UNIVERSITY OF TARTU

Faculty	≀ of	Social	Sciences
---------	------	--------	----------

School of Economics and Business Administration

Tofig Afandiyev

The relationship between work stress, organizational justice, and job satisfaction in Azerbaijan

Master's thesis

Supervisor: Isaac Nana Akuffo (PhD)

Determinants of job satisfaction in Azerbaijan	2
I have written this master's thesis independently. All viewpoints of other authorized	ors,
literary sources and data from elsewhere used for writing this paper have been referenced.	
yyyy	

Abstract

There is an increasing interest in the literature regarding job satisfaction due to employees' role in organizational achievements. However, there is a lack of comprehensive analysis, particularly about the impact of time stress, work-related anxiety, procedural justice, and distributive justice at the workplace on job satisfaction in Azerbaijan. Therefore, this paper analyzed how time stress, work-related anxiety, procedural and distributive justice influence job satisfaction. Cross-sectional survey and convenient sampling technique were employed to sample 98 employees from different industries including banking and finance, telecommunication, and technology industries. Multiple linear regression model was utilized to analyze the data. The findings revealed a positive relationship between job stress, distributive justice, procedural justice, and job satisfaction. The analysis also showed negative relationship between work-related anxiety and job satisfaction. In the framework of obtained results, managerial implications were recommended for human resources team and management of the organizations to eliminate the problems arising from anxiety and organizational justice related issues to improve job satisfaction. The research concluded with the identification of limitations with various implications to contribute the future research in the related topics.

Table of contents

Introduction	5
Research Objective	7
Literature Review and Hypothesis	8
Workplace stress- Time Stress and Work-related Anxiety	8
Organizational justice	9
Distributive Justice	10
Procedural justice	11
Job satisfaction	12
Hypotheses	13
Methodology	13
Measures	14
Data analysis & Results	14
Discussion	18
Managerial Implications	19
Limitations & Future Implications	20
Conclusion	20
List of references	21
APPENDIX	26
A List of Survey Questions Asked	26
Resümee	28

Introduction

In the global business environment, organizations are struggling to compete with their competitors, to make it sustainable, to meet the demands of consumers in a timely and quality manner, to reduce costs, and to increase the profit rate. To achieve success in this struggle, organizations need the performance, knowledge, skills, abilities, creativity, and entrepreneurship of their employees. Therefore, they are willing to recruit the most productive and creative employees of the market to take lead in the market share. On the other hand, to reveal employees' potential is very difficult when they do not experience job satisfaction in the organizations. Job satisfaction is a positive sense of an employee towards organization which has quite huge impact on productivity and success of workers through their journey in the company (Landy, 1978). Although, there are different factors contributes company productivity and profitability, job satisfaction is one of the vital which is worth to find out its drivers. The feeling of satisfaction creates motivation and willingness on employees to be more passionate to work on projects. Böckerman and Ilmakunna (2012) analysed the impact of job satisfaction on company productivity in Finnish plants, and found out that as employees satisfaction increase, organizations productivity increases as well. The sense of happiness makes employees be more committed to their role and undertake responsibilities through their career. At the same time, it creates lower level of job absenteeism in the company and decreases job turnover rate (Srinivasan & Chourasia, 2013). There are several factors influence employees to choose companies such as life- work balance, career perspective, financial benefits, perks and so on. While some of the companies are offering mentioned aspects to please employees however, they may have difficulties to achieve job satisfaction due to several reasons. Taking into consideration the side effects of job dissatisfaction for companies such as the decrease in reputation in the market, turnover and the extra spending due to leave of dissatisfied employees makes this topic quite more critical to research. Therefore, several analyses have been done in organizational behaviour literature to identify causes of job satisfaction for the organizations. While financial benefits and other perks play an important role while choosing workplace, job satisfaction is a kind of notion that impact on employee to make final decision whether to leave the company or not which indicates the importance of topic to find out the determinants of job satisfaction. (Clara& Joan, 2013) Particularly, work related stress and organizational justice are among the determinants of job satisfaction (Monica & Mohammad & Sherry, 2019). Therefore, this paper will aim to research whether stress and organizational justice have a relationship with job satisfaction and how stress and organizational justice affect employees' job satisfaction.

According to research of Michie (2012), the heavy deadlines, complexity of tasks, or rivalry among employees, can lead to stress in the organizations. Time stress and anxiety due to work among sources of stress, which can affect employees' job satisfaction. Time stress can be considered as a severe feeling which makes people believe that there is never enough time during the day. Among the factors that predispose to the formation of time stress, the excessive workload plays an incredible role. The feature of excessive workload is a situation that occurs when the individual does more work than he/she has to do in routine time and creates negative pressure on the individual. As the amount, difficulty, and complexity of the tasks performed by the individual increases, the time stress is expected to increase in this direction. On the other hand, work-related anxiety, as the second variable of stress, is an individual's psychological responses to stimuli in his or her environment. Problems within the organization such as negative working conditions, excessive workload, role ambiguity, having a lack of direction on tasks, lack of communication between employees, and conflict can cause a high level of work-related anxiety in individuals (Michie 2002). Although work-related anxiety is an inevitable and indispensable experience in business life, certain troubles or problems arise when the frequency, intensity, and duration of this anxiety are more than the strength of the individual to cope with this situation, therefore, it is claimed that stress in organization leads to employee dissatisfaction. (Ongori, et al). By considering various effects of work stress, this paper will aim to research the influence of time stress and work-related anxiety on employees' job satisfaction.

