

# HAPPINESS AT WORK: SURVEY FROM TURKEY

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## ABSTRACT

Happiness is one of the important subjects in positive psychology. Happiness at work has become a popular subject for both academicians and practitioners. Our study aim is to test two hypothesis: Is there significant differences in level of happiness at work between Y generation and X generation also between blue collar and white collar workers.

The survey was performed in different companies with 1199 workers in Turkey. 1400 questionnaires sent and nearly %85 returned. The questionnaire includes demographic seven questions and two more question about happiness at work. The first question is "Are you happy at work" and If they say "yes" they don't answer second happiness question. If the answer is "no" they answer the second question. What is the main reason that makes you unhappy at work?

The data analysed with SPSS statistical programme. The results show that %59,3 of sample "happy at work", % 40,7 "not happy at work". To test H1, if there is a significant differences between "happiness" and "generation", Chi Square Test is computed. The results of analysis revealed that there is a significant relationship (correlation coefficient is ,000) between "happiness at work" and "types of generation ", so H1 is accepted. The second hypothesis is (H2) rejected because the data did not reveal significant differences (correlation coefficient is ,084) between "happiness at work" and "types of work".

**Keywords:** Happiness, Work, Turkey, Generation Y, Generation X

## I. INTRODUCTION

The emergence of positive psychology has been a strong trigger for research investigating the concept of happiness. Happiness is usually described as a state of well-being, but it is highly subjective. In other words, the state of happiness can be described experimentally, and the affective tone it contains is described as positive in all societies (Baumeister et al., 2013:505).

Happiness does not depend on indisputable external events, but rather on a variety of thoughts. This subjectivity indicates that a person should be able to focus on certain ways of thinking in order to be happy. Such thinking leads the person to forgive and be thankful for past events, to enjoy the present, and to be hopeful and positive about the future (Barker and Martin, 2011:2).

In their study, Myers and Deiner described the habits of happy people and emphasized that four main characteristics distinguish happy people from others (Myers and Deiner, 1995:55):

*"They have high self-esteem, happy people typically feel personal control, happy people are usually optimistic and most happy people are extroverted"*

## II. LITERATURE

## 1. HAPPINESS AT WORK

In the professional work environment, happiness is a specific frame of mind that helps people perform optimally and make use of their full potential. People should be attentive to increases and decreases in the course of their general performance, either when working alone or with other people, in order to achieve happiness at work (Pryce, 2010:4).

A non-problematic and smoothly functioning work environment does not necessarily guarantee happiness in the professional context. Rather, happiness is about being satisfied even though the workplace has some negative characteristics. Because these negativities will motivate individuals to eliminate them, these challenges can make individuals even happier (Kjerulf, 2014:28). Coleman claims that people who are not happy at their workplace tend to call it a “job,” whereas those who are happy in their professional environment prefer to describe it as a “calling” (Coleman, 2015:1).

Kjerulf described happiness in the work environment as the following: Kjerulf argued that only 10% of happiness at work depends on the job itself, whereas 90% depends on the individual (Kjerulf, 2014:28). This means that happiness comes mainly from the person’s inner disposition (Warr, 2007:136).

Kjerulf mention that happiness at work is that the people get when they (2014:22):

*"Really enjoy what you do, do great work you can feel proud of, work with amazing people, know that what you do is important, are appreciated for your work, get to take responsibility, have fun at work, learn and grow, make a difference, feel motivated and energized and know that you kick butt".*

Happy and healthy individuals reflect happiness in everything they do and say. Individuals who wake up in a fresh, inspired, and happy mood are capable of having their brain run at full speed and capacity, which allows them to be more productive and do better work (Seetubtim, 2015).

But individual attitude is also likely to play a role, and by adopting a happy, positive attitude employees may get much more out of their job.

Pryce argued that people who are happy at their workplace “get promoted faster, earn more, get more support, generate better and more creative ideas, achieve goals faster, interact better with colleagues and bosses, receive superior reviews, learn more, and achieve greater success (Pryce, 2010:2-3).”

Chiumento supported the findings of other researchers and determined that the people who are happiest at work are 180% more energized, 180% happier with life, 155% happier in their job, 108% more engaged at work, and love their job 79% more. According to Chiumento, 50% of the happiest people at work are also more motivated than others. Their confidence is 40% higher, and they reach their goals 30% more often (Chiumento, 2007).

The job itself is not the only determinant of happiness at work. Rather, happiness is also determined by individuals themselves. Workers would never be as happy as they believe they would be if their workplace were free of all problems. To the contrary, such a workplace might seem incredibly boring (Kjerulf, 2014:28).

## 2.GENERATIONS

The five most recent generations described and accepted by most researchers are Baby Boomers (1946–1964), Generation X (1965–1980), Generation Y or Millennials (1981–2000; in some sources,

1981–1995), Generation Z (2000–2009), and Generation Alpha (2010–2025) <http://www.kaskus.co.id/thread/56d85e4f642eb65e588b4567/real-teori-tentang-jenis-generasi-baby-boomers-x-y-z-alpha-keren/>). The first four generations are included in the labor force of today, and this mix can be overwhelming for employers. Even as the Baby Boomers are starting to retire, employers must still struggle with the conflicting styles of generations X, Y, and Z.

The different abilities, skills, priorities, and work styles of these generations can cause real unrest in the workplace. What is more, the combination of generations X and Y together make up two-thirds of the workforce. Monster conducted a relevant survey and found that fully 80% of employees aged 25 to 44 have worked for their current employers for six years or less (Ashtan, 2015).

### III.METHOD

#### 1.PARTICIPANTS

The survey was performed in different companies with 1199 workers in Turkey. 1400 questionnaires sent and nearly %85 returned.

**Table 1**  
**Demographic Variables**

	N	%
<b>Sex</b>		
Woman	279	27,3
Man	744	72,7
Total	1023	100
<b>Age</b>		
15-22	54	5,1
23-30	319	30,3
31-38	372	35,4
39-46	217	20,6
47-54	83	7,9
55 +	7	07
Total	1052	100
<b>Tenure</b>		
- 1 Year	35	3,3
1-5 Year	207	19,4
6-10 Year	247	23,1
11-15 Year	189	17,7
16-20 Year	182	17,1
21-25 Year	109	10,2
25 +	98	9,2
Total	1067	100
<b>Education</b>		
Elementary	306	28,8
High School	512	48,3
College	98	9,2
University	129	12,2
Master	16	1,5
Total	1067	100
<b>Status</b>		
Temporary	148	14,7

Permanent	862	85,3
Total	1010	100
<b>Collar Type</b>		
Blue Collar	819	76,7
White Collar	249	23,3
Total	1068	100

## 2.MATERIALS

The questionnaire includes demographic seven questions and two more question about happiness at work. The first question is "Are you happy at work" and If they say "yes" they don't answer second happiness question. If the answer is "no" they answer the second question. What is the main reason that makes you unhappy at work?

## 3.RESULTS

### 3.1.Happiness Level

In order to test the main hypothesis, level of happiness measured. The result is shown at Table 2.

**Table 2**  
**Level of Happiness**

	N	%
<b>Happiness at Work</b>		
Happy	632	<u>59,3</u>
Unhappy	433	40,7
Total	1065	100

When we compare this result with other countries the level is satisfactory. According to Kelly Service Survey (<http://www.theguardian.com/money/2005/jun/07/workandcareers.business>) different countries levels of happiness at work can be seen at Table 3.

**Table 3**  
**Different Countries Levels of Happiness**

<b>Happiness at Work</b>	<b>%</b>
Scandinavia	68
French	61
Turkey	59
UK	47
Spain	46
Netherlands	45
Belgium	35

In order to detail level of happiness according to demographic variables Chi Square Test is computed.

**Table 4**  
**Generations Level of Happiness**

HAPPINESS	Y GENERATION	X GENERATION	BABY BOOMER	TOTAL
HAPPY	193	420	7	620
%	51,9	62,7	100,0	59,1
UNHAPPY	179	250	0	429
%	48,1	37,3	,0	40,9
TOTAL	372	670	7	1049
%	100,0	100,0	100,0	100,0

According to Table 4, Generation X (62,7) is much happier than Generation Y (%51,9)  
According to Chi-Square Test result there is significant difference between generations. So **H<sub>1</sub>** is accepted.

**Table 5**  
**Chi-Square Test**

	Value	Df	Asymp. Sig. (2 -sided)
<b>Pearson Chi-Square</b>	16,429 <sup>a</sup>	2	,000

a.2 cells (33,3%) have expected count less than 5.  
The minimum expected count is 2,86

**Table 6**  
**Color Type Level of Happiness**

HAPPINESS	BLUE COLLAR	WHITE COLLAR	TOTAL
HAPPY	475	157	632
%	58,1	63,3	59,3
UNHAPPY	342	91	433
%	41,9	36,7	40,7
TOTAL	817	248	1065
%	100,0	100,0	100,0

As it has seen at Table 6 there is no significant difference between generations. This result is also verified by Chi-Square Test. Test result is shown at Table 7 so **H<sub>2</sub>** is rejected.

**Table 7**  
**Chi-Square Test**

	Value	Df	Asymp. Sig. (2 -sided)

<b>Pearson Chi-Square</b>	2,105 <sup>a</sup>	1	,147
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### 3.2.Factors of Unhappiness

Survey shows that 433 people choose unhappiness option. There was a extra question for this group to understand unhappiness factors. But 337 person answered the question. The results of unhappiness factors are seen at Table 8.

**Table 8**  
**Factors of Unhappiness**

<b>UNHAPPINESS</b>	<b>N</b>	<b>%</b>
<b>SALARY</b>	144	42,7
<b>WORKLOAD</b>	35	10,4
<b>ORGANIZATIONAL JUSTICE</b>	34	10,1
<b>LACK OF PROMOTION</b>	29	8,6
<b>INSECURITY</b>	14	4,2
<b>RECOGNITION</b>	11	3,3
<b>TRUST TO COMPANY</b>	11	3,3
<b>ORGANIZATIONAL SUPPORT</b>	9	0,8
<b>UNMET POSITION (JOB IS EASY FOR WORKER)</b>	8	2,4
<b>BAD WORKING CONDITIONS</b>	7	2,1
<b>COLLEAGUE SUPPORT</b>	6	1,8
<b>RELATIONSHIP WITH MANAGER</b>	6	1,8
<b>NO CHANCE FOR DEVELOPMENT</b>	3	0,9
<b>UNMET POSITION (JOB IS COMPLEX FOR WORKER)</b>	3	0,9
<b>PARTICIPATION</b>	2	0,6
<b>OTHERS</b>	15	4,5
<b>TOTAL</b>	337	100

## IV.CONCLUSION AND FUTURE WORK

This paper is trying to find happiness level in Turkey and also understand the factors explain unhappiness. On the other hand paper has two hypothesis. First hypothesis trying to look is there significant differences in level of happiness at work between Y generation and X generation and also between blue collar and white collar workers. Level of happiness is %59 for all workers. This result is not bad if we compare with other countries. The analysis results show that there is significant differences between generations so H1 accepted, but there is no significant difference between color type of workers, so H2 rejected.

The results also shows the factors of unhappiness. According to survey results salary (%42,7) is the main factor explain unhappiness at work. Then workload, organizational justice and lack of promotion comes (They are nearly %10).

As in all study, there are several limitations for this study. The survey sample was choosen simple saple method. If we can decide worker, occupation or company size the results may refer more interesting. And we did not use scale in the survey, maybe scale can measure happiness with high reliability.

Happiness at work is getting more important for companies, more research is needed. So researchers and academicians can make much more surveys. Also surveys from different sectors will be valuable.

