subrahmanyam and Greenfield (2008) and Marciano et al. (2021) highlight how teenagers and the younger generation utilize the Internet and social networking sites disproportionately heavily. Most individuals spend too much time online, with 7% of university students doing so for at least 40 hours a week (Cotton, 2008), with an average of 6 or more hours daily for most individuals (Ortiz-Ospina & Roser, 2019). The young generation regularly check their social media accounts throughout the day, and many of them consider themselves to be social media addicts (Allahverdi, 2021; Allahverdi, 2022a; Allahverdi, 2022b; Allahverdi, 2022c; Allahverdi, 2022d; Cotton, 2008).

There is growing concern that because social media is so prevalent and is used so much, offline relationships and interactions could be replaced by online ones (Miller et al., 2016). Some people have even said that social networking refers more to who we are than what we do (Griffiths & Kuss, 2017). As a result, the generation that was born into the digital age is known as the "digital natives" (Miller et al., 2016). Since social networking sites are related to the need to interact, these platforms satisfy the need for belonging in Maslow’s hierarchy of needs (Palfrey & Gasser, 2008). Individuals are able to express themselves through these platforms, which is a fundamental human need (Griffiths & Kuss, 2017).

Although social media use allows for ease of communication and fulfills some of our human needs, it can cause ostracism (Allen et al., 2014). Many emotional and mental health issues arise with the increased usage of both the Internet and social media (Groth et al., 2017; Ho et al., 2021; Moretta & Buodo, 2018; Nguyen et al., 2020). In fact, problematic social media use has been associated with a decrease in mental health the following year (Boer et al., 2021). Greater emotional disturbance symptoms have been documented by those with more severe social media addiction (Wong et al., 2020). Problematic Internet use or addiction has psychological repercussions because its symptoms resemble those of low self-esteem, hostility, anxiety, depression, and disinhibition (Widyanto & Griffiths, 2006). According to Zivnuska et al. (2019), burnout can be a consequence of excessive social media usage, which not only affects job performance but also has a financial burden. In a meta-analysis by Vannucci et al. (2020), the relationship between social media use and risky behaviors is discussed, highlighting the harmful effects of excessive usage.

Although Internet addiction was first coined by Dr. Ivan Goldberg in 1995, and later brought to attention by Kimberly Young, it is still not recognized by the Diagnostic and Statistical Manual of Mental Disorders (DSM) (Flisher, 2010; Goldberg, 1996; Young, 1996; Young, 1998). Similarly, social media addiction, which is a component of Internet addiction, is also not recognized in the DSM. Both have been identified as targets for more research. As a result, some researchers have referred to it as problem internet use (PIU) rather than calling it an addiction (Shapira et al., 2003; Young, 2009). In order to avoid pathologizing typical conduct, it is crucial to think carefully about what should be classified as a behavioral addiction (Zastrow, 2017). Consideration should be given to a behavior's psychological, environmental, and biophysical triggers when deciding if it qualifies as an addiction (Grover et al., 2011). However, it is also important to note that numerous benign and unhealthy behaviors have the potential to develop into addictions (Griffiths, 2005).

In comparison to general studies on Internet addiction, social media research is very new (Grau et al., 2019). Concerns about overuse of social media platforms emerged with the development of these networks (Kircaburun, 2016). Researchers have looked into changes in people's sense of belonging, identity development, and psychosocial wellbeing with the increase in social media use (Allen et al., 2014). Even though it has not been recognized by the DSM, many experts believe that there is such a thing as internet and social media addiction due to the manifestation of symptoms (Kuss & Griffiths, 2017). There is a lack of precise definition, which can impede the development of this field of study.

The current study did not examine problem internet use or social media addiction. Instead, the goal was to ascertain what individuals thought of themselves, in other words, their perception of themselves. An individual's behavior and performance can inform themselves, leading to the creation of a self-perception (Bem, 1967). These self-perceptions and self-attributions in turn influence and guide our behaviors (Riding & Rayner, 2001). Due to wide variability in defining social media use and addiction among researchers and the use of these terms colloquially, each individual may define "social media addiction" slightly differently. Even if a person may not have problematic social media use or addiction, their own perception of themselves is important since it influences their performance.

Phubbing

Phubbing, which is derived from the words "phone" and "snubbing," is a new phenomenon that has emerged in tandem with the growth of the Internet and the widespread use of cell phones (Balta et al., 2020). It has become quite a common practice (Chotpitayasunondh & Douglas, 2017). Though still limited and in its early stages, phubbing research has grown over the past few years (Al-Saggaf et al., 2018; Chotpitayasunondh & Douglas, 2017; David & Roberts, 2017). According to the few research that is currently available, social media and cell phone addiction are both predictive of phubbing (Chotpitayasunondh & Douglas, 2017; Karadag et al., 2015).

Phubbing is a major issue that impacts people's sense of belonging and degrades relationship satisfaction, including friendships (Chotpitaya-sunondh & Douglas, 2017; Hales et al., 2018) and important connections like marriages (Wang et al., 2017). It has also been shown to have an indirect relationship with life satisfaction (Balta et al., 2020). When thirteen to seventeen-year-olds were asked if they get frustrated when their friends keep texting, surfing the Internet, or checking their social media while hanging out, forty-five percent said yes (Rideout & Robb, 2012). Indeed, the practice has the potential to harm both phubbers and phubees (Chotpitayasunondh & Douglas, 2016). Due to the innate need to connect with other humans, phubbing behavior excludes individuals, and thus negatively impacts their sense of belonging (Han et al., 2015). Due to the importance of phubbing, the phubbing survey by Al-Saggaf et al. (2018) was added to the current study.

Self-Esteem

Examining the link between social media problematic use/addiction and poor self-esteem can be crucial because it has been shown to be linked to psychopathological issues (Jasso-Medrano & Lopez-Rosales, 2018). People with poor self-esteem want regular affirmation in order to feel important. They can get immediate response in the form of likes and comments by using social media platforms. Therefore, people with low self-esteem who constantly seek other people's approval for everything they do may use social media more frequently. According to some experts, social media platforms give people with low self-esteem a chance to build relationships because they find it difficult to do so offline (Forest & Wood, 2012). Ayas & Horzum (2013) and Berry et al. (2018) found no relationship between Internet addiction and social media addiction and self-esteem, while Budak et al. (2015), Hawi & Samaha (2019), Köse & Doan (2019), and Pawar & Shah (2019) found a relationship between self-esteem decline and Internet and social media addiction. Although low self-esteem has been associated with social media addiction, it has not been previously examined with regard to perception of social media addiction. The current study is the first to look into this relationship (Banyai et al., 2017). The hierarchy of needs by Maslow places a strong emphasis on the value of self-esteem in achieving one's goals, thus it's crucial to look at the connection between perception of one's self with regard to social media and self-esteem.

Area of Study

Moreover, one of the variables assessed in the current study was the student area of study. There has not been much research conducted on the area of study and its relationship with addiction, cellphone usage, and social media usage. One study that has compared different departments is research conducted by Ugur and Koc (2015). They examined the effects of phubbing and technology distraction in the classroom during exams (Ugur & Koc, 2015). Another study examined social media use during lectures for medical students (Narendran et al., 2017). Masthi, et al. (2018) compared social media addiction between private and public universities and found no differences. The present study went one step farther and looked at not only one school (college), but the following three areas of study: Social Science, Science, and Engineering. While examining the different areas of study, the study also used the specific majors within the areas of study to determine their impact on perception of social media addiction.

Purpose

Despite the fact that people prefer online communication to face-to-face communication, interactions on the internet can be fleeting and make it difficult to develop meaningful relationships (Kircaburun, 2016). This decreases the satisfaction of the psychological need for belongingness as outlined by Maslow's hierarchy of needs. Consequently, it's crucial to conduct study on factors that might be related to people's perceptions of their own social media addiction. The goal was to ascertain whether the frequency of phubbing, one's self-esteem, and one's area of study (social science, science, or engineering) were predictive of whether Arab students felt they were addicted to social media.

Since the self-esteem scale by Rosenberg (1963) has not been utilized within certain parts of the Middle East, especially the Gulf, it is crucial to determine the retained factors and assess the reliability of the data. Various studies have conducted both an exploratory and a confirmatory factor analysis to determine the number of factors that the Self-Esteem Scale by Rosenberg (1963) has. Eight factorial solutions have been examined by researchers using a confirmatory factor analysis (Lima & Souza, 2019, Mullen, Gothe, & McAuley, 2013). The scale was used in a new population for the current study, and an exploratory factor analysis was done to identify the significant factors.

Moreover, since self-esteem is an important precursor for self-fulfillment as addressed by Maslow's hierarchy of needs, examining its connection with perception of addiction within a new population is important. Perceived social media addiction was measured by adjusting the perceived social media addiction scale by Eijenden et al. (2016). Its relationship with phubbing was assessed utilizing Al-Saggaf et al. (2018)'s phubbing survey. This is the first study that examines self-perceived social media addiction, phubbing frequency, self-esteem, and area of study at the same time.

Research Questions

1. How many factors in the Rosenberg Self-Esteem Scale (RSES) are significant within the Gulf population?
2. How are the frequency of phubbing, self-esteem, and area of study related to the percentage of students who identified themselves (perception) as addicted to social media?

Methodology

Research Design

An exploratory factor analysis for the Rosenberg Self-Esteem Scale (RSES) was implemented to identify the significant factors. The significant factors were used as predictor variables along with the other predictor variables to implement the regression analysis.

A multiple regression analysis was conducted to both comprehend the relationship of the variables in the study and generate predictions (Albright & Winston, 2010). To predict future cases, a formula was constructed.

Participants

The study included public university Arab students who received their instruction in English. In total there was an 85% response rate totaling to 305 students who submitted the survey. The survey covered three academic areas of study: science, engineering, and social science. Table 1 lists the participating students' area of study in detail. The list of majors for each are of study represented in the survey is shown in Table 2.

Table 1. Percentage of participating students by area of study

Area of Study	% of survey students
Social Science	30%
Science	16%
Engineering	54%

Table 2. Majors by area of study

Area of Study	Major
Engineering	Chemical Eng., Civil Eng., Electrical Eng., Computer Eng., Industrial Eng., Petroleum Eng., Mechanical Eng.
Science	Biology, Biochemistry, Geology, Chemistry, Math, Medicine, Physics, Microbiology, Health Science, Nursing, Physical Therapy, Public Health
Social Science	Architecture, Accounting, Economics, Business, Education, Geographic, Finance, Law, History, Marketing, Theology, Translation, Mass Communication,

Due to the gender makeup of the university's student body, more women were included in the study. Male participants made up 37.7% of the participants, while female participants made up 62.4%. Students from Freshmen, Sophomore, Junior, and Senior years were surveyed. The students' ages fell between 18 and 24.

Procedures

Random sampling was used to ensure heterogeneity. Classes were chosen at random through systematic random sampling for each area of study. The university was chosen because it is a good representation of the Middle East. Each participant filled the handed-out surveys, which were then entered into a database and verified by a different researcher.

Measures

Demographic Information: Participants indicated their gender, their university year, and major at the beginning of the survey. The survey has two options for gender, male and female. Students had to mark in a circle whether they were a Freshman, Sophomore, Junior, or Senior.

Phubbing Frequency: In order to gauge phubbing frequency, the question "How often do you look at your smartphone while having a discussion with another person or people?" was posed. The question was rated on a Likert scale of 1 to 5 points. The options on the scale were Never to Always. This query was taken from Al-Saggaf et al. (2018) to see if trait boredom and phubbing were related. The current study utilized the same question to assess whether perceived social media addiction and phubbing have a relationship.

Perceived Social Media Addiction: The Social Media Disorder (SMD) scale is a regularly deployed scale to assess addiction to social media platforms. Eijnden et al. (2016) created a shorter version of the SMD scale, cutting it down from 27 items to just nine. They found that both the extended and shortened versions of the SMD scale highly correlated with the one item self-perceived social media addiction scale. Since longer surveys take more time to complete, some people may not complete all of the survey questions. As a result, researchers favor surveys that are more concise and shorter. The single-item measure used by Eijnden et al. (2016) was modified for the current investigation. Instead of using a five-point Likert scale, perceived social media addiction was assessed on a scale from zero to one hundred, giving more detailed information. Participants were asked, "To what extent do you feel addicted to social media?" in order to gauge perceived social media addiction.

Self-Esteem Scale: The Rosenberg Self-Esteem Scale has an internal consistency of 0.77. The two-week interval for test-retest reliability was 0.85 while the seven-month interval test-retest interval was 0.63 (Silber & Tippett, 1965, Shorkey & Whiteman, 1978). Shorkey and Whiteman (1978) also found a significant correlation between the English and Spanish versions of the scale. The Rosenberg (1963) Self-Esteem Scale is a frequently used scale to assess self-esteem and has been translated into various languages (Kırcaburun, 2016, Shorkey & Whiteman, 1978).

The scale, which consists of ten questions, uses a four-point scale rather than a five-point one to indicate how much the respondent agrees with each item. Half of the measure is made up of positively phrased items (items 1, 3, 4, 7, and 10), and the other half is made up of negatively worded items (items 2, 5, 6, 8, and 9). Despite the scale being used in many nations, there is a dearth of research in the Gulf nation where the study was carried out. In order to compare the results with earlier exploratory factor analysis investigations, an exploratory factor analysis was used.

Findings and Discussion

Exploratory Factor Analysis

Initially, all 10 items of the scale were utilized for the exploratory factor analysis of the Self-Esteem Scale by Rosenberg (1963) by employing a principal axis factoring. For factor analysis, Stevens (1996) encourages researchers to determine sample size per variable, suggesting five to twenty participants per variable. Multivariate normality of the data was checked utilizing the Mahalanobis distance.

The Variance Inflation Factor, Tolerance, and the determinant of the correlation matrix were all examined in order to rule out multicollinearity. All assumptions were verified. In the current study communalities less than 0.3 were removed from the analysis. These were questions three, four, seven, and eight of the Self-Esteem Scale by Rosenberg (1963).

The principal axis factoring was re-run once the above-mentioned items were removed. The sampling adequacy was 0.70 for the Kaiser-Meyer-Olkin measure which is more than the recommended value. Sampling adequacy was measured with the Kaiser-Meyer-Olkin measure. The Bartlett's test of sphericity was significant ($\chi2$ (15) = 253.51, $p < .05$). The diagonals of the anti-image correlation matrix were all over 0.5. Although the frequently utilized method for determining which factors to retain is the eigenvalue > 1 rule, Henson and Roberts (2006) discuss how solely utilizing the EV >1 rule most times "severely overestimates the number of factors to retain (p.399)". Therefore, to supplement the eigenvalue > 1 rule, a scree test and parallel analysis was utilized in the current study.

The oblique strategy utilized in the current study was Oblimin. The data was checked in the current study and a comparison was made with a delta value of 0.8, 0.5, and zero. For both 0.8 and 0.5, rotation failed to converge in 25, 50, and 100 iterations. The data was explored and determined to be most oblique, therefore, a delta value of zero was selected.

All items had a factor loading of .4 or above. Factor one comprised of questions two, five, six, and nine explained 37% of the variance, with factor loadings ranging from 0.48 to 0.74. Factor two comprised of questions one and ten explained 20% of the variance, with factor loadings ranging from 0.48 to 0.57. The cumulative percentage for both factors was 57%. When the reliability of each factor was assessed, factor one's internal consistency was 0.7 and factor two's internal consistency was 0.4, thus resulting in the removal of the second factor.

Thus, the original factor structure proposed by many researchers was not retained in the current study. The items on the first factor were utilized to create a self-esteem variable that was then used in the regression analysis.

Descriptive Data

The standard deviation of students' perceptions of their own social media addiction was (*sdv*=18.80), with an average of ($\bar{x}$ = 62.60). More than 40% of the students thought they were 75%–100% addicted to social media. Ten percent of the people rated themselves as 100% addicted, believing they had no control over their addiction. Table 3 provides the means and standard deviations for phubbing.

Table 3. Means and standard deviations for phubbing

Pubbing		Social Media	
	%	Mean	*SD*
Never	6%	47.14	21.99
Rarely	24%	56.16	16.98
Sometimes	40%	61.16	16.14
Often	19%	69.30	17.17
All the time	11%	79.48	18.19

With the increase of phubbing means, perception of social media addiction means also increased. The likelihood that students believed they were addicted to social media increased as more of them engaged in the practice of phubbing. Thirty percent of the students fell into the often or all the time categories for phubbing, whereas 40% of the participants fell into the sometimes category.

Table 4. Model summary

Steps	*R*	R^2	R^2adj	R^2 Change	*F* Change	*p*	*df1*	*df2*
1. Area of Study	0.22	0.05	0.04	0.05	7.37	< .01	2	305
2. Area of Study, Phubbing	0.44	0.19	0.18	0.15	13.77	< .001	4	301
3. Area of Study, Phubbing, Self-Esteem	0.44	0.20	0.18	0.00	1.12	> 0.5	1	300

The self-esteem variable was studied independently. Around 50% of the students thought they were addicted to social media for values on the Self-Esteem Scale between zero and three. This was also true for values between three and above. The number of students who said they were addicted to social media did not alter as a result of changing how the self-esteem measure was scored. As a result, it's probable that the self-esteem variable won't be a very good predictor.

Regression

Hierarchical multiple regression was implemented. Self-esteem, area of study, and phubbing were the independent variables. Perceived addiction to social media was the dependent or predictive variable. All assumptions of the regression analyses were met. Homoscedasticity was checked by looking at scale-location plots, linearity was checked by looking at residual versus fitted plots, normality was checked utilizing the Kolmogorov-Smirnov test and QQ plots, and multicollinearity was checked by examining both tolerance and variance inflation factors (Mertler & Vannatta, 2010). Outliers were checked by looking at both upper and lower extremes using boxplots and by utilizing the Mahalanobis distance and Cook's distance. Moreover, the study fulfilled the required subjects per independent variable requirement. The model summary is provided in Table 4 for the regression analysis. The coefficients for the final model is found in Table 5.

Whether the participants believed themselves to be social media addicts was not predicted by the overall model (Table 4). Self-esteem, then, did not play a substantial role in explaining the variation in reported social media addiction. However, the second model predicts perceived social media addiction, $R^2 = 0.19$, $R^2\text{adj} = 0.18$, $F\ (4, 301)$, $p < .001$, with the dependent variable's variation being explained by the independent factors by 19.4%. Table 5 demonstrates that all of the variables in the models are significant. The area of study alone accounted for 4.6% of the variation in perceptions of social media addiction, $R^2 = 0.05$, $R^2\text{adj} = 0.04$, F (2, 305), $p < .01$.

Adding phubbing to the model contributed 10% to the explanation of the variance in perceived social media addiction.

phubbing was Phubbing-All the Time. The rate of perceived social media addiction would drop to 76.70% if the major was social science and the phubbing was frequent. Changing phubbing to Phubbing-Rarely would reduce the perceived social media addiction even more, to 60.12%.

Table 5. Coefficients for the final model

Model		*B*	Beta	*T*	Model
1					
	Major (Social Science)	16.95	0.30	3.73	0.00***
	Major (Engineering)	13.01	0.26	3.30	0.00***
2					
	Major (Social Science)	12.85	0.23	3.02	0.00***
	Major (Engineering)	10.23	0.21	2.80	0.05**
	Phubbing (Rarely)	9.80	0.17	1.91	0.1*
	Phubbing (Sometimes)	18.54	0.38	3.80	0.00***
	Phubbing (Often)	26.38	0.44	5.02	0.00***
	Phubbing (All the Time)	33.25	0.48	5.98	0.00***

*p<0.1, **p<0.05, ***p<0.01

Instead of the students' individual majors, the study included their area of study. The areas of study were Engineering, Sciences, and Social Sciences. A list of all the majors under the three areas of study is provided in Table 2. The specific majors were initially contrasted with one another under each area of study. None, however, were determined to be significant. Therefore, the regression analysis was re-run only with the areas of study, resulting in a significant finding. This indicates that although specific majors do not have an impact on perceived social media addiction within each area of study, the general areas of study are significant.

The data were used to create a formula for multiple regression:

Addiction Perception % = 37.47
+ 10.23 Major-Engineering
+ 12.85 Major-Social Science
+ 9.80 Phubbing-Rarely
+ 18.54 Phubbing-Sometimes
+ 26.38 Phubbing-Often
+ 33.25 Phubbing-All the Time

The base of the formula was chosen with major-science as the area of study and phubbing frequency as never. On average, these students tended to believe they are addicted to social media 37.47% of the time. The perceived level of social media addiction, for instance, would be 83.57% if the area of study was Major-Social Science and the phubbing was Phubbing-All the Time.

In contrast, the perceived level of social media addiction would be 80.95% if the field of study was major-engineering and phubbing was Phubbing-All-the-Time.

Major-Social Science students are more likely than Major-Science students to believe that they are hooked to social media, with the difference between the two groups being 12.85%. Similarly, there is a 10.23% difference between Major-Science and Major-Engineering students, with Major-Engineering students being more likely to perceive themselves as addicted to social media. The formula was validated by dividing the data in half. The regression model was performed on more than two-thirds of the data, and the remaining percentage was utilized to cross-validate the regression equation.

Discussion

Students who stated that they rarely, sometimes, often, or always engaged in the practice of phubbing believed that they were addicted to social media 10%, 19%, 26%, and 33%, respectively, compared to never phubbing. Visually distinguishing individuals who participate in the act of phubbing is easier than it is to determine if they are or feel addicted to social media. Therefore, university counseling centers can ask students who feel they are using these platforms excessively if they participate disproportionately or in an exaggerated fashion in phubbing and discuss the negative effect of phubbing and excessive use of the Internet and social media on relationships, life satisfaction, and its relationship with disinhibition, anxiety, feelings of melancholy, and anger (Widyanto & Griffiths, 2006).

Students can ask their friends for feedback on their own behavior regarding phubbing. This can be a useful way to gain insight into how their behavior is affecting others and to become more aware of their habits. To do this, students can ask their friends to observe their behavior during social situations, such as hanging out or going out to eat. After the interaction, students can ask their friends for feedback on their behavior, specifically looking for instances of phubbing. This feedback can help students become more aware of their phubbing behavior and can motivate them to make changes to reduce it.

There are disagreements among researchers regarding the number of factors present in the Rosenberg Self-Esteem scale. While some researchers refer to it as two factors (positive worded items and negative worded items), other researchers refer to its unidimensional nature. Results have varied in the 53 or more nations that have used this measure (Martin-Albo et al., 2007; Schmitt & Allik, 2005). Some researchers even go as far as assessing global self-esteem with one item (Robins et al., 2001), finding it to have similar predictive validity to that of the Rosenberg Self-Esteem scale.

Aside from examining phubbing, the current study implemented the Rosenberg Self-Esteem scale with a new population to assess global self-esteem. Several items were removed due to low communalities as suggested by Child (2006) and Samuels (2016). The ratio of an item's unique variance to its shared variance is poor with low communality values, indicating that the item does not explain the construct sufficiently. Only one factor was retained since the other two items were insufficient to form a second factor due to it being less than three and having a low internal consistency. The retained items, which created one factor, was used to represent self-esteem with the selected sample.

According to Mruk's theory, a low sense of self-esteem can result in people becoming more susceptible to mental illnesses including addiction, anxiety, learning challenges, and despair (Mruk, 2006). Since previous research has found life satisfaction to mediate the relationship between self-esteem and social media addiction (Kocak et al., 2021), and a decline in self-esteem to be related to social media addiction (Budak et al., 2015; Andreassen et al., 2017; Hawi & Samaha, 2019; Köse & Dogan, 2019; Pawar & Shah, 2019), the current study asked whether it was possibly related to perception of addiction and how people perceived themselves. Self-esteem did not predict perceived social media addiction. However, it is important to note that there are researchers that did not find a significant relationship between Internet addiction and social media addiction and self-esteem (Ayas & Horzum, 2013; Berry et al., 2018). Therefore, more research needs to be conducted to determine if the reason behind a non-significant relationship in this study was due to it assessing perception or if there is a possibility that excessive social media use is not related to self-esteem in certain instances.

It is possible that self-esteem may be related to social media addiction or excessive use compared to perception of use. Individuals with low self-esteem may use social media as a way to cope with negative emotions and seek validation from others. This may lead to excessive social media use and addiction but may not be necessarily related to perception of addiction. Moreover, an examination of life satisfaction is important, since previous research has found life satisfaction to mediate the relationship between self-esteem and social media addiction (Kocak et al., 2021).

Students in the social sciences and engineering said they felt they were around 10% and 13% more addicted to social media than those in the sciences. Yet, it is significant to recognize the cultural disparities in this instance. In order to enroll in college in the US, students must take the SAT or ACT. Yet, in the Gulf nation where the data for the present study was gathered, students take a college admission exam, and depending on their scores, they are admitted to particular departments. Hence, students select their majors rather than a college.

With the highest scores, students can get into certain majors of the Sciences such as Medicine and Dentistry, followed by Engineering, and finally with the Social Sciences. Given the cultural significance placed on high test scores, students who get these scores are typically expected to enroll in particular science disciplines. Therefore, the pattern of the Social Sciences, Engineering, and Sciences incremental increase in self-perceived social media addiction is interesting. Different countries may get various results depending on the structure of their educational systems. For instance, in the United States, the area of study may not be a significant contributor to the model or may have a different type of contribution.

Conclusion and Future Research

This research is the first to simultaneously look at self-perceived social media addiction, self-esteem, phubbing frequency, and area of study. Asking people how they see themselves is crucial because, if they see themselves as addicted, it may change how they see themselves overall, influencing other areas in their life. Therefore, a more detailed study should be conducted on perception.

In addition, attributional style, which is how people explain their behavior or outcomes, can be examined the future (Tennen et al., 1987). Since attributional style has been associated with health risk behaviors and substance use (Burnett et al., 2013), it would be valuable to examine attributional style with regard to social media use. It is possible for individuals with different attributional styles to either attribute their excessive social media use to a lack of self-control or to leisure or personal interest. This attributional style may affect one's social media use and possibly perception of addiction. Thus, attributional style can be examined in the future.

Due to the different educational systems in other countries, future research should determine whether similar results would be reached in the United States or other countries with educational systems different from the Gulf country under study. The overall Middle Eastern culture, including that of the Gulf nation under study, encourages students who do well on the college admission exam to apply for the Sciences, such as medicine and dentistry. If they are incapable to enroll in the Sciences, students are encouraged to choose an engineering degree. The Social Sciences field therefore is the most easily attainable field of study when compared to the other two. The study's conclusions support this pattern. Those majoring in Social Sciences were more likely to believe they had a social media addiction than those majoring in the Science field. Future research may examine the direct relationship between college test performance and reported addiction.

The more often students engaged in phubbing, the more inclined they were to think of themselves as social media addicts, as seen in Table 5. Since areas of study predicted perceived social media addiction, which may be related to college admission exam scores, as explained above, it is important to examine whether college admission exam scores can predict phubbing frequency as well. Al-Saggaf and O'Donnell (2019) also discuss how the drive for instant gratification and multitasking, or doing numerous tasks at once, may contribute to the understanding of why individuals participate in phubbing. Therefore, future research must pinpoint both the factors that contribute to phubbing and those that predict it. According to David and Roberts (2017), future studies need to examine how phubbing can result in feelings of alienation from social situations, an increased need for attention, and eventually attachment to social media. It can also be intriguing to investigate whether phubbing has a strong association with being phubbed.

Future research should examine the frequency and duration of student logins to their social media accounts to determine its relationship with perception of addiction. The reasoning behind spending time on social media, e.g. whether it is for pleasure or for class/work, and its relationship with individual perception can further be examined. If increased usage of social media for class/work increases perception of addiction, it might explain why an increased perception does not result in lower self-esteem. Spending time on social media due to leisure purposes, its effect on perception, and its relationship with self-esteem can further be examined.

Overall, while the classification of internet and social media addiction as distinct disorders remains a topic of debate among experts, it is important for individuals who feel that their internet or social media use is causing significant distress or interference in their daily life to seek professional help.

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RESEARCH ARTICLE

Storytelling and Visual Designs in Collective Movements: The Case of GameStop 2021

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Abstract

Interactive media involve the process of evaluating information flows by users, following which a chain reaction is initiated among various perspectives on the relevant topic. Dominant views arise as a consequence of the process of memetic selection. These feedbacks gain a visual form through posters, "memes," and illustrations designed by anonymous users. These designs are critically important in maintaining and storytelling of a social movement. In this article, the function of visual designs in storytelling processes is discussed in the context of collective movements. In this context, a recent financial conflict, known in the literature as "The Case of GameStop 2021" which is a recent social movement, has been taken as sample. Study is based on the "case study research method" a type of qualitative research method. The data used was obtained from a social media group actively involved in individual investing and data providers in the investment sector. With this data, the correlation between the two variables was investigated. My findings suggest that these visual designs were utilized as a means of impact in the relevant financial struggle and successful results were achieved. It has also been found that these visual designs can form the main outlines of a collective storytelling process.

Keywords: *collective movement, memetic selection, storytelling, visual designs.*

Öz

Etkileşimli medyadaki bilgi akışları kullanıcılar tarafından değerlendirilmekte ve ilgili konuya dair çeşitli düşünceler arasında bir tepkime başlamaktadır. Böylece memetic bir seçilimin sonucunda "baskın görüşler" oluşmaktadır. Bu geri bildirimler anonim kullanıcıların tasarladığı poster, "meme" ve illüstrasyonlar sayesinde görsel biçim kazanmaktadır. Bu tasarımlar toplumsal bir hareketin sürdürülmesinde ve hikayeleştirilmesinde kritik öneme sahiptir. Bu makalede, görsel tasarımların hikayeleştirme süreçlerindeki işlevleri, kolektif hareketler bağlamında ele alınmıştır. Bu kapsamda yakın döneme ait toplumsal bir hareket olan ve literatüre "2021 GameStop Olayı" olarak geçen finansal bir mücadele, örneklem olarak ele alınmıştır. Çalışma nitel araştırma yöntemlerinden biri olan "vaka çalışması" yöntemi üzerine kuruludur. Kullanılan veriler, bireysel yatırımcılık alanında aktif olan bir sosyal medya grubundan ve yatırım sektöründeki veri sağlayıcılarından elde edilmiştir. Bu veriler sayesinde iki değişken arasındaki korelasyon araştırılmıştır. Bulgular, bu görsel tasarımların ilgili finansal mücadelede bir etki aracı olarak kullanıldığını ve başarılı sonuçlar elde edildiğini göstermektedir. Aynı zamanda bu görsel tasarımların kolektif bir hikayeleştirme sürecinin ana hatlarını oluşturabildiği tespit edilmiştir.

Anahtar Kelimeler: *kolektif hareket, memetik seçilim, hikayeleştirme, görsel tasarım.*

Introduction

The desire to experience an alternative reality in the face of a given reality – or "storytelling" – is not just a means of satisfying the desire for entertainment, but also has other functions. The storytelling method can be used, for example, as part of child education or as a motivation tool that makes an action easier and more enjoyable. Sometimes people may need to use storytelling as a psychological defense mechanism after a traumatic experience. Storytelling also has various social functions. Storytelling is one of the main factors in the creation and management of individual social psychology. Therefore, storytelling, as a necessity of political, commercial, or social concerns, is one of the most effective communication methods. When considering the power and influence of mobilizing and organizing human groups, it can be said that storytelling is part of human nature (Niekerk, 2020, p.2). This phenomenon, which also has a social counterpart on today's media platforms, indicates that storytelling or wanting to believe in a story can be an individual or a social need. In this context it can be said that storytelling is a necessary and inevitable result of social interaction. The source of this motivation arises from the need to narrate and define ourselves and others in fictional narratives (Nicolaisen, 1990, p.10).