In the business environment, employees evaluate the behavior of managers in terms of being fair, moral, and rational. Organizational justice is about how employers treat their workers fairly within their companies (Robert, 1991). The views on perceptions of justice basically reveal that distributive justice and procedural justice are among main justice dimensions. (Cohen-Carash & Spector, 2001). Distributive justice focuses on outcomes how fair they are distributed in the organization (Walster, & Berscheid, 1978). On the other hand, procedural justice focuses on the fairness over processes, tools, and results of the procedure (Lind & Tyler,1988). While analyzing relationship among justice dimensions and organizational ourcomes, authors analyzed procedural and distributive impact over job satisfaction. (Colquitt et al. 2001). Injustice in the organization may lead to decrease of productivity and job satisfaction. According to Cohen-Carash and Spector (2001, justice dimensions are linked to both performance of employees and job satisfaction, and supervisors should be careful about perceived fairness from both justice dimensions perspective to keep up

job satisfaction level of employees (Cohen-Carash & Spector, 2001). According to the negative effects of mentioned organizational behaviour can be seen in the job turnover rate, satisfaction, productivity and so on. In this change and development era, increasing employees' job satisfaction is becoming an important issue to prevent quitting and for organizations to progress successfully. By considering the perceptions about the significant influence of organizational justice on employees' job satisfaction, this paper will aim to analyse the relationship between distributive and procedural justice and job satisfaction.

Research Objective

There are lots of literature about the causes of satisfaction, the impact of organizational justice and stress, in the world, this paper examined the impact of time stress, workplace anxiety, procedural justice, and distributive justice at workplace on job satisfaction. The author believes that this may be a valuable piece of research particularly in Azerbaijan. Job satisfaction is about how workers are pleased about their job (Baotham, Hongkhuntod, and Rattanajun, 2010). Time pressures on workers with addition to work related stress such as role ambiguity, conflicts among peer's impact job satisfaction negatively (Michie, 2002). A study by Lind and Tyler (1988) revealed that both distributive and procedural justice have impact on job satisfaction, however the latter one has stronger influence on the job satisfaction.

The aim of this research paper is to find out how time stress, work related anxiety, procedural and distributive justice influence to job satisfaction. To achieve this goal, first of all, the concepts of time stress, work-related anxiety, distributive and procedural justice, and job satisfaction are defined and the relationships between these concepts are revealed with the proper methodology developed based on the relevant literature review. The research objective is about to find out relationship between mentioned concepts in Azerbaijan. A search through databases such as ScienceDirectm JStor, and Googlscholar, revealed that the relationship this study examined has not been studied from Azerbaijan which indicates the uniqueness of the research area.

There are the banking and finance, telecommunication, and technology industries and option other for the respondents to choose. The reason behind adding industries to the survey to derive industry-based results if it they are significant, additional to overall results. A few changes are observed in conservative approach to the banking sector of developing countries during last decades. Currently, service quality, convenience level, innovation and communication strategies are being changed and main attention route is being focused on customer satisfaction on delivery. Therefore, researchers conclude that service organizations'

employees, especially innovations and communication related fields, are experiencing higher level of stress and anxiety due to the recent changes in the sector (Elizabeth & Zakkaria, 2015). Studies also reveal that people, who work in banking sector, are more likely to have burnouts, anxiety, dissatisfaction and so on at their workplaces (Chen & Lien, 2008). So, type of the industry has an essential role in the management of an organization, retainment of employees and improvement of customer services. There are 26 banks and 3 huge telecommunication companies in the country which takes most private sector employees. According to the Asian development bank report there are more than sixty thousand people working in technology industry and the strategic roadmap of the government is about to make investments in this industry and increase ICT contributions to the GDP of the country (2019). Therefore, it is vital to get results about job satisfaction of employees in particular industries to provide them better conditions and make them productive as much as possible. In this process of change and development, job satisfaction plays a remarkable role to prevent job absenteeism, turnover and for organizations to grow successfully. Therefore, this paper analysed the relationship between work stress and organizational justice and job satisfaction and to contribute to the literature done in the field so far.

Literature Review and Hypothesis

Workplace stress- Time Stress and Work-related Anxiety

Today, stress emerges as a phenomenon experienced by everyone in different circumstances. People spend most of their time at work and therefore, being exposed to stress is inevitable for them. Organizational stress can be accepted as an inseparable part of work life; however, it can lead to decrease welfare and willingness to fulfil duties for employees. According to the authors Beehr, and Newman whose paper has been cited more than 500 times, workplace stress happens when mind and body of workers do not function normal as they should be due factors linked to the work (1978). There are time stress and work-related anxiety among sources of workplace stress caused by tight deadlines, and work-related conflicts respectively, which influence job satisfaction negatively (Michie 2002). There has been analysis about job satisfaction, and it is mentioned that stress in organization is one of main causes of employee dissatisfaction. (Ongori, et al.) Results of another research paper which focused on stress of workers indicate that workplace stress is in top place among personal life problems, unhealthy lifestyle, and social problems which directly impact job satisfaction negatively (Mirela &Costin, 2011) One of the recent research revealed that work-related anxiety make employees dissatisfied although they have career development prospects and

company is willing to provide educational opportunities. (Çelik, 2018). Elimination of work-related anxiety could lead to higher level of productivity and performance created by increased job satisfaction (Monica, Mohammad & Sherry,2019). Another research which has been done among private sector workers have found that there is negative relationship between workplace stress and job satisfaction (Sindu Padmanabhan,2021).

According to Wilkes et al (1998), work overloads and time constraints were significant contributors to time stress. Employees working for longer hours have a tendency towards a high level of time stress which reduces job satisfaction (Rose,2003). The studies revealed that most of the workers were dissatisfied with the current culture where they were asked to work extended hours and handle large workloads to achieve production goals and meet deadlines (Townley, 2000). Unlike many other studies, Devonport (2011) shows multiple positive effects of stress at workplace, such as effective copying, constant improvement, and experience related thriving. In stressful situations people are more likely to build strong resources and demonstrate effective resilience (Devonport, 2011). As a result, positive assessment can cause positive emotions which is a foundation for building resilience and satisfaction at the workplace.