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# 4 YEAR COLLEGE EDUCATION: WHAT ARE ITS EFFECTS ON LABOR MARKET RETURNS

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## ABSTRACT

The transition to employment that occurs upon college graduation is a timely issue in Korea because of its substantial socio-economic impact on individual, business, and national well-being.

We investigate the potential factors that influence (1) the employment opportunities of labor market entrants immediately after their college graduation, and (2) the terms and conditions of their first employment positions with regard to pay, benefits, full-time/temporary status, and so on. Building on a theory of labor economics, the authors explore how government and academic institutions can bring more young people into work.

We identify a number of emergent findings from empirical analysis. First, demographic factors, such as age and gender, are expectedly important in terms of the chances and qualities of college graduate employments. Second, results are mixed regarding the impacts of the characteristics of their college education, including as the type of degree, major field of study, certificates, or foreign language proficiency, extracurricular activities, and so on.

Evidence suggests that the benefits of learning outside classroom lead to more rewarding first jobs out of college. These findings imply both Korean institutions of higher education and governmental agencies should build a targeted and relatively cost efficient support program by investing more effort to align higher education with market needs at institutional level. For example, the various career guidance programs provided from colleges might lead to higher earnings and the qualified job. Internships and mentoring programs should operate in close cooperation not only with government but also with local employers and other education providers to combat youth unemployment effectively.

This paper presents an empirical examination of the data of 2010 and 2013 Graduates Occupational Mobility Survey (GOMS) collected by Korea Employment Information Service (KEIS), tested on a number of multivariate regression models.

**Keywords** □ college graduation, employment opportunity, return to education



# THE EFFECTS OF PERSONAL DETERMINANTS ON JOB SATISFACTION OF PUBLIC AND PRIVATE UNIVERSITIES' ACADEMICIANS IN PAKISTAN

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## ABSTRACT

Job satisfaction has always a concern of an employee and employer. Therefore, investigating its determinants is of value for the both. This study addresses this very important issue among public and private universities academicians in Pakistan. This is a survey research carried on teaching staffs working in different public and private sector universities of Pakistan. Questionnaires were administered to a list of 79 focal persons, who further distributed the subject questionnaire among 600 faculty members, selected from Higher Education Commission (HEC) recognized universities. A total of 410 responses received. Data has been analyzed using SPSS. Results demonstrated that there is a positive impact of independent variables on the dependent variable among the subject population. However, the level of personal determinants of job satisfaction differs from variable to variable. The survey concluded with the facts that academicians were generally satisfied with their current job condition, environment in Pakistani public and private universities. The research has both theoretical and practical implications. Theoretically the results would help in enriching the current body of knowledge on job satisfaction among academicians in developing countries. While practically, these results would provide guidelines to policy makers to better understand and critically look into these relationships for positive improvements to promote positive employee attitudes and behaviors. The findings can be generalized to other settings keeping all other things constant. Teaching at the university level is a highly honorable career and academicians are always boons to their societies where they are working. However, the extant literature shows that universities academicians' job satisfaction is under-researched area in terms of organizational and personal determinants particularly in the public & private sector institutions in Pakistan. So, the recent survey can contribute to address that gap. The research has all the limitations of a survey research. So this survey is limited to the public & private universities sector only. Thus, the results can be generalized to other industrial sectors to a restricted limit.

**Key Words:** Job satisfaction, Pakistan, Academicians' job satisfaction, Personal determinants

## INTRODUCTION

An understanding of the factors relating to job satisfaction is important for an organization. Well satisfied academicians are generally innovative, productive and motivated to establish and maintain an environment conducive to learning (Schulze, 2006). Personal determinants such as department/branch, gender, age, qualification, education, designation, and marital status of the employees have commonly been found critical in defining job satisfaction in any organization (Nawaz & Jan, 2012). That is the education which is the most significant institutional association of a nation as it plays a vital role in the development of any nation. By developed education, nations can stand on their feet. It is observed that developing country; Pakistan gives the importance of quality of education sector. In this era of struggle government also desires to make investments in education sector. Highly qualified academicians are the cornerstone, pillars of both successful education system and developing of a country as well.

That is why, it is crucial to pay attention to academicians' job satisfaction. It is believed that an encouraging and in good physical shape university arrangement can be provided by increased

academicians' job satisfaction. This situation will help improving both the learning environment and the output of any university (Khalid, Irshad, & Mahmood, 2012; Nas, 2006). That is why it has been claimed that "the future of the nation is shaped in her classrooms" (Agnihotri, 2013). And it is vital because HEIs play a key role for any association of a country in order to develop the nation (Basak, 2014). That is the universities that create and develop knowledge as constructing a modern world (Masum, Azad, & Beh, 2015).

Researchers (e.g., Nawaz & Jan, 2012) agreed that satisfied academicians are happy and happy ones are hold positive attitudes and sensitivities towards their universities. Hence, success of the universities depends on their job satisfaction. The advantage of employees having high level of job satisfaction is that they commit their time, energy and also efforts. This is one of the way helping having high level of productivity (Ayele, 2014). However, job satisfaction is a complex construct to understand. Different determiners are tested as the predictors of job satisfaction or dissatisfaction. Therefore, investigators emphasize its analysis to understand employees' attitudes (Nawaz & Jan, 2012).

Job satisfaction is dynamic. Job satisfaction is generally a complex phenomenon that is influenced by many variables. The level of job satisfaction influences the performance of academicians. It is believed that many academicians have often investigated the others job satisfaction but has less been studied their own job satisfaction whereas academicians are a unique group worth studying (Schulze, 2006). Hence, various investigations must have been conducted in order to identify which factors might increase the job satisfaction among academicians of universities (Bilal, 2012).

## **LITERATURE REVIEW**

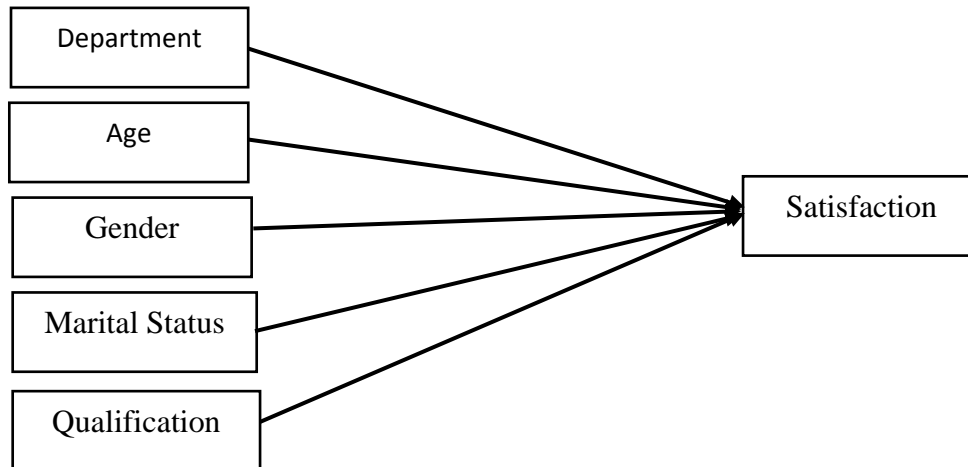
### ***2.1 Job satisfaction in institutions of Higher Education***

Extant literature has discussed a number of variables that contribute to the level of job satisfaction of academics in HEIs. There are several factors affecting job satisfaction such as the quality of employees' relationships with their supervisors, the physical environment quality of the job (Ololube, 2006). Variables believed to affect job satisfaction include work environment, pay, work, coworkers, having satisfactory work apparatuses, resources, instruction chances, associations with member workers, supervision, corporation strategy and support, salary, promotion and progress, promotion, supervision, etc. (Azim, Haque, & Chowdhury, 2013; Rehman, Saif, Khan, Nawaz, & ur Rehman, 2013). According to the result of the Hawthorne studies, the more staffs were gratified with their works, the more job fulfillment could be translated into high productivity (Dwaikat & Nazzal, 2010). In other words, job satisfaction is a combination of attitudes formed by a number of factors related to the employee's job and job environment (Sevimli & Iscan, 2005).

Therefore, various studies have been conducted on academicians' job satisfaction. The main reason is that the consequence of job satisfaction is very vital for long term developing of any educational organization around the world (Dwaikat & Nazzal, 2010). Job satisfaction among academicians has more deep implication for the society as they are considered role models for the students and for their respective societies.

As job satisfaction is an emotional state related to the positive or negative appraisal of job experiences (M. E. Malik, Nawab, Naeem, & Danish, 2010). Academicians with their various positive crucial responsibilities in education, their job satisfaction affects the overall performance of universities. The number of universities in Pakistan is increasing hence academicians may face more problems in their job environments and job satisfaction (Bhatti, Hashmi, Raza, Shaikh, & Shafiq, 2011). A nation's future is linked with their teachers. Until and unless a nation hasn't effective, knowledgeable, skillful, experienced academicians, a nation cannot find its correct place in developed countries (Rehman et al., 2013).

On the basis of the extant literature the following theoretical model is proposed (figure 1)



Theoretical model of the study.

## 2.2 *Job satisfaction*

According to Dhanapal, Subramaniam, and Vashu (2013) job satisfaction is positive emotional state, collective feelings related to jobs of employees, and general positive attitudes about the nature of their job. Job satisfaction of staffs has always been a vital concern all over the world. In general, it is believed that job satisfaction is a topic that has been extensively investigated (Dhanapal et al., 2013). Job satisfaction is a worldwide idea or as an arrangement of dissimilar scopes (Kreitner & Kinicki, 2006). Academician having high level of job satisfaction can have a positive sensation towards his/her work while one who is hopeless with the work can grip a undesirable attitude toward his/her job (Robbins & Coulter, 2005), and happy and satisfied academicians do their jobs much better (Karaman & Altınoğlu, 2007) and significantly affect the success of organization (Kinzl et al., 2005). Therefore, job satisfaction refers to how well a worker's hopes at work are in tune with products (Rehman et al., 2013).

## 2.3 *Job satisfaction and department*

Job satisfaction can be affected by a variety of variables. The results of several investigations show that there are numerous factors significantly influencing the job satisfaction. One of them is the department/branch where he/she is working. Academicians spend so much time in their department each week and they are more satisfied with their current job. It is believed that working conditions have positive impact upon the job satisfaction. Providing productivity environment in the departments much more efficiently contributes to job satisfaction as well. A department which is interesting, challenging, and which provides other amenities will be a source of satisfaction (Pisani, 2009) for the academicians serving there compared to the one which is boring and monotonous. According to Kumaş and Deniz (2010) there were significant differences among departments/branches in terms of job satisfaction of teaching staffs. On the basis of this we put the following hypothesis to test:

- H1:** There is a significant relationship between department and job satisfaction of public and private universities academicians in Pakistan

#### **2.4 *Job satisfaction and age***

Age is one of the variables influencing job satisfaction. A number of studies have been conducted in various countries on the effects of age on the general level of job satisfaction among academicians. Positive relationship between age and job satisfaction has empirically been found. Young people have been with low of job satisfaction as their morale is high. But with the passage of time and advancing age job satisfaction increases. It has been found out that older academicians were more satisfied than the younger ones (Dwaikat & Nazzal, 2010). Satisfaction increases with the increase in age. The reason to this is increase in adaptation due to experience (Sevimli & Iscan, 2005). Noordin and Jusoff (2009) asserted that age affected the job satisfaction level of academicians in Malaysian public university. Baş and Ardiç (2002) also stated that age has significant and positive effects on job satisfaction of academicians as overall job satisfaction increases with age. However, there are studies (e.g., Agnihotri, 2013) declared that younger teachers were significantly higher than older teachers in job satisfaction of educational institutions. On the basis of this we put the following hypothesis to test:

- H2:** There are no significant differences among departments regarding the factors measuring their job satisfaction of public and private universities academicians in Pakistan.