Storytelling does not always mean going beyond reality. Sometimes storytelling may be needed to create a new reality. Social reactions that are triggered by a happening can develop into storytelling in order to revert or alter it. (Fairbairn, 2013, pp.4-7).

The collective consciousness obtained through stories is not only realized through textual or auditory means. Throughout history, various forms of art such as sculptures, paintings, and architectural works have also been used as a means of storytelling. Perhaps knowledge or emotions that cannot be expressed through pages of text can be conveyed in this way.

In the recent past, we know that visual designs were frequently used to create a common motivation. Examples of this can be seen in army posters during times of war or ideological propaganda posters. In these processes, visual designs create a collective expectation and mental schema for the audiences they target. The use of visual designs for collective purposes continues today. Nowadays, as information and emotion sharing takes place intensively on digital platforms, the role of visual designs in this context has become even more effective.

The aim of this study is to answer the following questions by analyzing a specific event:

How user reactions to various events and information flows on interactive media evolve into a collective storytelling process. What are the role and effects of visual designs within this context.

Method

Study is based on the “case study research method” a type of qualitative research method. The explanation for why the research method were selected for this study, as well as how they were determined, is as follows:

Case study, as a research method is used to increase our knowledge about individuals, groups, institutions, social and political phenomena. This method is used to analyze complex social phenomena, group behaviors, organizational and managerial processes. In short, the case study method allows researchers to identify the holistic and meaningful characteristics of real-life events (Yin, 2009, pp.2-4).

The financial struggle that constitutes the sample of the study occurred between a social media community and institutions. Therefore, this event can be considered a social phenomenon that took place through communication tools. For this reason, the case study method was used in the study. This way, collective user behaviors and the role of visual design in this context were analyzed.

While this analysis various data have been used to examine the correlation between the use of visual designs and financial results in the financial conflict process. It is generally accepted in the literature that correlations can explain or support causality in some cases, but it cannot be presented as a certainty (Pearl & Mackenzie, 2018, p.11). Therefore, the results obtained in this study have been expressed as a subjective judgment.

Sample

The sampling method used in this study is purposive (judgmental) sampling, which is a type of non-probability sampling method. The sample of this study is a financial conflict process known in the literature as “The Case of GameStop 2021” that emerged between an interactive platform Reddit-WallStreetBets (WSB) and a hedge fund called Melvin Capital. There are various reasons for choosing this case as sample while investigating the effects of visual designs on collective motivation:

Purposive sampling is commonly used in qualitative research, particularly in case studies, as it allows for the selection of a sample relevant to the research questions and objectives . (Şimşek, 2012, p.121). The reason for choosing this method in the study is that it allows for a limited case study to be conducted to investigate a specific issue (single instrumental case study). Another reason is that this method allows for the researcher's judgment to be taken into account.

In order to achieve collective consciousness and motivation in ideological, economic, social, and legal issues, there is a need for emotional and information sharing among individuals. Visual communication, one of the most effective types of communication, mostly takes place on social media today. The natural functioning of social media is very fast-paced and complex, which can render data obtained through traditional methods such as surveys and interviews insufficient. Billions of social media shares are made every day and most of these shares are instant and spontaneous. Additionally, these data contain personal information and have commercial value, which brings with it various access restrictions and ethical issues.

The Reddit WSB page, where anonymous users share their posts, is a platform that allows open access to the user statistics required in the study. By choosing this sample, possible problems in obtaining objective data have been overcome. Furthermore, for a process that requires collective motivation to emerge, there must be a field of struggle. The financial struggle that is the subject of the study fulfills this requirement and is therefore addressed. For both focusing on user behavior on a social media platform and on a financial struggle that caused a collective movement, "The Case of GameStop 2021" has been chosen as the example for this research.

The data used in this study was obtained from a Reddit WSB page actively involved in individual investing and various data providers in the investment sector. Using this data, the correlation between two variables was investigated, and the nature of this correlation was discussed. In this study, three types of data were used.

- The first type of data is visual designs created by anonymous users on the Reddit-WSB forum. These designs were selected from among those that had high social interaction, provided correlational data on the relevant financial process, and were suitable for evaluation in the memetic field.
- The second type of data used in the study consists of graphical charts. The charts, which show the movement of GameStop shares in January and February 2021, were obtained from the financial news and data provider The Wall Street Journal (WSJ-Markets). The graphs that show user statistics were obtained from WSB's own page.
- The third type of data is information showing the financial condition of Melvin Capital at the beginning and throughout the process. Articles in the financial press were used to obtain this data.

Theoretical Framework

Collective Participation in Storytelling

Stories have been shaped by cultural factors through the history. A culture formed by political, geographic, economic and religious influences and the diverse stories within this culture contain information about the historical journey of humanity. Through stories, communities have been able to bring together their present and future generations around common understandings. Storytelling is a functional method for the transmission of cultural information and its purpose within this context is to enable collective motivation-sensemaking. In terms of promoting social cohesion and organizing cooperation, storytelling serves a collective purpose (Bietti, Tilston & Bangerter, 2019, p.15).

Since ancient times, anonymous narratives (sagas, stories, legends, etc.) have enabled the journey of stories across cultures and throughout history. Although we have various information about the texts from the ancient period and their authors, it is mostly not possible to reach the original versions of these texts. There are long periods of time between the earliest records of these texts that we have and the dates they are thought to have been written. It is disputed whether the author of Aesop's fables was truly Aesop. As another example, the oldest record of the Odyssey by Homer is the Venetus A manuscript from the 10th century (Blackwell & Dué, 2009, p.1). Therefore, there is a possibility that anonymous narratives have impacted the earliest examples of storytelling.

In historical stories/myths, the "narrator and listener" are often the society itself. This two-directional structure changed after the 15th century. The invention of the printing press, the increase in the number of readers and authors, democratic movements, industrialization in the 18th century and the accompanying urbanization led to the emergence of a modern definition of authorship (Debita, 2017, pp.104-112). This modern form of authorship can be characterized by the individuality of the author's voice and their absolute control over their works. On the other hand, anonymous narratives became stripped of local narrative differences and have gradually converged into a single form. The rise of digital media and technology has greatly diversified the tools and methods for narrative production and consumption. As a result, new forms of storytelling have emerged (fanfiction culture can be given as an example in this context.), this process leading to a more complex relationship between the storyteller and the audience (Weissenfeld, Abramova & Krasnova, 2017, p.1-2). As a result, local story-telling and indigenous content production lost their influence.

Although mass communication technologies became widespread in the 20th century, media content remained author-oriented and non-interactive. During this period, book sales figures, film revenues and rating data related to the content produced provided some feedback to the content producers (authors, journalists, film studios, advertising companies, etc.). As a result, audiences also had a significant impact on media content (Moon, Bergey & Iacobucci, 2010, pp.108-113). One of the reasons is that producers found the opportunity to review and reshape their content based on these feedbacks, which had commercial value potential. However, in this information environment, the relevant audience was not engaged in the story-production process in the sense that it would be understood in the present day. In this process, narrators continued to play the role of one-directional content producers, while the audiences to whom the content was presented maintained a passive position.

Convergence Culture Period

Various media content is constantly being re-criticized, interpreted, re-produced or modified on various social platforms. This situation is known as "convergence culture", which redefines the relationship between content producer and consumer and represents a significant paradigm shift in communication design (Jenkins & Deuze, 2008, p.6).

Starting from the 2000s, the "narrator-audience" relationship has undergone a change in the process that shapes today's conditions. As a result of developments in communication technologies and media platforms, this relationship can be said to resemble anonymous authorship in the pre-15th century. In today's interactive media environment, it is becoming increasingly difficult for authors to control their own texts and define the boundary between the author and the reader (Cover, 2006, pp.139-140). Accordingly, stories are heavily influenced by anonymous information flow. For example, a novel in today's popular culture can be re-evaluated by readers in web-based "fanfiction" communities. As a result, contents can be reshaped in a collective form with alternative story writings. The authors of the produced content have the opportunity to re-evaluate their works in light of these new texts (Koning, 2015, p.26). This is enabled by the fact that the target audience can quickly assess the content flow and provide immediate feedback to the author.

The Role of Visual Designs in Collective Storytelling

Every new flow of information or a fictional story is reinterpreted collectively through contributions from various layers of society (fan communities, supporter groups, technology forums, etc.). In this interpretation phase, visual designs are frequently used to express objections, criticism, unconditional support, or a humorous comment. These designs are mostly "summary statements". Any information that concerns the audience is interpreted through collages called "memes", manipulated photos or drawings on social media and thus these comments are given a visual form. This method also makes it possible for the content to quickly spread among social media users through a humorous or dramatic description. As a result, visual designs have become a part of communication design as a means of conveying emotions and ideas (de Saint Laurent, Glăveanu & Literat, 2021, p.2). For example, circulating images provide valuable feedback for understanding how a newly released film is received by fans or how a socio-economic development is received by society. Thanks to these feedbacks, providers of information flow also have the opportunity to rethink and, if necessary, redesign their communication.

Visual designs are usually created by anonymous social media users. Visuals that are adopted by the relevant communities are used to create a common language after going through a memetic selection process. Just as genes that adapt to environmental factors have an advantage in selection, socioculturally appropriate memes spread successfully while others disappear (Chielens & Heylighen, 2005, pp.14-15). This selection is mostly based on likes, comments, and sharing statistics. The feedback that is the result of various information flows is often conveyed in a sarcastic-ironic way through visual designs. For a thought or information sharing to create high levels of reactions, the sharing must have emotional stimulating features and be easily understandable. The extent to which a visual design will be adopted by an audience depends on the ease with which it can be transported, copied or modified. Another feature that provides this advantage is that the visual content is present in popular culture. Popular contents can be designed through a film frame, a photograph from real life or fictional characters.

Findings

Case Study - GameStop 2021

GameStop, established in 1984 in Grapevine/Texas, is a retail company that sells video games and collectible items and is still in operation today. By early 2020, the company was under financial stress, but the emergence of the Covid-19 pandemic added further pressure. In the following period, the company's stock (GME - U.S.:NYSE) prices continued to decline. Some investment funds made pessimistic forecasts about the company's future during this process.

One of the main investment funds was Melvin Capital which primarily invested in shares of technology and consumer companies. Melvin Capital had approximately 12 billion USD in assets at the beginning of 2021. These funds initiated "short selling" for the company's shares (Vasileiou, Bartzou & Tzanakis, 2021, p.1). They borrowed a share as collateral, sold it on the open market, and then bought it back at a lower price and returned it within the contract deadline. The goal was to reduce stock prices through selling pressure and to profit from the difference between the two transactions (Fox, Glosten & Rauterberg, 2019, p.241).

As a result of this initiative by the funds, the decline in GameStop shares accelerated. In response to this event, users on the Reddit social media platform created a financial reaction movement. The center of this movement is a Reddit page called "Wallstreetbets" where small investors gather. Since it was opened in 2012, this page has approximately 14 million users and the number of daily posts exceeds 3700. In January

2021, individual investors began to invest in GameStop shares under the leadership of an anonymous user. This resulted in a situation in which high-budget funds and small investors were pitted against each other (Hasso, Müller, Pelster & Warkulat, 2022, pp.3-4).

Due to the collective action of small investors, hedge funds' positions were put at risk. This was because the funds were required to buy back the stocks they shorted at the market price within the contract period. The rising stock price and the approaching contract date meant an increasing risk for the funds. In such a situation, there were two options for the funds. The first option was to increase short sales transactions, thereby forcing the counterparty to cut losses by lowering the stock price. The second option was to initiate a buyback of the necessary shares. Choosing the second option could lead to a price increase which could drive other short sellers into panic, resulting in an acceleration of the price increase. These factors created a "short squeeze" situation (Loewenstein, 2022, p.1).

On the other hand, the issue was exacerbated by the difficulty of continuously conducting the conflict against the funds. As stock prices rose, some WSB investors could have chosen to cash in their profits. If this scenario had materialized, it could have caused a selling panic among WSB users.

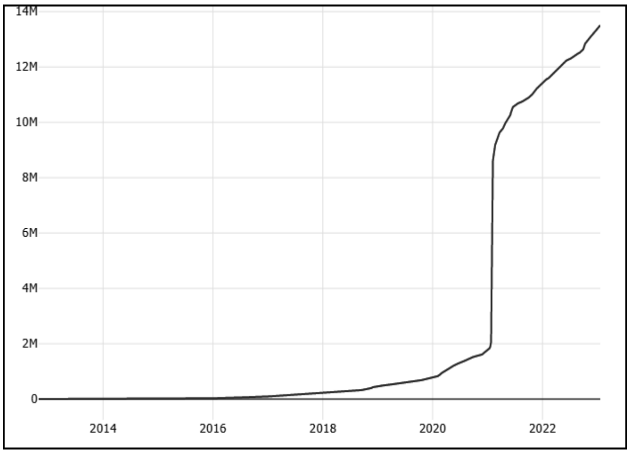

Image 1. WSB - Subscribers by Year (Source: https://www.subredditstats.com/r/wallstreetbets)

This situation could put the positions of WSB users at risk by strengthening the positions of those who have shorted the stock. In order to continue this collective movement with determination, WSB investors needed to continuously reinforce their common position. A heavy visual and textual posting of content started to preserve and strengthen the shared perception. This movement dramatically increased the visibility, activity and user count of the WSB platform in just a few days.

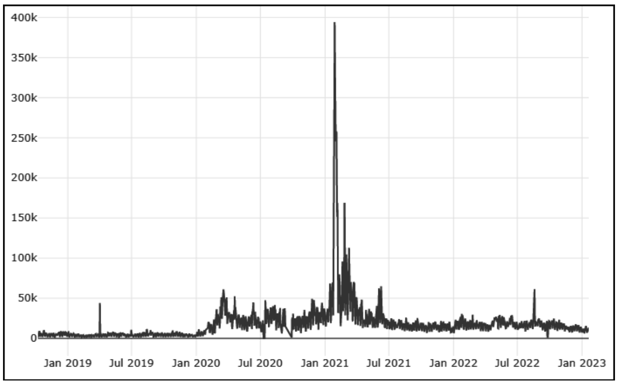

Image 2. WSB - Comments per Day(Source: https://www.subredditstats.com/r/wallstreetbets)

A short squeeze is not a common occurrence in professionally managed funds. This situation quickly caught the attention of the financial media. Various media channels claimed that these user transactions were a market manipulation. The popular media became involved in the situation after Elon Musk's tweet on January 26 (Bursztynsky, 2021). On January 27, the stock price reached its first peak. After January 27, sales transactions regained dominance and by the end of the month, it returned to the point where the WSB attack began.

After the decline in the stock price, WSB users who aimed to prevent sales transactions and motivate collective participation, launched a second wave of social sharing. Based on the all-time upvote ranking on the WSB page, posts with visual designs and content are the most popular. The following are some of the visual designs among the top 10 that received the most likes and interactions:

Image 3. GME (Source: www.wsj.com/market-data/quotes/GME/advanced-chart)

Image 4. "Hope" (Source: https://www.artic.edu/artworks/229396)

Image 5. "Hold" (Source: https://www.reddit.com/r/wallstreetbets/top/?t=all)

Image 6. Billboards (Source: https://www.reddit.com/r/wallstreetbets/top/?t=all)

Image 7. Memes (Source: https://www.reddit.com/r/wallstreetbets/top/?t=all)

When the sharing statistics of these visual designs on the WSB page, user statistics, and GME graphic data are examined, a correlation can be observed between the movements on the stock chart and the sharing data of the visual designs. As a result of the success of the WSB movement, the collective movement of users broke the selling pressure, forcing short sellers to close their positions at a loss.

Melvin Capital, which started 2021 with a value of over 12 billion USD, was one of them. This fund lost 53% of its assets within a month. At the end of this process, Citadel and Point72 companies withdrew their investments from Melvin Capital, and the management of Melvin Capital decided to close the fund (Goldstein & Kelly, 2022). It reached a point where investment professionals expressed concern that the entire financial system was on the verge of collapse (Betzer & Harries, 2022, pp.6-7).

Discussion

The users of WSB (WallStreetBets) achieved and maintained their collective motivation in their financial struggle against hedge funds through visual designs. The most significant data that supports this view is the sharing statistics of the WSB page. Visual designs examined in this study demonstrate the influence of a collective movement created by users. The role played by the relevant visual designs in communication and interaction among users can be evaluated as follows:

The re-production of the "Hope" poster (see image 4), designed by Shepard Fairey for the 2008 USA presidential campaign of Barrack Obama, is one example that shows the impact of visual designs on collective storytelling. In the next image (see image 5), shared among Reddit users, the concept of leadership is identified with the Reddit user Keith Gill who was later identified as the initiator of the movement. Because the focus of the movement was that stocks should never be sold under any circumstances, the collective goal-oriented word "hold" is associated with "hope." In this new poster, the conceptual and emotional messages conveyed by the design called "Hope" have gained a different meaning in the context of a specific subject. On the date (Jan 31, 2021) that "Hold" was posted and received a high level of engagement, the first financial attack was repelled and the decline trend in Gamestop stock was reversed. The "Hold" design ranks 17th in the page's popularity rankings. It can be assumed that based on the correlation between these two data, visual designs may have strengthened collective participation motivation.

A second source of motivation was the work undertaken outside the WSB site in the competition against investment funds. These designs which use outdoor exhibition areas (see image 6), received a high level of positive reaction from users.

Throughout the process, investment professionals in the media warned that this movement created a financial risk and that small investors may experience significant financial losses. The response to these statements were conveyed through "meme" designs that reflect popular culture content. For example, in a design that references the fictional character Walter White's line "I'm not in danger, I am the danger" from the TV series Breaking Bad (see image 7), it is asserted that investment funds are the ones actually in danger. Thus, the collective movement in WSB was identified with the personality traits of the Walter White character.

In another example of a meme design (see image 7), the relationship between GameStop and WSB users is identified with the relationship between the "Teenage Mutant Ninja Turtles" characters. This indicates that the collective movement is not solely profit-driven. This design revealed that users associated GameStop with their childhoods and wished to maintain its value based on their feelings towards it.

Conclusion

The collective movement against the pricing of GameStop shares was more than just a financial struggle for WSB users. This movement represented a collective message by small investors that even institutions with a large financial base can lose. This collective motivation, which is both strategic and emotional, needed to remain dynamic. Visual designs were used as a means of transferring information and emotion, which helped provide the required motivation. WSB users, who wanted to convey striking, humorous, and memorable messages, used popular media content for this purpose. These contents and intended messages were conveyed through visual designs in the form of illustrations, memes, and posters. Designs that received the most user comments and likes became more visible on the WSB page. As a result of memetic selection, designs that best fit into the user's world of thought became representative of this collective movement. WSB users were able to turn this process into a "story" that could leave an impression on financial literature. Utilizing their collective awareness, users created their own story, which they conveyed through highly effective visual designs. This movement is significant not only for its impact on the GameStop share price but also for its potential to change the way financial markets operate in the future. "The Case of GameStop 2021" can be considered a pioneering phenomenon that reveals the potential strategy and commnication problems that institutional structures can face against potential collective demands in various fields such as politics, art, and sports.

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RESEARCH ARTICLE

Investigation of Relationship between Self-Compassion, Extrinsic Motivation, Intrinsic Motivation and Performance: A Research in the Textile Sector

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Abstract

The concept of self-compassion is seen as a part of positive psychology and has recently become a current topic in the organizational behavior literature. Self-compassion is an individual's positive, loving and accepting attitude towards oneself. Self-compassion levels of employees in organizations can positively affect their intrinsic motivation and performance regarding their work. It is also predicted that it regulates the relationship between self-compassion, extrinsic motivation and intrinsic motivation. The aim of this study is to examine the relationships and interactions between self-compassion, extrinsic motivation, intrinsic motivation, and performance variables. The interactions between the variables are handled within the scope of the moderating and mediating model. Quantitative research method was used in the research. Data were obtained using the questionnaire technique. Due to accessibility, time and cost constraints, the participants were reached with the convenience sampling method. The sample of the research consists of the employees in the textile businesses in Kahramanmaraş and data were collected from 393 participants. SPSS 25.0 and Process Macro programs were used in the analysis of the data. As a result of the research, it was seen that there were positive relations between the variables. With the analysis made to test the established models, it was determined that self-compassion had a moderator role between extrinsic motivation and intrinsic motivation. With this, it was found that intrinsic motivation had a partial mediating role in the effect of self-compassion on performance. The findings were discussed in the context of the literature and suggestions were made for future studies.

Keywords: *Self-compassion, Extrinsic Motivation, Intrinsic Motivation, Performance.*

Öz

Öz-şefkat kavramı pozitif psikolojinin bir parçası olarak görülmekte olup son zamanlarda örgütsel davranış alan yazınında güncel bir konu haline gelmiştir. Öz-şefkat, bireyin kendine karşı olumlu, sevgi dolu ve kabullenici tutumudur. Örgütlerde çalışanların öz-şefkat düzeyleri çalışanların yaptığı işe ilişkin içsel motivasyonlarını ve performanslarını olumlu yönde etkileyebilecektir. Öz-şefkatin dışsal motivasyon ve içsel motivasyon ilişkisinde düzenleyici bir etkisi olabileceği de beklenmektedir. Bu çalışmanın amacı, öz-şefkat, dışsal motivasyon, içsel motivasyon, performans değişkenleri arasındaki ilişkilerin ve etkileşimlerin incelenmesidir. Değişkenler arasındaki etkileşimler düzenleyicilik ve aracılık modeli kapsamında ele alınmıştır. Araştırmada nicel araştırma yöntemi kullanılmıştır. Anket tekniği kullanılarak veriler elde edilmiştir. Ulaşılabilirlik, zaman, maliyet kısıtları nedeniyle kolayda örneklem yöntemiyle katılımcılara ulaşılmıştır. Araştırmanın örneklemini Kahramanmaraş ilindeki tekstil işletmelerinde çalışanlar oluşturmakta olup 393 katılımcıdan veriler toplanmıştır. Verilerin analizinde SPSS 25.0 ve Process Macro programları kullanılmıştır. Araştırma sonucunda değişkenler arasında pozitif yönlü ilişkiler olduğu görülmüştür. Kurulan modelleri test etmek için yapılan analiz ile öz-şefkatin dışsal motivasyon ile içsel motivasyon arasında moderatör bir role sahip olduğu belirlenmiştir. Bununla birlikte öz-şefkatin performans üzerindeki etkisinde içsel motivasyonun kısmi aracılık rolüne sahip olduğu bulunmuştur. Ulaşılan bulgular yazın bağlamında tartışılmış ve yapılacak çalışmalar için önerilerde bulunulmuştur

Anahtar Kelimeler: *Öz-şefkat*, *Dışsal Motivasyon, İçsel Motivasyon, Performans*

Introduction

Self-compassion, which is seen as a positive resource and superiority of the individual, has been discussed for centuries in Eastern philosophy, especially in Buddhism, and has gained an important place in the psychology literature with recent studies (Neff, 2003a; 2003b). In addition, the positive value of self-compassion is also seen in business life and becomes a subject of study in the field of organizational behavior. Compassion is expressed as an interpersonal process that includes noticing, feeling, making sense of, and taking action to relieve the pain of another (Dutton et al., 2014). Gilbert (2010) argues that compassion regulates negative affect, is an evolved motivation system, and expresses it in evolutionary terms (Strauss et al., 2016).

Compassion can become true to oneself when suffering occurs through no fault of one's own, when it is very difficult to endure the external circumstances of life. Self-compassion is equally important when it comes to suffering from our own mistakes, failures, or personal inadequacies (Neff, 2011). Increasing one's self-compassion level will contribute to the regulation of one's own emotions, thereby increasing internal motivation. Studies show that there is a relationship between extrinsic and intrinsic motivation (Neshat & Fakhri, 2011) and that extrinsic motivating factors such as rewards increase intrinsic motivation (Eisenberger & Shanock, 2003). Extrinsic motivation and intrinsic motivation are related to each other, and employees can be motivated internally as well as extrinsically. Extrinsic motivators can increase employees' intrinsic motivation (Aslan & Doğan, 2020). Self-compassion (Neff, 2003a; Neff, 2003b), which expresses that a person behaves with compassion to himself instead of blaming himself, can play a moderating role by affecting the strength of the relationship between extrinsic motivation and intrinsic motivation. The relationship between self-compassion and employee performance will also show a mediating role in intrinsic motivation.

In this study, the relationship between extrinsic motivation and intrinsic motivation was discussed and the moderating role of self-compassion was discussed. In addition, the mediating role of intrinsic motivation in the relationship between self-compassion and performance was examined. In this direction, it is aimed to reveal the relationships and interaction between the variables discussed.

Conceptual Framework

Self-Compassion

Self-compassion, which is included in the scope of positive psychology, is to accept one's own pain, to alleviate it, to be kind to oneself, to have a desire to heal oneself, to be understanding, not critical of inadequacies and failures, and to see all these negativities as a human experience (Neff, 2003a). The concept of self-compassion has three basic dimensions in its structure. While self-kindness, common humanity, mindfullness express the positive side of the concept of self-compassion, on the other hand, self-criticism, isolation and over-identification express the negative side. It is expressed in three basic dimensions that positive behaviors against negative behaviors are exhibited. (Neff, 2003a; Neff, 2003b; Neff, 2016).

Self-kindness versus self-criticism. This dimension requires kindness, support and understanding towards oneself. Rather than criticizing oneself harshly for one's shortcomings, it requires warmth and unconditional acceptance of the self as well as actively calming and comforting oneself in times of distress. (Neff, 2016). Stopping self-criticism and being angry will allow one to be kind and courteous enough to oneself.

Common humanity versus isolation. People suffer more and can be isolated when they temporarily forget that failure and imperfection are part of the shared human experience (Neff & Vonk, 2009, p.26). When the person realizes that his failures, mistakes and inadequacies can happen to all other people, he will suffer less, and he will not feel isolated from other people.

Mindfullness versus over-identification. Handling one's own experiences with an objective and analytical point of view shows the mindfullness and prevents the person from getting caught up in his own story, that is, over-identification. Overidentification indicates that people tend to exaggerate and obsessively focus on negative thoughts and feelings about themselves, and not see themselves or their plight (Neff, 2011). Mindfullness enables the person to have a balanced perspective without being caught in negative feelings and thoughts against their failures (Neff & Vonk, 2009).

Extrinsic Motivation and Intrinsic Motivation

While the individual can be extrinsically or intrinsically motivated, he can also experience amotivation. Extrinsic motivation refers to performing the behavior not internally, but for an outcome, such as receiving a reward or avoiding punishment (Deci et al. 1991; Deci & Ryan, 2000). Intrinsic motivation is the motivation that results from the individual's finding the activities interesting and enjoyable rather than external rewards or results (Ryan & Deci, 2000).

In Herzberg's study of the motivation sources of employees in the 1950s and 1960s, the factors that satisfy and motivate employees at work and the factors that do not satisfy them were revealed. According to Herzberg's two-factor approach, success, perception, ownership, responsibility, and advancement reduction are represented as motivating factors, while policy and leadership, supervision, interpersonal relations, working conditions, salary, government, and safety are represented as hygiene factors. While motivating factors provided satisfaction, hygiene factors did not provide satisfaction, but also prevented dissatisfaction (Herzberg, 1968).

Performance

The concept of performance includes both behaviors and results and expresses the level of performance and behavior according to the conditions (Bingöl, 2019). Task performance and contextual performance are addressed in two dimensions at the organizational level (Van Scotter & Motowidlo, 1996; Borman & Motowidlo, 1993).

Task performance is defined as the activity of an employee who performs activities that contribute to the technical core of an organization, directly implements part of a technical process, or indirectly provides a required material or service (Borman & Motowidlo, 1997; Van Scotter and Motowidlo, 1996). It is seen that the work done is related to the technical specialist aspects (Van Scotter et al., 2000).

Contextual performance is a dimension of performance that includes psychological conditions such as volunteering, optional activities, participation, motivation. (Van Scotter & Motowidlo, 1996). This is the performance dimension that acts as an important catalyst for task performance and includes behaviors that support organizational, social and psychological contexts rather than being directly related to task performance (Bowman, 2004).

Relationship Between Self-compassion, Extrinsic Motivation, Intrinsic Motivation, and Performance

It is stated that external rewards (money, etc.) will create extrinsic motivation, and the achievement of a job will create intrinsic motivation (Deci, 1971, 1972). Extrinsic motivation factors (money, reward, status, etc.) may affect a person's intrinsic motivation in certain situations. Deci et al. (1991) mentioned that controlled motivation can turn into autonomous motivation in self-determination theory and stated that external causes can be internalized through internalization and integration processes. The three components of Vroom's Expectancy Theory were expectation, instrumentality, and value. Expectation refers to the perceived probability that an individual who puts in a certain amount of effort will lead to performance. Expectancy theory attributed the tendency to exhibit a particular behavior to the attractiveness of the consequences of the behavior and to the strength of the expectations about the results (Robbins & Judge, 2015). From this point of view, when the personal goals of the external motivating factors (such as reward, money, wage increase) were satisfactory, the intrinsic motivation of the employees would increase. It was stated that some of the employees might be more extrinsically motivated and some might be more intrinsically motivated. The conditions of the employees and the organizations they work in could also affect their motivation externally or internally (Aslan & Doğan,2020). It was stated in studies that extrinsic motivating factors could increase intrinsic motivation. Eisenberger & Shanock (2003) also stated in their study that rewards for performance increase intrinsic motivation and creativity. Neshat and Fakhri (2011) found in their study that there is a high degree of correlation between intrinsic motivation and extrinsic motivation. Liu (2020) found that extrinsic motivation has a positive direct effect on intrinsic motivation, social self-efficacy, and intention to engage. It was possible that extrinsic motivation could turn into intrinsic motivation over time. (Ommering & Dekker, 2017).

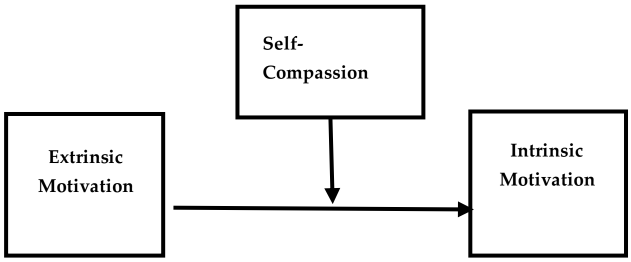
In fact, self-compassion is an important source of motivation stemming from attention. It is not because of fear of inadequacy, but because one wishes for one's own well-being (Neff, 2023). Research has shown that the concept of self-compassion is positively related to intrinsic motivation (Neff et al., 2005) and has a positive impact on personal growth motivation (Dundas et al., 2017; Breines & Chen 2012). These studies show that self-compassion increases intrinsic motivation. Jennings et al. (2022), based on Integrated Self-Control Theory (ISCT) and Self-Compassion Theory, it is stated that employees will exhibit higher job performance and well-being through enhanced resource capacity and motivation on days when they have a self-compassion mindset. Additionally, research has shown that self-compassion positively impacts performance (Barnard & Curry, 2011; Killham et al., 2018; Egan et al., 2022). A study conducted by Polatcı & Baygın (2022) found that self-compassion had a positive impact on task performance and psychological capital and found that psychological capital plays an intermediary role. Künye & Aydıntan (2020) revealed that there is a positive relationship between self-compassion and intrinsic motivation, and intrinsic motivation and job satisfaction, self-compassion and job satisfaction. In addition, it was determined that intrinsic motivation has a full mediation effect on the effect of self-compassion on job satisfaction. Kotera et al. (2021), in his study on graduate students, self-criticism and self-compassion had a moderating effect on the path from extrinsic motivation to intrinsic motivation, while higher self-criticism weakened it, while higher self-compassion strengthened it. The findings reveal the importance of dedication in developing students' intrinsic motivation. Moreover, it is stated that increasing self-compassion and reducing self-criticism can help transfer extrinsic motivation to intrinsic motivation. In the study of Ortiz et al. 2023, it is stated that self-compassion leads people to personal development, makes people more aware of their emotions and enables them to handle failures in a more balanced way.