At certain times and under certain conditions, stressful situations can lead to affirmative consequences by forcing the employee to mobilize for self-assertion, assisting to increase self-esteem, activating thought processes, and stimulating the development of the personality (Savage & Torgler, 2009). Another piece of paper mentioned that if the employees satisfied with their profession and organizations provide basic needs and comfortable environment to work, stress will not influence their workplace welfare. (Mohsin, 2018)

Organizational justice

Having a healthy business environment requires to fulfil several factors affecting the employee's job satisfaction in the organization. Hence, it is needed to focus on the organizational justice that is one of the main components of high job satisfaction indicator (Gori, et al., 2020). According to Baldvin 2006, if procedures, interactions, and outcomes occurring in the organization are perceived by the employees as fair, organizational justice is achieved (2006). The perceptions can play an important role in the organization by impacting the attitudes and behaviours in a negative or positive way. Having negative impact will lead to the negative consequences for employees' satisfaction and the organizations' success. According to the recent study, an organization, that treats its employees under an unfair and unjust conditions, is more likely to experience a drastic reduction in the level of cooperation and motivation among workers and it directly results in dissatisfied and alienated employees (Whisenant & Smucker, 2009).

Even though organizational justice is not a challenging element of organization to implement, unethical and injustice decisions by the certain people such as head of the office and the supervisor generate obstacles for job satisfaction (Yean and Yusof, 2015). The analysis which has been done about organizational justice among approximately 65000 respondents from 190 sample, revealed that manager implications are inevitable to make employees satisfied from the distributive and procedural justice perspective. (Cohen-Carash& Spector, 2001). Both distributive and procedural justice have high corelation with job satisfaction compared to other organizational dimensions such as performance, organizational commitment, and citizenship based on meta-analysis on 183 justice case. (Colquitt et al. 2001). To have a scientific analysis on whether organizational justice and job satisfaction has a positive relationship, Ghran, Jameel, and Ahmad (2019) worked on a research which analysed the relationship among secondary schools' teachers. According to the study conducted in 8 schools, data acquired from 98 questionnaires were analysed. The results indicated that organizational justice has a positive impact on the job satisfaction. When teachers perceive that the treatment in terms of the allocation of rewards is fair, their job satisfaction, productivity, and performance escalate (2019).

Distributive Justice

Distributive justice is related to the outcomes, whether they are allocated proportional to inputs. Distributive justice can be explained by the Adams equity principle (1963). Employees' perception of fairness is shaped by different factors, but the main one highlighted by Adam's Equity Theory is that employees perceive fairness by comparing the output, which can be salary, satisfaction, and personal development with other employees' output. When employees give enough inputs (e.g., effort, time, energy) for their tasks, they expect to receive fair outcomes (salary, reward, bonus) and in case of receiving fair payment, they start to feel appreciated and motivated, at the end, this feeling of fair treatment results with higher job satisfaction (Ismail et al, 2009). However, it is not always observed that the rewards match or are greater than the contributions. Several reasons such as leadership style and availability of resources can trigger the perception of distributive injustice, and in turn, dissatisfaction may decrease the level of commitment and increase absenteeism. If the treatment of the employer is fair towards the employee, the employee will feel motivated. As a result, this kind of motivation will indicate itself in positive work behavior. The principle of equity is widely accepted in human resources policies, but there can be cases in which employees think that

there is an unfair distribution of benefits. According to the McFarlin and Sweeney, the distributive justice influence job satisfaction in a bigger extent compared to other justice dimensions. (1992) The authors, Ismail, Abdul-Majid, and Joarder (2015) investigated the impact of career incentives which is crucial for job satisfaction on employee performance with the mediating role of distributive justice with the sample consisted of 140 Nigerian working adults. According to the overall findings, the positive relationship between employee performance and career incentives were found with the partially mediating role of distributive justice. As claimed by Malik, distributive justice is significantly correlated with the turnover intentions. In case of perceiving unfair balance between input and output, employees' job satisfaction is decreasing, and they become willing to look for better opportunities (2011). When better jobs emerge, employees tend to accept the new positions and refuse their current work positions. Having conditions that are not pleasant in the current workplace, employees are ready to quit their organization emotionally and mentally.

Procedural justice

Procedural justice is mainly associated with the decision process to reach a certain outcome; therefore, procedural justice is achieved if the process is fair (Lind & Tyler, 1988). According to Storey (2000), voice principal should be taken into account in the procedural justice system. If management creates a condition that will allow employees to talk about their concerns before decisions are accepted, it can stimulate people's perception of justice. Study has revealed that there is strong relationship between procedural justice and work performance, as the employees have voice over processes, they tend to become more productive (Cohen-Carash & Spector, 2001). Leventhal (1980) states that there are some significant determinants of procedural justice such as consistency, neutrality, accuracy, correctability, and representativeness. that can enhance fair decision-making process. One of them is "consistency" which means same allocations should be considered and standard criteria should be built up for contract terminations. Another determinant is neutrality in which management should put their personal feelings and bias aside and should focus on the facts. To have objective view, the decision makers should consider a plethora of information sources about the issue. Accuracy factor is also the principle that states management should use accurate and correct information to come up with the final decision. Furthermore, accepted decisions should be correctable. Representativeness is another determinant in which before any decisions are made, they should be consulted with the ones who will be affected.

According to Cropanzano and Folger's research results, as workers perceive unfairness through the procedures at workplaces, individual negative responses directed to the entire company rather than specific manager or unit (1991). Kim and Mauborgne claim that procedural justice have a vital role in strategic decision making. By means of fair decision making by the management, employees tend to be engaged in more voluntary work and corporation. When the attitudes of trust and commitment are not cultivated by the right use of procedural justice, employees will try to reject corporation towards organization's decisions (1998). According to the study results, it is revealed that perceived justice based on the procedures affects turnover intentions indirectly. The study conducted by Ismail, Sulaiman, Mohamed, Rozanariah (2011) investigated the effect of performance appraisal communication and procedural justice on job satisfaction. Utilizing 150 questionnaires to accumulate the data in a national post office Malaysia, it is found that there is significant correlation between procedural justice and performance appraisal communication with job satisfaction. The findings of another research revealed high correlation between job satisfaction and procedural justice more than other justices' perceptions. (Mossholder, Bennett, & Martin, 1998)