#### **2.5 *Job satisfaction and gender***

Gender issues are very common across different cultures. There are divided opinions on the impact of gender on job satisfaction. That is why for many researchers the relationship between job satisfaction and gender differences are confusing as some of them find women to be more satisfied than men while some of them find men are more satisfied than females (Azim et al., 2013). However, according to Ali and Akhter (2009) and N. I. Malik (2011), gender of academicians does not have vital impacts on the job satisfaction of academicians. And it can be said that various scholars have investigated job satisfaction across different fields on gender differences but not that much especially in education sector, universities. But it has been found out that especially female academics at higher rank were more satisfied with their jobs than male academicians. Although the interface effect of rank and gender does affect the complete job satisfaction among the university academicians, but gender itself does not affect job satisfaction of academicians (Dhanapal et al., 2013).

So it can be said that there is not a consensus related to this variable as some of them found. The reason of this difference depends on their different types of expectations from their job environment. Males and females differ in terms of job related values as female academicians place much more value on the social factor of a work while males place much more value on the opportunity for self-expression in their works (Azim et al., 2013). Agnihotri (2013) and Ahmadi and Keshavarzi (2012) asserted that female teachers were considerably higher in job satisfaction than their male coworkers in work environments. It is believed that job satisfaction varies also on male and female attitudes (Dwaikat & Nazzal, 2010). On the basis of this we put the following hypothesis to test:

- H3:** There is a significant relationship between age and job satisfaction of public and private universities academicians in Pakistan.

#### **2.6 *Job satisfaction and marital status***

Lack of job satisfaction among academicians can lead low performance (Ofuani, 2010). Marital status is another personal characteristic that affects job satisfaction. In this regard the number of studies is

limited. Generally, it is claimed that married academicians are more satisfied with their jobs than their unmarried ones (Azim et al., 2013). In contrast, according to Wong and Heng (2009), unmarried academicians have been found more significantly satisfied with their job environment than married ones. And according to Ali and Akhter (2009) unmarried males are less job satisfied than the married ones. On the basis of this available information we put the following hypothesis to test:

- H4:** There are no significant differences among faculty members of different age levels regarding factors measuring their job satisfaction of public and private universities academicians in Pakistan.

## **2.7 Job satisfaction and qualification**

The general opinion concerning the relationship between qualification and job satisfaction is that there isn't a direct correlation as job satisfaction is not increasing when employee has highly the amount of formal education (Dwaikat & Nazzal, 2010). But Smith (2007) asserted that an employee who has higher, formal education has higher job satisfaction. Eyupoglu and Saner (2009) also agreed that job qualification was a reliable determinant of job satisfaction of academicians that academicians at higher qualification generally were much more satisfied with their jobs comparing to academicians at lower qualification as overall job satisfaction increases progressively with qualification. According to the findings of Baş and Ardiç (2002), the contribution of qualification to the job satisfaction of academicians is not significant. The reason is that old people have more positive attitudes. And highly qualified academicians are the cornerstone of a successful system of a nation. On the basis of this available information we put the following hypothesis to test:

- H5:** There is a significant relationship between gender and job satisfaction of public and private universities academicians in Pakistan

## **METHODOLOGY**

The current study is a qualitative study and the type is survey. The population for the study is public and private universities academicians in Pakistan. The non-probability sampling technique was used. Survey questionnaires were distributed among six hundred and from four hundred and ten academicians completed the questionnaires by university bachelor degree or equivalent, university MS/MPhil degree, assistant professor, associated professor, and full professor working in different public and private sector universities in Pakistan such as the universities in capital city Islamabad, Quetta, Karachi, Lahore, Peshawar, Faisalabad and, etc. The questionnaire included 5 personal determinants such as department, age, gender, marital status and qualification. To measure the perception of the participants and 5-point Likert scale has been used.

For this research the scales of Dyne, Ang, and Botero (2003), Vakola and Bouradas (2003) were used. Included with each questionnaire was a cover letter explaining the importance of the survey. Participants were asked for completing the questionnaire on their own time and return it. A total of 600 questionnaires were distributed out of which 410 received back complete in all respects. This constituted a response rate of 68.3%. All the data collected was analyzed using SPSS-18.

### **3.1 Correlation analysis**

To see whether the determinants in the study are measuring the same construct, correlation analysis was conducted on the data. Table reports the results of the correlation analysis. Results in table 1 demonstrate that the determinants are neither very highly correlated (except age with marital status and qualification which is 0.50) nor uncorrelated. From these results it is very easy to conclude that the

determinants—department, age, marital status and qualification—are measuring the same construct of job satisfaction

**Table 1:** *Correlations results among the variables of the study (n=410)*

Item	Mean	S.D	Y1	X1	X2	X3	X4	X5
Y1 Job Satisfaction	3.78	0.78	1.00					
X1 Department	3.63	0.64	*0.47	1.00				
X2 Age	2.08	0.33	*0.44	*0.41	1.00			
X3 Marital Status	3.51	0.73	*0.51	*0.33	*0.50	1.00		
X4 Gender	3.66	0.82	*0.30	*0.22	*0.31	*0.30	1.00	
X5 Qualification	3.66	0.89	*0.47	*0.30	*0.43	*0.50	*0.44	1.00

### 3.2 Department

The first personal determinant is department/field. Findings reveal some diverse perceptions among the academicians. There is no uniformity in the level of satisfaction among various departments. The cumulative  $R^2$  is 0.25 which means that 25% variation in performance is explained by this variable. This means that there is a positive and significant effect of this determinant on job satisfaction of academicians in the subject population. On the basis of these statistical it can be conclude that the data supports the first hypothesis.

### 3.3 Age

The second personal determinant is age. Findings from the statistical analysis about this variable are also diverse. Majority of academicians has been found between 25-35 with 63.5% followed by the age group 36-45 with 22.1% and then by the age group 56 and above with the 11.4%. The cumulative  $R^2$  is 0.36 which means that 36% variation in performance is explained by this variable. This means that there is a positive and significant effect of this determinant on job satisfaction of academicians in the subject population. On the basis of these statistical it can be conclude that the data supports the second hypothesis.

### 3.4 Gender

The third determinant in this study is gender of the academicians. Findings of this survey show that the majority of academicians of universities in Pakistan are male with 52.0% while percentage of female is 48.0%. This finding emerged that the percentage of male and female academicians are almost equal in developing country Pakistan. The results of the study show that there are no significant differences of the level of job satisfaction among male and female as their means are almost the same; male with mean of 3.69 and female with mean of 3.63. The cumulative  $R^2$  is 0.42 which means that 42% variation in performance is explained by this variable. This means that there is a positive and significant effect of this determinant on job satisfaction of academicians in the subject population. On the basis of these statistical it can be conclude that the data supports the third hypothesis.

It can be said that the findings of this study support the previous studies, e.g., Dwaikat and Nazzal (2010); Tasnim (2006) and Olorunsola (2010) showed that there were significant different level of job satisfaction among male and female employees

### **3.5 Marital status**

The fourth determinant in this study is marital status of the academician. It is generally presumed that married employees are much more satisfied with their jobs than their unmarried counterparts. The main reason might be that marriage enforces a wider scope of responsibilities. And this situation can make job much valued and essential job. But the results of this study have found out that male academicians were less satisfied than female academicians. However, the level of the married academicians is almost double higher than the single ones. And it can be said that universities in Pakistan prefer hiring married academicians. The cumulative  $R^2$  is 0.21 which means that 21% variation in performance is explained by this variable. This means that there is a positive and significant effect of this determinant on job satisfaction of academicians in the subject population. On the basis of these statistical it can be conclude that the data supports the fourth hypothesis.

The results of the previous studies like Nayak and Nayak (2014) supports the outcomes above as marital status found to be a significant contributor to overall job satisfactions.

### **3.6 Qualification**

The last determinant in this study is qualification of the academicians. Statistics of the sample show that the major group is with MS. MPhil with 44.5% while the second highest percentage holds Bachelor Degree with 25.4%. The highest job satisfaction of academicians of public and private universities has been found among full professor followed by the assistant professors. The cumulative  $R^2$  is 0.53 which means that 53% variation in performance is explained by this variable. This means that there is a positive and significant effect of this determinant on job satisfaction of academicians in the subject population. On the basis of these statistical it can be conclude that the data supports the fourth hypothesis.

### **3.7 Multiple regression analysis**

As we have five independent variables that presumable affect the dependent variable—job satisfaction. To check the over all effects of these five independent variables on the dependent variable multiple regression technique was applied. The  $R^2$  is 0.598 which means that nearly 60% variation in performance is explained by the five independent variables. This means that there is positive and significant effect of these determinants on job satisfaction level of the academicians in the subject population. Individually, the highest effect is that of qualification followed by the gender of the academicians. The comparatively least effect has been found This is followed by age in the reverse order. On the basis of the results of the correlation analysis and regression analysis the hypotheses have been supported (though with varying degrees) by the empirical data of the study.

## **CONCLUSTON AND RECOMMENDATION(S)**

Overall it can very easily be said that job satisfaction of academics can be influenced by a variety of variables e.g. pay, work, the quality of the physical environment, department/branch, age, gender, marital status, and qualification, etc. Extant literature is replete with empirical evidence of direct and indirect effects of such determinants on the level of job satisfaction. Job satisfaction of academicians has become a serious variable in the management of educational institutions such as universities as it is one of the most important elements that affects other behaviours like productivity, absenteeism, and turnover.

The findings of this study have found consistent with the findings of the previous researches in the field. The results of this study indicate that all academicians enjoy more than moderate level of job satisfaction. The results of this study reveal all personal determinants are a positive contributor to overall job satisfaction. Their contributions to overall job satisfaction are found to be more than moderator and the overall value is good from which one can concluded that these determinants need not be ignored. With these findings it can be said that the most of academicians working in the universities in Pakistan are satisfied with their job environment.

The critical nature of job satisfaction of academicians has widely been acclaimed (Agnihotri, 2013; Dhanapal et al., 2013) because it is related to improvement and progress of universities. The universities are required to give serious note to this issue. The academicians with high job satisfaction generate high success, performance. Satisfied academicians can provide in-depth knowledge, academic development, coordinate national and international development, improvement, and innovation demands, and of course, educate students. That is why, job satisfaction of academicians has very serious implication for the management of any organization including universities (Eyupoglu & Saner, 2009).

The results of this study may be treated as sufficient eye opening realities of the management of any university (both private and public) to take serious note of the job satisfaction of their respective employees. Therefore, they need to ensure and provide a conducive job environment to the academicians in order to meet the growing demand of universities' students. Hence, in order to improve the job satisfaction of academics, it is crucial that the universities should understand the requirements of their academicians and make available what is best for them.

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# CULTURE ECONOMY AS A TOOL FOR ECONOMIC DEVELOPMENT IN THE MODERN WORLD: ASSESMENTS FOCUSED ON CULTURAL HERITAGE IN TURKEY

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## ABSTRACT

Cultural sectors are seen as some of the most important tools for economic development in the modern world. Societies that transformed their industrial economies into knowledge-based economies during the late 20<sup>th</sup> century are turning towards an economy based on culture and creativity at the present time. In this process, cultural goods and services have begun to emerge as high value and in-demand items in the national and international markets. Cultural economics can be grouped under four main headings: cultural heritage, arts, media (film, radio, TV, music, journalism, and publishing) and creative services (design, advertising, new media, architecture, and software). These cultural goods and services that constitute the cultural economy are involved in interactions with other industries, and this has an impact on the development process by creating added value for the economy through the multiplier effect. The cultural industries that are also referred to as creative industries tend to have a significant economic impact, mainly in terms of providing employment and increasing exports. In contrast, tourism, textiles, jewelry, toys, and many other suppliers ensure the development of these industries by creating indirect economic impacts. In this context, firstly cultural economics and its scope will be discussed, and its relationship with economic development will be explained. Next, referring to examples of tangible and intangible cultural heritage, the impact of cultural economics on the economic development of Turkey will be explored, specifically with regards to the Cappadocia region.