Method of the Research

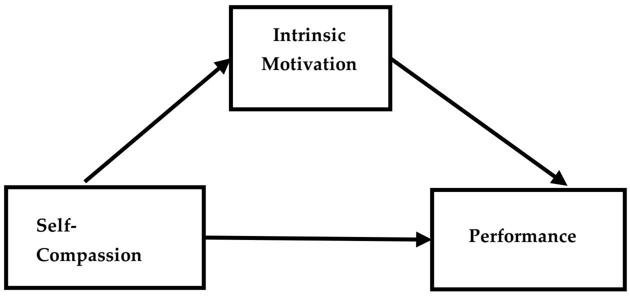
Quantitative research method was used in the research. The data were obtained with the questionnaire form distributed to the participants working in the textile enterprises in Kahramanmaraş province, which was determined by the convenience sampling method. The analyzes applied to the data obtained in line with the research model were evaluated. Ethics committee approval was obtained from Kahramanmaraş Sütçü İmam University Social and Human Sciences Ethics Committee (Number: E-72321963-300-183118 and Date: 21.12.2022) before the surveys were applied in the study.

Research Model and Hypotheses

The research's model and hypotheses were constructed in accordance with the literature review.



Model 1.



Model 2.

In line with this information, the hypotheses of the research were determined as follows:

H1: Extrinsic motivation positively affects self-compassion, intrinsic motivation and performance.
H2: Self-compassion has a moderating role in the effect of extrinsic motivation on intrinsic motivation.
H3: Self-compassion positively affects intrinsic motivation and performance.
H4: Intrinsic motivation positively affects performance.
H5: Intrinsic motivation has a mediating role in the effect of self-compassion on performance.

Sample of the Research

The sample of the research consists of the employees in the textile enterprises of Kahramanmaraş province. Employees of Kahramanmaraş textile enterprises were reached with the convenience sampling method. Based on volunteerism, 417 employees were reached with the questionnaire form. Questionnaires with lack of data and distorting data values were removed and 393 questionnaires were evaluated for analysis. It is stated by Hair et al. (2010) that the sample size should be at least 5 times the total number of items in the measurement tool (Hair et al 2010, as cited in Kilis &Yıldırım,2018). Therefore, considering the total number of items in the scales, it is seen that the number of samples is sufficient. When the demographic characteristics of the participants participating in the research were examined, it was seen that 29.4% of the participants were female and 70.6% were male. It was determined that 28.8% of the participants were single and 71.2% were married. It was determined that 27% of the participants were between the ages of 30-35, 41.5% of the participants were high school graduates, 26.2% of the participants worked at their current workplace between 1-5 years and the total working period of 19.3% of the participants was between 11-15 years.

Data Collection Tools

There were questions about demographic characteristics in the first part of the questionnaire, which was used as the data collection tool of the study. In the second part of the questionnaire, there were scales for the variables in the research model.

Self-Compassion Scale: The Self-Compassion Scale developed by Neff (2003b) was used in this study to measure the self-compassion levels of the participants. Turkish validation studies were performed by Akın et al (2007) and Deniz et al (2008). The version of the scale presented by Kantaş (2013) was used. The scale consisted of 26 expressions and 6 dimensions. These dimensions were self-kindness, common humanity, mindfulness, self-judgment, isolation and over-identification. The dimensions of self-judgment, isolation, and over-identification were reverse expressions, and a total of 13 expressions were analyzed by reverse coding. The scale was rated as a 5-point Likert (5-Almost always, 1-Almost never). The cronbach alpha reliability coefficient of the self-compassion scale was calculated as α=0.74.

Extrinsic Motivation Scale: In order to measure the extrinsic motivation of the participants in the study, Dündar et al. (2007), a 15- expression extrinsic motivation scale in the motivation scale was used. Scale Mottaz (1985), Brislin et al. (2005) was developed by making use of the scales used by Mahaney & Lederer (2006) in their studies, and although the scale is a 3-point likert, it was graded as 5-point likert (5-Very Effective, 1- Not Effective) for the purpose of the study. As a result of the reliability analysis performed and cronbach alpha reliability coefficient of the Extrinsic Motivation Scale was determined as α=0.92.

Intrinsic Motivation Scale: In order to measure the intrinsic motivation of the participants in the study, Mottaz (1985), Brislin et al. (2005), by using the scales used by Mahaney & Lederer (2006) in their studies, Dundar et al. (2007), the intrinsic motivation scale consisting of 9 expression in the motivation scale was used. Although the scale is a 3-point Likert scale, it was graded in a 5-point Likert style (5-Very Effective, 1- Not Effective) in line with the purpose of the study. As a result of the reliability analysis performed and cronbach alpha reliability coefficient of the Intrinsic Motivation Scale was determined as α=0.79.

Table 1. Normality analyzes of variables

Scales	Skewness	Kurtosis	Situation
Self-Compassion Scale	-0.038	0.879	Normal
Extrinsic Motivation Scale	-0.670	1.021	Normal
Intrinsic Motivation Scale	-0.250	-0.789	Normal
Performance Scale	-1.043	1.042	Normal

Performance Scale: A 25- expressions performance scale developed by Goodman & Svyantek (1999:261) was used to measure the performance of the participants in the study. The first 16 expressions in the scale measured contextual performance, while the other 9 expressions measured task performance. The scale was graded in a 5-point Likert style (5- Strongly Agree, 1- Strongly Disagree). The fourth, eighth and tenth items of the scale were reverse coded while being included in the analysis because of the reverse expressions. The cronbach alpha reliability coefficient of the performance scale was calculated as α=0.75 for contextual performance, α=0.85 for task performance, and α= 0.87 for the total scale.

Findings

SPSS 25.0 and AMOS programs were used for analysis in the research. A reliability analysis was performed to confirm the reliability of the determined scales. CFA (Confirmatory Factor Analysis) was used for validity study. In line with the established models, the moderating effect and mediating role were analyzed with Process Macro.

In order to apply the structural equation model, first of all, the multivariate normal distribution of the obtained data was examined. In this context, Mahalanobis distance values and multivariate extreme values were examined. The Mahalanobis criterion should be used to detect outliers in large-volume and multivariate datasets with near-zero or negative values (Johnson & Wichern, 2002). The reason for checking data for outliers before testing statistics is because it both increases the value of error variance and changes the power of statistical tests. In this sense, the existence of an outlier was checked with the Mahalanobis method. The fact that the skewness and kurtosis values of each scale were between ±3 showed that the data were normally distributed (Shao, 2002). With this result, the validity of the scales was tested by applying confirmatory factor analysis.

With the confirmatory factor analysis of the self-compassion scale, 6 expressions in the scale were excluded because their factor load was low (1st, 2nd, 9th, 11th, 15th, 20th expressions). There must be at least 3 or more expressions in one dimension of the scales (Maccallum et al, 1999). Therefore, 4 expressions in the scale were removed from the scale (3rd, 4th, 21st, 22nd expressions) since only 2 expressions were left in each dimension. Accordingly, the dimensions of isolation and overidentification were removed from the scale. Self-kindness (8th, 12th, 14th, 23rd expressions), self-judgement (6th, 10th, 16th, 17th, 26th expressions), common humanity (7th, 19th, 24th expressions) and mindfulness (5., 13., 18., 25., expressions) were found to be related to a total of 16 expressions and 4-dimensional scale structure. The model has been improved. By determining the variables that reduce the fit, new covariances were created for those with high covariance among the residual values. The values accepted for the fit indices in the renewed fit index calculations are given in Table 2.

was seen that the data had a normal distribution with skewness and kurtosis values between ±3.

Table 2. Goodness of fit values of confirmatory factor analysis

Scales	X^2/sd	RMSEA	GFI	AGFI	CFI	SRMR
Self-Compassion Scale	4.374	0.093	0.885	0.836	0.824	0.074
Extrinsic motivation Scale	4.706	0.097	0.896	0.847	0.917	0.057
Intrinsic Motivation Scale	4.427	0.093	0.949	0.904	0.917	0.054
Performance Scale	3.976	0.087	0.846	0.802	0.821	0.068
Acceptable Level of Goodness of Fit	≤5	≤0.10	≥0.80	≥0.80	≥0.80	≤0.10

When the correlations between the variables related to the extrinsic Motivation Scale were tested, the item factor load was found to be greater than 0.30 and all correlation relationships were found to be significant. The scale's reliability coefficient is 0.92 and is considered to have a good level of reliability. According to the results of confirmatory factor analysis, 1 expression was removed from the scale (5th expression) due to low factor loading, the remaining 14 expressions were determined to be related to the one-dimensional structure of the scale. The model has been improved. Table 2 shows that the accepted values for the adjusted indices in the calculation of the extended adjusted indices are appropriate. Confirmatory factor analysis was applied to the intrinsic motivation scale. 1 expression (3rd expression) of the scale was excluded from the scale due to its low factor load. It was determined that the remaining 8 expressions were compatible with the scale structure. The model was improved and it is shown in Table 2 that the accepted values for the fit indices were consistent in the fit index calculations, which was subsequently renewed.

According to the confirmatory factor analysis of the performance scale, 5 expression were excluded from the scale because the factor load was low (3rd, 4th, 8th, 13th, 15th). The remaining 20 expressions were determined to be related to the 2-dimensional scale structure (contextual and task performance). In this direction, the model has been improved and it is shown in Table 2 that the values accepted for the fit indices are provided in the renewed fit index calculations. The normality assumptions of the variables used in the study were examined and it

As seen in Table 3, the reliability coefficients of the scales with construct validity were determined as Cronbach Alpha α=0.73 for the self-compassion scale. For the Extrinsic motivation scale, α=0.73 was calculated. It was calculated as α=0.79 for the intrinsic motivation scale and α=0.87 for the performance scale.

Table 3. Reliability coefficients of scales

Scales	Cronbach Alfa (α)	Mean	Standard Deviation
Self-Compassion Scale	0.73	3.22	0.53
Extrinsic motivation Scale	0.92	4.03	0.66
Intrinsic Motivation Scale	0.79	3.32	0.93
Performance Scale	0.87	4.04	0.59

According to the data obtained from the study and the aims of the study, it was examined whether there was a relationship between the variables of extrinsic motivation, self-compassion, intrinsic motivation and performance. Relationships between variables were tested using Pearson correlation in the study and are shown in Table 4.

Table 4. Correlation coefficient values between variables

Variables		1	2	3	4
Self-compassion	r	1.000	0.450	0.176	0.276
	p	-	0.000*	0.000*	0.000*
Intrinsic motivation	r		1.000	0.311	0.376
	p		-	0.000*	0.000*
Extrinsic motivation	r			1.000	0.165
	p			-	0.001*
Performance	r				1.000
	p				-

Considering the level of relationship between the variables, it is seen that there is a statistically significant and positive relationship between self-compassion and intrinsic motivation (r=0.450, p<0.05).It is determined that there is a statistically significant and positive relationship between self-compassion and extrinsic motivation (r=0.176, p<0.005). It is understood that there is a statistically significant and positive relationship between self-compassion and performance (r=0.276, p<0.05).

The moderating role of self-compassion in the effect of extrinsic motivation on intrinsic motivation was investigated, and when Table 4 is examined, it is seen that the moderator role of self-compassion is significant in the effect of extrinsic motivation on intrinsic motivation (X*W = p<0.05). The disclosure rate of the model is 31.4% (R^2=0.314).

Table 5. The moderating role of self-compassion between extrinsic motivation and intrinsic motivation

Model	Moderating Role	Impact	β (Estimation)	Standard error	t	p	Status
Extrinsic motivation → Intrinsic Motivation	**Self-compassion**	Extrinsic motivation (X)	0.0971	0.0174	5.5862	**0.0000***	Accepted
		Self Compassion (W)	0.2437	0.0259	9.4041	**0.0000***	Accepted
		Interaction (X*W)	-0.0089	0.0016	-4.6634	**0.0000***	Significant
		R^2=0.314					

*p<0.05

There is a statistically significant and positive correlation between intrinsic motivation and extrinsic motivation (r=0.311, p<0.005) and performance (r=0.376, p<0.05). There is a statistically significant and positive correlation between extrinsic motivation and performance (r=0.165, p<0.05).

The mediating role of intrinsic motivation in the relationship between self-compassion and performance variables was analyzed and presented in Table 6. Before testing the mediating role of the created model, it was examined whether the independent variable had an effect on the dependent variable.

Table 6. Results on the mediating role of intrinsic motivation in the relationship between self-compassion and performance

Impact	β (Estimation)	Standard error	t	p	Result
Self-Compassion → Performance	0.3735	0.0659	5.6716	**0.0000***	Accepted
Direct Impact	**β (Estimation)**	**Standard error**	**t**	**p**	**Result**
Self-Compassion → Intrinsic Motivation→Performance	0.1809	0.0706	2.5633	0.0107*	Accepted
Indirect Impact	**Estimation**		**Confidence Interval**		**Result**
Self-Compassion → Intrinsic Motivation→Performance	0.1926		(0.1154, 0.2780)		Significant
	R^2=0.155				

Consistent with the established model, the moderating role of self-compassion between extrinsic and intrinsic motivation was examined and presented in Table 5. The effects of the independent variable (X), moderator (W), and interaction (X*W), which is the model of the research, on the dependent variable (Y), which is the outcome variable, are given in Table 4. It is seen that this effect is significant (p<0.05).

At the end of this examination, it was seen that self-compassion had a statistically significant effect on performance (β=0.3735, p<0.05).

While the effect of the independent variable on the dependent variable was significant, it was examined whether it had a mediator role in this effect. Therefore, the fact that the values in the 95% confidence interval did not include 0 (0.1154, 0.2780) showed that the model had a mediating role in the model.

It was understood that there is a mediator role, and it was tested whether the direct effect was significant to decide what the mediator role was. As a result, it was seen that the direct effect was significant, but the effect coefficient decreased and there was partial mediation ($\beta=0.1809$, $p<0.05$). The disclosure rate of the model was found to be 15.5% ($R^2=0.155$). In line with all this information, all hypotheses of the research (H_1, H_2, H_3, H_4, and H_5) were accepted.

Conclusion

The data collected from 393 people working in the textile sector were analyzed in line with the model created in the research. As a result of the research, the validity of the measurement tools was tested. The reliability of the analysis was ensured. All hypotheses related to the research were supported. Self-compassion was determined to be important for motivation and performance. Relationships between extrinsic motivation, self-compassion, intrinsic motivation and performance were determined.

In this study, it was determined that extrinsic motivation positively affects self-compassion, intrinsic motivation and performance. It was observed in this study that self-compassion positively affects intrinsic motivation and performance, while intrinsic motivation affects performance positively. In addition, the relationship between extrinsic motivation and intrinsic motivation was also revealed to have a moderating role of self-compassion. The relationship between self-compassion and performance and the partial mediation effect of intrinsic motivation were also revealed. In this direction, it was seen that self-compassion is important and self-compassion has a moderating role in extrinsic motivation and intrinsic motivation. It has been determined that self-compassion positively affects performance and that intrinsic motivation partially mediating the effect of self-compassion on performance.The following results obtained show parallelism with some studies in the literature. The result that extrinsic motivation has a positive effect on intrinsic motivation is in line with the results of the studies of Eisenberger & Shanock (2003), Ommering & Dekker (2017) and Liu (2020). The conclusion that self-compassion positively affects intrinsic motivation coincides with the results of the studies of Neff et al. (2005), Künye and Aydıntan (2020). The result that self-compassion positively affects performance is consistent with the results of the studies of Neff and Knox (2017), Killham et al. (2018), and Jennings et al. (2022). The result that self-compassion has a moderating role in the relationship between extrinsic motivation and intrinsic motivation is in line with the results of the study of Kotera et al. (2021).

The value of employees' personal resources is increasingly recognized. One of these resources is self-compassion and it has an important role on different variables. Creating environments and situations that will increase employees' self-compassion levels will increase both their motivation and performance.

The fact that the research was carried out in textile enterprises in Kahramanmaraş province and was carried out only in a single province and in the textile sector is among the limitations of the research. Another limitation of the research is that it was carried out only within a certain period of time, taking into account time and cost. On the other hand, the fact that the study in which these four variables were handled together has not been found in the national and international literature makes the research valuable. Studies conducted in larger sample groups, in which quantitative and qualitative research methods are used together, will enrich the literature and shed light on both researchers and practitioners.

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RESEARCH ARTICLE

The 'other' in the context of everyday life in Kaurismäki's Le Havre and The Other Side of Hope [1]

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Abstract

The cinema of Aki Kaurismäki has a special place in world cinema as the synergy of the oppressed and the rabble. Le Havre and The Other Side of Hope, which belong to the unfinished Harbor Town Trilogy of Aki Kaurismäki, are important films of the director on refugee others. Both films aimed to destroy the perception of immigration and the hate speech that Western societies develop by marginalizing ethnicity from a humanist focus. Kaurismäki's approach coincides with the theories of Michel de Certeau and Erving Goffman, based on the fact that social actors develop tactics in the face of powers. The local others, who stand in solidarity with the refugee others, are De Certeau's dishonest and unclear tacticians against authority. Moreover, these perpetrators find partners in crime within the strategy and use the system to their advantage. Kaurismäki has built a strong narrative, that escaping from power will make a humanistic world order possible, by applying all the tactics to his characters. As basic analysis methods; Lacanian psychoanalysis was used to examine the others of the cinema of Kaurismäki and the sociological criticism approach was used to analyze the actions of others in everyday life.

Keywords: *Aki Kaurismäki, 'the other', everyday life sociology, refugee films*

Öz

İskandinav Sineması'nın auteur kabul edilen yönetmeni Aki Kaurismäki'nin sineması ezilen, hor görülen ötekilerin sineması olarak dünya sinemasında kendine özel bir yer edinmiştir. Filmlerini genellikle üçlemeler olarak devam ettiren Aki Kaurismäki'nin henüz tamamlanmamış olan liman şehri üçlemesine ait, göçmen ötekiler üzerine çektiği önemli filmleri Umut Limanı ve Umudun Öteki Yüzü bu çalışma bağlamında incelenmiştir. Bu iki film, yakın dönemin en önemli insanlık trajedilerini de beraberinde getiren göçmenlik kavramı ve batılı toplumların etnisite üzerinden ötekileştirerek geliştirdikleri nefret söylemini hümanist bir odaktan yıkmayı hedeflemiştir. Kaurismäki'nin bu yaklaşımı Michel de Certeau ve Erving Goffman'ın güçlü iktidarlar karşısında toplumsal aktörlerin kaçış taktikleri geliştirmeleri üzerine kurdukları teoriler ile örtüşmektedir. Bu iki filmdeki göçmen ötekiler ve onlarla dayanışan yerel ötekiler, otoriteye karşı De Certeau'nun pek dürüst olmayan, arka kapıdan dolanan ve açık oynamayan taktikçileridir. Dahası bu taktikçi failler otoritenin yani stratejinin içinden suç ortakları bularak sistemi kendi lehlerine kullanırlar ve amaçlarına ulaşarak mutlu sonu hak ederler. Kaurismäki, sosyolog De Certeau'nun toplumsal aktörler için belirlediği tüm taktikleri kendi karakterlerine uygulatarak, iktidarlardan kaçmanın hümanist bir dünya düzenini mümkün kılacağına ilişkin güçlü söylemini sinemasal bir anlatı üzerinden kurmuştur. Kaurismäki sinemasının ötekilerini açıklarken Lacancı psikanaliz ve öteki karakterlerin gündelik hayat içerisindeki eylemlerini çözümlerken de sosyolojik film eleştiri metodu temel çözümleme yöntemleri olarak kullanılmıştır.

Anahtar Kelimeler: *Aki Kaurismäki, 'öteki', gündelik hayat sosyolojisi, göçmen filmleri*

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Introduction

The cinema of Aki Kaurismäki has a unique style that develops different narratives in the political wing of European cinema. Kaurismäki pivots his narrative around oppressed, excluded, and marginalized people. For him, it is an important mission to be the voice of others and bring back holistic European thinking, which is losing its spirit of humanism. In the context of this study, while searching for the lost humanism in his films *Le Havre* and *The Other Side of Hope*, which belong to the harbor town trilogy, he argues that in the absence of authority, people can still act and cooperate with this spirit. In Nestingen's interview (2013) with Kaurismäki, he genuinely criticizes the European Union's and Finland's "shameful" refugee policy (p.151). In another interview, the Finnish director summarizes what he is trying to do by saying "That's why I rushed this one out. I wanted everyone to see that refugees are human too. Cinema can influence a tiny bit. One penny makes a big river." (Gilbey, 2017). This study aims to examine the cinematic style of Kaurismäki which establishes a hope-based story universe apart from the cliches about refugee others told by his contemporaries and focuses on *others*. In this sense, the cinema of Kaurismäki prefers a narrative that leaves room for deep reflection without falling into the trap of sentimentalism about refugee others.

Everyday life is one of the areas where marginalization and the others in social life can be examined which is a set of repetitive and seemingly simple activities. The everyday life cycle includes ordinary actions such as what to wear, how to act, and how to talk in public places. Since classical sociology theories have a macro perspective, it can be said that the focus is on society rather than the individual. In other words, the structural codes which usually determine the actions of the actors, are emphasized rather than what individuals do in daily life (Esgin & Özben, 2020, pp.35-39). Sociology, which emerged from the need to understand modern societies, focused on the perpetrator and everyday life issues that are neglected, after proving itself by developing scientific methods. Georg Simmel, Henri Lefebvre, Pierre Bourdieu, Erving Goffman, and Michel de Certeau are the important philosophers who have studied everyday life sociology. Erving Goffman states that social behaviors are performances and social relations are portrayed just like a theater play (Goffman, 1959). Performers act momentarily for their benefit while they are performing. Similarly, Michel de Certeau states that ordinary people in society develop tactics to live with the dominant power's strategies (De Certeau, 2008). Considering the cinema of Kaurismäki, social actors who fulfill De Certeau's tactics have always been the protagonists of the narrative. For example, he narrates characters who are exploited both economically and socially. Unlike his contemporaries like Ken Loach or the Dardenne Brothers, he prefers a humorous plot rather than a heavy dramatic universe. The others in this trilogy are not the classical exploiters, but rather lower-class agents trying to defeat strategy. However, the consequences of the actions of the social actors in these films are far from escape tactics that predict a rational goal that De Certeau refers to. For this reason, main films such as the Proletariat trilogy and the loneliness-themed Finland trilogy were excluded from the study.

Unlike his contemporaries, Kaurismäki embellishes refugee stories with plenty of hope. Impossible to see a sentimentalist ending of melodrama in them. Both films have 'hope' in their names. He believes that Europe, surrounded by strict laws, has lost its humanism only with political ideologies. He shows that social actors can reverse their situation of being the other with the tactics they will develop against the strategy. As Bacon (2016) states, "He depicts another kind of Europeanness one characterized by the solidarity of ordinary people over national and ethnic boundaries" (p.190). It has also been noticed in the cinematic stories of the protagonists of the two films analyzed throughout this study that refugees do not compromise their journey to freedom and hope with their local accomplices. Humanity, solidarity, and hope have won anyway.

The Other of Lacan

Otherness is based on binary logic and according to this dialectic Western way of thinking, when the other is considered, it automatically means that there is the self. Working on the structure of the mind, Freud, who is the founder of psychoanalysis, identifies the self as *the ego*. According to Freud’s theory, the ego is the rational part of the mind that balances the id, which acts with primitive impulses, and the superego, which tries to accord with the social order (Rennison, 2001, p.39). Freud’s follower Lacan brings a different interpretation to basic psychoanalytic theory by making use of linguistics, sociology, and anthropology. Lacan states that the formation of the self is provided by the realization of the other, and as a result, the human evolves into a subject. He identifies personality formation as *the mirror stage* and mentions three orders in this period: symbolic order, imaginary order, and the real. In the mirror stage, the infant essences the real self and creates *the other* in the imaginary order. Infants don’t realize themselves as individuals until they see their reflection in the mirror. When they see the mirror, they don’t see themselves but an image of themselves and they consubstantiate with the image. (Türkoğlu, 2011, p.145). “The mirror stage shows that the ego is the product of (méconnaissance) and the site where the subject becomes alienated from himself.” (Evans, 2006, p.118). The subject defines its reality in the image it sees and becomes a whole with it. It is impossible to know or to reach *the real* so, the subject has to establish its fictional reality.

The subject belonging to the symbolic order is the subject of the unconscious produced by the ego, which is a part of the imaginary order (Evans, 2006, pp.197-198). While the other is the specular image and reflection of the ego in the imaginary order, Lacan uses another term, the big Other, to describe the otherness in the symbolic order. The big Other is the language, law, and order of the Father, which means the Father metaphorically rules the symbolic order. As Lacan stated, “It is in the Name of the Father that we must recognize the support of the symbolic function which, from the dawn of history, has identified his person with the figure” (Lacan 1977, p.67, as cited in Şen, 2021, p.24). The other is mostly used to define the other groups that are different from the dominant culture, in other words, *the other* definition is only accepted if it is made by the cultural power, cultural hegemony (Posos Devrani, 2017, p.930). Similar to the formation of the ego, group belonging can only exist with the other groups coming into existence. Immigrants, the working class, women, and children are common examples of other groups that are not in power in the symbolic order. This otherness is internalized by the subject almost without being aware of it because it is about the structure in which the subjects are (Abedkouhi, 2021, pp. 73-74). ‘Without being aware of it’ statement is the key to comprehending the big Other. As Levinas mentioned, the best way to encounter *the other* is not noticing what it looks like (Levinas, 1985, as cited in Ahmed, 2009, p.178).

When language comes into the life of a person who constructs themselves through the other they see in the mirror, they switch to the symbolic order and become a subject. The subject, who gives up their *jouissance* to adapt to the symbolic order, experiences a loss and a lack. They feel hate because they think this surplus pleasure, which was theirs before, has been stolen by the Other. This hatred is “the strategy that the subject resorts to in order not to take responsibility for his shortcomings” (Nacak, 2019). Nacak mentions that modern racism is formed with similar motivation and even if the hated groups disappear, the hatred will continue. The big Other, like the language, regulates social, political, and economic, even everyday life. Everyday life is a normal space where the ego and the other are encountered and the other is marginalized (Özensel, 2020). The concept of the other, which affects both individual and social behaviors, occupies an important place in everyday life studies.

Goffman and De Certeau in Everyday Life Sociology

Sociology, which emerged from the need to understand modern societies, focused on the perpetrator and everyday life issues that are neglected, after proving itself by developing scientific methods. After the industrial revolution western cities are focused on production (hence consumption), the everyday life adapted to the texture of modern cities, and the migration from rural to the needs of the city, cannot be explained as completely natural processes. The power also plays a major role in the formation of urban spaces, planning how social relations will take place in these spaces, and regulating which period of daily life will be spent where. George Herbert Mead from Chicago School, who is the author of the book titled *Mind, Self & Society*, is one of the first social psychologists to show that mind and memory are produced in a social process (Mead, 1972, p. XV). Influenced by Mead, Goffman develops a dramaturgical theory in which he explains the formation of the self by likening social relations to a theater stage (Goffman, 1959). Goffman, one of the contemporary representatives of the Chicago School, tried to express the ideological reality with his way of dealing with everyday life and with rhetorical expression. He has succeeded in reaching a wide audience because of his ability to keep the language simple while doing a scientific study. "Goffman's books were immediately seen as vital and contemporary and they filled a gap that was opening between everyday experience and sociological theory" (MacCannell 2000 [1983], p.13, as cited in Sahni, 2013, p.154). Although he fits the definition of a symbolic interactionist, Goffman has tried to distance his works from a traditional theoretical plane and stereotypes. He creates his concepts in an eclectic way and uses both linguistic ability and scientific knowledge together and gives very rare references in his works (Sahni, 2013, p.151). In his book called *The Presentation of Self in Everyday Life* (1959), Goffman mentions that the behaviors exhibited in social relations are roles and that the performers perform a play for their benefit to convince the audience (p.249). As both the audience and the performers believe in the play they are playing, the roles are now integrated with reality and the distinction between the two disappears. People in social life, which are actors, present themselves by applying certain tactics and methods while playing their roles (Goffman, 1959, p.15-16). According to this approach, the self is a consequence, not a cause, of an individual's social performance. The presentation of the self, which he explains with his social psychological approach, is discussed in detail within the scope of this study and used as one of the theories in the analysis of *other* characters in Aki Kaurismäki's films.

Discussing everyday life with modernity, Lefebvre, on the other hand, takes an approach from a Neo-Marxist perspective and emphasizes the importance of power both in urban spaces and everyday life. Lefebvre, who defines everyday life as repetitive and ordinary behaviors, relationships, and fields, mentions the changing conditions of social life with the industrial revolution. Everyday life cannot be dissociated from modern cities and "specifies how people's social existence is produced" (Lefebvre, 2007, p.34). The reproduction of social relations through urban spaces looms large in the works of Lefebvre. The importance of the concept of *reproduction* in Lefebvre's work comes from its assertion that social relations are not passive. Moreover, social relations are not inactive and reproduced in a complex structure. However, this production does not occur in the upper circle of society such as the state, science, and culture. Everyday life is a misery that is a field of duties and humiliations for the working class. In addition, it is macro because it contains continuity. Repetitive practices in everyday life are "adaptation of body, space and time, desire" (Lefebvre, 2007, p.47). This continuity is first shaped by style, then by the culture that includes ideology. In this sense, everyday life is a place where power and power relations are evaluated. In early studies about everyday life, which is an area of domination and resistance, there are no tactics that the weak can escape or use against strategic manipulation. Social behavior was defined either by cultural frame or by rules set by power. Michel de Certeau bridged this gap in theory by appealing to ordinary people who developed tactics against power strategies.

De Certeau, who used Lefebvre's works as the main source, examined everyday life through the daily activities of individuals such as walking, reading, and cooking. He mentions that individuals consume the dogmatic reality imposed by the power in everyday life and start a second production (De Certeau, 2008, p.23-24). He defines the regulations made by the power in everyday life and depending on a place as a *strategy*. Distinctly to Lefebvre, De Certeau emphasizes that ordinary people have a way of coping with these imposed regulations. Ordinary people are not passive members of society as they use *tactics* that are escape plans to develop depending on time, not space (De Certeau, 2008, pp. 54-55). Positioning his work to cover all everyday life practices, De Certeau states that Foucault's disciplinary procedures, Bourdieu's strategies, and tactics in general constitute the fields of operation that produce a theory. He criticizes that Foucault wrote the narratives and Bourdieu made the narratives pioneer of the system by including them in scientific discourse (De Certeau, 2008, p.168). He argues that Bourdieu's anthropological work as an outsider and an *observer* in Kabylia and Bearn can be fraught with misinterpretations while making more general sociological inferences. Bourdieu's concept of habitus conceals the tactics used by the weak. According to Bourdieu (1995), habitus is the likes, preferences, behaviors, and lifestyles that an individual internalizes through the group or class to which they belong (p.23). Habitus determines the way people practice, so it is a distinctive feature of social groups. When an agent acquires a habitus, they are produced as a subject. De Certeau, on the other hand, argues that the habitus in Bourdieu's theory is based on a higher determining position in the decision-making of the perpetrators and that the perpetrator's escape decisions are taken from their own hands and pacified. Schirato & Webb (1999) explains De Certeau's criticism of Bourdieu's habitus as follows:

"However, the logic of his theory of habitus and this last self-exemplification of that logic means that the overdetermining effect of Bourdieu's habitus renders the 'other' of that habitus, and any metalogic about habitus as a generalized, theoretical tool, invisible to him" (p.95).