Job satisfaction

For the welfare of countries and country assistance, employees' work orientations and attitudes towards their job are profoundly significant. Nevertheless, it is currently known how such perspectives are being variated among multiple nations, occupations, classes, and so on. Nowadays, people already experience how the recent transformations on economy and labor market make work directions and orientations alter to a totally different way. There is a book, that is called "Commitment to Work and Job Satisfaction" written by Furaker et al. (2011), describes people's approach to the paid jobs, how the western Europe deals with it and what the key actions are to take for building high level satisfaction among employees. In the mentioned book, authors analyzed the relationship between work and the behavior of workers in the labor market and found a strong correlation between organizational support, commitment with co-workers and job satisfaction. Overall, job satisfaction refers to how much a person pleased with his or her job; general comments on how content the workers are with the place that they are working for (Spector, 1997). The other research stated by Landy (1978), Edwin Locke explains job satisfaction as a pleasant and optimistic emotional gratification that is emerged by evaluation of an individual's career or work experiences (p. 533). However, there should not be any general common term for satisfactory job before building up a definition on job representation. One needs to define the nature and necessity of any work as a ubiquitous activity. Substantial authors display variety of aspects to the definition of job satisfaction. If

we look through some of them, we can conclude that even though many external elements affect people, satisfying with the job mostly is about internal factors and relates the feeling of the employee. Amalgamation of psychological, physical, and environmental wellbeing generates internal truthful satisfaction at the work. Nonetheless, American Psychological Association (2007), because of the research on employees' comebacks about their jobs, reports several factors, that assist to understand how workers view their work environment, such as, attitudes toward management, colleges, scheduling and so forth at the workplaces. As mentioned before, stress and satisfaction are two distinct factors in daily life, they co-exist and keep their reciprocal relations (Manzoni & Eisner, 2006). Clarification for this one point can be a popular idea that if workers are stressed out, they will immediately be dissatisfied with their job. An unsatisfied worker turns into an unproductive error maker and it leads to bring down whole organization. However, that claim might not be always true because of different notions that create stress. To sum up, job satisfaction can be considered as the level of pleasure that creates powerful interactions and feeling of belonging to the organization and it leads to have an upper level of productivity, allegiance and finally, stronger team resilience.

Hypotheses

From the literature above, following hypotheses were put forward for the research.

- H1. There is a negative significant relationship between time stress and job satisfaction.
 - H2. There is a negative significant relationship between work-related anxiety and job satisfaction.
- H3. There is a positive significant relationship between distributive justice and job satisfaction.
- H4. There is a positive significant relationship between procedural justice and job satisfaction.

Methodology

Data collection part of the research will consist of convenient sampling which is commonly used method to get data from available respondents of population. The survey was distributed to approximately 500 people out of them 98 employees responded who were from different industries, and to identify influences of distributive and procedural, justice and time stress, and work-related anxiety on job satisfaction in. The response rate was approximately 20%. The cross-sectional survey has been used through research which allow to collect data from a sample for a given point time to analyze by different statistical methods. Survey has

been done in March of 2021. The respondents are from Azerbaijan who are working various industries.

Measures

Questionnaires will consist of 6 sections which will have questions about time stress, anxiety, distributive justice, procedural justice, job satisfaction, and industries separately. Questions are distributed in English version to the respondents.

There was used multiple linear regression model to analyze data in the Stata to define correlation and significance among independent and dependent variables. Average score model was applied to each section of questions to analyze model. First section of questions was about industries of the respondents. There is banking and finance, telecommunication, technology, and other option items for the industries. The reason to choose the mentioned industries is about having 26 banks, several investment and accounting consulting firms, 3 big telecommunication companies and emerging of many technology companies in Azerbaijan. There were 6 questions in the third section which was about job satisfaction and developed by Schriesheim, C. and Tsui, A.S. (1980). Cronbach alpha value is 0.73 for job satisfaction questions. Bipolar Likert type has been applied in these questions in which respondents can state agreement level between range of 1-5. There were unipolar Likert type questions for the further sections where respondents can present their satisfaction level between range of 1-5. The fourth and fifth section of survey is about time stress and anxiety, respectively 8 and 5 questions. The alpha values are 0.71 and 0.83 respectively for time stress and work-related anxiety. These measures were developed by Parker and Decotiis (1983). The last sections of the survey were about distributive and procedural justice which had 3 items for both. The alpha values are 0.7 and 0.86 respectively for distributive and procedural justice. The questions were developed by Joy and Witt (1992). The questions are standardized and validated, at the same time short versions that there are in the literature about topics.

The dependent variable defined for the analysis is "Job Satisfaction". The independent variables are "Time Stress", "Anxiety", "Distributive", and "Procedural Justice".

Data analysis & Results

The purpose of the study is to examine how stress and organizational justice relate to the job satisfaction. The statics of data are described with explanations with relevant tables.

Table 1 Descriptive statistics

Variables	Obs	Mean	Std. Dev	Min	Max
Job satisfaction	98	3.233	1.074	1	5
Time stress	98	2.876	1.039	1	5
Anxiety	98	2.814	0.985	1	5
Procedural	98	3.112	1.056	1	5
Distributive	98	3.303	1.017	1	5

According to the descriptive statistics acquired from 98 respondents the mean for job satisfaction is 3,23. Most of participants contain the level of bachelor's education. The results indicate that respondents are satisfied with the level of procedural and distributive justice at the workplaces.

Table 2 Correlation Matrix

	Jobsatisfaction	Timestress	Anxiety	Procedural	Distributive
Job satisfaction	1				
Time stress	-0.06	1			
Anxiety	-0.12	0.7***	1		
Procedural	0.49 ***	-0.08	-0.01	1	
Distributive	0.51***	0.02	0.09	0.52***	1

NOTE: The coefficients with 1% significance are followed by ***, coefficients with 5% by **, and coefficients with 10% by *

On the report of Table 2, it is possible to the see the relationships by virtue of the correlation. The signs display whether the relationships are positive or negative. According to correlation matrix, the results are as expected. There is negative correlation between time stress and work related anxiety on job satisfaction, meanwhile positive correlation is observed among justice dimensions and dependent variable. The factors that have the greatest impact on the job satisfaction are the types of justice, procedural and distributive.