**Keywords:** Culture, Cultural Economics, Cultural Heritage

## 1.0. Introduction

The concept of cultural economics has recently become more pervasive, especially in the last quarter century. The rapid and radical changes in various cultural industries and sectors, such as audio-visual media, information technology, recording and digital technologies, and tourism, have had a great impact on this trend. The rapid transition of some societies into contexts of electronics, as well as virtual and digital culture, is the result of specific dynamics. In particular, the new cultural contexts have brought along innovative systems, tools, products, and services. The existing cultural memory has quickly begun a process of transformation to the electronic, virtual, and digital media. As a result, cultural creation, transmission, and consumption have become markedly different than they were in the past. (Özdemir, 2009).

Cultural economics has provided many regions of varying levels of development in the modern world with opportunities to create employment and income. The regions are able to market, grow employment, and generate income by transforming their sources of natural and cultural heritage, arts, and creative/cultural products into centers of production, utilizing modern information and communication technologies to do so. Moreover, cultural economics enables the establishment of a social learning platform that will make it possible to increase and diversify cultural knowledge in the region. It allows people to participate in social, economic, and cultural life in a way that will increase their individual welfare and potential; they will be able to adopt ways of living that differ from the patterns they are used to, and to develop a creative dialogue. Overall, this development of the cultural environment will increase the prosperity of human life (Kumral & Güçlü, 2013).

Turkey is ranked 16<sup>th</sup> in the world for its sources of natural and cultural heritage. These play an important role in the development process, due to the social and economic effects they create in the economy of the country. From this point of view, this study will firstly refer to Turkey's cultural

economics and its scope, as well as explain its relationship to economic development. Next, by evaluating cultural economics in Turkey with regards to natural and cultural heritage, the case of Cappadocia, one of Turkey's most significant natural and cultural heritage sites, will be discussed.

## **2.0. Cultural Economics and Its Scope**

The concept of culture "is composed of a harmonious total value of the tangible and intangible assets specific to that nation established by various accumulations throughout historical development and useful for a nation acquire personality and for determining the difference with the other nations" (Bilgiç, 1977; Işık, 2009). In this context, culture can be defined as the common behaviors that guide the social structure of a society and cause that society to acquire personality, traditions-customs, morals, ways of performing work, and common values (Ekşioğlu, 2012). In the new competitive environment that comes with globalization, some countries consider culture as one of the main tools of empowering their images and socio-economic performances. In fact, culture has a close relationship with the science of economics. When it is considered that economy includes all kinds of values and production and consumption processes, all cultural fields, traditions, elements, and activities enter the investigation area of economics and constitute the subjects of "cultural economics," which is a sub topic of economics (Özdemir, 2012). Cultural economics, in general, is composed of activities and sectors covering cultural heritage, arts, media, and creative services.

Specifically, UNESCO defines cultural economics using concepts of "cultural domains" and "related domains." Cultural domains cover all of the cultural activities and goods and services included in the cultural cycle (production and propagation of the culture). Cultural domains are expressed as follows:

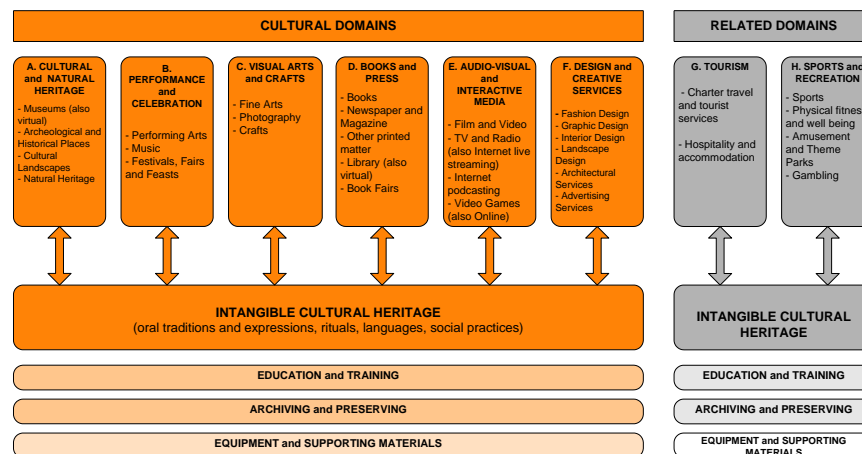
- i. Cultural and natural heritage: Museums, including virtual museums, archeological and historical sites.
- ii. Performance & celebrations: Performing arts, music, festivals, and fairs.
- iii. Visual arts and crafts: Fine arts, photography, and crafts.
- iv. Books and publications: Books, newspapers, magazines, other printed materials, and libraries (also virtual).
- v. Audio visual and interactive media: Film, video, TV and live Internet streaming, Internet podcasting, and video games (also online).
- vi. Design and creative services: Fashion design, graphic design, interior design, architectural services, and advertising services.
- vii. Intangible cultural heritage: Customs and traditions, beliefs, festivals, ceremonies, celebrations, and language.

Related domains, in contrast, are formed by expanding the definition of culture so as to cover social and recreational activities. Although they feature cultural content, the main components of related domains are non-cultural. These are specified as:

- viii. Tourism
- ix. Sports and recreation

Moreover, there are three additional areas relevant to both cultural and related domains that play key roles in the cultural cycle. These are education, vocational training, and the archiving and preserving of equipment and supportive materials (UNCTAD, 2010; Kumral & Güçlü, 2013). Figure 1 shows the areas of cultural and related domains.

Figure 1 Cultural and Related Domains



Source: (UNCTAD, 2010)

In recent years, "creative and cultural industries" is a concept that has been elaborated on considerably, along with the cultural economy. This concept can be expressed as a general classification covering the activities that are within the scope of intellectual property law, such as music, dance, theatre, literature, audio-visual media, design, informatics, and digital technology, in which creativity is used as added value (Aksoy & Enlil, 2010). However, the idea that the future of prosperity and economic development depends on creativity and the creative industries that drive the creative economy is currently the dominant view, and a shift in policy circles is responsible for this (Towse, 2011).

### 3.0. Cultural Economics and Its Relationship with Economic Development

Economic development is defined as the process of structural transformation in the social, cultural, and political fields, independent of production and revenue growth in a country. When the historical evolution of economic development is considered, it is clear that it is generally defined in light of economic indicators and improvement in this direction. However, neglecting and leaving the social structures incomplete while defining a country's economic development has hampered the establishment of the conceptual environment, as well as the formation of its content, to some extent. Many economists, from Durkheim to Smith, Schumpeter, and Marx, have generated approaches and opinions concerning the concept of development. However, due to the fact that many economists have neglected the cultural dimensions of development, the concept—which had continued its rise until the 1970s—began to decline following a series of shocks and crises. Since it has been tied so closely with economic growth in its general outlines, it has remained inadequate for explaining depressions, and the concept has been avoided for many years (Erbay, 2013). In actuality, culture is one of the most important factors in achieving economic development. Indeed, in a report that the World Bank published in 1999, it was suggested that culture is the key to sustainable economic growth and development. According to the World Bank report, culture influences economic growth and development in four main ways:

- Cultural backlog and production create new opportunities for poor communities.
- It facilitates the provision and adoption of economic development at the local level.
- Existing cultural assets are preserved and income is generated (tourism income and acceleration of urban development).
- Human and social capital stock are strengthened, which means that employment and productivity increases simultaneously by helping people in the low-income groups to improve their abilities and skills (World Bank, 1999).

In this context, source of natural, cultural, and spiritual heritage, along with creative/cultural activities, provide important contributions to the economic development of countries. Furthermore, UNESCO agreements towards preserving the diversity of both tangible and intangible cultural heritage and cultural expressions are critical parts of ensuring a sustainable economic development, especially for developing countries with their own cultural treasures (Özdemir, 2012).

During the past ten years, statistics, indicators, and data on the cultural sector, and also on operational activities, have emphasized that culture can be a driving force for development, with resulting social, economic, and environmental impacts on all aspects of a community. The contribution of cultural sectors to the economy and to reducing poverty is of particular importance. For generating income, generational cultural heritage, cultural and creative industries, sustainable cultural tourism, and cultural infrastructure can be considered strategic tools, especially for developing countries with rich cultural heritage and important labor forces. Statistics underline the importance of cultural and creative industries, showing that they represent one of the most rapidly expanding sectors in the global economy, with a growth rate of 17.6% in the Middle East, 13.9% in Africa, 11.9% in South America, 9.7% in Asia, 6.9% in Oceania, and 4.3% in North and Central America (UN, 2012).

In its *Creative Economy Report* (2010), UNCTAD specifies a 10-item policy recommendation regarding how creative industries can support a country's economic growth and development. In this context, the message it intends to communicate to developing countries has been expressed as:

The creative industries have been relatively less affected by the economic crisis in 2008. The creative industries are of importance for the developing countries to be able to do the economic bounce that they desire. The countries should make the necessary administrative and legal arrangements in order to promote and improve the creative industries and cultural economics, support the establishment of the cultural capital with long-term policy (UNCTAD, 2010; Ekşioğlu, 2013).

In another study, Ekşioğlu (2013) reached the following conclusions when examining the economic effect of cultural activities with input-output analysis:

- i. Cultural backlog nourishes creativity in economic production.
- ii. The infrastructure development accelerates in regions where cultural investments are made. The domestic investments increase, and regional economic development becomes easier.
- iii. They ensure the generation of revenue from existing cultural assets, tourism, and foreign trade. The cultural assets contribute to the branding and expansion of local and touristic attractiveness of the places where they exist.
- iv. By interacting with other sectors in the economy, the cultural capital creates a multiplier effect on the economy. Specifically, it increases employment and revenue.

#### **4.0. Cultural Economics and Economic Development in Turkey: Evaluations Focused on Cultural Heritage**

Cultural economics has begun to emerge in certain regions in Turkey in the recent years. In spite of this, it can be said that an overall official policy regarding cultural/creative industries and a comprehensive support system have not yet been developed in Turkey, unlike in countries such as the United Kingdom, Canada, Australia, New Zealand, Taiwan, South Korea, Singapore, Scotland, and China, which have all included cultural/creative industries in their national innovation strategies, or cities such as St. Petersburg, which aim to acquire knowledge with the European Union funds. According to research carried out by Lazzeretti et al. (2014), the cultural and creative industries that have important potential to play a role in the context of innovation and economic development in Turkey have not yet reached desired levels (Lazzeretti et al. 2014).

One of the most important indicators expressing the potential of countries with regards to cultural economics is the possession of cultural heritage resources. As of 2015, there are 1,031 cultural and natural assets registered in the UNESCO World Heritage List, 802 of which are cultural, 197 of which are natural, and 32 of which are mixed (cultural/natural) assets. This number has been increasing as a result of the World Heritage Committee meeting that is being held each year. Turkey currently possesses 15 cultural assets on the World Heritage List, as specified by UNESCO. As noted, with the cultural assets it owns, Turkey has been ranked 16<sup>th</sup> among 141 countries in the Travel & Tourism Competitiveness Index, published by WEFORUM at the beginning of 2015. In addition, the intangible cultural heritage owned by the country is another important indicator of its potential in terms of cultural economics. Currently, Turkey has 12 intangible cultural heritage items on the List of Intangible Cultural Heritage published by UNESCO, and has been ranked 6<sup>th</sup> among countries of the world in The Travel & Tourism Competitiveness Index (WEFORUM, 2015).