From this point of view, the inference can be made that the personal decisions of the weak are as effective as habitus in behavioral choices. The *other* characters in Aki Kaurismäki's films make decisions outside of their social groups and they go beyond their habitus and implement tactics by making *impulsive* decisions as De Certeau mentioned in his theory.

Methodology

As a cultural representation tool, cinema produces social performances in terms of its relationship with the audience. Therefore, a film has a multi-layered structure beyond its aesthetic dimension. This layered structure reveals the meanings of the film. Film criticism also follows this multi-layered structure and makes films understandable with various methodologies. Since the films examined within the scope of this study focus on refugee stories and the psychology of the characters, sociological and psychoanalytic film criticisms were used as methods.

Kabadayı explains that in sociological film criticism, it is possible to question how the society described in films progresses together with the existing society, to reveal the hidden thoughts, by deciphering concepts such as reality, representation, allegory, rituals, tradition, cultural values, violence, everyday life, identities, social roles, and gender. Sociological film criticism helps to understand how these structures are constructed in films (Kabadayı, 2014, p.57). On the other hand, what determines the actions of the characters within social norms is not only cultural norms but also a result of the character's psychological processes. Although the processes that put the characters into action in films are determined by social norms, both the progressional and impulsive fixations that identify them necessitate a different examination. The instrument that best analyzes the psychology of character in the methodology of film criticism is psychoanalysis. While psychoanalytic film criticism was based on Freud's psychoanalytic theory, it has been very instructive in consideration of the concepts developed by his successors, especially Lacan. Film criticism based on psychoanalytic theory tries to find the expression of the unconscious or the traces of the expression of the collective unconscious (Özden, 2004, p.180). This method reviews the films like daydreams and tries to reveal the tacit content. Psychoanalytic film criticism is used as the most important tool to uncover the characters' tacit actions. In the context of this study, the films *Le Havre* and *The Other Side of Hope* are analyzed in light of the basic concepts of both sociological and psychoanalytic film criticism.

Findings

The conceptualization of 'the other' in Kaurismäki's Le Havre and The Other Side of Hope

In addition to the trilogies of the proletariat and Finland, Kaurismäki continues his filmography with the harbor town trilogy, which he developed on the theme of migration, one of the most basic sociological phenomena of recent years. Although Kaurismäki does not complete the harbor town trilogy, the first two films hang together and ensure continuity. Therefore, the two films are enough to produce meaning on immigration and otherness. *Le Havre*, the first film of the trilogy, is about a young African boy who tries to reunite with his mother who is in London but lands in the harbor city of Le Havre accidentally.

In this film, Marcel Marx is a shoe shiner who lives in a small port city with his partner, Arletty. One day during a night shift at the port, the security encounters African refugees inside one of the containers after he heard a baby crying. When the police open the container to arrest the refugees, a young boy Idrissa runs away. Marcel first comes across Idrissa at the harbor where he was hiding and doesn't denounce him. Meanwhile, Marcel's partner falls ill and hospitalizes. When Marcel returns home alone, he sees Idrissa sleeping in the pantry. Marcel decides to help him to go to his mother in London, while one of his neighbors calls the police and reports Idrissa. Knowing that Marcel is hiding Idrissa, Inspector Monet amicably warns him. Marcel finds Idrissa's grandfather in a refugee camp and takes his mother's address. Monet receives a harsh warning from his superiors to solve the case so, he increases the pressure on Marcel. Meanwhile, Marcel organizes a benefit concert to balance the smuggler's money for Idrissa. Inspector Monet visits Marcel's house and again warns him implicitly that he has to send the child as soon as possible. Police raid Marcel's house while his friends are carrying Idrissa out of the neighborhood secretly inside the greengrocer's wheelbarrow. After Marcel escapes from the police, he meets with Idrissa at the harbor to say goodbye. Before the boat moves, the police come but Monet sits on the cover where Idrisa is hiding and protects him from the police. Finally, Marcel's partner Arletty miraculously recovers from a hopeless illness after Idrissa departs.

The second film, *The Other Side of Hope*, focuses on the Syrian refugee story that determines the recent period politically and sociologically. This film is about the Syrian refugee Khaled who comes to Finland among coals on a ship and surrenders to the police to apply for asylum. During his stay at the refugee processing facility, the litigation process begins. He shares his escape story with the authorities that he lost his whole family after a bomb hit their house, except his sister Miriam. He traveled to Europe with Miriam until they lost each other at the Serbia-Hungary border, and now he wants to find her. Despite all the memories that Khaled told and the news about the ongoing bombings in Syria, the court decided to send him back. After the verdict, Khaled escapes and starts to live on the streets. Meanwhile, Wikström is separated from his partner and wants to change his job. He sells all the shirts that are left from his job and gambles to balance the money to go into the restaurant business. He takes over the restaurant called 'Golden Pint' with the existing employees and starts to try different ways to put his business in order. One day, when he goes to take out the garbage in the restaurant, he meets Khaled and after their fistfight, he takes him to the restaurant. Wikström arranges accommodation for Khaled, hires him, and helps him to have a fake id card. Khaled learns that his sister is in a refugee camp in Lithuania and wants to pick her up but Wikström doesn't let him. He easily finds someone to bring Miriam to Finland. Miriam tells Khaled that she doesn't want a fake id card and she will surrender. That night, a racist stabs Khaled and calls him a "*Jew*". Despite being injured, Khaled catches up with Miriam before she surrenders to the police and gives her some tactics for the interview. The film ends as Khaled sits under the tree by the sea, smokes, and smiles.

In these two films, Kaurismäki put refugee others and local others in the center of the narrative. The other characters in both films are the people who struggle to survive in a disadvantaged position in the social arena. The spirit of class solidarity is a general pattern in Kaurismäki's narration and is again reinforced in these films. This time he focuses on the low social classes' dreamy solidarity, including refugees.

What local others find or try to find in refugee others in Kaurismäki's characters coincides with Lacan's theory. The subject must integrate with the small other, as in the mirror stage, to reach itself, that is, it must add meaning to what is not itself (Tura, 2010, p.76). To be itself, it must renounce itself. The subject finds everything in the other, that does not belong to itself. It seeks its desires and shortcomings in the field of the other. But the signifiers of the other are as incomplete as his own. So, both are incomplete. While Westerners as the subject wait to complete themselves with the others they encounter, Kaurismäki again leaves the subject incomplete by making fictional tricks here. To realize these tricks, Kaurismäki goes beyond the stereotypes while characterizing the refugees.

The out-of-cliches refugee character Khaled is a presentable and educated person who speaks English very well. Again, Idrissa, the other of *Le Havre*, is a fairly well-educated non-stereotypical African refugee whose father is a professor. Both characters are objects that threaten *jouissance* for the subject, which Lacan turns Freud's pleasure principle into a broader study. For the subject, jouissance turns into something that they cannot reach but that the other reaches. This is one of the reasons for the hatred developed for the *other*. Nacak (2019) mentions that the subject thinks there is a pleasure only the other has. Hatred targets this surplus enjoyment that does not belong to the subject identified in the other. Racist or exclusionary narratives always assume added enjoyment in the other. These others are the people who exploit the achievements they deserve for the subject. Therefore, it is an unconscious strategy that the subject develops to cope with his deficiency, especially in these narratives based on ethnic discrimination. Whatever the case, the idea that the other has a pleasure that they do not deserve, namely jouissance, is dominant for this discriminatory subject. They think that they once had this surplus pleasure, but the other came and stole it from them. However, jouissance has already been stolen long before that, with the symbolic order.

The main focus of Kaurismäki's harbor town films, the subject and their positioning against the big Other determined by the authority are the objects that threaten jouissance. In *The Other Side of Hope*, this is the psychology that mobilized the racist Nazi-sympathizer people. Kaurismäki confronts Khaled with racist attitudes and shows him as the target of anger. Moreover, this feeling leads the masses to xenophobia in today's Western societies. Xenophobia, which can be defined as extreme fear and dislike of ethnicity, represents a mass mood directed at others who try to be partners in the jouissance in both *Le Havre* and *The Other Side of Hope*. In particular, the immigration authorities who questioned Khaled decided to deport him to Syria as it is a safe place to live, even though the news on the television shows otherwise. In *Le Havre*, Inspector Monet searches for Idrissa with the same motivation.

The local other character in *Le Havre*, Marcel Marx is a poor individual who owes money to shopkeepers such as bakeries and grocers in the neighborhood, who barely lives the day financially. In the opening scene, the appearance of Marcel Marx with his Vietnamese friend Chang, who is also a shoe shiner, creates the first perception in terms of understanding the character's social position. Kaurismäki underlines that Marcel Marx is living surrounded by 'the others' and uses him as thematic continuity among his films *La Vie de Boheme (1992)* and *Le Havre*. Marcel Marx first appears in Kaurismäki's black-and-white film *La Vie de Boheme*, as an unpaid writer who is helping his illegal immigrant friend, again played by André Wilms. The fact that Kaurismäki carried the character to this film is like proof of his consistency in his cinema and that his stories are 'the other's story.

In *The Other Side of Hope*, Waldemar Wikström leaves his partner and closes his job. This shows that he is not a member of the power class and that he has returned to the zero point by leaving the bases of his life. He gambles with the money left over from his job and, by miraculous luck, buys a restaurant 'Golden Pint' with his overnight earnings and starts working with three existing staff. The fact that he does not lay off his staff and helps them with basic matters such as cleaning, taking out the garbage, and cooking are signs that Wikström stands by the others. Although he is the owner and boss of the restaurant, the character does not have the characteristics of a dominant class, on the contrary, he behaves like an employee. The fact that his character did not change after getting rich and still behaved modestly shows that Wikström earned this money not to gain power, but to change his life and start over. In a way, he knew that he is not going to be the subject, thus he doesn't have any negative approaches to the other. Therefore, he has no hesitation to share jouissance. In other words, like Marcel Marx, Wikström is one of Kaurismäki's other characters.

The dominant culture, which represents the language, rules, and state, which Lacan identifies as the big Other, marginalizes those who are different from themselves. Just like the ego, the others must exist for the ruling group to exist. Groups such as the working class, the oppressed, the poor, women, and immigrants are those who are marginalized, create the power class, and do not have power in the symbolic order (Chanter, 2009, p.98). Moreover, the big Other maintains the rules of the culture of power in social, political, and economic fields and even in everyday life. In this context, the others of the capitalist society, Marcel and Wikström are in the position of the other who develop tactics against the strategies of power that De Certeau mentioned in his theory. Every regulation by the power in everyday life is a strategy, and these strategies are built on a specific place, ownership, and belonging (De Certeau, 2008, p.55). De Certeau states that strategies take place based on space in the face of these. Besides, the oppressed and powerless citizens develop tactics based on time in line with their interests. In both Kaurismäki's films, the characters similarly develop tactics against power strategies. The relationship and cooperation developed by Marcel with Idrissa and by Wikström with Khaled have become a game they play together against the rules of power.

This association also occurs between refugee others. After Khaled surrendered to the police, he met Iraqi Mazdak at the refugee processing facility. Mazdak gives clues about how Khaled should behave in his interviews for an asylum application. He tells humorously that they first deport the melancholics and that he should look happy. This friendship between Khaled and Mazdak corresponds to the backstage performance in Goffman's theory of dramaturgy. The preparation process of the performances to be exhibited on the social front is planned backstage, and also there are class differences in these performances (Goffman, 1959, pp.15-16). The performance of the dominant class is idealized, while the weaker ones tend to rise as they perform in line with the ideal. Mazdak's clues are the backstage talks to approach the ideal performance within his knowledge. The two characters share strategic secrets to keep the audience from getting involved in the performance. The backstage, where the performance is prepared, is a safe area that the audience cannot enter (Goffman, 1959, p.113). In *Le Havre*, a similar situation occurs between local others Marcel and his neighbors. They are equal to the term 'team' in Goffman's theory. Not giving up on Idrissa, organizing a Little Bob concert for the money to be collected for the ship that will take him to England, and being taken to the harbor by hiding from the police can be given as examples of solidarity, which Goffman calls strategic secrets (Goffman, 1959, pp.141-142). Unity and solidarity without imposed rules, terms, and mutual benefits can be the product of a nostalgic feeling. In reality, such nostalgia and solidarity are not in line with the policies of the European Union. Both films expose the discrimination experienced by refugees in developed countries (Gültekin, 2021, p. 83). Idrissa's false image in the media as an Al-Qaeda member and attacks on Khaled can be examples of discrepancies. Since it is precisely this hypocritical stance that Kaurismäki criticizes, it allows the characters in his film to act with nostalgic feelings, and therefore develop tactics (Bunbury, 2018).

Kaurismäki has interpreted not only the others who use tactics but also the representatives of the dominant class who serve the strategy. He fictionalizes Inspector Monet in *Le Havre* and the personnel in charge of the refugee processing facility in *The Other Side of Hope* to represent the strategy. Monet warns Marcel off the record and secretly helps the others despite being a part of the strategy. Additionally, the facility officer delays the cops who came for Khaled and opens the back door for him to escape. This addresses that the officer commits a behavior contrary to the strategy. In short, the bureaucrats to whom the strategy expects to be loyal, betray themselves. In his theory, these performances are the secrets that the performer necessarily hides from the team he belongs to, which Goffman (1959) refers to as 'entrusted secrets' (p.143). Along with the performances, Kaurismäki makes references through character names. In *Le Havre*, he refers to Marcel Carné, Jacques Becker and Claude Monet. Marcel's partner is named after Arletty who played Garance in *Les Enfants du Paradis* (1945), one of the leading films of French poetic realism (Holst-Knudsen, 2018, p.115). Both films are shot in Le Havre. In *The Other Side of Hope*, the name of the dog that secretly stays in the restaurant and is later adopted is a reference to the director's lead character Koistinen in *Lights in the Dusk* (2006). This intertextual style also contributes to the director's narrative.

After Idrissa escaped from the police, Marcel reads in the newspaper: "One of the container refugees escaped, armed and dangerous. There may be an Al-Qaeda connection". Mass media, one of the biggest strategy tools of power, creates its reality and defines an unguarded African child as an armed terrorist. Similarly, while Marcel was working in front of a shoe store, the store employee chases him away and calls him a 'terrorist'. The use of the adjective 'terrorist', which is disconnected from reality, shows that both characters stand against the same power. Before meeting Idrissa, Marcel lives with his tactics against the dominant culture and strategies as a marginalized individual in society. The statement that an African child may have a connection to 'Al-Qaeda' can be counted as an example of xenophobia used by Kaurismäki in both of his films. Just like the person who racistly attacks Khaled and says "Jew". Kaurismäki empties the hate speeches arising from racism without directing them to an individual. Making news that is so disconnected from reality can also be read as Kaurismäki's criticism of the media and racism created in vain (Harkness, 2012).

Kaurismäki's other characters are quite determined not to stay where the subject tries to hold them. In particular, the solidarity they develop with local others encourages them to take different actions against the strategy sociologically as the big Other. The tactics developed by Kaurismäki's local others against the strategy proceed as the main theme. In this context, the meaning of tactics in the political view of Kaurismäki is also very important (Harkness, 2012). The characters have to take shelter in tactics, which is the strongest instrument of the weak against the marginalizing attitudes of the strategies. These tactics include telling white lies, preparing fake id cards, hiding from officers, and being in solidarity. Especially, tactics that De Certeau sees as cheating, inconsistent with strategy, and changing according to time, are forcible tools for others. Kaurismäki also assigned tactics and roles to others in Northern Europe, where the strategy was drawn with strict rules. In doing so, it has built local accomplices. In this context, the cinema of Kaurismäki is the cinema of others who resist strategy.

Discussion and Conclusions

The auteur director of Scandinavian Cinema, Aki Kaurismäki, has opened a special area for himself in European cinema. The main focus of his cinema is the lower classes, the oppressed, and others. Unlike other contemporaries, Kaurismäki portrays these masses that society wants to ignore, not as a melodramatic image, on the contrary, he fictionalizes them as subjects who are strong with their differences and who know how to enjoy life despite everything. In the context of this work, in *The Other Side of Hope* and *Le Havre*, which belong to the Harbor Town Trilogy, he instills hope and solidarity in his audience through the refugee and local others. As is seen, Kaurismäki acts with a holistic humanism, reflecting his political view and not letting hope be seen in the heavy melodramatic mood of immigrant stories. Although his hope occurs in a utopian reality, he allows his audience to imagine the possibilities of making another world possible.

Kaurismäki does not beware of criticizing Western societies and fashions, even while focusing on the real problems of everyday life. While humanity is suffering because of starvation and wars, he uses a humorous scene about fusion cuisine. On the other hand, he makes sarcastic imagery of the bureaucrats who send the Syrian protagonist to bombed-out Aleppo. In this sense, Kaurismäki turns humor into a counter weapon for his criticism of the big Other.

In this sense, the cinema of Kaurismäki is compatible with De Certeau's social engineering, that is, the power of ideology to direct the masses, to the construction of society, where it's impossible. The others of Kaurismäki find the power to defeat the strategy with the tactics they develop. While both refugees and local others are performing tactics against the strategy of the big Other, they also stand firm. The spirit of solidarity given by being the other makes it possible for them to play a wide range of tactical roles against strategy. Even while doing this, he doesn't neglect to make an ironic wound in the strategy by finding accomplices within. In this sense, the agents in everyday life overcome the state of being the other with a total union against the strategy. The utopian happy endings of *Le Havre* and *The Other Side of Hope* take place with the defeat of strategy. With these endings, Kaurismäki surpasses his contemporaries and adds his touch to the refugee other narratives with a different story universe.

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RESEARCH ARTICLE

Examining Group Differences in Mathematics Achievement: Explanatory Item Response Model Application

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Abstract

Students take many different exams throughout their educational lives. In these exams, various individual and item characteristics can affect the responses of individuals to the items. In this study, it was aimed to examine the effects of person and item predictors on the mathematics common exam results of 365 9th grade students with explanatory item response models. Gender and school type as person variables and cognitive domain, content domain and booklet type as item variables were added to the models due to their widespread inclusion in the literature. When the predicted item parameters were examined, it was seen that the smallest parameter values were obtained for all items with the Rasch model. When the model data fit values of four different models were examined, it was concluded that the latent regression and latent regression linear logistic test models showed better fit than the Rasch model. By adding person and item predictors to the model, the parameters obtained for each variable group were compared, and differences were observed between the groups for school type, cognitive domain, and content domain variables. It was concluded that the item parameters did not differ for the variables of gender and booklet type. It is thought that it would be beneficial to use these models more widely in studies to be conducted in the field of education and psychology, since they provide more detailed information about the reasons for the differences in the estimated parameters.

Keywords: *Explanatory item response models, rasch model, math success*

Öz

Öğrenciler eğitim hayatları boyunca birçok farklı sınava katılmaktadır. Bu sınavlarda, çeşitli birey ve madde özellikleri öğrencilerin maddelere verdikleri yanıtları etkileyebilmektedir. Bu çalışmada 9.sınıflarda öğrenim gören 365 öğrencinin matematik dersi ortak sınav sonuçları üzerinde birey ve madde yordayıcılarının etkisinin açıklayıcı madde tepki modelleri ile incelenmesi amaçlanmıştır. Alanyazında araştırmalara yaygın olarak dahil edilmesi sebebiyle; birey değişkeni olarak cinsiyet ve okul türü, madde değişkenleri olarak ise bilişsel alan, içerik alanı ve kitapçık türü değişkenleri modellere eklenmiştir. Kestirilen madde parametreleri incelendiğinde, Rasch modeli ile tüm maddeler için en küçük parametre değerlerinin elde edildiği görülmüştür. Dört farklı modelin model veri uyumu değerleri incelendiğinde ise örtük regresyon ve örtük regresyon doğrusal lojistik test modellerinin Rasch modeline göre daha iyi uyum gösterdiği sonucuna ulaşılmıştır. Birey ve madde yordayıcıları modele eklenerek her bir değişken grubu için elde edilen parametreler karşılaştırılmış ve okul türü, bilişsel alan, içerik alanı değişkenleri için gruplar arasında farklılıklar gözlenmiştir. Cinsiyet ve kitapçık türü değişkenleri için ise madde parametrelerinin farklılaşmadığı sonucuna ulaşılmıştır. Bu modellerin, kestirilen parametrelerdeki farklılıkların nedenlerine ilişkin daha detaylı bilgiler sunması sebebiyle eğitim ve psikoloji alanında yapılacak çalışmalarda daha yaygın kullanılmasının faydalı olacağı düşünülmektedir.

Anahtar Kelimeler: *Açıklayıcı madde tepki modelleri, rasch modeli, matematik başarısı*

Introduction

Many research areas cannot produce valid information without adequate measurement of various psychological qualities such as intelligence or personality traits of individuals (Sijtsma, 2020). The main purpose of measurement and evaluation studies carried out in the fields of education and psychology is to reach comprehensive and reliable information about individuals based on their responses to scale items. It is not possible to say that the individual characteristics that are the subject of the research are always directly observable. Various measurement tools are needed to reveal the degree to which individuals have the variable that is aimed to be measured. Measurement tools such as scales, questionnaires and tests are typical instruments used by researchers to measure a construct or trait (Desjardins & Bulut, 2018). Many theories have been developed about the process of developing these instruments and interpreting test scores. Among these theories, Classical Test Theory (CTT) and Item Response Theory (IRT) are the most widely used (Crocker & Algina, 1986; Embretson & Reise, 2000).

Various problems arise with test development and analysis of scores, as the assumptions of the CTT are weak assumptions that can be met by most test data. For example, item difficulty and item discrimination index depend on the skill level and range of ability scores of the individuals taking the exam. Items will be interpreted more easily in exams attended by individuals with high ability levels. Item discrimination tends to be higher in heterogeneous groups than in homogeneous groups. The reliability of the test is also directly related to the test scores of the individual sample taking the test. Similarly, the ability levels of individuals vary according to the difficulty of the test, and various problems arise in the comparison of the ability levels of individuals who take the test with different difficulties. Because of these and similar problems, psychometrists needed to develop more suitable measurement models (Hambleton, Swaminathan, & Rogers, 1991).

IRT is one of the theories developed to reveal the extent to which individuals have features that cannot be directly measured, which are called latent features. While the raw score of the individual in CTT is obtained by the sum of the scores obtained from each scale item, the IRT is concerned with whether the answers given to the items are correct or wrong rather than the total score. When responding to an item, it is assumed that the participants have a certain amount of the underlying feature (ability) and a corresponding score on the skill scale is assigned to each participant. In this sense, IRT reveals the relationship between the ability levels of individuals and their probability of correctly responding to the items. While the probability of answering the item correctly for individuals with high ability level is close to 1, the value of this probability approaches 0 as the skill level decreases (Baker, 2001). One of the important advantages of the theory is that individual abilities are independent from the test applied and the item sample, and that the item parameters are independent from the group. Test scores obtained from the CTT can vary significantly across tests. Therefore, it is easier to compare individuals' performances in different tests within the framework of the IRT than the CTT (Desjardins & Bulut, 2018). Another advantage is the use of information functions that can be defined at the item level to calculate reliability in the model. Higher level of knowledge indicates lower standard error and higher reliability. Thanks to these advantages, IRT has recently; its use in computerized adaptive testing, item and test bias determination, and test equating studies is becoming increasingly common (DeMars, 2010).

The main factor in the recognition of IRT as a powerful modeling method is the necessity of meeting strong assumptions (Embretson & Reise, 2000). There are different classifications for these assumptions in the literature. DeMars (2010) discussed the assumptions under three headings as unidimensionality, local independence and appropriate model properties. Unidimensionality means that test items are associated with only one latent feature. It is the situation where there is only one dominant factor that affects the reactions of individuals to the items and the probability of answering that item correctly. In some cases, psychometrists state that tests measure factors such as speed, motivation, and excitement apart from the individual's ability to be measured. However, this does not always mean that unidimensionality is violated. For example, if the motivation level of all participants is high, this variable may not be interpreted as a separate dimension. The main thing is to determine whether there is a single dominant factor by various statistical methods. Violation of the unidimensionality assumption can lead to incorrect parameter and standard error estimations. Another assumption of the IRT is local independence. In order to ensure this assumption, when the ability level to be measured in the test is kept constant, the answers given by the individuals to the items should be statistically unrelated. In local independence, the relationship between item pairs is examined, but even if the inter-item relationship is not observed, any subset of the test can create a new dimension. Therefore, unidimensionality and local independence assumptions should be tested separately. The last assumption is to examine the model data fit to determine the appropriate model. The emergence of the advantages provided by IRT is possible with the model data fit (Orlando & Thissen, 2000). If the appropriate model is not selected, the estimated parameters will be incorrect. For example, using the 1 PL model when the items have different slope values or the horizontal asymptote is different from zero will lead to erroneous results. There are many statistical methods used to determine model data fit.

The main purpose of many item response models developed is to measure the latent features underlying human behavior based on individual performances or test responses. In standard item response models, items and individuals are represented by one or more parameters. The estimated individual parameters provide a reference for the measurement of latent traits. This general approach falls short of explaining the differences in individual and item parameters and their reasons. Since the cognitive processes that individuals use when answering items cannot be modeled with traditional IRT, alternative approaches are needed. For this purpose, Explanatory Item Response Models, which reveal the effect of item and individual characteristics on responses to items and have a broader statistical approach than standard item response models, have been developed (De Ayala, 2022; De Boeck & Wilson, 2004).

Many of the current item response models are more specific and stretched versions of generalized linear or nonlinear mixed models (GLMM and NLMM). Explanatory item response models also appear as a flexible model that provides access to a wider knowledge base by strongly linking psychometry to the field of statistics. In item response models used in educational research, individuals are typically viewed as a unit of analysis. When individual covariates are added to the model to describe or explain the differences between individuals, the model determined within the framework of GLMM turns into an explanatory item response model. In psychological research, on the other hand, the items themselves are usually units of analysis, and by adding item covariates to the model, the existing model turns into an explanatory response model (Briggs, 2008). Explanatory item response models were handled under four main headings as descriptive and explanatory models in terms of their individual and item characteristics, and these models are given in Table 1 (De Boeck & Wilson, 2004).

Table 1. Explanatory item response models

	Person Predictors	
Item Predictors	Absence	Inclusion
Absence	Doubly Descriptive	Person Explanatory
Inclusion	Item Explanatory	Doubly Explanatory

The models given in Table 1 represent only a small subset of the set of possible models. Situations where person and item characteristics are not added are called the doubly descriptive model (Rasch model). This model is the basic version of the explanatory item response models. If only person characteristics are added to the model, it is called person explanatory item response model (latent regression model), if only item properties are added, it is called an item explanatory item response model (linear logistic test model [LLTM]). In cases where both are added, it is called a doubly explanatory item response model (latent regression linear logistic test model) [LRLLTM]).

The formulas of these four models are given in Table 2. The expression θp in the table indicates that the individual parameters are randomly drawn from the universe and exhibit a normal distribution with a mean of zero. Z value indicates individual characteristics, j subindex indicates person predictors. X is the item predictors expressed with the k sub-index. The cases where the person predictors have fixed effects are expressed with ϑ_j, and the cases where the item predictors have fixed effects are expressed with β_k.

Table 2. Summary table of explanatory item response models

	η_{pi} =			
Model	Person Part	Item Part	Random Effect	Model Type
Rasch	θ_p	$-\beta_i$	$\theta_p \sim N(0, \sigma_\theta^2)$	Doubly Descriptive
LRM	$\sum_j \vartheta_j Z_{pj} + \theta_p$	$-\beta_i$	$\varepsilon_p \sim N(0, \sigma_\theta^2)$	Person Explanatory
LLTM	θ_p	$-\sum_k \beta_k X_{ik}$	$\theta_p \sim N(0, \sigma_\theta^2)$	Item Explanatory
LRLLTM	$\sum_j \vartheta_j Z_{pj} + \theta_p$	$-\sum_k \beta_k X_{ik}$	$\varepsilon_p \sim N(0, \sigma_\theta^2)$	Doubly Explanatory

In Table 2, the negative sign of the β coefficients in the item sections is interpreted as the item convenience coefficient and is included in the formula as a component that increases the probability of the item being answered correctly. After estimations, this value can be multiplied by minus and converted to item difficulty value (Boeck et al., 2011). "As can be seen from Table 2, person characteristics in the latent regression model, item characteristics in the linear logistic test model, and both feature groups in the latent regression linear logistic test model are added to the model and necessary estimations are made.

The framework of explanatory item response models was drawn by De Boeck & Wilson (2004), and these models are flexible and useful approaches in that they enable the inclusion of different person and item variables in the model. Although explanatory item response models appear as a relatively new approach, it is seen that these models are used in recent studies. When the literature is examined, it is more common to encounter studies that focus on variable features. For example, Briggs (2008), in his study on 10th grade students, concluded that the ethnic origin of individuals is a significant predictor of the ability parameters obtained from the science test. Atar (2011) used the variables of gender, attitude towards mathematics lesson, giving importance and self-confidence as person variables, cognitive domain and content domain as item variables and created explanatory item response models in his study conducted with TIMSS 2007 Turkey 8th grade mathematics data. It was concluded that the variable of self-confidence was an important predictor of the student's mathematics achievement, and that the variables of gender, attitude towards mathematics and giving importance to the course had no effect on mathematics achievement. In the results of the linear logistic test model analysis created with the cognitive domain and content domain, it was concluded that these variables had an effect on the item difficulty. Kahraman (2014) conducted his study with the data of multiple choice and applied test, which is the last stage of a three-stage exam attended by physician candidates. In the study in which five different models were compared, the partial credit model, which did not include the predictor variable, was used as the base model. Then, as predictor variables for this model; New models were created by adding the order of application of the item, the time spent on the item, the gender of the candidate and the multiple-choice test score separately. Among these variables, it was concluded that only the multiple choice test score was a good predictor, while the other variables were not useful as a predictor. Chen, Yang, Bulut, Cui, & Xin (2019) examined personality factors affecting drug use using explanatory item response models in their study. In addition to gender and alcohol use as person variables, anxiety sensitivity, impulsivity, sensation seeking and hopelessness variables were added. As a result; gender, alcohol use and their interaction, the interaction between gender and hopelessness, and sensation seeking were found to be significant predictors of substance use level. Apart from these studies, researches using explanatory item response models have been encountered more frequently recently (Atar & Aktan, 2013; Bulut, Palma, Rodriguez, & Stanke, 2015; Büyükkıdık & Bulut, 2022; Chiu, 2016; Kim & Wilson, 2020; Min, Zickar & Yankov, 2018;

Petscher et al, 2020; Randall, Cheong, & Engelhard, 2011; Tat, 2020; Yavuz, 2019).

Traditional item response models do not include explanatory variables regarding the differences between individuals' abilities and item difficulties. The effect of the explanatory item response models used in this study and the addition of various person and item variables to the model on the parameters were examined. Variables that can make a difference on item and ability parameters such as gender, school type, booklet type, item content were included in the model. Although there are explanatory item response model studies conducted on the data set of international exams such as PISA, TIMSS, and PIAAC in the literature, no study was found with the data of the common exams conducted throughout the province. For this purpose, it is thought that it is important to use these models, which include person and item variables, in the common exam practices that have become widespread recently and in the reporting processes afterwards.