Regression analysis Table 3

	Model
Jobsatisfaction	Coef
cons	1.81***
Timestress	0.2
Anxiety	-0.29**
Procedural	0.31***
Distributive	0.39***

Number of obs	98
R squared	0.3982
F value	0.0000

NOTE: The coefficients with 1% significance are followed by ***, coefficients with 5% by **, and coefficients with 10% by *

Regression Model

The paper argues that time stress and anxiety have negative relationship with job satisfaction, while procedural and distributive justice have positive impact. There have been done multiple regression to the test the argument. All independent variables are indicated below in the equation.

JobSatisfaction= $\alpha+\beta1$ (timestress)+ $\beta2$ (anxiety)+ $\beta3$ (procedural)+ $\beta4$ (distributive)+ ϵ

While analyzing Table 3, we can observe the signs of each variable how they influence job satisfaction. From the Table 3, work related anxiety had a negative relationship with job satisfaction, while time stress had a positive relationship even though it was not significant. The negative sign of anxiety is expected to happen however positive sign of time stress indicates that as time stress increase 1 point it leads to 0.2 increase over job satisfaction. The hypotheses about distributive and procedural justice had a positive relationship with job satisfaction, respectively. Furthermore, procedural justice and distributive justice were significant at 1 % significance level, but work-related anxiety is significant at 5 % significance level. Time stress is significant at the 10 % level. 39% of variance for job satisfaction is explained by independent variables, according to R2 results.

The analysis based on specific industries did not make any significant results due to limited number of respondents per industry therefore they were not mentioned in the paper.

Model evaluation

Various tests can be implemented to verify used regression model to make sure about whether there is homoscedasticity, normality, and not multicollinearity.

1. For a linear regression, Breusch-Pagan / Cook-Weisberg test is a compelling example to utilize in testing for heteroscedasticity.

Ho: Constant variance

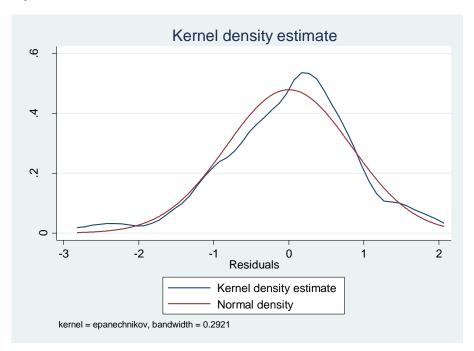
Variables: fitted values of job satisfaction

If there is heteroscedasticity, BLUE (best linear unbiased estimator) estimator will be violated. As maintained by the results, we cannot reject homoscedasticity in any significance level because chi2(1) value is 95%.

$$chi2(1) = 0.00$$

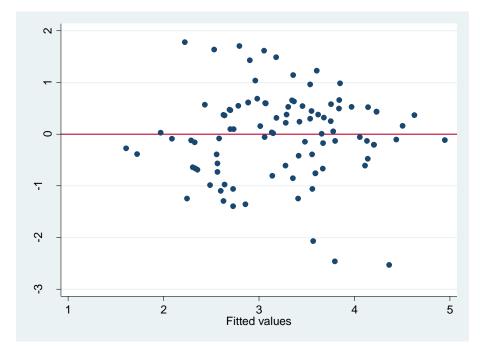
$$Prob > chi2 = 0.9466$$

Another test is used to determine normality is Kernel Density Estimate that considered to estimate the probability density function of a random variable. KDE defined that our model is normally distributed.



For multicollinearity, VIF (Variance Inflation Factors) test was used to be aware of the effects it can have on our analysis. The result is 1.61 which is less than 2 to guarantee that there is not enough multicollinearity.

Finally, it should be detected deviation of each observation error term from 0. The graph based on the analysis reveals that the error term is around zero. In this case, it is obvious that the regression model is neither overfitted nor underfitted.



Discussion

Hypotheses 1- There is a negative significant relationship between time stress and job satisfaction.

According to the results of data analysis, the negative relationship between time stress and job satisfaction is rejected. Our first hypothesis that proposed a negative relationship between time stress and job satisfaction was not supported in this study. The result was also not supported by Townley (2000) and Rose (2003) who stated that high level of time stress contributes the job satisfaction of workers negatively. The result of this study showed that time stress relates to job satisfaction positively. The result obtained may be associated with the reason that although respondents' job tasks take most of their time, they do not see it as a problem. Stress arising from time issues could motivate people to finish their tasks. This argument is supported by Savage and Torgler (2019) who found that stressful situations can lead to positive consequences.

Hypotheses 2- There is a negative significant relationship between work-related anxiety and job satisfaction.

The Second the hypothesis that proposed a negative relationship between work-related anxiety and job satisfaction was supported in this study. The findings implies that people will not be satisfied with their job if the level of anxiety in the workplace is not bearable. As Mirela and Costin (2011) reported that workplace anxiety is considered as one of the main problems in reducing employees' job satisfaction. Work stress results unpleasant feelings like, anger, demotivation, anxiety, depression, hate etc. toward one's job and it diminishes performance

immediately (Brewer and McMahan, 2004, p. 28). People, who are experiencing anxiety constantly at the workplace, most likely to suffer from above mentioned problems. For reversing the situation, the most crucial point is to analyze and understand the underlying reasons that causes these inevitable tendencies. It is the most objective and reliable way to scrutinize the topic by looking at cases and studies and their cause-effect correlations that have been clarified through the time.

Hypotheses 3- There is a positive significant relationship between distributive justice and job satisfaction.