**Table 1 Tangible and Intangible World Heritage in Turkey**

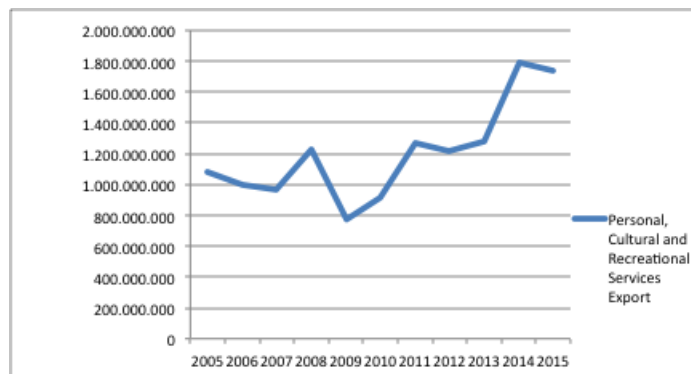
<b>Tangible World Heritage List</b>	<b>Intangible World Heritage List</b>
<p><b><u>Natural and Cultural (2)</u></b></p> <ol style="list-style-type: none"> <li>1. Göreme National Park and the Rock Sites of Cappadocia (1985)</li> <li>2. Hierapolis-Pamukkale (1988)</li> </ol> <p><b><u>Cultural (13)</u></b></p> <ol style="list-style-type: none"> <li>3. Historic Areas of Istanbul (1985)</li> <li>4. Great Mosque and Hospital of Divriği (1985)</li> <li>5. Hattusha: The Hittite Capital (1986)</li> <li>6. Nemrut Dağ (1987)</li> <li>7. Xanthos-Letoon (1988)</li> <li>8. City of Safranbolu (1994)</li> <li>9. Archaeological Site of Troy (1998)</li> <li>10. Selimiye Mosque and its Social Complex (2011)</li> <li>11. Neolithic Site of Çatalhöyük (2012)</li> <li>12. Pergamon and its Multi-Layered Cultural Landscape (2014)</li> <li>13. Bursa and Cumalıkızık: The Birth of the Ottoman Empire (2014)</li> <li>14. Diyarbakır Fortress and Hevsel Gardens Cultural Landscape (2015)</li> <li>15. Ephesos (2015)</li> </ol>	<ol style="list-style-type: none"> <li>1. Meddahlık (Art of Public Story Telling) Tradition (2008)</li> <li>2. Mevlevi Semah Ceremony (2008)</li> <li>3. Aşıkılık (Folk Poets or Minstrelsy) Tradition (2009)</li> <li>4. Karagöz Shadow Theater (2009)</li> <li>5. Newroz (Common Tradition for Spring Festival, also in Azerbaijan, India, Iran, Kirgystan, Uzbekistan, and Pakistan) (2009)</li> <li>6. Traditional Conversations (Sohbet) and Meetings (Yaren, Barana, Sıra Nights, and Others) (2010)</li> <li>7. Alevi-Bektaşî Ritual Semah (2010)</li> <li>8. Kırkpınar Oil Wrestling Festival (2010)</li> <li>9. Ceremonial Keskek Tradition (2011)</li> <li>10. Mesir Paste Festival (2012)</li> <li>11. Turkish Coffee Culture and Tradition (2013)</li> <li>12. Ebru, Turkish Art of Marbling (2014)</li> </ol>

Source: (UNESCO, 2016)

The tangible and intangible cultural heritage that Turkey has played an important role in its economic development by enabling creative sectors and activities to emerge. The most significant effect of this is seen in tourism activities. Tourism is one of Turkey's most important sources of national income. Because it features such diverse cultures in its population, Turkey hosts foreign tourists during each period of the year. The fact that foreign tourists prefer Turkey for cultural reasons, in addition to its sea and beach access, impacts its competitiveness positively. Additionally, this situation has also been an important factor in the attraction of culture-oriented foreign investments. The operation of chain hotels in the regions of Turkey where cultural heritage exists can be seen as an example of this. Furthermore, the development of the tourism industry can be specified as one of the most important reasons for the recent increase in employment rates. In particular, the regions where cultural heritage exists—and the holiday resorts are located—tend to be the places where the employment rates are the highest.

Lastly, these centers of tangible and intangible heritage in Turkey facilitate the emergence of cultural/creative products and services. Cultural activities, such as local festivals, rejoicings, and fairs held at certain times specific to these regions, stimulate the economy within the scope of creative services. While the cultural activities attract domestic and foreign tourists to these regions, they simultaneously enable the introduction of indigenous products and handicrafts, and subsequently provide grounds for export. The cultural activities held in many regions of Turkey have maintained an increasing course. Figure 2 shows the values and the course of development regarding the annual export of cultural and recreational services in Turkey.

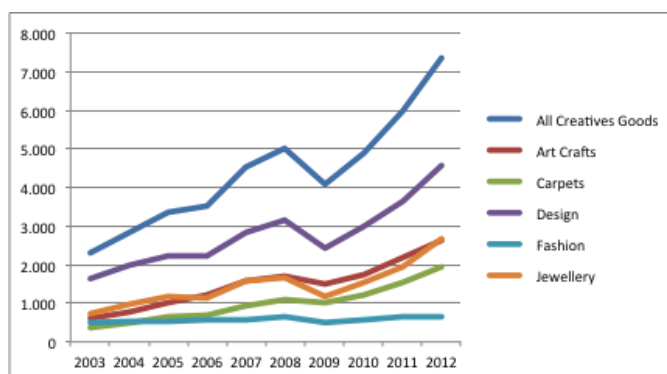
**Figure 2 Values of Personal, Cultural, and Recreational Services (Services, Exports) in Turkey, Annual, 2005-2015 (Million USD)**



Source: (TÜİK, 2016)

Among these exports, handicrafts have an important place in the cultural/creative industries in Turkey. Products such as carpets, rugs, pottery, and china that emerge from indigenous cultures specific to Turkey attract intensive demand in the foreign market. In fact, according to the 2008 international trade data, while Turkey ranks 4<sup>th</sup> in the export of creative goods among developing countries, it ranks 1<sup>st</sup> in the export of creative services. The United Nations' *Creative Economy Report 2010* presented the creative industries as a positive alternative for development, and has considered Turkey and Argentina as examples of developing countries in this regard (UNCTAD, 2010; Demir, 2014). Figure 3 shows the annual export values of major creative/cultural goods in Turkey.

**Figure 3 Values of Creative Goods and Exports, Annual in Turkey, 2003-2012 (Million USD)**



Source: (UNCTAD Statistics, 2016, <http://unctadstat.unctad.org/> )

Beyond these exports, regions in Turkey where tangible cultural heritage exists have recently been important sites for films and TV serials. Some of these regions have been utilized as natural film sets, primarily for foreign film makers, who conduct a part or all of their scene shots in Turkey. These films both stimulate the economy during the shooting period and increase the periodic employment rate; also, following their release, they vitalize the tourism industry by attracting local and foreign tourists to the region. Turkey has seized an important opportunity in the recent period, and has added Hollywood films with huge budgets and celebrity casts to its list of cultural assets. Since 2011, Turkey has made important contributions to the development of tourism by hosting a total of 18 foreign shoots, including *Skyfall*, which exceeded 1 billion in box office returns; *Argo*, which received the Academy Award for Best Movie; *Taken 2*; and finally, the movie *The Water Diviner*, in which Russel Crowe both directed and undertook the leading role. Furthermore, in recent years, the featuring of indigenous cultural products in the films shot in these regions has allowed local culture to generate demand and increase the export of creative products. Although Turkey does not export cinematic films worldwide, it can be said that it is highly successful in the field of TV serials. Numerous TV serials shot in Turkey are exported

internationally, mainly to Arab and Middle Eastern countries. The fact that some of these TV serials span periods of more than two-three years only serves to increase the economic impacts they create.

### *Case of Cappadocia*

Cappadocia is one of Turkey's most important natural and cultural heritage regions in Central Anatolia . It emerged 60 million years ago, formed by the erosion of the soft layers of lava and ash produced by three volcanoes: Erciyes, Hasandağı, and Güllüdağ. Over millions of years, winds and rains have carved the landscape into unique geological features. Cappadocia has been a permanent settlement site since the Chalcolithic Period, and the lands where the Hittites lived became one of the most important centers of Christianity in subsequent centuries. Its extraordinary rock formations create spaces that are warm in the winter and cool in the summer, therefore providing appropriate interior climatic conditions in all seasons.

Since 1985, the Cappadocia region has been included as a natural and cultural world heritage site on the UNESCO World Heritage List. Specifically, Göreme National Park, Göreme and Kaymaklı Underground Cities, Karain Dovecotes, Karlık Church, Yeşilöz Theodorou Church, and the Soğanlı Archeological Site have been designated (Republic of Turkey Ministry of Culture and Tourism, 2016). The fact that the Cappadocia region is placed among recognized natural and cultural heritage sites of the world has significantly affected tourism activities in the area. The region hosts approximately 2.5 million domestic and foreign tourists each year. The "Balloon Tourism" that highlights the natural and cultural atmosphere of Cappadocia is a service unique to this region. In Cappadocia, where around 30 companies organize balloon tours, approximately 500,000 tourists fly by balloon every year.

In addition to balloon tours, numerous activities have been carried out within the scope of creative/cultural services in the Cappadocia region. For example, the Türkmen Dining Table Feast in the Nevşehir city center, which is traditionally organized every year, the Hacı Bektaş-ı Veli Commemoration Ceremonies in the town of Hacı Bektaş, the vintage festivals and wine contests in the town of Ürgüp, and the International Handicrafts Festival in the town of Avanos can all be seen as examples for these activities.

Natural and cultural heritage is crucial to the survival of occupations by which the people of Cappadocia make their livings. For instance, besides keeping cultural heritage alive, Cappadocia's handicrafts—pottery, carpet (rug) weaving, handmade baby doll production, and onyx stone processing—have been important sources of income in the region as creative/cultural products. These products have been demanded by both domestic and foreign tourists and exported to many countries.

Regarding the promotion of tourism, domestic and foreign TV serials, films, and documentaries shot in the region have served as effective tools during the economic development process of the Cappadocia region. Since the film *Medea*, shot by the Italian director Pier Paolo Pasolini in 1969, producers from Germany, Brazil, Saudi Arabia, USA, China, India, Ukraine, Denmark, Bulgaria, Italy, South Korea, Russia, Indonesia, the Netherlands, Singapore, Belgium, United Arab Emirates, Egypt, Malaysia, Croatia, England, Pakistan, Spain, Vietnam, Argentina, Taiwan, Canada, France, and Sweden have shot a total of 193 films, TV serials, programs, documentaries, promotional spots, and advertising films in Cappadocia (Nevşehir Valiliği, 2014). Also, in recent years, the Brazilian serial *Salve Jorge* has been shot in Cappadocia and watched by millions of people in Brazil, and America's most famous television face, Martha Stewart, even performed a program in the region—both of which have contributed significantly Cappadocia's publicity. The film *Kış Uykusu*, which received the Golden Palm Prize at the Cannes Film Festival in 2014, was also shot in Cappadocia by Nuri Bilge Ceylan, who is one of the most prominent directors in Turkey (Republic of Turkey Ministry of Environment and Urbanization, 2016).

Overall, the designation of Cappadocia as a world heritage site by UNESCO has facilitated many activities that support the region's economic development. The production of creative/cultural products, primarily tourism activities nourished by the culture it owns, have prompted an increase in employment rates in the region. In addition to this, the export of products and services has also increased, and these developments make the region attractive for investments. All of these developments work together to improve the welfare of the region's people, in addition to the increase in production and revenue, which constitute the basis of economic development.