Aim of the research

In this study, it is aimed to examine the item parameters obtained from descriptive and explanatory item response models. For this purpose, answers to the following three questions will be sought in the research.

1. What are the item parameters obtained from Rasch, linear logistic test, latent regression and latent regression linear logistic test models?
2. How is the model data fit obtained from Rasch, linear logistic test, latent regression and latent regression linear logistic test models?
3. Does the mathematics lesson performance of individuals differ in the subgroups of the variables handled with the latent regression linear logistic test model?

Method

In this study, the effect of various person and item characteristics on mathematics achievement was examined. In this respect, it can be stated that the study is in the correlational research design, which is one of the quantitative research methods. Correlational research aims to reveal the relationships between two or more variables as they are (Fraenkel, Wallen, & Hyun, 2012). In this section, the research data and the analysis of the data are given.

Research Data

The data used in the research were obtained from 365 individuals selected by cluster sampling method among the students who participated in the mathematics lesson common exam applied to the 9th grades throughout the province of Niğde. Individuals responded to 20 multiple-choice test items in the joint exam. Common exam items; It has been prepared in accordance with the secondary education curriculum with 5 domain experts, 1 measurement and evaluation expert and 1 language expert. After the pilot application was carried out, the test and item statistics were examined and the final form was created. After the final application, it was seen that the item difficulties ranged between .36 and .78 and the average difficulty of the test was .49. Item discrimination was calculated with the point biserial correlation coefficient and these values were found to vary between .41 and .89. The average of the discrimination values was calculated as .63. The KR-20 value calculated for the reliability of the test was found to be .874. According to all these results, it can be stated that the test has medium difficulty, high discrimination and reliability (Crocker & Algina, 1986).

The person variables to be used in the research were determined as gender (male-female) and school type (science-vocational-anatolia-religious). Item variables are cognitive domain (knowing - applying -reasoning), content domain (number-algebra-geometry) and booklet type (A-B) of test items. The items in the booklets are the same, only the positions of the items in the test differ. While determining the cognitive domain and content domain, the domain classification used in the TIMSS research was taken as reference. Since there is no item related to probability in the content domain, the existing items are grouped into three categories. Opinions were received from 5 domain experts to classify the items according to cognitive and content domain. Fleiss Kappa statistics were calculated to determine the agreement among experts. Inter-expert agreement was found to be κ=.734 for the cognitive domain and κ=.819 for the content domain. These values indicate a high level of agreement among experts (Landis & Koch, 1977). Descriptive statistics on person and item variables used in the study are given in Table 3.

Table 3. Frequency table for person and item variables

Variables	Category	Frequency	Percentage
Gender	Female	163	44,6
	Male	202	55,4
School Type	Science	61	16,7
	Vocational	90	24,7
	Anatolia	158	43,3
	Religious	56	15,3
Booklet Type	A	180	49,3
	B	185	50,7
Cognitive Domain	Knowing	4	20,0
	Appyling	14	70,0
	Reasoning	2	10,0
Content Domain	Number	9	45,0
	Algebra	9	45,0
	Geometry	2	10,0

When the variables in Table 3 are examined, it is seen that the number of male students is more than female students. According to the school type, the most students are in Anatolian high schools. It can be said that the booklet type is distributed in a balanced way as A and B. 20 test items used in the common exam were prepared by domain experts according to the relevant acquisitions, and most of them are at the "Applying" level. There are only 2 items in the cognitive domain of "reasoning". Considering the content domain distributions, it is seen that the items are mostly from the domains of numbers and algebra, and there are 2 items in the test from the domain of geometry.

Analysis of Data

Akaike Information Criteria (AIC), Bayesian Information Criteria (BIC) and -2loglikelihood (-2LL) values of Rasch, 2PL and 3PL models were examined to decide which IRT model to use in the research. Cases where these values are small indicate better model-data fit (De Ayala, 2013). The lowest AIC and BIC values were obtained for the Rasch model, and the lowest -2LL values were obtained for the 3PL model. Due to the research purpose and the simplicity of the model, it was decided to conduct the research with the Rasch model.

It was tested whether the Rasch model satisfies the assumptions of unidimensionality and local independence. A unidimensional test includes items that fall into only one dimension. Any factor that affects the reaction to the items is only considered as a random error or unpredictable dimension specific to that item, and other items are not affected by this situation. Violation of the unidimensionality assumption leads to incorrect estimation of parameters and standard errors (DeMars, 2010). To examine the unidimensionality of our research data, exploratory factor analysis based on the tetrachoric correlation matrix was applied. In cases where 1-0 is scored, that is, in calculating the relationship between two artificially paired variables, tetrachoric correlation is used. As a result of the factor analysis performed to decide on the number of dimensions, the eigenvalue of the first factor was calculated as 2.985 and the second factor as 0.281. It was seen that there was only one factor with an eigenvalue greater than 1 and it was decided that the scale was unidimensional (Kaiser, 1960). Then, the local independence assumption was tested. According to this assumption, individuals' responses to any two test items are statistically independent when the abilities that affect test performance are held constant. In order to provide the unidimensionality assumption, the items in the test must be related, while in the local independence assumption, the items must be independent for a certain ability level. The local independence assumption was tested with Yen's Q3 test developed by Yen (1981). The residual correlation values matrix was examined with Yen's Q3 test and it was seen that the correlation values between the item pairs varied between 0.002 and 0.197. The fact that these values are below the 0.20 cut-off point indicates that the assumption of local independence is met (Chen & Thissen, 1997).

In order to make parameter estimation with four different models to be discussed in the research, the "eirm" package developed by Bulut (2021) was used in the R program. The Rasch model was used as the first method for estimating item difficulties. In this model, no item and person variables were added to the equation. In the second model, the linear logistic test model, item variables (cognitive domain + content domain + booklet type) were included in the process. In the latent regression test model, which is the third model, person variables (gender + school type) variables were added to the model. The last model is the latent regression linear logistic test model. In this model, both item and person variables were added. Item parameters and standard error values of 20 items were estimated for all models. In order to test whether the difference between the item parameters estimated from the four models is significant, the assumptions were checked and the ANOVA test was applied for repeated measurements. For the same item group, the outputs from each model were considered as a measure. In this way, it was examined whether at least one model differed from the others for four different model outputs. In the next step, the model data fit of the models was calculated. For this purpose, the AIC, BIC and -2LL values among the "eirm" package outputs were compared. Finally, a control variable was determined for each subgroup using the latent regression linear logistic test model, and item difficulties, standard errors, and significance values were calculated. The item parameters obtained for each variable group were compared.

Results

Findings Related to the First Sub-Problem

In the first sub-problem of the study, "What are the item parameters obtained from Rasch, linear logistic test, latent regression and latent regression linear logistic test models?" The answer to the question has been sought. For this purpose, difficulty parameters and standard errors of 20 test items were estimated with four models. The results are given in Table 4.

When Table 4 is examined, it is seen that the lowest difficulty parameters were estimated from the Rasch model, and the highest difficulty parameters were estimated from the LRLLTM. The average of the item difficulty values obtained from the Rasch model is -0.324.

Table 4. Item parameters and standard errors estimated from models

	Rasch		LLTM		LRM		LRLLTM	
Item	Estimate	(SE)	Estimate	(SE)	Estimate	(SE)	Estimate	(SE)
M1	-1.84	0.17	-1.78	0.19	-1.63	0.18	-1.58	0.19
M2	-0.46	0.15	-0.40	0.17	-0.29	0.17	-0.23	0.17
M3	-0.35	0.15	-0.29	0.17	-0.18	0.17	-0.12	0.17
M4	-0.05	0.15	0.01	0.18	0.12	0.17	0.18	0.18
M5	0.72	0.16	0.79	0.18	0.91	0.17	0.97	0.18
M6	0.06	0.15	0.13	0.18	0.24	0.17	0.29	0.18
M7	-1.14	0.15	-1.07	0.18	-0.95	0.17	-0.89	0.18
M8	-0.19	0.15	-0.13	0.18	-0.02	0.17	0.04	0.17
M9	-0.13	0.15	-0.07	0.18	0.04	0.17	0.10	0.18
M10	0.06	0.15	0.13	0.18	0.24	0.17	0.29	0.18
M11	-0.29	0.15	-0.23	0.17	-0.12	0.17	-0.06	0.17
M12	-0.24	0.15	-0.18	0.17	-0.07	0.17	-0.01	0.17
M13	-0.38	0.15	-0.32	0.17	-0.21	0.17	-0.16	0.17
M14	-0.80	0.15	-0.74	0.18	-0.62	0.17	-0.57	0.18
M15	-1.33	0.16	-1.26	0.18	-1.13	0.17	-1.08	0.18
M16	0.80	0.16	0.86	0.18	0.99	0.18	1.04	0.18
M17	0.10	0.15	0.16	0.18	0.27	0.17	0.33	0.18
M18	-0.38	0.15	-0.32	0.17	-0.21	0.17	-0.16	0.17
M19	-1.00	0.15	-0.94	0.18	-0.82	0.17	-0.76	0.18
M20	0.36	0.15	0.42	0.18	0.54	0.17	0.59	0.18

This situation is interpreted as the general difficulty of the test for a student with an average ability level. According to the LRLLTM, the average of the item difficulty values was calculated as -0.089, which can be interpreted as the test being of medium difficulty. When the standard error values were examined, lower standard error values were obtained for all items with the Rasch model, while values close to each other were obtained in the other models. According to all models, the easiest item of the test is item 1, while item 16 is the most difficult. It can be stated that all items appear more easily when person and item variables are added to the Rasch model, which is the descriptive model.

The significance of this difference between the difficulty parameters estimated from these four models was tested with the ANOVA test for repeated measurements. In this analysis, it was seen that the Mauchly sphericity assumption was not met (w=.164, p<.05). As a result of the Greenhouse-Geisser test, it was concluded that the item difficulties estimated according to at least one model differed significantly (p<.05). The models were compared in pairs in order to determine from which model the item difficulties differ, and the results are given in Table 5.

Table 5. Pairwise comparison of models

Model	Sum of Squares	Degrees of Freedom	Mean Square	F	p
Rasch vs. LLTM	.078	1	.078	3958.333	.000
LLTM vs. LRM	.271	1	.271	2509.710	.000
LRM vs. LRLLTM	.062	1	.062	2364.636	.000

When Table 5 was examined, it was concluded that the difference between the item difficulties estimated from the models was significant ($p<0.05$).

Findings Related to Second Sub-Problem

In the second sub-problem of the research, "How is the model-data fit in Rasch, LLTM, LRM and LRLLTM? The answer to the question has been sought. In order to examine the model data fit, -2LL, AIC and BIC fit values were compared. The results are given in Table 6.

Table 6. AIC, BIC and -2 LL values of models

	AIC	BIC	-2LL
RASCH	8092.900	8237.700	8050.800
LLTM	8094.400	8246.100	8050.400
LRM	7726.200	7898.600	7676.200
LRLLTM	7727.200	7906.500	7675.200

AIC and BIC values do not directly provide data on model data fit and usability of a model. These values become more meaningful by comparing the models. It is interpreted that models with lower AIC and BIC values are more compatible with the data (Blosis et al., 2007). When Table 6 is examined, it is seen that the model with the lowest AIC value is LRM and the highest one is LLTM. Similarly, the model with the lowest BIC values is LRM and the highest is LLTM. When the -2LL values were examined, the lowest value was obtained in the LRLLTM, and the highest value was obtained in the Rasch model. The smaller of the three values is interpreted as a better model-data fit. Based on these data, it can be said that LRM and LRLLTM have better model-data fit than Rasch and LLTM.

Findings Related to Third Sub-Problem

In the third sub-problem of the study, "Does the mathematics lesson performance of individuals differ in the subgroups of the variables handled with the latent regression linear logistic test model? The answer to the question has been sought. In the study, gender (male-female) and school type school type (science-vocational-anatolia-religious) variables were considered as person predictors. "Male" students for gender and "anatolian high school" for school type were determined as the control variable. Cognitive domain (knowing - applying -reasoning), content domain (number-algebra-geometry) and booklet type (A-B) variables were considered as item predictors. "Reasoning" for the cognitive domain, "algebra" for the content domain, and "booklet A" for the booklet type were determined as the control variables. Obtained item parameters, standard errors, z and p values are given in Table 7.

Table 7. Item parameters obtained with LRLLTM

Category	Estimate	Std.Error	z value	p value
Gender (Female)	-0.161	0.097	1.659	0.218
School (Science)	-3.264	0.201	16.172	0.000
School (Religious)	0.116	0.162	-0.718	0.472
School (Vocational)	1.132	0.148	-7.624	0.000
Cognitive (Knowing)	-1.278	0.125	10.165	0.000
Cognitive (Applying)	-1.033	0.113	9.121	0.000
Content (Geometry)	-0.352	0.111	3.161	0.001
Content (Number)	0.323	0.061	-5.223	0.000
Booklet(B)	-0.106	0.105	1.004	0,315

When Table 7 is examined, it can be said that the difference in item difficulties between male and female student groups according to the gender variable is not statistically significant ($p>0.05$). When the school type variable is examined, there is no statistically significant difference between Anatolian high school students and imam hatip high school students in terms of item difficulties. The average item difficulty for science high school students is -3,264. This is interpreted as an average of 3.264 logit easier to find test items for science high school students when compared to Anatolian high school students. On average, it was found to be 1.132 logit more difficult for vocational and technical Anatolian high school students.

When a comparison is made according to the cognitive domain, it can be interpreted that the items at the knowledge level are 1.278 logit easier than the reasoning level, and the items at the application level are 1.033 logit easier than the reasoning level. When the content domain are examined, it can be stated that the items in the geometry domain are on average 0.352 logit easier than the items in the algebra domain, and the items in the number domain are on average 0.323 more difficult than the items in the algebra domain. According to the booklet type variable, there was no statistically significant difference between the groups who answered the A and B booklets in terms of average item difficulties.

Discussion, Conclusion and Recommendations

Standard item response models are insufficient to explain the differences in predicted person and item parameters and their reasons. Explanatory Item Response Models offer flexible and more comprehensive statistical approaches that allow item and person characteristics to be added to the model. In this study, an application of Explanatory Item Response Models was carried out on the data of the common mathematics course exam conducted throughout the province of Niğde. In the first stage, the item difficulties estimated from the descriptive and explanatory item response models for the items in the achievement test were examined. Minimum difficulty parameter values were estimated for all items with the Rasch model. When person and item variables were added to the model, it was observed that the difficulty parameters increased. In the LRLLTM model, in which both person and item variables were added together, the highest difficulty parameter values were obtained. The difference between the mean difficulty values obtained from the models was found to be significant. These results are similar to the studies in the literature. In the study conducted by Atar (2011) on TIMSS 2007 mathematical data, it was concluded that item difficulties differed when person and item variables were added to the Rasch model. Atar and Aktan (2013) compared the 2PL IRT model with the Latent Regression 2PL model, which was created by adding person variables to this model, in their study on TIMSS 2007 science data. As a result of adding person predictors to the model, it was found that the parameters estimated by the two models differed. Tat (2020), in his study on simulation data in different subgroups, compared the item difficulties obtained from the Rasch model and three different exploratory item response models. Although item difficulty values differed for some subgroups in the study, no significant difference was observed between the difficulties obtained from the four models.

In the second sub-problem of the research, the model-data fit values obtained from four different models were compared. In this section where AIC, BIC and -2LL values are examined, it is seen that the Rasch model has worse model-data fit than other models. It was concluded that the LRM had better model-data fit. It can be stated that the person variables (gender and school type) added to the model contribute to the increase in model data fit. These results are similar to the studies in the literature. Atar and Aktan (2013) compared the model data fit of the 2 PL model and the latent regression 2 PL model, and better model data fit values were obtained in the latent regression 2 PL model. In Tat (2020) study, it was stated that the latent regression and linear logistic test model had better model-data fit than the Rasch model.

In the third sub-problem of the research, the item parameters obtained from the LRLLTM model; gender, school type, cognitive domain, content domain and booklet type variables were discussed at the level of subgroups. There are many studies in the literature examining the relationship between gender and mathematics achievement (Yücel & Koç, 2011; Cheema & Galluzzo, 2013; Ellison & Swanson, 2018). However, it is seen that studies within the framework of explanatory item response models are limited. Atar and Aktan (2013) conducted their study with person explanatory item response models and stated that the gender variable did not have a significant effect on explaining students' science achievement. In the study conducted by Atar (2011) using explanatory item response models, it was stated that the gender variable did not have a significant effect in explaining the differences in mathematics achievement. In this study, it was seen that the difference between the item difficulty levels did not show a statistically significant difference according to gender. When the comparisons according to school types are examined; While the items were easier for science high school students, it was seen that the items were more difficult for vocational high school students. Berberoğlu and Kalender (2005) stated in their study that in many national and international studies, student achievements differ significantly according to school types and that while science high school students achieve high success, vocational high school students achieve lower success.

When the findings obtained in terms of item predictors were examined, it was concluded that the items at the reasoning level were more difficult than the items at the knowing and applying level. These findings are similar to the results obtained by Atar (2011) in his study. According to the content domain classification, it was concluded that the items in the geometry domain were easier than the items in the algebra domain. Contrary to these results, Atar (2011) concluded that the items in the geometry domain are on average 0.39 logit more difficult than the items in the algebra domain. It is thought that the main reason for the difference in the results of the research is the low number of items in the geometry domain in this study and the item characteristics. Another variable discussed in the research is the booklet type. For the booklet type variable, it was seen that the difference between the average item difficulties obtained from the A and B booklets was not significant. This is actually an expected result. Although the items in both booklets are exactly the same, the position of the items in the test differs. These ranking differences did not differentiate the obtained item parameters according to the booklet type.

In the literature, there are also studies in which explanatory item response models were conducted with data from different courses other than mathematics. Büyükkıdık & Bulut (2022) included some of the variables in this study in their research. In the study, gender and school type were used as individual variables and content area was used as item variable. The effects of different variables and their interactions on students' responses to science questions in the exam were analyzed. As a result, it was found that female students were more likely to answer the items correctly than male students and private school students were more likely to answer the items correctly than public school students. In terms of content, biology items were found to be easier than physics items. According to these results, it is seen that even if similar variables are used in the studies, the results obtained may vary according to the courses and the data set used.

Explanatory item response models, unlike traditional models, provide the opportunity to include person and item variables in a single model. It was seen that better model data fit values were obtained from these models and the models differed item parameters. It is thought that the widespread use of these relatively new models in educational research will be beneficial. In this study, the Rasch model and explanatory item response models were examined. Comparisons of the 2PL and 3PL models with the explainer response models can be made in other studies. Studies using explanatory item response theory models can be conducted in data sets that use multi-category scored and multidimensional items. In these models, it is possible to observe the person and item interaction effect. More comprehensive studies can be conducted to examine the common effects of different person and item variables in national and international education studies. These models can also be used in DIF determination and computerized adaptive testing (CAT) studies. This study was studied with a limited research group. Considering the importance of sample size for parameters obtained with IRT, it is thought that working with larger sample groups will allow for more accurate estimation of model parameters.

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RESEARCH ARTICLE

Transformation of the Surveillance Society from Panopticon to Omnipticon: The Case of Black Mirror's Episode 'Nosedive'[1]

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Abstract

Surveillance, which is seen as one of the modern disciplinary methods, is first depicted in the metaphor of the panopticon prison. Using this metaphor and referring to Jeremy Bentham, Michel Foucault discussed the disciplinary role of modern power through the act of surveillance. The authority of the surveillance mechanism that develops against the will of the monitored is criticized during these times. With the development of communication tools, surveillance has evolved from the panopticon, in which a few people forcibly monitor the majority, to the synopticon, in which the many monitor the few, with the consent of the monitored. At the present time it reaches to the omnipticon, in which everyone eagerly watches each other. The new media environments have heightened the irresistible charm of surveillance. The concept of privacy has been transformed for this purpose; the distinction between private and public space has vanished and it has almost become a necessity for lives to be made public with their most private moments. This study aims to read the transformation of surveillance technology in parallel with social change. The episode Nosedive of the Black Mirror series, which deals with the possible side effects of extreme technology in our lives, has been chosen as a case study in this work and examined by qualitative content analysis method in terms of how omnipticon-style surveillance works in new media environments and the type of society it will reveal.As a result of the analysis, it was concluded that surveillance in today's society transforms individuals into a subject of performance and success, causing lives to be nothing more than a showcase, focusing on the quantity that determines the value of individuals, and that in this system where there is no room for negativity, individuals actually experience rock bottom while trying to appear happy by consuming.

Keywords: *Surveillance Society, Panopticon, Synopticon, Omnipticon, Black Mirror, Nosedive*

Öz

Modern çağın disipline etme yöntemlerinden biri olarak görülen gözetim ilk olarak panoptikon hapishanesi metaforunda cisimleşmiştir. Foucault, Bentham'dan referansla kullandığı bu metaforla birlikte gözetleme eylemi üzerinden modern iktidarın disipline edici rolünü tartışmıştır. Bu dönemlerde eleştirilen elbette gözetilenin arzusu dışında gelişen, gözetleyen mekanizmanın otoritesi idi. İletişim araçlarının gelişmesiyle birlikte gözetim şekil değiştirerek; az kişinin çoğunluğu cebren izlediği panoptikondan çok kişinin az kişiyi -izlenenlerin rızasıyla- gözetlediği sinoptikona ve nihayet günümüzde herkesin birbirini iştiyakle izlediği omniptikona evrilmiştir. Yeni medya ortamları gözetle(n)menin dayanılmaz çekiciliğini kamçılamış, bu uğurda mahremiyet kavramı dönüşüme uğramış, özel alan-kamusal alan ayrımı ortadan kalkmış, en özel anlarıyla hayatların kamuya açılması adeta bir gereklilik halini almıştır. Bu çalışma, gözetim teknolojisinin geçirdiği dönüşümü toplumsal değişimle paralel olarak okumayı amaçlamaktadır. Aşırı teknolojinin yaşamlarımızdaki olası yan etkilerini işleyen Black Mirror dizisinin Nosedive bölümü yeni medya ortamlarında omniptikon tarzı gözetlemenin nasıl işlediğini ve ortaya çıkaracağı toplum tipini ele alması bakımından bu çalışmada örnek olay olarak seçilerek nitel içerik analizi yöntemiyle incelenmiştir. Yapılan analiz sonucunda; günümüz toplumundaki gözetimin bireyleri adeta bir performans ve başarı öznesine dönüştürdüğü, hayatların artık bir vitrinden ibaret olmasına yol açtığı, bireylerin değerini belirleyen şeyin nicelik olmasına odaklandığı, olumsuzluğa yer olmayan bu sistemde bireylerin tüketerek mutlu görünmeye çalışırken dibe vuruş yaşadıkları bulguları elde edilmiştir.

Anahtar Kelimeler: *Gözetim Toplumu, Panoptikon, Sinoptikon, Omniptikon, Black Mirror, Nosedive*

[1] *This study is the revised and expanded version of the paper "Gözetim Toplumundan Gösteri Toplumuna: Panoptikonun Dönüşümü" presented in the 7th SADAB (2020) congress and published in the congress book.*

Introduction

"Sight is the foundation of my sovereignty".
Jacques Ellul

There is a close connection between the development and evolution of modern societies and the historical course of the means of communication. Changes in the communication tools bring about social, cultural and economic transformations. As humanity progressed to a written tradition, socio-cultural and economic life began to differentiate in accordance with this culture. It is known that mass culture began to flourish after the invention of the printing press, which was the next turning point, followed by the electronic culture period with the invention of the telegraph. In parallel with the development of communication tools, advances in science and technology have also accelerated the emergence of social problems. The industrialization process caused people to be seen as workers serving the system and focused on their health. The importance of supervising employees has been emphasized in order to ensure that the system operates without interruption. The factor that determines how this supervision will be carried out is the prominent characteristic of the modern period, namely the power of the eye. Seeing, as an action that has gained value in the modern world, has also directed the mechanisms of power. In today's world, sight has consolidated its power over all senses in communication. As Ellul (1998, p. 27) puts it, "sight guarantees my possession of the world and makes it into a 'universe-for-me.' Seeing gives me the possibility of action." According to researches on social media, visuality is the most important element in the posts of users on these platforms. This is due to the fact that social media is based on seeing and being seen (Toprak et al., 2009).

Rise of the eye and seeing is undoubtedly related to the fundamental arguments of modernity. The phonetic alphabet shifted the sovereignty of the ear to the sovereignty of the eye, and with the introduction of screens into our lives, this sovereignty has secured its position. The increase in the number of screens has established a solid throne for the eye, seeing, appearing and showing. While the act of seeing was closer to the culture of voyeurism in the modern era, the culture of transparency led by showing has become dominant in today's society. Nevertheless, unlike the panopticon, where voyeurism is monitoring on someone against their will, transparency is a voluntarily opened window, like omnipticon. As it is stated by McLuhan (2005, p.12), we are now under surveillance from the womb to the grave. We are sometimes faced a dilemma of our desire to keep our privacy and society's desire to know everything. Although surveillance practices have evolved over time, the concept of controlling individuals remains the driving force behind all forms of surveillance. Understanding how we reached today's world, where everyone is so preoccupied with what others are doing, where we have all become social change laborers, may help us develop a strategy to deal with the total impact of the media.

The aim of this study is to discuss how the transformation of surveillance mechanisms leads to social change. It is inevitable to analyze the logic of surveillance and its transformation in the historical process and analyze its new form in order to understand today's societies where omnipticon surveillance is dominant. Therefore, in this study, first of all, panopticon, synopticon and omnipticon, which are accepted as three basic surveillance techniques, will be discussed in detail. The social structure formed by the omnipticon-style surveillance, which is dominant in today's society, where social media has taken over, will be discussed on a theoretical basis. Afterwards, the Nosedive episode of the Black Mirror series, which was chosen in terms of providing very rich data in analyzing the omnipticon-style surveillance and the social structure it reveals, will be analyzed.

Surveillance has been the subject of many interdisciplinary studies in terms of being one of the favorite subjects of social sciences. However, the importance of this study should be sought in the analysis of the Nosedive episode, which is associated with the subject of surveillance. The main factor that distinguishes this study, which aims to 'understand' and 'interpret' today's surveillance society with a sociological perspective, is that it examines the Nosedive episode in depth with a different perspective and method than previous studies. Although there are rich data for sociological research in the content of the Nosedive section, it has not been adequately addressed in academic studies. Although there are many academic publications on different parts of the Black Mirror series, studies specifically focusing on the Nosedive episode are insufficient. Nosedive episode evaluation was made mainly with columns without scientific claims. In academic studies, the Black Mirror series has been handled as a whole, and the Nosedive episode has been analyzed through different concepts (Yazdizadeh, 2019) with the semiotic method (for example; Baritci&Fidan, 2018; Çelik&Özçınar, 2020). In this study, the episode analysis will be done primarily on Chul-Han's concepts. Thus, the elements that make the work important and valuable; It can be stated that it is based on a different perspective from previous studies, taking different concept sets as a guide, making the Nosedive section the subject of a scientific study by handling it with a scientific approach, and being the original method adopted.

Qualitative content analysis method uses in this study, which aims to interpret the Nosedive episode through the transformation of the surveillance society. Analysis will be based on these themes; performance subject, quantified self, living in a showcase, burnout while consuming and compulsion of happiness.

Three States of Surveillance: Panopticon, Synopticon, Omnipticon

The majority of debates about surveillance society are based on Foucault's analysis of power. Foucault's power is not oppressive in nature; rather, it is productive, tending to create, grow, and regulate forces rather than preventing, subjugating, or destroying them (Kellner and Best, 1998, p.70). In this context, Foucault developed a concept of power that was examined in terms of its micro aspects and technologies. He studied the evolution of modern forms of power, particularly disciplinary power, which replaced the old "absolute" or monarchical power. He identified three key power techniques: discipline, education, and surveillance. Keeping people occupied, regulating bodily movements down to the smallest detail, organizing their time, separating people from other people, excluding people, and treating the body like a cog in a machine are all examples of discipline. Education entails the continuous supervision of all actions by the hierarchy of authority, the establishment of universal standards of practice that allow for the provision of normalization, and formal examinations to determine whether norms have been met. Surveillance incorporates continuous monitoring, maximum visibility, and, if possible, a panoptical structure (Waters, 2008, p. 350). The new form of power that emerged in the seventeenth and eighteenth centuries was based on constant surveillance rather than physical punishment (Layder, 2006, p.140).

Panopticon

Foucault attempts to explain the process of surveillance-based power by claiming that after the French Revolution, the problems of incapacitated people doubled, challenging the new political regime's social ideals. As a result, those who were not "normal," such as the poor, workers, sick, or anyone else excluded by the "political body," were once again isolated from society and constrained in places of social confinement. In structures such as prisons, workhouses, hospitals, mental institutions, and even schools, they have become visible without seeing. All of these structures are products aimed at making what is dark, transparent (Tekelioğlu, 1999, p.43; Akay, 1995, p.39; Bauman, pp.58-62).

At the same time, these structures can be interpreted as an effort of "normalization". Individuals in these institutions are naturalized through routine forms of education and rehabilitation that are applied to everyone. Concepts such as normal human, healthy body, mental balance, and good citizen are reproduced and legitimized through those in power (Skinner, 1991, p.91). Because bodies are lost in these structures. The rise of surveillance societies is also related to these disappearing bodies. The growth and spread of communication and information technologies play a significant role in this process, which is one of the major problems of modernity (Lyon, 2006, p.34). Although the term technology here initially evokes material technologies, Foucault considers the mechanisms that control the body as "social technologies". He claims that as a result of these technologies, the body gradually ceases to be something that can be accepted as it is and becomes something that must be created (Giddens, 2012, p.297). This is because people who are constantly watched have begun to pay attention to themselves and adjust their behavior in the belief that they are being watched by others (Layder, 2006, p.140).

Foucault describes this type of surveillance using Jeremy Bentham's metaphor of the panopticon prison. Bentham's panopticon is the architectural form of this arrangement. Its guiding principle is anonymity: A ring of buildings around the periphery, with a tower in the center, with large windows facing the inside of the ring. The building's perimeter is divided into cells, each of which spans the entire width of the structure. These have two windows, one facing in and the other facing out, allowing light to enter the cell. All that remains is to place a watchman in a central tower and lock up a mad man, a patient, a prisoner, a worker, or a schoolboy in each cell. Each player is alone, completely individualized, and constantly visible in this game. This configuration, which enables for surveillance without being seen, creates spatial units that allow for constant seeing and immediate recognition. The techniques developed in these institutions are used to produce obedient bodies, which are then spread throughout society (Foucault, 2000). Surveillance technologies developed in this manner provide control and protection against the unknown and distant. Control is established "with the eye of power," "with eyes that see without being seen," through surveillance. This power is manifested in the individual's body. Individuals are defined as certain bodies, gestures, discourses, and desires (Game, 1998, p.68). In his novel 1984, George Orwell (2004) describes the phenomenon of creating uniform individuals by means of Panopticon-style surveillance as Big Brother. In a society where Big Brother is watching everyone, the people being watched are aware that they are being watched, but they can never see Big Brother. Members of such a society must project an image that is dominated by the existing power forces. It is no longer possible to speak about identity in this society.