Additionally, the results obtained from data analysis supported the third hypothesis that organizational justice (distributive and procedural) and job satisfaction were positively related. The findings revealed that distributive justice had a positive and a significant relationship with job satisfaction. If the payment and rewarding system of the organization is fair and as mentioned by Adams Equity Principle (1963), when the employees perceive that their comparison of outcome and input seems fair, they tend to be more satisfied with their job. Similar to the results of the study conducted by Malik (2011), this research also discovered that unfair balance between input and output and perception of distributive injustice could diminish employees' job satisfaction.

Hypotheses 4- There is a positive significant relationship between procedural justice and job satisfaction.

The results of analysis also supported by the fourth hypothesis. The study found that there was a positive and significant relationship between procedural justice and job satisfaction. The workplaces creating a condition for employees to have voice empower in the process of decision making, employees will feel motivated and in consequence, will be more satisfied with their job. As stated by Storey (2009), the voice principal is one of the main elements of procedural justice, so allowing employees to voice their concerns have a huge impact on the satisfaction.

Managerial Implications

When all results are considered, it is recommended for the organizations to implement measures to decrease the anxiety level of their organizations. The human resource team can conduct monthly surveys to analyze whether people feel anxious in their job and to find out the reasons generating anxiety in the organization. If the reasons are identified and eliminated, it will affect the job satisfaction positively. According to Kim, Won Ho et. al (2017), organizations' HR professionals should apply anti-stress programs to avert possible burnouts

and to affirm willingness about the life at the organization. It should be noted that several researchers in their studies indicate that dissatisfaction and stress happen when there is no or low level of job engagement (e.g., Schaufeli & Bakker, 2004; Schaufeli et al. 2002). Another recommendation is that management should focus more on the distributive and procedural justice because they have higher impact on the job satisfaction. The management should be sure that the reward is fair in comparison to the input put by employees to the job. In case of fair approach to employees at the workplace, they perform at the highest capacity of their own. Also, when the important decisions are taken, the employees should have a voice in the decisions. Companies need to oversee that all the process of giving certain decision is fair. "Leaders are the people who highly influence the lives of employees at the workplace" (Kim, W. H. et al, 2017).

Limitations & Future Implications

Similar to other studies conducted in the field, it is possible to realize that this study consisted of several limitations that should be mentioned. The sample size was small and the study is limited only to the results acquired in a country which is Azerbaijan. In consequence, having such sample size limits the generalizability of results. It is obvious that in case of increasing the sample size in data analysis part may alter the results in a considerable degree. Moreover, other variables associated with the job satisfaction could be added to the research, because time stress, anxiety, procedural justice, and distributive justice are not only indicators affecting the job satisfaction. Also, employees involved in the study are mainly from finance, technology, and telecommunication companies, for future research, other industries' employees could be attracted to the study to have more accurate results.

Conclusion

The research aimed to find the relationship between stress (time stress, anxiety) and job satisfaction and also, the relationship between organizational justice (distributive and procedural justice) and job satisfaction based on the sample consisted of 98 employees working in Azerbaijan's mainly finance, technology, telecommunication, and other companies. The findings indicated that employees tend to be dissatisfied with their job if their workplace creates anxieties for them. However, the surprising result was related to the relationship between time stress and job satisfaction. Although it was expected that time stress will negatively affect the job satisfaction, the result was a positive relationship. The most important factors that have positive impact on job satisfaction were distributive and procedural justice.

List of references

- Adams, J.S. (1963). Towards an understanding of inequity. *Journal of Abnormal and Social Psychology*, 67, 422-436.
- American Psychological Association Media Room. (2007). *Stress tip sheet*. Retrieved from http://apahelpcenter.mediaroom.com/index.php?s=page42.
- Baldwin, S. (2006). Organizational Justice. *Institute for Employment Studies UK*.
- Baotham, S., Hongkhuntod, W. and Rattanajun, S. (2010), "The effects of job satisfaction and organizational commitment on voluntary turnover intentions of Thai Employees in the new university".
- Beehr, T. A., & Newman, J. E. Job stress, employee health, and organizational effectiveness: A facet analysis, model, and literature review. Personnel Psychology, 1978.
- Bishal Sainju, Chris Hartwell, John Edwards, (2021). Job satisfaction and employee turnover determinants in Fortune 50 companies: Insights from employee reviews from Indeed.com, Decision Support Systems
- Böckerman, P., & Ilmakunnas, P. (2012). The job satisfaction-productivity nexus: a study using matched survey and register data. *Industrial and Labor Relations Review*, 65(2), 244-262.
- Brewer, E. W., & McMahon, J. (2003). Job stress and burnout among industrial and technical teacher educators. *Journal of Vocational Education Research*, 28(2), 125-140.
- Bucurean, Mirela & Adriana, Costin. (2011). Organizational stress and its impact on work performance.
- Chen, M. and Lien, G. (2008), "The mediating role of job stress in predicting retail banking employees' turnover intentions in Taiwan", *Service Operations and Logistics and Informatics*, Vol. 1, pp. 393 398
- Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O., & Ng, K. Y. (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice

- research. *Journal of Applied Psychology*, 86(3), 425–445. https://doi.org/10.1037/0021-9010.86.3.425
- Cropanzano, R., & Folger, R. (1991). Procedural justice and worker motivation. In R. Steers & L. Porter (Eds.), Motivation and work behavior (pp. 131–143). New York: McGraw–Hill.
- Devonport, T. J. (2011). Managing stress: from theory to application (Ser. Psychology research progress). Nova Science.
- Dukes-Robinson, T., & Esmail, A. (2013). A qualitative study of job satisfaction experiences of forensic scientists.
- Fink, George. (2010). Stress: Definition and history
- Furåker, B., Håkansson, K., & Karlsson, J. C. (Eds.). (2011). Commitment to work and job satisfaction: Studies of work orientations.
- George, Elizabeth, & K.A, Zakkariyya. (2015). Job related stress and job satisfaction: a comparative study among bank employees. *Journal of Management Development*, 34(3), 316–329. https://doi.org/10.1108/JMD-07-2013-0097
- Ghran, A. Z., Jameel, A. S., & Ahmad, A. R. (2019). Filodiritto Editore, 3-4.
- Gori, A., Topino, E., Palazzeschi, L., & Fabio, A. D. (2020). How Can Organizational Justice Contribute to Job Satisfaction? A Chained Mediation Model. *MDPI Sustainability*, 2-2.
- Ismail, A. I., Abdul-Majid, A., & Joarder, M. R. (2015). Mediating Role of Distributive Justice in the Relationship between Career Incentives and Employee Performance. *Journal of Economics, Business and Management, 3, 10th ser.*
- Ismail, A., Ibrahim, D. K. A., & Girardi, A. (2009). The mediating effect of distributive justice in the relationship between pay design and job satisfaction. *Zbornik Radova Ekonomskog Fakultet Au Rijeci*, 27(1), 129–148.
 - Ismail, A., Sulaiman, A. Z., Mohamed, H. A., & Sani, R. M. (2011). Revista Científica Electrónica Ciencias Gerenciales / Scientific E-journal of Management Science.
 - Kim, W. H., Ra, Y.-A., Park, J. G., & Kwon, B. (2017). Role of burnout on job level, job satisfaction, and task performance. *Leadership & Organization Development Journal*, 38(5), 630–645. https://doi.org/10.1108/LODJ-11-2015-0249
 - Kim, W.C& Mauborgne, R. (1998). Procedural justice, strategic decision making and the knowledge economy, *The Journal of Strategic Management*, 19(4), 322-338.
 - Landy, F. J. (1978). An opponent process theory of job satisfaction. *Journal of Applied Psychology*, 63(5), 533-547.

- Leventhal G, Karuza J, Fry W (1980), "Beyond fairness: A theory of allocation preferences", in Mikula G (ed.), *Justice and Social Interaction*, Springer-Verlag -
- Lind, E. A., & Tyler, T. R. (1988). The social psychology of procedural justice. New York: Plenum Press.
- Malik, M. E., (2011). Role of Perceived Organizational Justice in Job Satisfaction: Evidence from Higher Education Institutions of Pakistan. *Interdisciplinary Journal of Contemporary Research in Business* 3(8), 662-673
- Manzoni, P. & Eisner, M. (2006). Violence between police and public: Influences of work related stress, job satisfaction, burnout, and situational factors. *Criminal Justice and Behavior*, 33(5), 613-645. Doi:10.1177/0093854806288039.
- McFarIin, D. B., & Sweeney, P. D. (1992). Distributive and procedural justice as predictors of satisfaction with personal and organizational outcomes. Academy of Management Journal, 35, 626—637
- Michie, S. (2002). Education: Causes and Management of Stress at Work. *Occupational and Environmental Medicine*.
- Moorman, Robert. (1991). Relationship Between Organizational Justice and Organizational Citizenship Behaviors: Do Fairness Perceptions Influence
- Mosadeghrad, Ali & Yarmohammadian, Mohammad. (2006). A study of relationship between managers' leadership style and employees' job satisfaction.
- Mossholder, K. W., Bennett, N., & Martin, C. L. (1998). A multilevel analysis of procedural justice context. Journal of Organizational Behavior, 19, 131-141. Çelik, M. (2018). The Effect of Psychological Capital Level of Employees on Workplace Stress and Employee Turnover Intention. *Innovar: Revista De Ciencias Administrativas Y Sociales*, 28(68), 67-75.
- Ongori, H. (n.d.). A review of the literature on employee turnover.
- Parker, DF & DeCotiis, TA 1983, 'Organizational determinants of job stress', Organizational behavior and human performance, 32 (2), pp. 160-177
- Review of Business Research, Vol. 10 No. 1, pp. 73-82.ADB. (2019, January). Azerbaijan: Country Digital Development Overview.
- Rose M. (2003). Good Deal, Bad Deal? Job Satisfaction in Occupations. Work Employment Society, 17; 503.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. Journal of Organizational Behavior, 25(3), 293–315. https://doi.org/10.1002/job.248

- Schaufeli, W. B., Salanova, M., González-romá Vicente, & Bakker, A. B. (2002). The measurement of engagement and burnout: a two sample confirmatory factor analytic approach. Journal of Happiness Studies, 3(1), 71–92. https://doi.org/10.1023/A:1015630930326
- Schriesheim, C. and Tsui, A.S. (1980) 'Development and validation of a short satisfaction instrument for use in survey feedback interventions', paper presented at the Western Academy of Management Meeting,
- Shaikh, Mohsin. (2018). Influence of Job Stress on Worker Job Satisfaction.
- Shukla, A., Srinivasan, R., & Chaurasia, S. (2013). Impact of Work Related Attitudes on Turnover Intention. *Indian Journal of Industrial Relations*, 49(1), 111-122.
- Sindu Padmanabhan, The impact of locus of control on workplace stress and job satisfaction: A pilot study on private-sector employees, Current Research in Behavioral Sciences, Volume 2,2021,
- Singh, Monica & Amiri, Mohammad & Sabbarwal, Sherry. (2019). Role of Job Stress on Job Satisfaction.
- Song, X., Lowman, G. H., & Harms, P. (2020). Justice for the Crowd: Organizational Justice and Turnover in Crowd-Based Labor. *MDPI Administrative Sciences*.
- Spector, P. E. (1997). Job satisfaction: Application, assessment, causes, and consequences. Thousand Oaks, CA: SAGE Publications.
- Storey J (2000), Human Resource Management: A Critical Text (2nd ed.), Thomson Learning Studies, (2019) Organizational behavior course book by Granite state college
- Townley, G. 2000. "Long hours culture causing economy to suffer", Management Accounting, 78 (6), pp.3-5.
- Viñas-Bardolet, Clara & Velazco, Jackeline & Torrent-Sellens, Joan. (2013).