## 5.0. Conclusion

Cultural economics, with its increasing importance over the 20<sup>th</sup> century, has become the most critical element of economic development in many areas. In the modern world, these countries consider culture to be one of the basic tools of strengthening their images and socio-economic performances in the shifting competitive environment. The areas of cultural economics gaining importance at this point generally consist of activities and sectors covering cultural heritage, arts, media, and creative services.

Turkey, which is situated at the intersection of three continents and is home to diverse cultures, is a rich country in regards to tangible and intangible cultural heritage resources. According to the *Travel & Tourism Competitiveness Report 2015*, published by the World Economic Forum, Turkey ranks 16<sup>th</sup> among the world's countries in tangible cultural heritage, and 6<sup>th</sup> in intangible cultural heritage. These sources of cultural heritage represent a great potential for the economic development of Turkey. Although it is hard to state that Turkey has been using this potential appropriately, it is obvious that it has shown significant improvements in recent years. The cultural heritage that Turkey owns, while primarily ensuring an increase in tourism activities, also leads to the production of creative/cultural products and services, and even to the export of these goods. In the meantime, the increase in economic activities also improves the employment rate. Thus, the welfare of the people living in places where natural and cultural heritage exists is enriched, while at the same time increasing national income due to economic activities. Additionally, the regions with economic viability become attractive to investors.

Cappadocia, which is one of Turkey's most important cultural heritage sites, can be highlighted as a striking example of the economic impacts created by its cultural heritage. Tourism activities have been the most important source of income in Cappadocia recently, which has been considered a natural and cultural heritage site by UNESCO since 1985. This situation has vitalized the economic activities and tourism of Cappadocia in a unique way. Thus, among the components of cultural economics that a region owns, cultural and natural heritage resources support economic development by triggering an increase in tourism and entertainment services, promoting the production of creative/cultural products and services, increasing media activities, and reviving artistic activities.

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# A STUDY TO DETERMINE THE RELATIONSHIPS BETWEEN JOB AND LIFE SATISFACTION AND PSYCHOLOGICAL WELL-BEING

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## ABSTRACT

When examining the literature, work-related experiences and job satisfaction affect outside work satisfaction, and likewise outside work experiences affect attitudes toward work. It is thought that psychological well-being state related whether individuals achieve the objectives of his/her life or not. This research was made with the aim of determine relationships between job satisfaction, life satisfaction and psychological well-being. Sample of the study is constituted of 317 people. Survey method was applied. Data had been analyzed with correlation analysis and non-parametric tests. It has been found that there is a strong and positive relationship between job satisfaction and life satisfaction  $r=0,489$ ,  $p<0,01$ ; and between job satisfaction and psychological well-being,  $r=0,48$ ,  $p<0,01$ . There is a positive and medium level relationship between job satisfaction and psychological well-being,  $r=0,33$ ,  $p<0,01$ . Achieved that, employees who have been earning much money are more satisfied with their lives than who have not been,  $r=0,46$ ,  $p<0,01$ . But there is no relationship between psychological well-being and wages. In conclusion, earning much money makes people be satisfied with their life, but it doesn't make people be happy. Surprisingly, there is a negative and low level relationship between job satisfaction and award,  $r=-0,12$ ,  $p<0,05$ .

## INTRODUCTION

While job satisfaction expresses the pleasure and happiness that individuals get from working life, life satisfaction is considered the satisfaction that individuals feel both in working and non-working life. Accordingly, it can be said that, while factors affecting the job satisfaction of individuals also significantly affect their life satisfaction, factors external to work are also decisive on their attitudes toward work. That is, there is a reciprocal relationship between job and life satisfaction, and both of the variables have significant mutual influence.

Another concept related to happiness, psychological well-being, refers to mental health and is related to individuals' satisfaction with their lives and the development of their talent and potential. Job satisfaction of individuals is the main indicator of their psychological well-being and that it is a complementary cognitive aspect of happiness. It could be said that the state of psychological well-being brings about many positive results in the individual. Accordingly, it is expected that individuals who are in a state of psychological wellness should have high job and life satisfaction, physical and mental health, self-confidence, motivation, and positive thinking power.

## **1. JOB SATISFACTION**

During the past few decades, many researchers have focused on research related to job satisfaction and its components. Most have noticed the importance of job satisfaction in relation to organizational variables (Wadhwa et al., 2011:109).

According to Locke (1976), job satisfaction refers to a gratifying or positive emotional state that is precipitated by the job or work experiences of the individual (Judge et al., 2001:26).

Job satisfaction means the pleasure and happiness that the individual takes from working life. Accordingly, individuals are satisfied if they take pleasure from working life; conversely, they are not satisfied if they do not take such pleasure (Keser, 2015:140).

Job satisfaction can be defined, in its simplest form, as the emotional rapport of an employee with his or her work. That is, job satisfaction refers to feelings, attitudes, or preferences of individuals for their jobs (Wadhwa et al., 2011:109).

Luthans mentions the three important dimensions of job satisfaction. Firstly, job satisfaction is an emotional response to any work situation. Secondly, job satisfaction can generally be determined by outputs that meet or exceed expectations. Thirdly, job satisfaction reflects several related attitudes. These attitudes are related to things such as the work itself, payment, opportunities for promotion, type of management, and coworkers (Luthans, 2011:141).

Job satisfaction leads to significant individual and organizational results. In the literature, it is noted that job satisfaction has a relationship with attitudes and behaviors such as stress, anxiety, absenteeism, delays, commitment to the organization, and work. When a working individual feels satisfaction from a job, it leads to increased happiness, to a stronger commitment to work, to greater efficiency, to a reduced rate of defective products, to lower turnover rates, and to better quality services offered to the customers (Gül et al., 2008:2).

In case of an employee being unable to realize job satisfaction, symptoms from the individual worker's point of view may include a sense that the work to be done seems pointless to the employee who does it or the employee maintaining psychological distance from the workplace and showing tedium. These attitudes may result in more serious acting out in the form of childish reactions like pouting; in extreme cases, verbal or actual aggression toward people or property may possibly erupt. When analyzed in terms of organizations, low employee morale leads to consequences such as slowing down the work, work stoppages, excessive absences and delays, a rise in the employee turnover rate, a decrease in work efficiency, unfavorable work relations, discord among employees, and non-compliance with the work rules and orders (Sevimli and İşcan, 2005:59).

## **2. LIFE SATISFACTION**

In general, life satisfaction refers to the satisfaction that the individual feels both in the work and non-work domains (Keser, 2015:160).

The concept of life satisfaction, which was first dealt with by Neugarten (1961), expresses the attitude of the individual toward life and the satisfaction he or she feels from life. Life satisfaction reflects general

emotions about life and is considered as a criterion of emotional happiness. This concept includes the emotional responses and attitudes that the individual shows toward life in the non-work domain (Dursun and İhtar, 2014:130).

Life satisfaction refers to a cognitive and constructional process. Life satisfaction is defined as a general assessment of the life quality of the individual with regard to criteria selected by the individual (Diener et al., 1985:71).

In the literature, the major factors affecting life satisfaction are job-related. Accordingly, the nature of the work that individuals perform, how they are perceived by others, the payment received, their role in the organization, workload, opportunities for promotion, workplace training opportunities, and on-the-job experiences – that is, all the factors determining the job satisfaction of individuals – significantly affect their life satisfaction (Özdevecioğlu and Aktaş, 2007:8).

Brayfield and his colleagues (1975) were first to point out the need for examining the relationship between job and life satisfaction. Most studies have indicated that job or work-related experiences and satisfaction affect life satisfaction. On the other hand, the non-work domain also affects attitudes toward work (Chacko, 1983:163). Judge and Watanabe (1993) stated that there is a strong reciprocal relationship between job and life satisfaction and that both of these variables mutually affect each other to a significant degree (Judge and Watanabe, 1993:947).

Several theoretical models have been presented in order to describe the relationship between job and life satisfaction. The first of these, *spillover*, indicates that job experiences are distributed to other areas of life; consequently, there is a positive relationship between the two variables. The other, *segmentation*, suggests the idea that job and life experiences have very little relationship with each other, and even that the two variables are substantially uncorrelated. The final model, *compensation*, involves an individual trying to compensate for work-related dissatisfaction by seeking happiness in non-work life; as a result, there is a negative correlation between the two variables (Heller et al., 2002:816).

In addition, an examination of the literature reveals that not only are job satisfaction and life satisfaction concepts which significantly affect each other, but also that they are in interaction with several other concepts. Studies show that job and life satisfactions of individuals are associated with concepts such as fatigue (Avşaroğlu et al., 2005; Şeker and Zırhlıoğlu, 2009), work-family conflict (Özdevecioğlu and Doruk, 2009; Dursun and İhtar, 2014), social gender roles (Ünüvar and Togay, 2015), personality (Heller et al., 2002), self-efficiency (Akgündüz, 2013), leader and coworker support (Kale, 2015; Özyer et al., 2015), job performance (Kale, 2015), and the like.

### 3. PSYCHOLOGICAL WELL-BEING

Researchers have found that the state of psychological well-being, first dealt with by Bradburn in the 1960s, is related to mental health; conversely, the lack thereof can be a source of many other problems in the life of an individual (Tatlılıoğlu, 2015:2).

According to Ryff, the concept of psychological well-being not only means happiness but also self-realization, and psychological well-being comprises the components of self-acceptance, positive relationships with the others, autonomy, environmental dominance, a purpose in living, and personal development. (Ryff, 1989:1069).

Psychological well-being can be defined as a dynamic process describing how people's lives are going by way of interaction among the conditions they are in, events, and psychological sources (Forgeard, 2011:98).

Some researchers emphasize that the life satisfaction of the individual is the key indicator of psychological well-being. For measuring psychological well-being, various instruments can be useful. In this regard, life satisfaction is often taken as a component (Winefield, 2012:2). When dealing with

psychological well-being, the concept of happiness is focused according to the hedonic perspective, which is described as the presence of positive emotions and the absence of negative emotions in a life focused in a fully and deeply satisfying way according to a eudemonic perspective (Deci and Ryan, 2008:1). Similarly, Hupert (2009) described psychological well-being as related to life going well and considered the concept as a component of feeling good and functioning effectively (Huppert, 2009:137).

It is possible to say that the state of psychological well-being brings about a great number of positive results from the individual's point of view. Accordingly, it is expected that individuals who have psychological well-being have job and life satisfaction, physical and mental health, self-confidence, motivation, and positive thinking (Akdoğan and Polatçı, 2013:278).

According to the psychological well-being perspective, an individual's satisfaction with his or her life to depends on developing his or her talents and potential (Diaz et al., 2015:251). Similarly, individuals who experience more positive emotions have a higher state of psychological well-being; therefore, individuals who seek pleasure and avoid pain tend to experience higher psychological well-being in terms the meaning of life (Fabio and Bucci, 2015:5).

In this study, the job satisfaction, life satisfaction, and psychological well-being of individuals have been assessed. In addition, the differences between demographic variables and job satisfaction, life satisfaction, and psychological well-being scores have been examined.

## **4. METHODS**

### **4.1 Aim of the Research**

The goal of this study is to make assessments about the relationships between job satisfaction, life satisfaction, and the psychological well-being of individuals.

### **4.2 Sampling**

The research sample is composed of 224 female and 93 male ( $n = 317$ ) human resource experts (HREs). The data used in this study was collected via an e-mail questionnaire sent to 1,100 HREs that were registered on LinkedIn. Data were collected from April to July of 2015. Out of 1,100 questionnaires, a total of 317 questionnaires were returned (a 29% response rate) (Keser-Yılmaz, 2016:570).