Synopticon

It is claimed that technological advancements have changed the nature of surveillance, ushering in a post-panoptic surveillance era. In contrast to the panopticon's forced surveillance of the minority by the majority, traditional mass media is based on the model of the majority monitoring the minority. The term synopticon, coined by Norwegian sociologist Thomas Mathiesen in 1997, alludes to this new process. In the synopticon, there is a surveillance process in which people are drawn into cyberspace and observe the lives of others rather than being detached from where they live. The monitored (observed, watched) has turned into the viewer/observer/watcher. The many watch the few.

The Panopticon creates environments in which it can observe and monitor people. In contrast, the synopticon directs and provokes people and masses to watch without putting any pressure (Okmeydan, 2017, p.60). Those who are watched are the celebrities, the elite people of politics, sports, science, show business and communication. They convey the message of a general lifestyle to the viewers through discourses and behaviors related to their own lives and lifestyles whilst creating envy. In this context, synoptic surveillance refers to a type of surveillance that is tailored to the structure of mass media such as radio, television, and cinema. There is no need to oppress people since the act of watching is extremely pleasurable. As people are constantly entertained while watching, they are unaware of the pressure. Entertainment has evolved into a world-ruling ideology. People lose themselves in front of television screens, avoiding real-world problems. At this point, entertainment has taken on the role of true ideology (Öztürk, 2013, p.142). The concept of entertainment is also an effective means of keeping people passive. The existence of a passive mass, according to Sennett (2013, p. 364), is the basic logic of mass media. Even though people are seeing more, they are interacting less.

Omnipticon

This situation has been reversed in the new media environment. Instead of a passive mass, individuals engaged in active interaction have come to the fore. In the postmodern period, surveillance, which was forcibly realized through the panopticon in the modern period, has evolved into a voluntary surveillance/display process based on individual consent via the synopticon through the surveillance of the majority on the minority. Then, by means of the omnipticon, where the majority monitors the majority, everyone monitors everyone. The logic of the omnipticon is intertwined with the fundamental characteristics of postmodern culture. This period, during which both displaying and seeing have reached a high level of pleasure, has been conceptualized with various definitions.

Notions such as the society of spectacle (Debord, 1996) and the society of transparency (Han, 2020a) point to postmodern culture. The concept of consumer society (Baudrillard, 2010) is taken as the basic ground that sustains postmodernity. This era, on the one hand, traces the modern periods in which eye took over the power, but it also witnesses the transformation of seeing into the act of display. In this age where images take precedence over identities, in Baudrillard's words, there is a sovereignty of simulacra that have taken the place of reality; we witness unreal things being displayed/simulated as real (2005, pp.15, 35). The postmodern world is controlled by computers. Data banks store a wide range of information. The postmodern society's dynamics are defined by the culture created by the age of information and communication technology (Denzin, 1991, p.25). Han (2020a, pp.67-68) employs the concept of digital panopticon for the post-panopticon period. Essentially, the digital panopticon refers to omnipticon-style surveillance. As previously stated, the basic logic here is that there is no longer centralized surveillance. Whereas the panopticon was a phenomenon of disciplinary society that sought to reform the individual, today's digital age surveillance lacks perspective. While those in the panopticon are aware of the watcher's constant presence, those in the digital panopticon/omnipticon think they are free.

The spectacle, the postmodern era's rising star, refers to the diversification of mass media and the transformation of daily life practices into show elements, which leads to cultural spectacle fetishism (Serdar, 2012, p.90). The motto “you need to know and be known” stimulates the desire to know and learn everything about everyone. However, this desire is satisfied in exchange for individuals making their personal lives public (Niedzviecki, 2010). The publicization of private lives has resulted in the irreversible fragmentation of privacy in all areas of life. The violation of the boundaries of private life is also a violation of freedom. Excessive interest in the secret and the private has fueled collective exhibitionism, discrediting the protection of the private. As a result, the voluntary disclosure of private spaces has turned into a mass movement (Köse, 2011, pp. 9-13; Çağan, 2018). Han (2020a) discusses the pressure to reveal the secret through the concept of transparency society. He states that transparency, which points to the concept of post-privacy, is a means of putting pressure on the complete loss of the personal by emphasizing visible communication. The transparency society is a process that runs parallel to the society of positivity. He claims that the general judgment of the society of positivity is “like”, referring to the fact that there is only like option on social media platforms. It is necessary to be displayed in order to exist in the society of positivity. (Han, 2020a). This is due to the fact that it is not only the individual’s self that is on display. “Although it appears that the goal is simply to show oneself, the true goal is to exhibit the self or social existence equipped with the object of display. As a result, the glittering states of status, wealth, class, youth, beauty, and intelligence are presented” (Can, 2018). Consumption is essentially required for all of this mechanism to function. In today's world, consuming entails not only owning a commodity but also displaying that commodity to others. Individuals in the consumer society believe that not only owning but also displaying the objects they consume (eating, drinking, traveling, having fun, dressing, reading, and many other areas) will bring them both happiness and prestige.

To summarize what has been said thus far, surveillance via the panopticon in the modern era and the omnipticon in the postmodern era appears as a means of establishing dominance over bodies, and both forms serve the purpose of creating a mass society made up of standardized individuals. While the effort of surveillance and alignment is obvious in the panopticon, and individuals are dissatisfied with this situation, it can be said that in the omnipticon, an effort to create a mass is dominant in a veiled way by giving the message that individuals are free. Therefore, individuals are satisfied with this situation rather than feeling discontent. The rest of this article will put what has been said into context by analyzing the Nosedive episode of the TV series Black Mirror, which is about a society dominated by Omnipticon-style surveillance.

Methodology

This study, which aims to examine the Nosedive episode of the Black Mirror series in depth, is based on the interpretive perspective. This study was designed qualitatively in terms of its compatibility with the characteristics of the limited universe, the desire to investigate a phenomenon in detail and in context, and the lack of time limitation (Bal, 2014, p. 146). The interpretative/qualitative content analysis (Baş & Akturan, 2013, p. 121), which includes the determination and definition of the themes, subjects and phenomena in the material, constituted the analysis method of the film. Because with qualitative content analysis, social reality becomes scientifically understandable (Güçlü, 2021). A qualitative researcher analyzes data by categorizing it on the basis of themes, concepts, or similar characteristics. It associates concepts with each other and incorporates them into the framework of theoretical explanations (Neuman, 2010, p. 663).

In the qualitative content analysis process, first of all, the research problem was defined. The question of "what kind of social transformation does the change in surveillance patterns bring along" constitutes the problem of the research. Based on this problem; the question of "what kind of social structure does omnipticon-style surveillance create" was chosen as the unit of analysis. Then, the Black Mirror Nosedive episode was selected as a purposeful sample for analysis. While watching the movie, notes were taken and important moments were photographed. As a result of watching the movie many times, conceptual categories were developed and various themes were created. These themes are based on the theoretical ground of the study and the explicit and implicit meanings of the film narrative. Based on the content of the text, coding was done, categories were created and main themes were determined during the analysis, taking into account the basic features of omnipticon-style surveillance. Especially Chul-Han's conceptualizations were decisive in the creation of the themes. The themes created in order to make the meaning strong were interpreted by supporting the theoretical information.

Results and Discussion

Black Mirror[2] is a British TV series, started in 2011. The anthology series provides dystopic fictions about potential negativities that advanced technology will bring to our lives. Black Mirror emerges as a remarkable production with episodes that try to shed light on the dark side of technological progress and mirror it (Allal-Chérif, 2019; StudyCorgi, 2022). Nosedive, the first episode of Black Mirror's third season, is set in a dystopian society where people are constantly looking at their phones, scrolling, and rating each

[2] ***Black Mirror: Nosedive (Season 3, Episode 1)***
Director: Joe Wright
Producer: Laurie Borg, Charlie Brooker, Ian Hogan, Annabel Jones, Angela Phillips
Episode writers: Rashida Jones, Michael Schur, Charlie Brooker
Stars: Bryce Dallas Howard, Alice Eve, James Norton ve Rashida Jones
Production: UK, 2016
Genres: Drama, Mystery, Sci-Fi
Running Time: 63 min.

other from one to five stars, just like hotels and restaurants. In this society, people are continuously sharing what they want others to see and think they are living, rather than their real lives, and waiting for the interactions that will come with these posts. (Wollaston, 2016). Sharing and waiting have almost made people forget the whole daily routine and have become the most basic components of life. For, the scoring that corresponds to sharing is the main factor that determines the status in daily life. Individuals can be included in social life according to their scores.

The Nosedive episode was watched many times and themes were created for qualitative content analysis. The determined themes were carried out with reference to the concepts of social science thinkers who have analyzes of today's societies. At the forefront of these is Byung Chul Han, who has come to the fore with the society typologies he has developed in recent years. Han's concepts of *performance subject*, *compulsion of happiness*, *quantified self*, *burnout*, and the concept of *living in a showcase* created with reference to Goffman were the themes determined for the analysis.

Performance Subjects of "Omnipticon": Nosedive

Visual 1. *People who are always busy on the phone*

Visual 1, shows the scene, which is a kind of summary of the episode, and the people who are constantly busy with their phone screens. The episode's title "nosedive" is used in the sense of "sudden fall" or "hitting rock bottom". Individuals in a highly digitalized society have access to the name of the person in front of them and the score information that determines their social status, thanks to eye implants. The antagonist of the episode is Lacie, a middle-class woman living in a society with a rating system. Throughout this episode, we see Lacie, who has a rating of 4.2, racing to get a higher score (and thus a higher social status) in order to live a happier life. At the beginning of the episode, Lacie is jogging. She takes a selfie with her phone while running and posts it to her social media account. Later, it is discovered that stars and likes are pouring into this post, and Lacie's score rises. At the same time, she rates others in her social circle on the road. In this society, rating someone is as essential to survival as air and water. At first glance, Lacie's morning jog appears to be a health-related activity, but it demonstrates an activity that must be done in order to have a high social standing in the social hierarchy in the society of spectacle.

Visual 2. *Digital panopticon*

Visual 2, shows the digital panopticon where all individuals can control others in their eyes. In body debates, there is also criticism of the view that the body is used as a tool for social positioning apart from the organs that physiologically constitute the person. Certainly, everyone has a body, but our bodies are not physical objects that exist independently of society. Our social experiences, as well as the norms and values of the group to which we belong, have an impact on our bodies (Giddens, 2012, p. 296). Lacie is enjoying the pleasure of performing an act that is approved by society and will be highly rated by those who witness it. People who encounter each other in every corner of daily life are not interested in who the other person is but in their score. They are categorized based on their score and it determines the social status of the person. All this fiction reflects Han's theory that person is no longer an individual but *a subject of success and performance* whose life and actions are measured by data. Bauman argues that the 24/7 performance surveillance requires the individuals of today's liquid world to carry their personal panopticons on their own bodies, just as snails carry their homes on their backs (Bauman and Lyon, 2016, p. 73).

Visual 3. ***Lacie's score***

Visual 3, shows Lacie's score, which is the first piece of information to be acquired when she enters a social setting.

Living in a Showcase

Being in a race both to consume and to show what they consume to others has turned today's people into performance subjects. Individuals are trying to perform a play on the theater stage. Goffman (1959) likens social interaction to a theater stage where everyone plays their part. Han uses the term performance subject in reference to the individuals playing a game on this stage. In such an environment, individuals leave the stage with a different identity and they frequently experience identity distortion and character erosion while taking on the character they project on the stage.

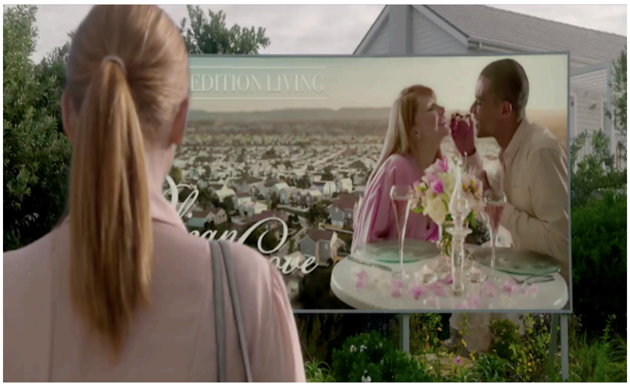
There are two key scenes in the episode that demonstrate how the moments shared on social media serve as showcases (not in reality). The first is a scene in which Lacie takes a photo while drinking coffee and eating cookies. In order to increase the attractiveness of the photo, she gives the appearance of being eaten by biting into her cookie (then spitting it out) and posts with the note "I feel like I am in heaven". However, there is a real character in the background of the post who does not like the taste of the coffee, does not drink it, and does not swallow the cookie. The other scene is one in which she prepares a delicious olive tapenade (which she never eats) for her account. These scenes remind the perpetually cool lives shared on social media today. Many similar scenes in the episode demonstrate people living in the hyper-reality of the postmodern era. These people's interactions with one another are staged and superficial. During their encounters, a forced grin spreads across their faces, far from being genuine. These people, who appear to be happy and walk around with fake smiles as if they really like each other, raise each other's ratings by being concerned with their own scores.

Visual 4. ***People's scores***

Visual 4, shows scores that determine the social status of individuals and express their performance. Interacting with people who have high scores has the same effect as having a high score yourself. Otherwise, when interacting low scored people, the "others" may lower your score. As a result, people with low scores/low status are ignored in everyday life, as if they do not exist.

Burnout while Consuming

The episode also extensively covers the phenomenon of acquiring identity through consumption, which is the main engine of postmodern culture. Consumption is required to achieve the desired social status. Lacie makes plans to rent the house she wants, thereby elevating her status. To achieve this goal, she must be a member of the Prime Influencer Program, which requires a score of 4.5, to get a 20% discount on the cost of rent. She needs to interact more and raise her rating in order to live an exclusive house in Pelican Cove, which promotes with the slogan "limited edition living". For Lacie, this place, which her brother Ryan (3.7) criticizes as "fake-smile jail cells" and "no one is this happy," is a *lifestyle community*. Because Lacie yearns to have the common culture embraced by the society, she lives in. What is popular is valuable for her. Here, it can be said that Lacie experiences the process of adapting to the group norm, which is conceptualized as conformity behavior in social impact (Serdar, 2021, p.109). Lacie is struggling to stay on track and not to be eliminated from the race. According to Bauman (2015, p. 28), progress has now shifted from a discourse of shared improvement to that of individual survival. This process of survival is based on the principle of "keeping up with the times," which can be encapsulated as fashion.



Visual 5. ***Pelican Cove***

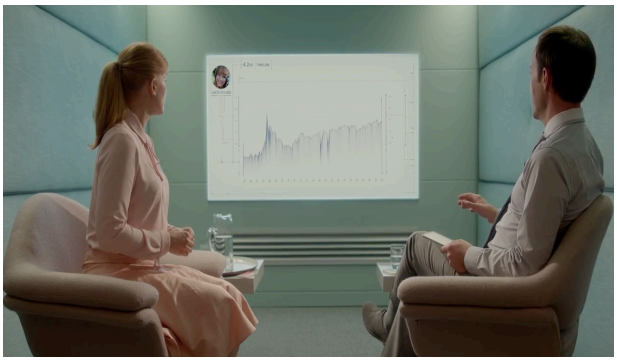
Visual 5, shows Lacie watching her simulation's happiness in front of the Pelican Cove advertisement featuring her dream house. Lacie is a product of the *likability* culture. The economization and commodification of culture underpins it. Consumption is increasingly putting pressure on cultural products. The economization of culture follows the culturalization of the economy. Consumption products gain cultural surplus value (Han, 2022, p. 16). Due to the industrialization of culture, the consumption of these products is no longer dependent on need. The number of things that must be consumed compulsorily increases rapidly. In order to be like everyone else, everyone begins to consume the same things and live the same lifestyle (Adorno, 2002).

Lacie focuses on interacting with people who have high scores in her quest to improve her score after consulting analysts. However, her attempts to interact occasionally fail, and her score begins to fall. To that end, she begins communicating with Naomi, a childhood friend with a score of 4.8 with whom she has few positive memories. Lacie's brother Ryan believes that all of her efforts to improve her score are futile. Asking Lacie, who talks to Naomi as if she loves her very much, "what was that?" Ryan voices his criticism of the madness of spectacle. Ryan says "this whole ranking thing, just comparing yourself to people who only pretend to be happy, high fours like Naomi, I bet they are suicidal on the inside", criticizing the form of self-consumption on social media. He regards Lacie's situation as an "obsession", expressing that he misses the times they used to have good conversations. Lacie, on the other hand, is ready to break her ties with her brother in order to be included in the spectacle and to reach the position she wants in that world. This is because bonding is a negative behavior for the individual who is at the center of consumption in the postmodern world. In order to achieve individual welfare, it is necessary to get rid of binding chains such as family.

Quantified Self

According to Han (2020c, pp. 67-68), life in today's digital society is measurable and quantifiable. Performance and efficiency are critical in this measurement, but the question "who am I?" cannot be answered with data collected in bulk. "Self-knowledge through numbers" is the quantified self's slogan. Numbers, however, are not the elements that allow one to gain self-awareness.

Nosedive is like a performance competition between quantified selves. Earning points is not only important for adjusting to popular life, but it has also become a requirement for societal self-sufficiency because you are treated based on your score everywhere. There is a score requirement when boarding an airplane/elevator, renting a car/house, entering a wedding/communion. With notices such as "minimum entry 3.8, no exceptions," members of the society are forced to raise their scores. Although Lacie appears to be acting voluntarily, she is actually trying because she feels obligated to do so due to social pressure. The main motivators that integrate her into this culture are a sense of belonging to the group and not being excluded. In fact, those who criticize the scoring system based on these bizarre fake identities are effectively pushed out of the social operation. Because of their low scores, these people continue to exist in this society as outsiders with whom people do not want to interact and who are unable to take advantage of many opportunities.



Visual 6. ***Meeting with data expert***

Visual 6, shows Lacie discusses the possibility of increasing her score to 4.5 with the data expert. The ability to establish oneself firmly in society is solely determined by one's score. There is no need to consider the character of someone with a high score because the numerical ranking is what matters. The act of self-monitoring is embodied in the form of *self-surveillance* in today's dataism[3], from which morality and truth are emptied. Individuals who monitor themselves carry around a panopticon in which they are both a prisoner and a guardian. The work of surveillance has been distributed to each individual in the digital age. People in the digital network have become their own panopticon. This is conveyed concretely in the episode by the implants in everyone's eyes.

As a matter of fact, in this episode of the series, individuals are required to act in a way that will always increase their rating scores, rather than acting intuitively. Everywhere they go, in every transaction they conduct, the counterperson is first shown their scores, and if only they have enough points, they can do whatever they want (buying a plane ticket, charging the car, etc.). The score determines whether or not the person is eligible for any kind of transaction. When Lacie is denied boarding the plane due to her score, she loses her cool and pays a high price. Those who witness the situation immediately lower Lacie's score with the device in their hands, and as a punitive measure, one full point is deducted from her score. This is a temporary measure for 24 hours, but for Lacie it is vital. Within those twenty-four hours, she must attend her childhood friend's wedding, deliver a speech, and gain the approval of the high-scoring people in order to achieve 4.5 and move into her dream house.

Visual 7: Score is everywhere

Visual 7, is screen that shows during ticket purchase at the airport, a person's status and information are displayed on the screen in front of the attendant. The more Lacie strives to achieve this goal, the deeper she dives, as every negative feedback will now have a double impact due to the punitive sanction. As a result, her score will drop more rapidly. Lacie, on the other hand, continues her journey, focusing on the impact her speech at the wedding will have on the audience of high-

[4] *Han declares Dataism, defined as "data fetishism," to be the philosophy of our age. Dataism, he claims, emerged with the emphasis of the Second Enlightenment. Statistics were glorified during the First Enlightenment, which pitted objective, number-based, number-functioning knowledge against mythological narratives. Transparency was the second Enlightenment's buzzword. Everything must be data and information; data must be transparent. This data totalitarianism or data fetishism is the soul of the Second Enlightenment. Han perceives dataism, which he sees as an ideology in and of itself, as a form of digital totalitarianism. What we need, he says, is a third Enlightenment to show us how the digital Enlightenment has devolved into slavery (Han, 2020c, pp. 64-65).*

scoring attendees. However, the unexpected mishaps along the way, as well as Lacie's aggressive reactions to them, significantly lower her score. Her childhood friend Naomi, whom she was trying to get to her wedding as maid of honor, tells her that she can't have someone with such a low score at her wedding, and that she doesn't want her there. “I cannot have a 2.6 at my wedding,” she says. When Lacie asks “so it's just about numbers for you”, she gets the answer “it was numbers for both of us”. Indeed, both Lacie and Naomi made their quantitative projections based on the prestige they would gain from the wedding, and the calculations were reversed because Lacie lost points. Despite being told that she was not welcome, Lacie is determined to attend the wedding and collect those points. It is clear that she is no longer thinking in a healthy and realistic manner from this point onwards. Because of her low score, she is not provided help on the road, but Susan, who has a score of 1.4, wants to offer her a hand. Lacie does not want to interact with someone with this score because as Susan points out “1.4 gotta be an antisocial maniac”. Ex tempore, the ratings determine whether or not to interact with someone, because the score, not the character traits, is what matters. She jumps into Susan's truck because she has no other option.

Visual 8. ***Susan, a social outcast***

Visual 8, shows Susan, a social outcast with a score of 1.4, offers help to Lacie. Lacie has become a victim of the success and performance-oriented society's violence. This violence is the result of excessive positivity rather than negativity. Lacie, a successful and performance-oriented person, will inevitably develop depression. According to Han (2020b, p.11), violence, or the power to behead, transforms into decapitation in a hegemonic society, deformation in a disciplinary society, and depression in a performance-oriented society. Finally, the omnipticon's free world reveals its own sheer negative in its false, misleading, euphoric, and overconfident affirmation of itself. In today's world, the best becomes the worst, nothing is more dangerous than the hero and the important person, and everything, including rebellion, becomes its polar opposite (Lefebvre, 2013, p.26).

Compulsion of Happiness

The performance subject of our age is different from the disciplined subject. In the neoliberal performance society, negatives such as orders, prohibitions or punishments are replaced by positives such as motivation, self-optimization and realization. Disciplinary spaces are replaced by soothing spaces. The power's new formula is “be happy” (Han, 2022, p.21). In this society, psychology has shifted toward positive psychology, with negative thoughts discouraged. The palliative society is also a like society, with today's painkiller being “like” (Han, 2022, p. 15).

In a society where the craze for spectacle is at its peak, the conversation between Susan and Lacie contains the episode’s criticism. Lacie tells Susan that despite her 1.4 score, she appears normal. In exchange, Susan thinks despite having a 2.8, Lacie does not look like a 2.8. After that, Susan explains once she was 4.6 and used to live for it. Her perspective on life however, was altered when she learned that her husband had cancer and could not receive the treatment he needed because his score was low, and eventually he passed away lacking the necessary treatment. After that, as if defying the score/caste system, she began to behave/speak to everyone as she pleased. As a result, in a world where authenticity is frowned upon, both her score and social position have plummeted. Susan claims to be honest, but she soon realizes that most of her friends dislike honesty. Susan, on the other hand, appears to be genuinely happy, despite being ostracized by the society. When she asks Lacie what exactly she is looking for in this life, Lacie's answer is “to be content”. This is, in fact, quite ironic. Because Lacie is discontent throughout the episode and is unaware that feeling content is not a status to be attained as a result of something.

Visual 9. *Bottoming out*

Visual 9, shows the scene in which Lacie is taken away by the officials after her speech at the wedding reception. In the end, Lacie manages to get into Naomi's wedding at all costs, but she is quite lost from the alcohol she has consumed. Thus, she makes some moves and uses expressions that lower her score further. Lacie, whose score is now at almost zero, is finally locked up in a cell. The fact that her score goes down to zero also means her disappearance from society. While entering the cell, the implant in her eye that reads the other person's score is removed. Hence, Lacie is pushed out of the performance society. However, when she starts speaking with another prisoner in the cell, she speaks from her heart without worrying about scores. That makes her feel like a genuine human being and feeling like that illustrates what is difficult in today's world. Ahmet İnam also describes our age as "the age of those who die before they can live". "Paradoxically, medicine is developing, human life span is increasing, cures for diseases are being discovered, science is advancing, and technology is producing at an astounding speed in this age. All of these positive developments, however, cannot eliminate human unhappiness and dissatisfaction. Because, we do not live, we are made to live!" (İnam, 2002, p. 85).

In the final scene, we witness Lacie hitting rock bottom when she fails to achieve what she sees as the only meaning of life. This is exactly where the meaning of the entire episode is grasped. Han expresses that the violence in a performance-oriented society can take the individual to the brink of burnout. In fact, there is no longer any evidence of violence. Instead of an external coercive force, a stage of self-discovery based on the individual's will and masquerading as freedom has begun. Here commences the process of the individual's self-exploitation in the society of success and performance until burnout (Han, 2020b, p.20). While we watch her fall, we also hope that Lacie's true awakening will occur after she reaches rock bottom.

Conclusion

With its disciplinary character, the new world order that emerged after the Industrial Revolution has been and continues to be a topic of discussion. The most prominent example of the idea of keeping individuals under control and surveillance is embodied in Bentham's metaphor of the panopticon. Foucault discusses the disciplinary role of the power through this metaphor. In these periods, this form of surveillance, which took place under pressure without the consent of the people, was the focus of criticism. With the emergence of mass communication, the period of synoptic surveillance, in which the majority followed the minority, has entered. Today, we are witnessing the beginning of a period of surveillance with the will and acceptance of the being watched. This surveillance, where everyone watches each other, corresponds to the expression omnipticon.

Certainly, surveillance processes are not processes where one ends and the other begins. New forms continue together, taking the old form into their fold. Therefore, it would be an incomplete assessment to believe that today the classical panopticon has completely disappeared and instead the omnipticon is all-pervasive. For, the underlying philosophy, the ability to rule by surveillance, continues to exist. Giorgio Agamben (2013, p. 125) explains this by saying that what passes to the successor upon the death of the sovereign is the Holy Spirit that forms the basis of sovereign authority. In this kingdom, the king is never dead. However, individuals who are under the illusion that they are relieved of the existence of a mechanism that controls them feel free and the "big brother" turns into a "friendly big brother".

Han (2020a) expresses the most important difference between the panopticon and the omnipticon as follows: Those in the panopticon are aware of the constant presence of the watcher. The inhabitants of the omnipticon think they are free. Unlimited freedom and communication turns into total control and surveillance. It is against freedom for the system to follow the individual every second of every moment. The disciplinary society of the panopticon has turned into the society of performance in the omnipticon. The individuals of this society are not "submissive subjects" but "performance subjects". The focus of the performance subject is 'to be able'. Being able to do indicates all kinds of positive situations. There is no place for negativity/unhappiness in this society where 'like' is important. In a society of positivity, the necessity of proving success and performance makes exposure inevitable. In the exhibitionism society, each subject has become an object of advertisement for itself. Therefore, one of the main pillars of display is transparency. Transparency aims to make the unknown known, to make the different similar, and to make the free individual controllable. And so the key to a society of transparency has been *control*, not trust. (Han, 2020b). The performance-based society model also focuses on quantity rather than quality, validating the dominance of images rather than identities. Gürbilek (2009) states that many things exist because they are shown and as they seem. She expresses the emergence of a society that gains value as much as it is exhibited and watched. She says that in such a society, individuals live in the showcase. The performance subject living in the showcase eventually exploits himself and is exhausted (Han, 2020a). All these mechanisms expressing the omnipticon are intertwined with each other, each feeding the other.

This model of society, which proves its existence through the acts of looking/appearing/displaying, and the position it will evolve to in the future have been the subject of numerous academic and mainstream studies. The episode Nosedive of the dystopian fiction series Black Mirror is one of the productions that criticizes today's society through the above-mentioned phenomena of show, consumption, performance, image, and burnout. Therefore, it contains rich data for future sociological studies.

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RESEARCH ARTICLE

The effect of government support on global branding strategies: Evidence from Turkey

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Abstract

This study investigates how government support affects branding strategies in Turkey. As the methodology, interviews were used focus group interviews to elicit the managers' thoughts. Drawing upon a focus group interview containing one Turkish carpet company that is in the TURQUALITY program from 2019 to 2022, the effect of government support on local brands to become global brands' ability has been investigated. The results show that senior management support is needed to prepare the company's plan, and the importance of increasing the use of digital sales as well as traditional channels should be included among the targets. Another important conclusion suggested by our results is that government incentives would suffice to drive internationalization and sales success. Beyond that, the most significant contributions to companies' marketing and brand performances by government support are increasing the international sales compound annual growth rate and shifting the company from a production-focused to a marketing-focused company.

Keywords: *Global brands, government support, brand strategies*

Öz

Sonuçlar, şirket planının hazırlanmasında üst yönetim desteğine ihtiyaç duyulduğunu ve geleneksel kanalların yanı sıra dijital satış kullanımının artırılmasının öneminin hedefler arasında yer alması gerektiğini göstermektedir. Sonuçlarımızın öne sürdüğü bir diğer önemli sonuç, devlet teşviklerinin uluslararasılaşma ve satış başarısı için yeterli olacağıdır. Bunun ötesinde, devlet desteklerinin şirketlerin pazarlama ve marka performanslarına en önemli katkıları, uluslararası satış bileşik yıllık büyüme hızının artması ve şirketin üretim odaklı bir şirketten pazarlama odaklı bir şirkete geçmesidir. Bu çalışma, devlet desteğinin Türkiye'de markalaşma stratejilerini nasıl etkilediğini araştırmaktadır. Metodoloji olarak, yöneticilerin düşüncelerini ortaya çıkarmak için görüşmeler odak grup görüşmeleri kullanıldı. 2019-2022 yılları arasında TURQUALITY programında yer alan bir Türk halı firması ile yapılan odak grup görüşmesinden yola çıkılarak, devlet desteklerinin yerel markaların dünya markası olma becerileri üzerindeki etkisi araştırılmıştır.

Anahtar Kelimeler: *Küresel markalar, devlet desteği, marka stratejileri*

Introduction

Brand management has become a central phenomenon discussed not only in marketing but also in economics and other social disciplines (Ashworth & Kavaratzis, 2009; Kucharska et al., 2018; Ökten et al., 2019). A product, person, institution, or even country leaves a mark, through branding, in the minds of those who perceive it (Chakrawal & Goyal, 2016). Branding activities, which affect the perception of the target audience, are of great importance for companies and contribute to the country's economy. In 2022, the total value of the world's 100 most valuable brands increased by more than 22% and reached 8.7 trillion dollars. This figure was around $5 trillion just two years ago (Statista, 2022). Brands can greatly influence countries' gross domestic product (GDP) and economic growth. The reputation of a country on a global scale is closely linked to the brands that the country owns. A country's brand matters whether it is an advanced or developing economy and creates competitive advantages. (Fetscherin, 2010). The nature of the economy is bound strongly to create "value", based on mainly intangible assets. Intangible assets increase a company's future value and could be more valuable than tangible assets. In developed economies such as the United States and European countries, investment in intangible assets is higher than in tangible assets (Brand Finance GIFT Report, 2022), and the increase in the share of intangibles was 2.8% in France and 1.9% in the United Kingdom (McKinsey, 2022).