 Determinants of Job Satisfaction, the Role of Knowledge-based work.
- Walster, E., Walster, G. W., & Berscheid, E. (1978). Equity: Theory and research.

 Boston: Allyn & Bacon
- Whisenant, W., & Smucker, M. (2009). Organizational justice and job satisfaction in coaching. *Public Organization Review*, 9(2), 157–167. https://doi.org/10.1007/s11115-009-0077-8
 - Wilkes, L., Beale, B., Hall, E., Rees, E., Watts, B., &Denne, C. 1998. "Community nurses" descriptions of stress when caring in the home", *International Journal of Palliative Nursing*, 4 (1)

- Yean, T. F., & Yusof, A. A. (2015). Organizational Justice: Conceptual Discussion. ELSEVIER.
- Yochi Cohen-Charash, Paul E. Spector (2001) The Role of Justice in Organizations: A Meta-Analysis, Organizational Behavior and Human Decision Processes, Volume 86, Issue 2.

Appendix

A List of Survey Questions Asked

Industry

- 1. Telecommunication
- 2. Banking and finance
- 3. Technology
- 4. Other

The measures above added by researcher.

Job satisfaction:

- 1. How satisfied are you with the nature of work you performed?
- 2. How satisfied are you with the person who supervises your organizational supervisor?
- 3. How satisfied are you with your relations with others in the organization with whom you work- your co-workers or peers?
 - 4. How satisfied are you with the pay you receive for your job?
- 5. How satisfied are you with the opportunities which exist in this organization for advancement or promotion?
 - 6. Considering everything, how satisfied are with current job or situation job?

These measures developed by Schriesheim, C. and Tsui, A.S. (1980). Time stress items:

- 1. Working here makes it hard to spend enough time with my family
- 2. I spend so much time at work, I can't see the forest for the trees
- 3. Working here leaves little time for other activities
- 4. I frequently get the feeling I am married to the company
- 5. I have too much work and too little time to do it in
- 6. I sometimes dread the telephone ringing at home because the call might be job-related
 - 7. I feel like I never have a day off
- 8. Too many people at my level in the company get burned out by job demands Anxiety items:
 - 1. I have felt fidgety or nervous as a result of my job
 - 2. My job gets to me more than it should
 - 3. There are lots of times when my job drives me right up the wall

- 4. Sometimes when I think about my job, I get a tight feeling in my chest
- 5. I feel guilty when I take time off from the job

Distributive Justice items:

- 1. Most of my job assignments have been fair
- 2. The treatment that I have generally received here at my company has been fair
- 3. I have received fair performance evaluations Procedural Justice items:
- 1. I have considerable voice in determining my performance evaluation
- 2. I have considerable voice in determining my job duties
- 3. I have considerable voice in determining my job assignment

^{*}These measures were developed by Parker and Decotiis (1983)

^{*}These measures were developed by Joy and Witt (1992)

Resümee

Tööga rahulolu seos stressi ja organisatsioonilise õiglusega Aserbaidžaani näitel.

Tofig Afandiyev

Tänasel päeval pööratakse üha rohkem huvi töötajate rahulolule tulenevalt töötajate rollist ettevõtte edu saavutamisele. Siiski pole Aserbaidžaanis piisavalt laialdasi uuringuid, mis käsitleks ajasurvest tuleneva stressi, tööga seotud ärevuse ja töökohas valitseva õigluse mõju tööga rahulolule. Seetõttu on käesoleva uurimuse eesmärk analüüsida, kuidas ajasurvest tulenev stress, tööga seotud ärevus ja töökohal valitsev õiglus mõjutavad tööga rahulolu. Kõiki muutujaid selgitatakse lähtudes teoreetilistest allikatest. Hüpoteesid on määratletud, et analüüsida ja saada tulemused kogutud andmetest. Andmete kogumiseks viidi läbi veebivahendusel cross-sectional küsitlus 98 töötajaga, kes töötavad Azerbaidžaanis erinevates tööstusharudes, sealhulgas pangandus-, finants-, telekommunikatsiooni- ja tehnoloogia ettevõtetes. Andmete analüüsimiseks kasutati mitut lineaarset regressioonimudelit, et määratleda korrelatsioon ja olulisus sõltumatute ja sõltuvate muutujate vahel. Regressioonimudeli analüüsimiseks rakendati mitut mudelhinnangut, et veenduda homogeensuses, normaalsuses ja mitte multikollineaarsuses. Tulemused näitasid positiivset seost ajasurvest tuleneva stressi, töökohal valitseva õigluse ja tööga rahulolu vahel ning negatiivset korrelatsiooni tööst tuleneva ärevuse ja tööga rahulolu suhtes. Tulemustest lähtuvalt pakutakse mitmeid juhtimisalaseid järeldusi ja ettepanekuid, et mõõta ja elimineerida negatiivset mõju ettevõtetele.

Non-exclusive licence to reproduce thesis and make thesis public

```
Afandiyev Tofig (author's name)
```

herewith grant the University of Tartu a free permit (non-exclusive licence) to

reproduce, for the purpose of preservation, including for adding to the DSpace digital archives until the expiry of the term of copyright,

The relationship between work stress, organizational justice, and job satisfaction in Azerbaijan

```
(title of thesis)
supervised by
Isaac Nana Akuffo (PhD)
(supervisor's name)
```

- 2. I grant the University of Tartu a permit to make the work specified in p. 1 available to the public via the web environment of the University of Tartu, including via the DSpace digital archives, under the Creative Commons licence CC BY NC ND 3.0, which allows, by giving appropriate credit to the author, to reproduce, distribute the work and communicate it to the public, and prohibits the creation of derivative works and any commercial use of the work until the expiry of the term of copyright.
- 3. I am aware of the fact that the author retains the rights specified in p. 1 and 2.
- 4. I certify that granting the non-exclusive licence does not infringe other persons' intellectual property rights or rights arising from the personal data protection legislation.

author's name Afandiyev Tofig

24/05/2021