### **4.3 Measures**

To rate job satisfaction, Spector's Job Satisfaction Scale was used. This scale has 36 items and assesses nine facets of job satisfaction (Zeytinoglu et al., 2012:131). The five-item Life Satisfaction Scale, developed by Diener, Emmons, Larsen, and Griffin (Diener, et al., 1985, 71-75), was also used. Finally, the Psychological Well-being Scale developed by Diener et al. (2009, 247-266) and adapted to Turkish by Telef (2013: 374-384) was used. This scale has eight items, and it is rated on a seven point Likert scale.

### **4.4 Data Analysis**

The statistical analyses of the data collected from 317 HREs for the purpose of measuring relationships between job satisfaction, life satisfaction, and psychological well-being were performed by using SPSS 14.0 statistics software.

## **5. FINDINGS**

### **5.1 Reliability Analysis**

The purpose of this section is to determine the reliability of the scales used in the research. To be acceptable, the scales are required to have a value greater than 0.70 for Cronbach's alpha, which is a value ranging from 0 to 1. In the analysis performed, it was found that the Cronbach's alpha value of the Job

Satisfaction Scale is 0.81, the Cronbach's alpha value of the Life Satisfaction Scale is 0.85, and the Cronbach's Alpha value of the Psychological Well-being Scale is 0.83.

Table 1

*Reliability levels of the Job Satisfaction, Life Satisfaction, and Psychological Well-being scales*

Scales	N	#of Questions	Cronbach's Alpha
Job Satisfaction	317	36	0.81
Life Satisfaction	317	5	0.85
Psychological Well-being	317	8	0.83

## 5.2 Demographics

Participants in the 20–30 age range comprise 60% of the sample; those in the 31–40 age range comprise 29%; those in the 41–50 age range make up 8.6%; and the percentage of participants in the 51–60 age range is 2%. Of the participants, 53.6% (170 people) have at least one person working with them; 46.4% (147 people) of them do not work as part of any team. The sample of participants consists of 71% females and 29% males of which 53% are single and 47% are married employees.

While 52% of participants have 1–5 years of seniority in the company they work for, 29% have less than one year of seniority. The cohort of the sample with 6–10 years of seniority is 11%; the one with 11–15 years of seniority is 4%; and the cohort with 15 years and above is again 4%.

## 5.3 Analysis of the Relationships Between Job Satisfaction, Life Satisfaction, and Psychological Well-being

### 5.3.1 Analysis of the Relationship Between Job Satisfaction and Life Satisfaction

A correlation analysis was performed to examine the relationship between the job satisfaction and life satisfaction of the employees. The results of the analysis revealed a high-level, positive, and significant of relationship between job satisfaction and life satisfaction ( $r=0.489$ ,  $p<0.01$ ). According to these results, the higher the job satisfaction scores of the employees get, the higher their life satisfaction scores get.

Table 2

*Correlation levels between job satisfaction, life satisfaction, and psychological well-being*

Variable 1	Variable 2	Correlation	Significant	N
Job Satisfaction	Life Satisfaction	0.49	$p < 0.05$	317
Job Satisfaction	Psychological Well-being	0.33	$p < 0.05$	317
Life Satisfaction	Psychological Well-being	0.48	$p < 0.05$	317

### 5.3.2 Analysis of the Relationship Between Job Satisfaction and Psychological Well-being

A correlation analysis was performed to examine the relationship between the job satisfaction and psychological well-being of the employees. The results of the analysis revealed that there is a medium-level, positive, and significant relationship between job satisfaction and psychological well-being ( $r=0.33$ ,  $p<0.01$ ). According to these results, the higher the job satisfaction scores of the employees, the higher their psychological well-being scores.

### 5.3.3 Analysis of the Relationship Between Life Satisfaction and Psychological Well-being

A correlation technique was used to analyze the relationship between life satisfaction and psychological well-being. According to the results, there is a high-level, positive, and significant relationship between life satisfaction and psychological well-being ( $r=0.48$ ,  $p<0.01$ ). This demonstrates that the higher the life satisfaction scores of the employees get, the higher their psychological well-being scores get.

## 5.4 Relationships Between the Dimensions of Job Satisfaction and Life Satisfaction

A correlation technique was used to analyze the relationship between life satisfaction and the payment sub-dimension of job satisfaction (See Table 3).

### 5.4.1 Correlation Results

There was a high-level, positive, and significant relationship between the life satisfaction and job satisfaction sub-dimension scores of the employees ( $r=0.456$ ,  $p<0.01$ ). The higher the level of satisfaction the employees receive from their wages gets, the higher their life satisfaction will get.

**Table 3**  
**The Relationship Between Life Satisfaction and the Dimensions of Job Satisfaction Variables**

Variables	Item	R	Sig. (2-tailed)	p
Life Satisfaction	Pay	,456**	,000	$p<0.05$
Life Satisfaction	Promotion	,365**	,000	$p<0.05$
Life Satisfaction	Supervision	,252**	,000	$p<0.05$
Life Satisfaction	Fringe Benefits	,358**	,000	$p<0.05$
Life Satisfaction	Rewards	-,118*	,035	$p<0.05$
Life Satisfaction	Operating Procedures	,017	,760	$p>0.05$
Life Satisfaction	Coworkers	,229**	,000	$p<0.05$
Life Satisfaction	Nature of Work	,385**	,000	$p<0.05$
Life Satisfaction	Communication	,268**	,000	$p<0.05$

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

There was a medium-level, positive, and significant relationship between the life satisfaction and job satisfaction, and sub-dimension scores of the employees related to promotion, fringe benefits,



coworkers, nature of work, and communication. This shows that the higher the level of satisfaction the employees derive from a promotion, fringe benefits, coworkers, nature of work, and communication gets, the higher their life satisfaction gets.

There is a low-level, positive, and significant relationship between the life satisfaction and job satisfaction scores of the employees and their supervision sub-dimension scores ( $r=0.252$ ,  $p<0.01$ ). This shows that the higher the satisfaction level the employees derive from supervision, the higher their life satisfaction.

There is a low-level, negative, and significant relationship between the life satisfaction and job satisfaction of the employees and their rewards sub-dimension scores ( $r=-0.118$ ,  $p<0.05$ ). It is evident that the higher the satisfaction level the employees derive from rewards gets, the lower their life satisfaction gets. This finding can be restated as the higher the life satisfaction of the employees gets, the lower their satisfaction level from rewards at the workplace gets.

No significant relationship was found to exist between the life satisfaction and job satisfaction of the employees and their operational procedures sub-dimension scores ( $r=0.017$ ,  $p>0.05$ ).

## 5.5 Analysis of the Differences Between Demographic Variables and Job Satisfaction, Life Satisfaction, and Psychological Well-being

### 5.5.1 Difference Between the Job Satisfaction Scores of the Participants with Employees Working for Them and of Those without

The Mann-Whitney U test results for the job satisfaction scores of the participants with employees working for them and those without are presented in Table 4 below. According to the data, it was found that there is a significant difference between the job satisfaction scores of the people having subordinates connected to them and those who do not ( $U=10,482.500$ ,  $p<0.05$ ). When the order averages are considered, it is clear that the job satisfaction of the people having subordinates is higher than the ones who do not. The results are shown in Table 4.

Table 4

*The job satisfaction relationship with the situation of having subordinates and gender variables*

Group	N	Order Average	Order Total	U	p
With Subordinates	170	170.84	29,043	10483	0.013
Without Subordinates	147	145.31	21,361		
Female	224	148.28	33,215	8014.5	0.001
Male	93	184.82	17,189		

### 5.5.2 The Difference Between the Job Satisfaction Scores According to Gender

The Mann-Whitney U test results for the job satisfaction scores of the female participants and the job satisfaction scores of the male participants are presented in the table below. These scores reveal that there

is a significant difference between the job satisfaction levels of the females and males ( $U=8,014.500$ ,  $p<0.05$ ). When the order averages are considered, it is evident that the job satisfaction levels of the males are higher than the job satisfaction levels of the females. The results are shown in Table 4.

#### 5.5.3 The Difference Between Job Satisfaction Scores According to Age

The Kruskal-Wallis test results for the job satisfaction scores of the participants according to age are presented in the table below. The results of the analysis show that the job satisfaction scores of the participants differ significantly according to age group ( $X^2(sd=3, n=105)=9.423$ ,  $p<0.05$ ).

Table 5  
*The relationship of the age variable with job satisfaction*

Group	N	Order Average	sd	$X^2$	p	Significant Difference
20-30	63	46.29	3	9.423	0.024	20-30 – 31-40, 20-30 – 51-60
31-40	31	61.39				
41-50	9	62.61				
51-60	2	91.00				

The results of the Mann-Whitney U test reveal significant differences between the groups. According to the results, the job satisfaction levels of the 20–30 and 31–40 age groups significantly differ from each other ( $p<0.05$ ). When the order averages are considered, it is clear that the job satisfaction of the participants in the 31–40 age group is higher than the job satisfaction of the participants in the 20–30 age group. A difference was also found between the scores of the participants in the 20–30 age group and the participants in the 51–60 age group. According to the results, the job satisfaction scores of the participants in the 51–60 age group are higher than the participants in the 20–30 age group ( $p<0.05$ ). A significant difference could not be found between the job satisfaction scores of the other age groups.

#### 5.5.4 The Difference Between the Life Satisfaction Scores of Participants Having Subordinates and Those Without

The Mann-Whitney U test results of the life satisfaction scores of the participants who have employees working with them and the life satisfaction scores of the participants who have no employees working with them are presented in the table below. According to these scores, it was found that there is a significant difference between the life satisfaction scores of the people with connected subordinates and those without ( $U=10,151.000$ ,  $p<0.05$ ). When the order averages are considered, it is evident that the life satisfaction of the people with subordinates is higher than of those without them.

#### 5.5.5 The Difference Between Life Satisfaction Scores According to Marital Status

The Mann-Whitney U test results for the life satisfaction scores of the single participants and the life satisfaction scores of the married participants are presented in the table below. According to these scores, a significant difference was found between the life satisfaction scores of the single and the married participants ( $U=9,229.000$ ,  $p<0.05$ ). When the order averages are considered, it is evident that the life

satisfaction levels of the married participants are higher than the life satisfaction levels of the single ones. The results are shown in Table 6.

*Table 6*  
*The relationship of the state of having subordinates and marital status with life satisfaction scores*

<b>Group</b>	<b>N</b>	<b>Order Average</b>	<b>Order Total</b>	<b>U</b>	<b>p</b>
With Subordinates	170	172.79	29,374	10,151	0.004
Without Subordinates	147	143.05	21,029		
Single	167	139.26	23,257	9,229	0.000
Married	150	180.97	27,146		

## CONCLUSION

Significant relationships have been found in the correlation analysis carried out to determine the relationships between the variables of job satisfaction, life satisfaction, and psychological well-being. Accordingly, it was found that there is a high-level relationship between job satisfaction and life satisfaction, a medium-level relationship between job satisfaction and the state of psychological well-being, and a high-level, positive relationship between life satisfaction and the state of psychological well-being. According to the results, the higher the job satisfaction scores of the employees get, the higher their life satisfaction and the psychological well-being scores get. Similarly, the higher the life satisfaction of the employees gets, the higher their psychological well-being levels get.