Turkish Airlines has been named Turkey's most valuable brand for 2022, with a value of $1.604 billion in 2022. However, the brand value of Apple ranked first among the top 500 brands in the United States, was $947.1 billion in 2022 (brandirectory.com, 2022; Statista, 2022). This illustrates the effect of branding on countries' macroeconomic stability and competitiveness. This illustrates the effect of branding on countries' macroeconomic stability and competitiveness. For this reason, the TURQUALITY project was laid out publicly for the first time in Turkey in 2004 to sustain the Turkish economy's growth. The program was designed as a brand-building platform to support companies in corporate, financial, and operational terms, considering the changes in global markets and the demands of program stakeholders. (Turquality.com, 2022). In the literature, there are not enough studies about the effect of this support on the private sector and brands. For this reason, the current study aims to determine the opinions of company officials regarding the contributions of the TURQUALITY program to brands. The critical factors for success for Turkish brands competing in international markets and contributing to the economic growth of the country with the help of the TURQUALITY program, the contributions of the program in terms of a particular carpet brand, and the factors required for the development of the program were made the sub-objectives of the current research. In this context, the research questions were as follows:

RQ1. What are the views of company officials implementing the TURQUALITY program about the reasons they participate in the program and what they expect from the program?

RQ2. What are their views about the contributions of the TURQUALITY program to the company?

RQ3. What are their views about the development projects they have planned for the TURQUALITY program?

RQ4. What are their views about the responsibilities of senior management and employees in the implementation of the TURQUALITY program and about the methods they follow to maintain balance?

RQ5. What are their views about the compatibility of the TURQUALITY program with the company's objectives?

RQ6. What are their views about the effects of the TURQUALITY program on marketing and sales performance?

RQ7. What are their views about the design of a new brand program that they can create as an alternative to the TURQUALITY program?

Based on a focus group discussion conducted with the guidance of the above seven questions, the current study provides the views of a company implementing the TURQUALITY program in the carpet industry, its suggestions, its preparations before the program's implementation, the effect of the program on the company's brand strategy, and the program's compatibility with the company's goals. This article is organized as follows. First, details about the TURQUALITY program and the features of the carpet industry in Gaziantep, the brand concept, and the brand strategy are given with a general framework to outline the context of the study. Then, the study method is explained, the findings of the study are provided, and the results are discussed.

Literature review

This study seeks to examine the relationships between government support and brand while focusing on the TURQUALITY program and the Carpet sector in Turkey. As such, the rationale for choosing these factors, in terms of analyzing the brand and internationalization activities of companies, is sustained the company activities by the significant number of government support in emerging markets, such as China, Brazil and India (Fu et al., 2022; Jugend et al., 2018; Jain et al., 2021) which proves that internationalization and marketing performance is critically important in driving company and the country performance.

Government support: Even before the COVID-19 pandemic, rising protectionism and economic nationalism had changed the rules of global competition. Governments were seeking ways to increase the international competitiveness of domestic companies, including providing direct support. Government support is a public tool to meet the financial obligations of companies (Macilree & Duval, 2020) and includes tax support, wage subsidies, payment delays, and access to credit (Cirera et al., 2021; Macilree & Duval, 2020).

Recent research suggests that government support has a leverage impact on brands and businesses. Kiho Trading Ltd., a Japanese food manufacturer, has created international customer awareness by promoting the brand "Kappachi" with the government's support (Kim et al., 2014). In recent years, the growth of Chinese internet companies has brought enormous financial strength to China (Li & Yang, 2022). Li et al. (2011) revealed the significant impact of government support on the financing of high-tech enterprises in China. During the COVID-19 pandemic, companies needed government incentives in many respects. For example, research conducted in New Zealand demonstrated the importance of government incentives and strong relationships among international partners for the resilience of small and medium-sized enterprises (SMEs) exports during COVID-19 (Fath et al., 2021). Previous studies provide evidence that companies dealing in international trade during the pandemic need more active government assistance, they also argued that government support for companies is necessary (Chabossou et al., 2022; Xia et al., 2021). These studies highlighted that government support during the COVID-19 pandemic has been the focus of research all over the world (Nguyen et al., 2023; Wang et al., 2021; Nurunnabi, 2020; Lalinsky & Pal, 2022; Belghitar et al., 2020).

Government support has been provided to support SMEs, protect them against crises, encourage innovation, and protect fragile sectors. However, there are limited studies in the literature on government support that the brands become global players. Founded in Malaysia in 1996 to help SMEs be competitive in the international arena, SMECorp provides SMEs with the necessary support to take their brands to the next level, including support for branding information, market access, networking, and media exposure (SMECorp, 2022). In South Korea, the government has developed support policies to increase innovation in SMEs (Doh & Kim, 2014). The TURQUALITY program enables companies that have a competitive advantage in Turkey and sell products with a branding potential to become global players in international markets by increasing their managerial knowledge, institutionalization, and development. TURQUALITY is an accreditation system, which is planned for leveraging the beneficiary firms to the level of international benchmarks. To support companies in their brand-building efforts, TURQUALITY helps them to develop essential capabilities (Turquality.com, 2022), competencies, skills, and resources. The program supports companies in many areas such as trademark registration, market research, advertising expenditure, international units, and office rentals. The TURQUALITY program is basically an accreditation system, which is designed not only for elevating the beneficiary companies to the level of international benchmarks but also to create awareness of the internationally accepted values like quality and novelty that are carried by these brands.

Brand Strategies

American Marketing Association (AMA), (2007) defined a brand as a name, term, design, symbol or any other feature that identifies one seller's goods or service as distinct from those of other sellers. Lynch and De Chernatony (2007) characterized a brand as a functional and emotional value that includes the various needs of target consumers. Consumers interact with brands through values such as loyalty and attitude and share their experiences with others. (Keller, 2001). This interaction makes the brand unique by creating brand equity and transferring its distinctiveness to the target audience (Srivastava and Shocker, 1991) and can increase the competitiveness of companies by providing various marketing advantages. (Keller, 2001; Hoeffler & Keller, 2003). This statement is unquestionable in all economies, exclusively in emerging markets such as Brazil, China, and India, where brands such as Petrobras, Haier and Tata have arisen as "supreme brands" in their sectors (Abimbola, 2010). Previous studies provide evidence that human capital, technological capital, and brands have a positive impact on regional economic growth (Dettori et. Al, 2012; Kucharska et al., 2018; Ramos et al., 2021). Ergo, public authorities have a crucial role in supporting branding as well as the effort of private sector (EU, 2022). The literature provides a solid link regarding the relationship between government financial support and brands from different sectors. For example, the Chinese government plays an important role in promoting firms' innovation efficiency (Xu et. al, 2023; Li ve Yang 2022; Zhu et al., 2019), the important role of government policies for Italian firms during the COVID-19 crisis (Fasano et al., 2022), the effects of government subsidies on green technology investment and green marketing (Li et al, 2021; Barman et al., 2022), Australian government support, grants and funding to companies marketing and brand strategies (Business.gov.au, 2023).

In the emerging competitive environment in today's global marketplace, economies with strong brands can achieve a competitive advantage of differentiation and attain enormous financial advantage (Aaker, 1996; Matanda & Ewing, 2011). Brand strategies characterized and developed the market position to create financial value and brand loyalty (Kırdar, 2003). From this perspective, strategies applied by brands are signals that conduce to creating competitive advantage (Aaker et al., 2004). When the effect of government supports on firms in developed and developing countries is investigated, it is seen that incentives have a more important and strategic effect on firms in developing countries (Lee et al., 2022). The present study argues that the government's support of brand strategies in developing countries will contribute to the country's economy and the learning processes of companies.

Method

This study aimed to reveal the views of company officials implementing the TURQUALITY program. For this purpose, a focus group interview-based qualitative method was chosen. Basch (1987) argued that the focus group interview is a qualitative approach to obtaining information about subgroups of the population in terms of conscious, semi-conscious and unconscious psychological and sociocultural characteristics and processes. Focus group interviews, one of the most frequently used methods in qualitative research, is a series of carefully planned discussions conducted to obtain perceptions about a predetermined subject in a moderate and nonthreatening environment (Yıldırım & Şimşek, 2008).

One widely studied issue using focus groups is the broad area of marketing, including topics such as consumer research, digital marketing, and green marketing. One of the first such studies was conducted by Cox et al. (1976) who indicated that the focus group interview is an effective qualitative technique in marketing research. Welch (1985) provided marketers with insights about implementing focus groups in the industrial environment. Catterall & Maclaran (2006) claimed that the focus group is a dynamic and highly versatile technique that still has much to offer researchers, as a stand-alone method or in tandem with other marketing research techniques. Companies and marketing research organizations first used focus group interviews to reveal and influence consumer purchasing behaviours (Basch, 1987; Kumral, 2010). This method is not limited to influencing consumers but is used for; enabling brand managers to explore the consumer experience quickly and cost-effectively, structuring surveys for consumers, developing a bridge between marketing management at the production level and the end user of the product or service (Bellenger et al., 1976; Cox et al., 1976; Nuttavuthisit, 2019). Focus groups are also often used as a way to bridge the gap between the target group and the consumer and to understand the experience of the consumer group (Axelrod, 1975).

Data collection and analysis

In the current study, the company benefiting from the TURQUALITY program is in the carpet business in Gaziantep. This is because the carpet industry is significant not only for Gaziantep but also for Turkey's total exports. In 2021, Gaziantep alone was responsible for 71% of machine-made carpet exports worth 3.9 billion dollars in the carpet industry all over the world. There are around 170 carpet manufacturers and approximately 1500 weaving machines in Gaziantep (TOBB, 2021). Although 70% of the world's machine-made carpets are produced in Gaziantep and exported to approximately 173 countries (GSO, 2021), companies in the sector work as contract manufacturers and have insufficient resources to create a brand that will reach the ultimate customer. For this reason, the current study focuses on the importance of the TURQUALITY program in terms of maintaining the worldwide success of the carpet industry by creating a global brand. There are eight interviewees, five are men and three are women. Of these, CEO has been working for seven years, the General manager, the brand and marketing manager and the finance manager for four years, and the procurement manager and the R&D manager for six years with the company. Five of the interviewees had graduated from university and three of them had post-graduate degrees.

Table 1. Reports the summary of our focus group interview data.

Role in the Company	Sex	Years	Education
Owner	Male	20 years	University
CEO	Male	7 years	Postgraduate study
General manager	Male	4 years	Postgraduate study
Brand and marketing manager	Male	4 years	Postgraduate study
Procurement manager	Male	6 years	University
R&D manager	Female	6 years	University
Finance Manager	Female	4 years	University
Human resources manager	Female	3 years	University

Data were collected through questions created in line with the research purpose. Focus group discussions are generally conducted in four stages: research design, data collection, analysis, and reporting of results (Nyumba et al., 2018). In planning these phases, Bader and Rossi (2002) and Nyumba et al. (2018) were referred to. First stage: When formulating the research design, determining the study objectives, selecting the participants, and setting the appropriate contextual background are significant. First, the literature on the TURQUALITY program and related studies were reviewed. As a result, sub-topics related to the characteristics of the brand program and general and specific problems in the context of these sub-topics were defined. Then, the organizational context in which these problems would be discussed and the seating arrangements for participants were determined. Second stage: The data collection phase took place before and after the focus group discussion. The presession phase includes the seating arrangements (U-arrangement) for participants as well as the researcher's and reporter's registration preparations. The meeting room of the company implementing the TURQUALITY program was chosen as the venue for focus group discussions. Then, the researcher and the reporter made preliminary preparations for recording the session. Introduction, discussion (via open-ended questions), complementary questions, and conclusion phases occurred during the session. In this context, first, preliminary information about the study was given, and participants were informed that their personal information and recordings would be protected in line with their rights. In the questions phase, follow-up questions allowing participants to elaborate on issues were used in addition to open- and closed-ended questions. The session, which lasted approximately 1.5 hours, concluded with a summary and thanks to the participants for their cooperation. Third stage: After the records were transferred to a Word document, the document was reviewed with the reporter to determine whether anything was missing from the data. Each bit of data obtained was first listed and then coded by the study's themes through content analysis. To ensure the reliability of coding, opinions were obtained from a field expert and an expert who had previously conducted studies using the focus group interview method. Interrater agreement was calculated through the formula Miles and Huberman (1994) suggested. The percentage of consistency between the experts was found to be 94. A consensus was reached after an additional session to clarify any inconsistencies between the codes and themes. Fourth stage: The results of focus group interviews are typically applied to a target audience of academics, study participants, and politicians. Because this study is not limited to informing participants about the final report but also aims to reveal the views of the brand program from an academic perspective, it can be considered bidirectional.

Findings

1. The reasons company officials implement the TURQUALITY program.

Participants who implemented the TURQUALITY program expressed their opinions under two themes: internationalization and integration of aims.

Table 2. Shows the sub-themes related to these themes.

Context	Theme	Sub-themes
Reasons for participation in the TURQUALITY program	Internationalization	* Determination of target market sizes
		* Preparation of research reports for target markets
		* Determination of customer segment in target markets
		* Following target market tax rate and regulations
		* Advertising strategies for the target market
		* Conducting special surveys for all customers throughout the value chain
		* Promotion of distribution channels
		* Introducing brand name to large audiences
		* Sponsorship activities
	Integration of aims	* Establishment of stock strategies
		* Maturation of purchasing model
		* Improvement of ERP (Enterprise Resource Planning) infrastructure
		*Development of information security management

Table 2. What are the reasons company officials implement the TURQUALITY program?

Participants' views are given below:

P1: This company was established with a focus on the domestic market and grew this way. When we turned our attention to abroad, we needed support because of our lack of experience. Our mission and our goals were big, but we didn't have enough internal resources to realize them. Our primary reason for joining was that we needed a guide in the process of building an international brand.

P2: As our domestic market developed, we needed international research and direction. We received very important support from the TURQUALITY program for the determination of the target market and its size, drawing a direction towards these markets, and creating a customer segment. We thought that our most important problem was the establishment of the link between the organizations established in the target countries and the city centre of Gaziantep, and we received significant support from the program to develop information security methods by creating ERP activities.

P3: In general, our company was experiencing the problems experienced by all subcontracting companies. Turkish manufacturers do not have a marketing perspective or branding strategies. Our company had *the same mindset. With the training, consultancy activities, and meetings held after participation in the program, the company has had a brand-based marketing perspective. This was the main reason we wanted to participate in the program, that is, to become a market-oriented company with a strong brand.*

P4: In the target markets, the brand name was promoted to large masses for online sales during the pandemic period, especially on Instagram and Facebook, with the celebrities of that market and sponsorship activities. For example, in Kuwait, the product and brand were promoted by shooting videos in the store with social media celebrities, and we had very good returns in terms of sales.

P7: The most problematic issues for us in target markets

were customs taxes, regulations, and prohibitions on establishing a business, which we noticed later. We first received consultancy to invest in target markets and start a business with 100% capital. Later, thanks to the program, we started to act faster by employing lawyers and gaining knowledge on legal issues.

P8: Our expectation regarding the TURQUALITY program was to receive the support that would take us to the next level. We needed a guide, who fully met our expectations.

P6: Understanding customer requests and needs was one of the most important issues for us. Previously, we had no information about the demands and needs of consumers, and we did not feel the need for research, as we were only a contract company. The preparation of research reports, which is one of the requirements of the TURQUALITY program, helped us develop strategies in target markets more easily.

2. The contributions of the TURQUALITY program to the company

Participants commented that the TURQUALITY program had both positive and negative effects on the company.

Table 3. Presents the views of the participants.

Context	Theme	Sub-theme
Contributions to the TURQUALITY program	Positive	* Establishment and dissemination of an e-commerce sales channel * Improved operational efficiency * Establishment of merchandising structure in foreign markets * Transition from a production-oriented company structure to sales- and marketing-oriented company structure
	Negative	* Internal resistance to change * Risk of uncontrolled growth * Difficulty finding qualified personnel to support strategic plans *Difficulty determining target country and effect of consultant firm

Table 3. What the contributions of the TURQUALITY program to the company are? Participants' views are given below:

P1: The TURQUALITY program has significantly changed our company's vision and perspective on business. It has moved us from a production and cost-oriented company to a sales and marketing-oriented company structure. However, the lack of qualified personnel and resources compatible with growing dreams and goals was the main reason for the failures we experienced in the first years.

P3: As a subcontracting company, our company used to have the least profit in the chain. The TURQUALITY program has allowed us to deliver our products to the end consumer in target markets with our brand. With this, our company has increased its profitability rates. However, trying to exercise muscles that have never worked before has harmed the entire company. Targeting a completely different audience in the company, which previously only developed relations with wholesalers without knowledge of what marketing and advertising were, became a source of resistance for the company and made it difficult to use resources.

P6: The most positive contribution was the investments in the field of e-commerce, but as other participants mentioned, we had serious problems due to the lack of appropriate infrastructure.

P2: The TURQUALITY program creates great advantages as it allows companies to choose a target country for the growth of the brand and investment. However, if the company is not ready for such a change, it faces risks.

P4: The biggest problem was the selection of the target country. Examining the target countries in depth and making investment decisions was carried out with the help of advisory companies. However, these companies had templates and they used the same template to help each one of the companies. One of the reasons for our failure was that we relied on the information provided by these advisory companies in the markets where we failed.

3. The development projects planned for the TURQUALITY program

The development projects planned for the program can be summarized under three themes: sustainable growth targets in foreign markets, development of growth-oriented operations, and maturation of the corporate structure.

Table 4. Presents the views of the participants.

Context	Theme	Sub-theme
Development projects for the TURQUALITY program	Sustainable growth targets in foreign markets	* Developing and monitoring brand strategy and performance * Creating strategies for entry into the target market and growth * Activating of CRM (Customer Relationship Management) infrastructure * Developing digital channels * Improving the marketing model
	Development of growth-oriented operations	* Ensuring integration in all planning processes * Maturation of purchasing process model * Trying to be the best in all operations * Increasing competence of human resources
	Maturation of corporate structure	* Improving ERP infrastructure * Structuring enterprise risk management and internal audit * Establishing a project management department

Table 4. What are the development projects planned for the TURQUALITY program?

Participants' views are given below:

P1: In my opinion, development projects had to focus primarily on foreign markets, so the first step was to research brand awareness and perceptions, determine brand focal points, and determine brand position.

P3: The program is for brand development, which was also our most important step to be taken. However, determining the target countries where brand development and positioning would be carried out as well as ensuring sustainable growth in customer preferences and dynamics in these countries were important parts of our strategy.

P2: Activating the CRM program in line with customer preferences, dynamics, and needs, and establishing an appropriate relationship by storing customer information was also an important step in development projects.

P5: There is a need to improve the ERP infrastructure to make decisions without personal initiatives, prevent manual entries into the system, and reach accurate customer information records. As it is not enough just to have appropriate and effective programming, efficiency has been achieved by increasing the competencies of human resources.

P8: The most important contribution of the brand support program was the development of e-commerce sales channels, which were not considered a need by the senior management, and appropriate production and marketing of the products for these markets.

1. **Senior management and employee responsibility in the implementation of the TURQUALITY program and the methods they follow to establish balance.**
2.
3. Participants' views are given below:

P4: Significant problems arise if the 5-year plans and target countries are not chosen correctly, and the company's capabilities and capacity are not compatible with environmental opportunities.

P1: For an appropriate harmony of the strategies and company objectives, two people from the top management were enrolled in an MBA program at one of the most important universities in Turkey with the support of the program. As a result of the first year of the training, the desired compatibility of strategy and competency began to develop.

P6: At the end of the first year, e-commerce, new stores, and warehouses were opened in target countries with the support of the program. However, because this rapid growth was not managed properly in the first year, there was a market failure.

Table 5. Presents senior management and employees' views regarding their experiences of the implementation of this program, the methods they follow, and their responsibilities.

Context	Theme	Sub-theme
Senior managements and employees' responsibilities in the TURQUALITY program	Senior management responsibilities	* Senior management support is needed to prepare the company's plan. Increasing the use of digital sales as well as traditional channels should be included among the targets.
		* The company's strategic plan should be prepared realistically, and sustainable growth should be ensured in foreign markets.
		* Realistic long-term goals to make the company and the program successful. Senior management should take responsibility for the development of strategies for entry into target markets and growth.
		* Key administrators should receive academic support for the sustainability of the program.
		*The rapid growth that comes with brand support requires strengthening the control mechanism.
	Employee responsibilities	* For the appropriate implementation of the program in the company, detailed role definitions of the human resources department, target competency model, and employee succession plan should be prepared.
		* Employees' embrace of the company's mission is important for the sustainability of the program.

Table 5. What is the senior management and employee responsibility in the implementation of the TURQUALITY program?

P7: Other factors that cause failure in the program are the inability to determine a suitable target market, rapid growth, as well as the inaccuracy of job descriptions, inadequacy of the personnel employed to work in the target markets, and quitting the job after a certain period when other opportunities are found.

P5: Another important problem was that the company's mission, which also supported the brand program, was not adopted by the entire company. The company's senior management tried to explain this to all employees through monthly meetings.

4. The compatibility of the TURQUALITY program with the company's objectives

Participants stated that they specified a set of sub-objectives for the improvement of their brands.

Table 6. Presents the views of the participants.

Context	Theme	Sub-theme
Targets of the TURQUALITY program	The TURQUALITY program compatibility with the corporate targets	* Ensuring efficiency through corporate synergy * Mission of becoming a global Turkish brand * Establishing Turkish brand sales points in target markets * Creating a successful brand strategy * ERP system efficiency required by the program has been one of the main targets for our company after the TURQUALITY program

Table 6. What is the TURQUALITY program's compatibility with the corporate targets?

Participants' views are given below:

P2: We started with the aim of being the pioneers of our product in the world by implementing the TURQUALITY program. Digital transformation and being customer-oriented were chosen as important goals of our mission. Qualified personnel are needed to actualize these and to follow the trends, which brings costs. Since the TURQUALITY program provided support in terms of engineers, qualified personnel, and designers, it gave us the chance to reach our goals more easily, work with qualified personnel and avoid high costs.

P4: We didn't have a brand strategy or even a marketing strategy before. With the TURQUALITY program, a long-term strategic plan was developed, and brand strategies were created in target countries as well.

P7: Before the TURQUALITY program, our company used a simpler program for ERP. We have become a more corporate company following the transition to a more professional ERP program and to a support system that can manage the data exchange and stock system of 9 warehouses and 30 stores in 5 countries.

P1: We know that one of the main purposes of the program is to strengthen the institutional infrastructure of companies. As my friends said, the program has made a great contribution to us as a company, but first, we made significant progress towards institutionalization with the consultancy activities we received. A stronger institutional infrastructure was already one of our important goals before the application, and I think this harmony was one of the most important factors in our success.

P3: I agree. The inconsistency of targets will cause the program to fail. If the company's goal is simply to grow and make money, the program will not be successful because the company must be willing to make serious structural changes that the program demands.

5. The effects of the TURQUALITY program on marketing and sales performance

Table 7. Presents the views of the participants.

Context	Theme	Sub-theme
Impact of the TURQUALITY program on marketing sales performance	International sales compound annual growth rate	* There was a 67% growth in the annual compound growth rate in international sales three years after joining the program. * A compound annual growth rate of 84% was achieved in target market sales three years after joining the program.
	Rate of sales increase in target markets	* The rate increased from 45% to 84% at the end of three years.
	Marketing performance improvement	To become a sales and marketing-focused company. To promote the brand. To activate the e-commerce channel. To expand the sales points of the brand in target countries.

Participants expressed their views under three themes: international sales compound annual growth rate, rate of sales increase in target markets, and marketing performance improvement.

Table 7. What is the Impact of the TURQUALITY program on marketing sales performance?

P1: Our company was a well-known company in the domestic market and developed its brand positioning and marketing strategies accordingly. Following the application process and approval to TURQUALITY, our marketing strategy focused on the foreign market, and the share of the domestic market decreased from 95% to 20% in our total sales. We opened a total of 9 warehouses and 30 stores in 5 countries specified through the support from the program. Accordingly, we promoted our stores by using Instagram celebrities for brand positioning, especially during the pandemic period, and we achieved significant outcomes.

P2: E-commerce activities became a focal point for us, especially during the pandemic period. We tried to attract our customers to our stores after the pandemic with Click and Collect strategies.

P4: Before the TURQUALITY program, we were among the top three in the domestic market. In the 3rd year of the program, we achieved a 67% growth in our total international sales, while we increased our sales rate by 84% in the target countries.

P3: The program gave us a marketing perspective beyond the numbers. Previously, there was no brand, marketing department, or brand perception in our company. We were carrying out all marketing activities with the general manager or foreign trade manager. However, a marketing perspective developed in our company through the program. Managers with experience in marketing and branding were employed, and I think this was the beginning of this development.

6.

7. The design of a new brand program as an alternative to the TURQUALITY program

Participants suggested an alternative brand under three themes: increase the contribution of the consulting firm, special support for corporate change, and train staff for brand support.

Table 8. What is the design of a new brand program as an alternative to the TURQUALITY program?

P4: The program met all our needs, but unlike the TURQUALITY program, I would make the requirements for application more difficult. The most important requirement was that the domestically registered trademark must be registered in at least one of the target markets in the business plan to be submitted by the company. We had a serious problem in the transformation process of the company. More efficiency can be obtained if companies apply to the program with better preparation.

P3: I also agree. The program showed us the way we needed it. However, the main problem was the preparation of the roadmap through the consulting firm. These companies are preparing only a standard roadmap and they do not know the special needs of our company and our product. This is why they had difficulty answering our questions in some cases. Therefore, I think the time given for the preparation process and support activities should be longer.

Table 8. Provides the views of participants.

Context	Theme	Sub-Theme
Alternative brand program to TURQUALITY program	Increase of contribution of consulting firm	* The applicant company must know the field of activity and its product and make recommendations specific to the company.
	Special support for corporate change	* Special support must be given for the corporate change, especially for family businesses. * It must be ensured that companies are ready before applying to the program.
	Trained staff for brand support	* Support should be provided for staff members who understand the needs of the brand program.

P1: I think the program gave us everything we needed. However, Turkish companies are expected to make serious managerial and mentality changes, especially in family businesses. First of all, it is required to have a program that will prepare the company for institutional change, which will minimize failures and resistance.

P2: Staff is needed to follow all the work and procedures within the company following the approval of the TURQUALITY program. However, the most important problem is the difficulty of finding trained personnel. Generally, companies make use of the human resources department for this. I would help companies employ professional and experienced personnel to carry out the TURQUALITY program.

Results

The proposed government brand support program framework offers an integrated view of state support in the internationalization process of a local brand, the development processes of the brands, and their managerial needs. To the best of our knowledge, this is the first research to explore the government support impacts on local brands' internationalization strategies. This study offers a richer understanding of the brand internationalization construct, providing a theoretical foundation on which further development of the brand internationalization concept can be built. Furthermore, this study expanded the current view of the government support construct by identifying seven key labels to describe the brand internationalization process for local brands that can be used for further study.

To answer the first research question – **What are the reasons company officials implement the TURQUALITY program?** – all respondents admit that the internationalization of the brand and integration of the aims are the main implementation reasons. Managers recognise that for brand internationalization, the importance of target market sizes, customer segments, advertising strategies and sponsor activities. Beyond these, the musts of the company that needs developing such as the establishment of stock, ERP and purchasing model strategies have been determined as other reasons to apply to the program. These findings are in line with the results of several other studies (Aghdaie and Alimardani, 2015; Liu et al, 2016; Cho et all, 2015; Petersen and Welch, 2002).

In answer to the second question – **What the contributions of the TURQUALITY program to the company are?** – the finding from the study suggests that the positive contribution of the brand support program involves four pillars such as operational efficiency, the establishment of a marketing-oriented company structure and e-commerce sales channel, and new sales channels for the global market. Besides, the negative effects of the TURQUALITY program involve four pillars such as resistance to change within the organization, risk of uncontrolled growth, lack of finding qualified personnel and difficulty in determining the target country. These findings are also in line with the results of the studies by Onjewu et al, 2022; Li et al, 2021; Kohtamaki et al., 2012; Zhang et al., 2022.

To answer the third question – **What are the development projects planned for the TURQUALITY program?** – all respondents articulated three development projects for the program: sustainable growth targets in foreign markets, development of growth-oriented operations, and maturation of the corporate structure. The findings display that the TURQUALITY program appears to play a fundamental role in structural changes in companies. On the other hand, the program gives companies the direction to develop and monitor brand strategy and performance. The TURQUALITY program pushes companies to create strategies of entry into the target market and growth.

In answer to the fourth question – **What are the senior management and employee responsibility in the implementation of the TURQUALITY program?** –the finding from the study emphasised that senior management and employees' responsibilities are important in the implementation of the program. The findings reveal that senior management encouragement is needed to prepare the company’s strategic marketing plan. Senior management should take responsibility for the development of strategies for entry into target markets and growth. On the other hand, Employees’ embrace of the company’s mission is important for the sustainability of the brand program. Researchers in marketing and management literature (Zwikael, 2008; Unger et al., 2012; Liew, 2015; Ahmed and Philbin, 2022) have broadly converged on the significance of senior managers' support on the success of the projects. The results in the literature on managers' and employers' support of the projects are in line with our findings.

In answer to the fifth question- **What is the TURQUALITY program compatibility with the corporate targets?** Corporate synergy, global brand, brand sales points and successful brand strategy are four constructs used by participants to describe the TURQUALITY program compatibility with the company targets. The result of the current research demonstrates that strategic brand management is one of the factors that contribute to the achievement of a certain product or brand (Van Gelder, 2004; Cayla and Eckhardt, 2007; Spence and Essoussi, 2008; Zhang, 2023). Scholars highlighted the need for marketing managers and researchers to consider government incentives' compatibility with corporate targets and brand strategies in today's competitive business environment (Kim et al., 2014; Heller et al., 2020; Aisati et al., 2023). Interviewees of the focus group emphasize that the TURQUALITY program provided support in terms of digital transformation, marketing strategies, qualified personnel, and designers (Cornwell, 2023; Yu et al., 2023). This support gives the companies the chance to reach their goal more easily.

In answer to the sixth question- **What is the Impact of the TURQUALITY program on marketing sales performance?** Interviewees of the focus group emphasize global branding importance and claim that even a well-known brand in the domestic market is not enough for being global. Following the approval of the TURQUALITY program, there was a huge growth in the annual compound growth rate in international sales three years after joining the program. The importance of the TURQUALITY program in developing a holistic marketing strategy is underlined by a manager:

" The program gave us a marketing perspective beyond the numbers. Previously, there was no brand, marketing department, or brand perception in our company. We were carrying out all marketing activities with the general manager or foreign trade manager…"

The above findings are consistent with global marketing strategy literature (Matanda and Ewing, 2012; Bourdin et al, 2021; Chatzopoulou and Navazhylava, 2022).

In answer to the last question- **What is the design of a new brand program as an alternative to the TURQUALITY program?** Interviewees of the focus group approve that the necessity of special support for corporate change trained staff for brand support and the contribution of a consulting firm.

The following quotation is a good example of the managers’ response to the TURQUALITY program.

I think the program gave us everything we needed. However, Turkish companies are expected to make serious managerial and mentality changes, especially in family businesses.

Theoretical Contribution

The study makes three main theoretical contributions. First, thus, by assessing the effects of government support on export or contract companies, the current study reveals the vital role of incentives such as TURQUALITY in aiding firms to achieve higher marketing and internationalization performance. Second, the study espouses government support for the brand internalization strategies of companies that help the companies enrich the sustainable growth targets in foreign markets and develop growth-oriented operations. Third, the study high- lighted research gaps in existing literature through the focus group approach. Theoretically, this article addresses government support of brand strategies, including internationalization and value chain strategies, how to plan development strategies for brand globalization, and the TURQUALITY program's strengths and drawbacks. The study reveals that government supports significantly impacts the establishment and dissemination of an e-commerce sales channel. In the same light, previous studies noted the important role of government support on e-commerce (Chundakkadan and Sasidharan, 2023), green marketing (Li et. al 2021; Zolfagharinia et al., 2023), R&D support (Pan et al., 2022; Zheng et al.,2023], and the COVID-19 crisis (Janzen and Radulescu, 2022; Weng and Lai, 2022). However, this study extends previous research studies by testing government support for brand internationalization strategies.

Managerial Contribution

The managerial implications of this study are tremendously precious and crucial for business. This research's managerial implications contain: first, special government support must be given for corporate change and internationalization, especially for export companies and contract manufacturers. It must be ensured that companies are ready before applying to the government support program. Second, Turkish firms are encouraged to acquire the TURQUALITY program' brand support as it signifies well for their internalization strategies. Furthermore, the TURQUALITY program helps managers to position the 'National Brand' and promote the 'Made-in-Turkey' image Specifically, company owners and marketers can use these findings to observe the positive chain of events utilized by government support on brand strategies, strategy creation capacity, and export performance.

Conclusion

The significance of understanding branding is that it facilitates the potential in creating "value" for the company and developing the internationalization process. This can lead to heightened operational efficiency and transition from a production-oriented company structure to sales- and marketing-oriented company structure which in turn leads to long-term opportunities for sustainable growth and being a global brand for national brands. These findings are appropriate and beneficial for decision-making at the management level to predict brand experience and could guide policymakers. Besides, senior management support is needed to prepare the company's plan and the importance of increasing the use of digital sales as well as traditional channels should be included among the targets. Another important conclusion suggested by our results is that government incentives would suffice in driving internationalization and sales success. Beyond, the most significant contributions to companies' marketing and brand performances of government support are increasing the international sales compound annual growth rate and shifting the company from a production-focused to a marketing-focused company.

Limitations and Future Research Directions

This study can help managers figure out the causes, and outcomes of international marketing strategy implementation in the context of government support. The findings presented here will aid businesses in recognizing components that development of the corporate vision as well as those that government support to make national brands, international. Future studies can further improve the findings by adding participants such as consultant firm employees and government officials. Future research should test the RQs in different countries, or with companies from different sectors to see if the results are similar. Future researchers should also investigate some additional drivers, such as government incentives for the digital economy, green production, and organizational innovativeness. This study has several limitations, mostly relating to the sample and design. Firstly, it measured the managers' perceptions of government support of a local brand. Yet, considering the limitation, the current study contributes a new understanding of global branding and transformation from a local brand to a global one related to government support that otherwise would not have been captured using a quantitative approach.

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RESEARCH ARTICLE

Is it because of boredom or workload? A multilevel investigation of the effects of workload and job boredom on daily work outcomes[1]

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Abstract

Studies report that both job boredom and excessive workload have detrimental effects on employee well-being and work outcomes. Although these variables fluctuate daily, longitudinal studies addressing within- and between-person variance in the variables and how they relate to daily work outcomes are scarce. The aim of this study was to determine how daily workload and daily job boredom are associated with daily emotional labor, stress, job satisfaction, and positive and negative affect. Multilevel data were collected at six time points (five daily, one person level). Person level (n=137) and day level (685) data were matched to conduct multilevel analyses using the software HLM. Both workload and job boredom showed substantial daily variability. The results of multilevel analyses revealed that job boredom had wider negative effects than workload in general. While daily job boredom was positively related to work stress, negative affect, and emotional labor, it demonstrated a significant negative relationship with positive affect. Daily workload was significantly related to only stress and negative affect. Using multilevel methods, it is possible to investigate the variance and relationships of the concepts both at general and daily levels. The results emphasize the negative effects of daily job boredom, which can be more critical compared to workload. The results also have important practical implications for managers.

Keywords: *Job Boredom, Workload, Job Stress, Job Satisfaction, PANA, Emotional Labor.*

Öz

Literatür hem iş sıkıntısının hem de aşırı iş yükünün çalışanların refahı ve iş sonuçları üzerinde zararlı etkileri olduğunu bildirmektedir. Bu değişkenler günlük olarak dalgalansada, değişkenlerdeki kişi içi ve kişiler arası varyansı ve bunların günlük iş sonuçlarıyla nasıl ilişkili olduğunu ele alan boylamsal çalışmalar azdır. Bu çalışmanın amacı, günlük iş yükü ve günlük iş sıkıntısının günlük duygusal emek, stres, iş tatmini ve olumlu ve olumsuz duygulanım ile nasıl ilişkili olduğunu belirlemektir. Çalışma kapsamında altı farklı zaman noktasında çok düzeyli veri toplanmıştır (beşi günlük ve biri kişi düzeyinde). HLM yazılımı kullanılarak çok düzeyli analizler yapmak için kişi düzeyi (n=137) ve gün düzeyi (685) veriler eşleştirilmiştir. Hem iş yükü hem de işten sıkılma değişkenlerinin önemli ölçüde günlük varyans gösterdiği saptanmıştır. Çok düzeyli analizlerin sonuçları, işten sıkılmanın genel olarak iş yükünden daha geniş olumsuz etkilere sahip olduğunu ortaya koymuştur. Günlük iş sıkıntısı, iş stresi, olumsuz duygulanım ve duygusal emek ile olumlu yönde ilişkiliyken, olumlu duygulanım ile anlamlı bir ilişki göstermiştir. Günlük iş yükünün, yalnızca stres ve olumsuz duygulanımla anlamlı seviyede ilişkili olduğu bulgulanmıştır. Çok düzeyli yöntemler kullanılarak hem genel hem de günlük düzeyde kavramların varyans ve ilişkilerinin araştırılması mümkündür. Sonuçlar, iş yüküne kıyasla daha kritik olabilen günlük iş sıkıntısının olumsuz etkilerini vurgulamaktadır. Sonuçların ayrıca yöneticiler için de önemli pratik çıkarımları tartışılmıştır.

Anahtar Kelimeler: *İş Sıkıntısı, İş Yükü, İş Stresi, İş Tatmini, PANA, Duygusal Emek.*

[1] *This paper is produced from the unpublished PhD thesis entitled "Multilevel Investigation of the Effects of Workload and Job Boredom on Work Outcomes" written by Ayla Avcı under the supervision of Mehmet Çetin.*

Introduction

Due to rapid technological and economic developments, inter-institutional competition is increasing. As a result of this competition, employees are faced with intense workload due to the performance-enhancing measures adopted by companies. Especially for service firms, improving business performance and retaining productive employees are critical success factors (Walsh & Bartikowski, 2013). Job stress experienced by employees due to excessive workload can cause a decrease in job satisfaction (Kanbur, 2018, p.131). In addition to the high workload and demands, job boredom may also have negative consequences for employees. Work simplification practices implemented at the beginning of the last century caused problems such as monotony, boredom, and job dissatisfaction, resulting in negative work behaviors (Bilgiç, 2008, p.67).

In the present study, based on job characteristics theory (Hackman & Oldham, 1975) and job demands–resources theory (Demerouti et al., 2001), the effects of daily workload and job boredom on job stress, emotional labor, negative and positive affect, and job satisfaction are investigated via a multilevel research design.

Extant research and theory suggest that both job boredom and high workload have adverse effects on work outcomes (Van Hooff & Van Hooft, 2017 Adil & Baig, 2018). However, no studies addressed have their effects together and used a nested research design where both within-person and between-person variances are considered. In the present study, the aim was to investigate the nature of these effects through a longitudinal research design considering between-person and within-person fluctuations with daily measurements. Given that workload and job boredom, as well as the outcome variables, can show significant daily variability, static evaluation of the concepts with a measurement at only one time point will not be sufficient for a full and correct understanding of their relations. Thus, in the present study, the effects of workload and job boredom, which can differ among employees and on different days, are addressed together in a nested structure and via multilevel modeling.

Review of the literature and development of hypotheses

Work provides an important domain for individuals to experience various feelings and satisfy their various needs. Among them, on one hand, work enables employees to experience positive affect, job satisfaction, and a sense of achievement; on the other hand, employees can experience negative affect, job stress, and emotional labor. Employees' positive and negative feelings about their jobs are reflected in their work and their personal lives. Moreover, increasing the positive feelings of employees about their jobs also increases work efficiency (Çakıcı et al., 2013). Thus, investigation of the antecedents of such attitudes and work experiences is vital both for employee well-being and organizational outcomes.

The job characteristics theory proposed by Hackman and Oldham (1975) suggests that challenging and meaningful aspects of jobs are related to positive outcomes, while monotonous and boring aspects are associated with negative outcomes. Based on this, we may assume that when a job is too demanding it can cause negativities and when a job is characterized by too simple and unmotivating aspects it can also result in negative consequences. Together with job characteristics theory, job demands–resources theory (Demerouti et al., 2001) is the main theoretical pillar of the present study as it suggests that discrepancy or harmony between job demands and resources also yields important organizational outcomes. Herein, we consider excessive workload as a job demand and boredom as a lack of job resources and both can harm the balance and result in consequences. In other words, in the present study, workload and job boredom are addressed as the antecedents of various positive and negative organizational variables. In particular, the relationships between workload and job boredom and emotional labor, work stress, positive and negative affect (PANA), and job satisfaction were evaluated through multilevel and longitudinal analyses. Negative outcomes of both excessive workload and job boredom are reported in the extant research. For instance, excessive workload causes job dissatisfaction, which has important consequences for institutions (Çalışkan & Bekmezci, 2019). Due to the rapid increase in competition, institutions set targets to increase their sales in order to expand their competitive advantage and market share. Since these targets are demanding and challenging, they increase the workload of employees and cause them to experience work stress (Faiz, 2019).

Workload, job boredom, and emotional labor

As a result of global competition, organizations may ask employees to do more overtime. However, when the workload of employees increases, work pressure also increases. Problems such as psychological and physiological burnout and low job satisfaction arise in those who work under pressure for a long time (Lloyd et al., 2002). Low job satisfaction is another result of excessive workload (Osifila & Abimbola 2020). Increased workload also results in emotional labor (Hu et al., 2018: 2093). In addition, individuals with different levels of emotional labor may perceive and evaluate low workload differently. Both work overload and work underload are reported to be significantly and negatively related to satisfaction (Newton et al., 2016). Although the link between job boredom and emotional labor is not examined directly, affective and emotionally negative outcomes for job boredom are reported in various studies (e.g., van Hooff & van Hooft, 2014). Therefore, the following hypotheses are formulated:

H1: There is a significant and positive relationship between workload and emotional labor.

H2: There is a significant and positive relationship between job boredom and emotional labor.

Workload, job boredom, and job stress

In addition to physical, social, or economic reasons, work stress factors also have causes related to the work itself, such as heavy workload (Noblet & Lamontagne, 2006). Stress-inducing factors that negatively affect individuals' psychological well-being are largely rooted in their work lives. Individuals tend to avoid excessive work demands and tasks they would not normally succeed in or cope with. However, due to continuance commitment or compelling circumstances they often undertake excessive workload and duties that exceed their work resources. The imbalance between employees' workload and their resources (such as experience) can cause them to experience many difficulties (Eroğlu, 2010). In line with job demands and resources theory (Bakker & Demerouti, 2017), when employees' job demands exceed their job resources, it results in job stress. Workload, however, is not the only job demand; job boredom can have critical effects on job demands and resources as well (Reijseger et al., 2013). It has been demonstrated that errors at work can arise from excessive workload; for instance, multiple pilot errors are caused by workload and stress (Hart & Bortolussi, 1984). The workload-stress relationship is valid for various occupations. For instance, the heavy workloads of journalists cause stress and burnout (Liu and Lo, 2017).

Moreover, job boredom can also be an important source of stress. For individuals experiencing boredom in their jobs, it can be very stressful and difficult to remain alert and focused to accomplish the tasks required (Scerbo, 1998). Job boredom and monotony can have harmful effects on the well-being of employees as they are significant sources of stress (Thackray, 1981).

Therefore, in the present study, it is assumed that:

H3: There is a significant and positive relationship between workload and work stress.

H4: There is a significant and positive relationship between job boredom and work stress.

Workload, job boredom, and job satisfaction

Job satisfaction is addressed in research as a crucial variable that can also affect various organizational and individual outcomes (Faragher et al., 2013). It can serve as an antecedent for employee engagement as well (Abraham, 2012). When perceived workload is hefty, job satisfaction can be harmed (Groenewegen & Hutten, 1991). Therefore, excessive workload can affect job satisfaction in a negative way (Munandar et al., 2019). On the other hand, the satisfaction of those with very low workloads at work may also be affected negatively (Newton et al., 2016). Employees' success in facing job challenges and overcoming them are factors that create job satisfaction. Thus, work without a sufficient stimulus can also be a source of dissatisfaction (Harju & Hakanen, 2016).

Accordingly, as job specialization increases, monotony also increases. Short-term and simple tasks also cause monotony. As a result, job distress and job dissatisfaction can arise in employees, which are undesirable situations for management (Hulin & Blood, 1968, p.42).

Built on the above reasoning and pattern of findings it was assumed that:

H5: There is a significant and negative relationship between workload and job satisfaction.

H6: There is a significant and negative relationship between job boredom and job satisfaction.

Workload, job boredom, and negative and positive affect

The relationship between workload and well-being is well established (Geurts et al., 2003). As a form of well-being, negative and positive affect and their relationship with workload have been addressed in multiple studies. For instance, Ilies et al. (2007) report that workload has a significant relationship with affect at work and at home. Moreover, negative affect has been associated with a lack of control in the workplace due to workload and fluctuations in workload (Moyle, 1995).

Laferton et al. (2019) reported that, based on day level measures, the intrapersonal relationship between workload and positive affect is significant. Moreover, Ugwu and Asogva (2018) provided evidence for the association between workload and positive affect.

Furthermore, job boredom is also associated with multiple well-being related variables. Fahlman et al. (2013) report that job boredom is related significantly with life satisfaction, anxiety, and depression. It has also been shown that job boredom has a positive relationship with negative emotions such as anger (Fahlman et al., 2013; Cao & An, 2019). Job boredom can affect job resources and organizational outcomes in organizations. For this reason, it is necessary to identify risk factors beyond monotony for job boredom (Reijseger et al., 2013).

Therefore, in the current study, the following hypotheses are suggested:

H7: There is a significant and positive relationship between workload and negative affect.

H8: There is a significant and negative relationship between workload and positive affect.

H9: There is a significant and positive relationship between job boredom and negative affect.

H10: There is a significant and negative relationship between job boredom and positive affect.

Methodology

Research model

Based on the literature and the information above, workload and job boredom have been proposed to have negative effects on the individual work outputs of employees. The model of the individual work outputs of workload and job boredom is given in Figure 1. In the present study, whether the workload and job boredom experienced by employees in public institutions at daily level affect job stress, emotional labor, positive/negative affect, and job satisfaction was examined through a multilevel and longitudinal research structure.

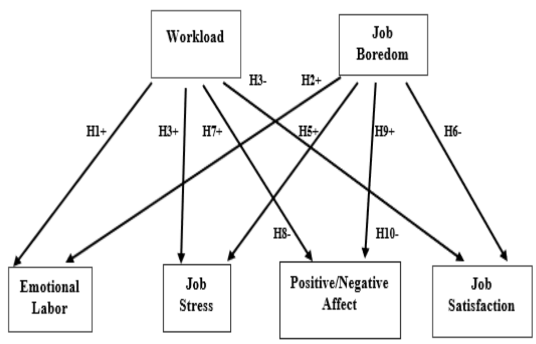

Figure 1: Hypotheses and the research model.

Sample

One hundred thirty-seven respondents who filled out the daily and general surveys working in public institutions participated in the research. For five consecutive working days, the participants were asked to complete the daily questionnaire and then the general questionnaire was distributed. One hundred thirty-seven general questionnaires and 685 (5 × 137) daily questionnaires were collected from the 137 participants.

Table 1. Sample characteristics

		Frequency	%
Gender	Male	100	73.0
	Female	37	27.0
Marital Status	Married	117	85.4
	Single	20	14.6
Age group	31-40	5	3.6
	41-50	36	26.3
	51-60	42	30.7
	60 and above	54	39.9
Education	Primary education	4	2.9
	Middle school	2	1.5
	High school	26	19.0
	University	63	46.0
	Graduate Degree	42	30.7
Tenure (year)	Less than 1 year	3	2.2
	1-5	23	16.8
	6-10	12	8.8
	11-15	19	13.9
	16-20	17	12.4
	21 year and above	60	43.8
	Missing	3	2.2
Executive position	Yes	20	14.6
	No	117	85.4
After-hours work	Never	46	33.6
	Once or twice a year	40	29.2
	Once or twice or a month	16	11.7
	Once or twice a week	25	18.2
	Every day	10	7.3

Seventy-three percent of the participants who filled out the daily questionnaires were men and 27 percent were women. The table shows that 85.4 percent of the participants who participated in the research were married and 14.6 percent were single. While 3.6 percent of the participants were between the ages of 31 and 40, 26.3 percent were between 41 and 50, 30.7 percent were between 51 and 60, and 39.9 percent were over 60. Regarding education level, 2.9 percent of the respondents had graduated from primary school, 1.5 percent from secondary school, 19 percent from high school, 46 percent from university, and 30.7 percent had graduate education. A managerial position was held by 14.6 percent of the participants. While 33.6 percent of the participants responded never to the question regarding after-hours working, 29.2 percent responded once or twice a year, 11.7 percent responded once or twice a month, 18.2 percent responded once or twice a week twice, and 7.3 percent responded always. The details regarding the demographics of the sample are presented in Table 1

Data analysis tools and techniques

Two separate questionnaires were applied as daily and general scales to collect data in the present study. For the multilevel and nested data analysis of the study, the software packages SPSS 23, AMOS 26, and HLM were used. Specifically, confirmatory factor analysis (CFA), Cronbach's alpha reliability analysis, correlation analysis, and multilevel hierarchical regression analysis were used to interpret the results and test the hypotheses.

General Survey

There were 49 questions in the general questionnaires applied only once to the respondents. In the first part of the questionnaire, there were nine questions aiming to determine the demographic characteristics of the participants. In the second part of the research, the Minnesota Satisfaction Questionnaire, which was developed by Weiss et al. (1967) and adapted into Turkish by Baycan (1985), was used. There were 20 questions to measure job satisfaction. In the third part of the questionnaire, there was a seven-item scale aimed to measure job stress; it was developed by House and Rizzo (1972) and adapted into Turkish by Efeoğlu (2006). The fourth part of the questionnaire contained the Job Boredom Scale, consisting of 17 questions, developed by Lee (1986) and adapted into Turkish by Coşkun (2012). In the last part of the questionnaire, the Quantitative Workload

Scale, consisting of five questions, developed by Spector and Jex (1998) and adapted into Turkish by Keser et al. (2017), was used.

Daily Survey

The daily questionnaire applied in the research and filled out by the participants for five working days consisted of 19 questions and four parts. The first part of the questionnaire (six items), included the Emotional Labor Scale (Diefendorff et al., 2005). There were three job boredom questions applied using the Job Distress Scale developed by Lee (1986) and adapted into Turkish by Coşkun (2012). In the daily questionnaire, there were also three questions to measure the workload applied using the Quantitative Workload Scale developed by Spector and Jex (1998) and adapted into Turkish by Keser et al. (2017). In the second part of the questionnaire, items from the Positive and Negative Affect Schedule (PANAS), developed by Watson et al. (1988), were used. Three negative affects (NA) with the expressions distressed, unhappy, and angry and two positive affects (PA) with the expressions strong and enthusiastic were used. There was one work stress question taken from the scale that was developed by House and Rizzo (1972) and adapted into Turkish by Efeoğlu (2006) in order to determine the daily work stress levels of the participants. Finally, a single-item job satisfaction scale (Dolbier et al., 2005) was used.

Results

Preliminary analyses

CFA (performed via Amos 26) results for the model, including job boredom, workload, positive/negative affect, and emotional labor, revealed adequate to good fit indexes when all dimensions were loaded on their respective factor (X^2/df: 4.894; RMSEA: 0.075; CFI: 0.944; GFI: 0.924; AGFI: 0.0881). These results were compared to an alternative where all items were formed into a single factor. When all items are considered in one dimension, the results of the fit index indicated poor fit (RMSEA: 0.190; CFI: 0.495; GFI: 0.507; AGFI: 0.552). This pattern of findings indicates a good fit for the measurement structure.

Moreover, the Cronbach's alpha reliability scores were calculated for each measure and the results indicated high reliabilities (0.8 and above).

The correlation analysis results provided evidence for assumed significant relationships between variables. There was a positive and significant relationship between workload and negative affect, work stress, and emotional labor (all dimensions). The results also indicated a negative relationship between workload and job satisfaction. A significant and negative relationship was found between job boredom and positive affect, job satisfaction, and job stress. In addition, the subdimensions emotional labor, sincere emotions, deep acting, and surface acting were positively related with job boredom.

There was a significant and negative relationship between job boredom and positive affect and a significant and positive relationship between job boredom and negative emotion. No association was found between workload and positive affect. Table 2 contains data on the correlations between the variables.

Table 2. Correlation analysis results

No	Variable	1	2	3	4	5	6	7	8
1	Negative affect	1							
2	Positive affect	-.303**	1						
3	Workload	.386**	0.07	1					
4	Job boredom	.502**	-.257**	.302**	1				
5	Sincere emotions	.491**	-.279**	.327**	.532**	1			
6	Deep acting	.413**	-.022	.371**	.355**	.401**	1		
7	Surface acting	.551**	-.222**	.391**	.503**	.684**	.455**	1	
8	Job satisfaction	-.348**	.467**	-.106**	-.385**	-.308**	-.162**	-.242**	1
9	Job stress	.624**	-.230**	.446**	.387**	.407**	.296**	.430**	-.290**

**The correlations are significant at the 0.01 level (2-tailed)

*The correlation is significant at the 0.05 level (2-tailed).

Hierarchical Linear Modeling (HLM) Analysis

A significant and negative relationship was found between person-level (general) job boredom and employees' job satisfaction, which was a control variable at level 2 (-0.53; p=0.01). Again, a negative interlevel effect was found between having a managerial position and daily job satisfaction (-0.52; p<0.05) (Table 3). Day level job boredom was related with job satisfaction (-0.11; p<0.05), but daily workload showed no significant relationship (Table 3).

Table 3. Multilevel hierarchical regression analysis explaining job satisfaction

Fixed Effect	Coefficient	Std. Error	t-Ratio	d.f.	P
Executive position	-0.520	0.228	-2.282	125	0.024
After hours work	-0.015	0.061	-0.245	125	0.807
General job boredom	-0.532	0.151	-3.511	125	<0.001
General job satisfaction	0.023	0.138	0.173	125	0.863
Daily job stress	-0.007	0.115	-0.064	125	0.949
General workload	0.150	0.093	1.609	125	0.110
Daily job boredom	-0.114	0.053	-2.139	546	0.033
Daily workload	-0.003	0.053	-0.072	546	0.943

In the analysis performed for explaining job stress (Table 4), a significant and positive relationship was found between the daily job stress of employees and general job stress (0.47; p=0.01). There was a significant and positive relationship between employees' daily workload and daily job stress (0.17; p<0.05) and between daily job boredom and daily job stress (0.15; p<0.05).

Table 4. Multilevel hierarchical regression analysis explaining work stress

Fixed effect	*Coeff.*	*Std. Error*	*t-Ratio*	*d.f.*	*P*
General job boredom	0.177	0.172	1.034	125	0.303
General job satisfaction	0.145	0.151	0.957	125	0.340
General job stress	0.471	0.126	3.722	125	<0.001
General workload	0.058	0.102	0.571	125	0.569
Daily job boredom	0.154	0.048	3.188	546	0.002
Daily workload	0.179	0.057	3.127	546	0.002

The HLM results for the deep acting dimension (Table 5) revealed that general job boredom (one of the control variables at the person level) has a significant and positive effect on daily deep acting (0.49; p=0.01). The deep acting dimension of daily emotional labor was significantly and positively related to the daily job boredom of the employees (0.11; p=0.01). The results were nonsignificant for daily workload.

Table 5. Multilevel hierarchical regression analysis explaining the *deep acting dimension*

Fixed Effect	*Coefficient*	*Std. Error*	*t-Ratio*	*d.f.*	*P*
General job boredom	0.499	0.202	2.473	125	0.015
General job satisfaction	0.126	0.184	0.684	125	0.495
General job stress	-0.144	0.154	-0.938	125	0.350
General workload	0.156	0.125	1.249	125	0.214
Daily job boredom	0.112	0.045	2.479	546	0.013
Daily workload	-0.037	0.044	-0.840	546	0.401

The analyses showed that sincere emotions, which is an emotional labor dimension, was significantly and positively related to general job boredom (0.67; p=0.0.1). Daily job boredom was also associated with daily sincere emotions significantly and positively (0.21; p=0.001). No significant relationship was found with daily workload (Table 6)

Table 6. Multilevel hierarchical regression analysis explaining the sincere emotions dimension.

Fixed Effect	*Coefficient*	*Std. Error*	*t-Ratio*	*d.f.*	*P*
General job boredom	0.672	0.192	3.493	125	<0.001
General job satisfaction	0.132	0.175	0.753	125	0.543
General job stress	-0.003	0.146	-0.025	125	0.980
General workload	0.002	0.119	0.023	125	0.981
Daily job boredom	0.213	0.044	4.855	546	<0.001
Daily workload	0.044	0.043	1.015	546	0.311

Surface acting, one of the dimensions of daily emotional labor, was positively related to the daily job boredom levels of employees (0.21; p=0.001). The general job boredom of employees (one of the control variables at the person level) had a significant and positive association with the daily surface acting dimension (0.54; p<0.05). No significant relationship was found for daily workload (Table 7).

Table 7. Multilevel hierarchical regression analysis explaining the surface acting dimension.

Fixed Effect	*Coefficient*	*Std. Error*	*t-Ratio*	*d.f.*	*P*
General job boredom	0.542	0.171	3.165	125	0.002
General job satisfaction	0.217	0.156	1.388	125	0.168
General job stress	0.147	0.130	1.127	125	0.262
General workload	0.113	0.106	1.066	125	0.288
Daily job boredom	0.210	0.039	5.375	546	<0.001
Daily workload	0.039	0.038	1.006	546	0.315

The general job boredom levels of employees, which is one of the control variables at the person level, is related to daily negative affect significantly and positively (0.43; p=0.01). Employees' daily workload (0.10; p=0.01) and daily job boredom (0.019; p=0.001) have a positive and significant relationship with daily negative affect (Table 8).

Table 8. Multilevel hierarchical regression analysis explaining negative affect

Fixed Effect	*Coeff.*	*Std. Error*	*t-Ratio*	*d.f.*	*P*
General job boredom	0.438	0.176	2.493	125	0.014
General job satisfaction	0.096	0.160	0.600	125	0.550
General job stress	0.228	0.134	1.702	125	0.091
General workload	0.027	0.108	0.256	125	0.798
Daily job boredom	0.192	0.043	4.429	546	<0.001
Daily workload	0.103	0.043	2.400	546	0.017

A significant and negative relationship was reported between the general job boredom (person level) of the employees and daily positive affect (-0.74; p=0.001). Daily job boredom had a negative and significant relationship with daily positive affect (-0.17; p=0.001). No significant effects were found for daily workload (Table 9).

The hypotheses of the current research were created at the daily level.

H1: There is a significant and positive relationship between workload and emotional labor.

Based on the results of the HLM analysis, the H1 hypothesis was rejected because no relationship was found between daily workload and the subdimensions of daily emotional labor (deep acting, sincere emotions, and surface acting).

Table 9. Multilevel hierarchical regression analysis explaining positive affect

Fixed Effect	*Coefficient*	*Std. Error*	*t-Ratio*	*d.f.*	*P*
General job boredom	-0.747	0.186	-4.001	125	<0.001
General job satisfaction	-0.101	0.170	-0.598	125	0.551
General job stress	0.044	0.142	0.311	125	0.756
General workload	0.200	0.115	1.736	125	0.085
Daily job boredom	-0.171	0.045	-3.723	546	<0.001
Daily workload	0.060	0.045	1.332	546	0.184

Summary of the hypotheses testing results

H2: There is a significant and positive relationship between job boredom and emotional labor.

All dimensions of daily emotional labor were significantly and positively related to the daily job boredom of the employees. Thus, the H2 hypothesis of the research was confirmed.

H3: There is a significant and positive relationship between workload and job stress.

There was a significant and positive relationship between daily workload and daily job stress. Therefore, the H3 hypothesis was accepted.

H4: There is a significant and positive relationship between job boredom and job stress.

According to the data obtained, there is a significant and positive relationship between the daily job boredom of employees and daily job stress. The H4 hypothesis was thus accepted.

H5: There is a significant and negative relationship between workload and job satisfaction.

Considering the daily independent variables, it was found that daily workload did not significantly affect daily job satisfaction. The H5 hypothesis is rejected.

H6: There is a significant and negative relationship between job boredom and job satisfaction.

Daily work boredom had a significant and negative association with job satisfaction. This confirms the H6 hypothesis.

H7: There is a significant and positive relationship between workload and negative affect.
Employees' daily workload has a significant and positive relationship with daily negative affect. Accordingly, the H7 hypothesis of the research was confirmed.
H8: There is a significant and negative relationship between workload and positive affect.
In the study, daily workload had no effect on daily positive affect. In this case, the H8 hypothesis of the research was rejected.
H9: There is a significant and positive relationship between job boredom and negative affect.
In the study, there was a significant and positive relationship between the daily job boredom and daily negative affect of employees. Based on this result, the H9 hypothesis was accepted.
H10: There is a significant and negative relationship between job boredom and positive affect.
According to the analysis results, the daily job boredom of employees has a negative and significant relationship with daily positive affect. Hence, the H10 hypothesis was confirmed.

Conclusions and discussion

Based on the study findings, it can be inferred that job boredom among public employees is more harmful and dangerous than workload. Although both variables demonstrated detrimental effects on positive variables, job boredom had a wider effect compared to workload. It is also important to consider workloads of employees in the light of providing sufficient work challenge and stimulus to motivate them. Work underload can be considered a reason for job boredom; however, they can exist together simultaneously. Building on job characteristics theory (Hackman and Oldham, 1975) we may speculate that job boredom largely arises from poor work design. As the findings of the current study support the negative effects of boredom on various organizational and individual outcomes, well-designed jobs and well-adjusted workloads are critical for employees' well-being. As public institutions generally have a formal and rule-based structure, it is thought that the progress of the work in routine working order increases the job boredom of employees. Higher workload in the private sector compared to public institutions may make employees more active. It is reported that in public institutions monotonous work designs often cause job boredom (Surbhi, 2018). On the other hand, based on the job demands–resources theory (Bakker & Demerouti, 2017), another rationale for the negative consequences of excessive workload and job boredom is their link with the lack of job resources and increased job demands.
In general, there is an opinion that employees in the public sector may perceive higher detrimental effect of job boredom than those in the private sector. At the same time, due to the job security of public employees, they can show maximum performance in their workplaces. In the private sector, high levels of stress and burnout are seen, as job security is at risk (Usman and Raja, 2013).
For this reason, in research to be conducted on public administration, it is necessary to evaluate aspects of the work related to workload and to determine how these affect the welfare of the employees and what organizations can do to improve the positive experiences of employees about their work (Nguyen and Tuan, 2021).
The multilevel and longitudinal research design of the present study strengthens the findings and its contribution by giving it the power to investigate day level relationships and for determining general level variation. The results showed that person level versions of the variables can be associated in a different way than the daily level versions. It is important to examine how these variables are related in daily terms as variables can fluctuate over time.
The study was performed with a specific sample (public institutions), which may show unique characteristics. It is recommended for researchers to conduct sector comparisons and multilevel analyses for further examination of the effects of workload and job boredom.

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