According to results of the correlation analyses performed in order to examine the relationships between sub-dimensions of life satisfaction and job satisfaction scales, there was found to be: a high-level, positive, and significant relationship between life satisfaction of the employees and the payment sub-dimension of their job satisfaction scores; a low-level, positive, and significant relationship between life satisfaction and the supervision sub-dimension of life satisfaction scores; and a medium-level, positive, and significant relationship between life satisfaction of the employees and promotion, fringe benefits, coworkers, nature of work, and communication sub-dimension scores, which are several of the sub-dimensions of job satisfaction. The higher the satisfaction level of the employees resulting from a promotion, fringe benefits, coworkers, nature of work, or communication gets, the higher their life satisfaction gets. Finally, according to the results of the analysis performed, there is a low-level, negative, and significant relationship between life satisfaction of the employees and the rewards sub-dimension of their job satisfaction scores. These findings can be restated as the higher the life satisfaction of the employees gets, the lower their satisfaction levels from rewards at the workplace get.

The results of the analysis performed in order to examine the differences between the demographic variables and job satisfaction, life satisfaction, and psychological well-being scores indicate that there is a

significant difference between the job satisfaction scores of people who have subordinates working with them and those who do not, and that those with subordinates have higher job satisfaction than those without them. Furthermore, it was found that there was a significant difference between the job satisfaction scores of female employees and male employees and that the job satisfaction levels of the males were higher than the job satisfaction levels of the females.

It was also found that the job satisfaction scores of the participants significantly differ according to age group. It was revealed that the job satisfaction of the participants in the 31-40 age group was higher than the job satisfaction of the participants in the 20-30 age group; similarly, the job satisfaction scores of the participants in the 51-60 age group were also higher than those of the participants in the 20-30 age group.

Additionally, it was found that there is a significant difference between the life satisfaction scores of the participants with subordinates connected to them and those without. It is clear that the life satisfaction of the participants with subordinates was higher than those without subordinates. In addition, a significant difference was found between the single participants and the married participants. When the order averages are considered, it is clear that the life satisfaction levels of the married participants are higher than the life satisfaction levels of the single ones.

Finally, the analysis conducted in order to examine whether the income levels of the participants make any difference in their life satisfaction and psychological well-being levels determined that, in a general sense, the life satisfaction of the employees with high income was also high, but that this relationship with income status is not as strong with their psychological well-being scores. In other words, even though the happiness of individuals is not affected by their income levels, their life satisfaction is significantly affected by it.

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# THE ATTITUDINAL AND BEHAVIOURAL OUTCOMES OF ORGANIZATIONAL JUSTICE WITHIN THE FRAMEWORK OF SOCIAL EXCHANGE THEORY: EVIDENCE FROM TURKEY

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## ABSTRACT

Social Exchange Theory (Blau, 1964) provides an important theoretical framework for explaining why individuals reciprocate in positive ways when they perceive justice in their organizations. It's stated that individuals have social as well as economic exchange with their employers. Social exchange refers that an individual expects some return in the future for his or her contribution. But in contrast to economic exchange, the nature of the return is not specified or calculated in social exchange and depends on the willingness of the other party. According to this approach, perceived justice is a source in a social exchange between employees and their employers. Numerous research results support the link between organizational justice perception and positive employee attitudes and behaviours towards their organizations or supervisors (Organ ve Konovsky, 1989; Moorman, 1991; McFarlin ve Sweeney, 1992; Niehoff ve Moorman, 1993; Masterson vd., 2000; Blakely, Andrews ve Moorman, 2005; Lavelle vd., 2009) or negative ones (eg., Greenberg, 1990).

Since the 2000s there has been considerable interest in organizational justice in Turkey (see Yürür, 2015). It can be seen that most of the research on this topic are relevant to individual or organizational outcomes of organizational justice (Yürür, 2015). But as far as I know, there has been no previous study on a systematic review of the research findings on the outcomes of the organizational justice in Turkey. Thus, the aim of this study is to review of the research findings on organizational justice outcomes in Turkey and make some generalizations in Turkey context.

I conducted a systematic review of the literature on organizational justice in Turkey. I performed a computerized literature search involved scanning the ULAKBİM (Turkish Academic Network and Information Centre) and ASOS (Academia Social Science Index) databases. In the computerized search I used the following keywords: "organizational justice" "distributive justice" "procedural justice" "interactional justice" and "justice perception". 127 articles that accessed full text were evaluated in this study.

The main question of this study is: What are the most important outcomes of the employees' organizational justice perception in Turkey?

## Some of the Results

According to my systematic review, results supported the Social Exchange Theory. Employees who perceived their organization fairly, they tend to show citizenship behaviour (Polat ve Celep, 2008; Demir, 2009), greater level of job satisfaction (Yıldırım, 2007; Yürür, 2008), trust and organizational commitment (Ertürk, 2007) whereas organizational justice decreases the burnout of employees (Yeniçeri, Demirel ve Seçkin, 2009) in Turkey. Other results will be presented at the Conference.

# HARNESSING CROWDWRITING FOR CREATING EDUCATIONAL CONTENT IN HIGHER EDUCATION

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## ABSTRACT

Abstract— Crowdsourcing, as an emerging concept, has been successfully used in different contexts. Nowadays, writing a book in area of IT could be quite a complex issue, particularly when writing about cutting-edge technologies. The idea of research was to introduce crowdwriting as an innovative approach for creating educational content. Main goal was to investigate possibilities of harnessing crowdwriting in higher education context. The book was written within Lab for E-business, University of Belgrade. The content was related to advanced concepts of JavaScript, with special focus on object oriented programming in JavaScript. Contributors were: teachers (3), students at fourth year of graduate studies (10) and master students as well (4). Gitbook tool was used for writing and collaboration. Process of crowdwriting, roles and tools were described in the paper. In addition, based on the guidebook, the JavaScript course on Moodle platform was created. We explained how to harmonize crowdwriting with other components and services within e-learning ecosystem.

**Keywords**—Crowdwriting, JavaScript guidebook, Moodle course, GitBook.

## INTRODUCTION

Writing a book in area of IT could be quite a complex issue, particularly when writing about cutting-edge technologies. This requires wide corpus of knowledge and practical experience with plethora of the technologies, concepts and methodologies. In addition, there is need to enrich a book with real world examples. It is of biggest importance for students to be up to date with technologies and adopt new skills. At the same time, the teachers should find a way how to motivate and support students in learning new concepts.

New paradigms such as crowdsourcing can be harnessed in different contexts. The idea of research was to introduce crowdwriting as an innovative approach for creating educational content, particularly writing an e-book. Main goal was to investigate possibilities of harnessing crowdwriting in higher education context. The book was written within Lab for E-business, University of Belgrade. Further, aim was to define a method for integration of resources that were created by crowdwriting, into an e-learning system.



## LITERATURE REVIEW

Crowdsourcing as a paradigm has been successfully used in many business environments (Prpic, et al. 2015). It is based on the participation of a large number of people working together in order to achieve a common goal.

In an academic environment crowdsourcing should be seen as an upgrade to existing systems of education with the main purpose to improve the process of education and improve student learning outcomes (Al-Jumeily, et al. 2015). Crowdsourcing enables new approaches to designing study programs and curriculums, organization of teaching and learning, learning content creation, content creation of textbooks and other literature, monitoring the progress of students, organization of scientific research, administration, etc [Bogdanović, et al. 2015]. In paper (Geiger, et al. 2011) the authors define four dimensions of crowdsourcing: preselection of participants, access levels for participants, aggregation of results, rewarding participants. Key components of the *crowdsourcing* model are related to participants, tasks, participants, platform, technologies, metrics, etc. (Alonso, 2011).

Collaborative writing is an iterative and social process that involves a group focused on a common objective that negotiates, coordinates, and communicates during the creation of a common document (Lowry et al., 2004). Collaborative writing implies various different strategies, activities, document control approaches, team roles, and work modes (Lowry, et al. 2004). In the (Posner & Baecker, 1992) authors define collaborative writing taxonomy that describes collaborative writing in through three components: roles in the collaboration, activities within writing process, methods used for document control, and writing strategies harnessed. There can be a lot of stages in the creation process, such as: brainstorming, planning, choosing a writing approach, assigning activities, combining ideas, resolving conflicting ideas, entering text, editing, and reaching consensus about the final text (Ilona et al. 1996).

Collaborative writing can be successfully used in educational context (Limbua, & Markauskaitea, 2015). It improves students' self-expression, construction of identity, understanding and knowledge-building (Limbua, & Markauskaitea, 2015). In this paper the authors present the results of a study that explored how university students experience collaborative writing and what qualities they consider to be essential for well-designed collaborative writing learning environments, processes and tasks.

In the current literature, there are not many examples related to crowdwriting itself. In the (Nebeling, et al. 2016) the author have developed WatchWrite system that enables users to write documents from their smart watches by leveraging a crowd to help translate their ideas into text. WearWrite borrows task structure from this existing work, with the goal of having the crowd help the user write an article rather than having the crowd generate written content on its own. WearWrite users dictate tasks, respond to questions, and receive notifications of major edits on their watch. In the (Agapie, et al. 2015) author presents a case study of a hybrid crowdsourcing process that involves the collaborative production of event reports using a combination of local and remote workers. The authors of the book *OpenStack Operations Guide*, used some kind of hybrid crowdwriting for completing their book. They have held a five day sprint for writing book (Radar, 2016).

There are a few different technologies and models of crowdwriting in practice. To support it successfully, the tools provided must not add to that complexity. Mostly, these are custom made platforms that enable either only writing or add support for processes related to book publishing. For instance, Unbound platform

helps writers in production, design, distribution and marketing of the books, as well as funding for the book (Unobound 2016). If a reader helps great ideas get published, and in return receives an insight into the writing process and has their name printed as a patron in each edition. There are several levels of support, each with different rewards. Examples of platforms that support crowdwriting are: Crowdcontent, Flossmanuals, etc.

In the research, we have used Gitbook platform. GitBook is a command line tool (and Node.js library) for building beautiful books using GitHub/Git. It is the online platform to create and host books built using the GitBook format. Gitbook offers hosting, collaboration features and an easy-to-use editor. It enables create book, public documentation, enterprise manual, thesis, research papers, etc (GitBook, 2016). GitBook can output content as a website (customizable and extensibles) or as an ebook (PDF, ePub or Mobi).

### **3.Crowdwriting the book**

#### **3.1. Context**

Given the obvious trends in web development - the transfer of business logic to the client application, the application of JS technology in modern applications is almost default choice. Based on the analysis of the most important and famous applications on the web, it can be seen that the JS and the different JS frameworks are increasingly used. Moreover, the development of applications based solely on server technologies (Java, PHP, ASP, ...) is now "out-of-date." Analysis of the most important platform for websites, web shops, CRM, etc. (Magento, Wordpress, Salesforce, Moodle, etc.) indicates that the next versions of the platforms will be heavily based on JS.

Analysis of the number of projects on Github, the articles on forums, courses on MOOC platforms, projects in software companies, JS programmers on the market, etc. indicates that the technology of JS has huge impact on today web development.

JavaScript is being learned within courses at under and postgraduate studies at University of Belgrade, Faculty of organizational sciences for more than ten years. In addition, more than 400 student attend JavaScript related courses each year.

#### **3.2. Participants**

In accordance to premises of the crowdwriting, the potential writers were selected from three different sources:

- Students
- Teaching staff within E-lab at University
- Software developers employed in company (most of them graduate or postgraduate students)

Editors were teachers with more than ten years of experience in this area. Their main goal was to manage whole process and do refinement of the content. The editors selected 17 persons: teachers (3), students at fourth year of graduate studies (10) and master students as well (4). Five students were employed in IT companies. The contributors were chosen based on their average mark, readiness for writing and practical knowledge in the area of web development.

Table 1 presents main roles in the system.

Role title (number of contributors)	Description
<b>Editor (3)</b>	The editors were teachers from the Lab. Their main task was to coordinate all the activities, do final check of the content and approve versions of the book sections. They have done "writer" management, i.e
<b>Writer (8)</b>	Persons that do writing, i.e. inserting text in the book
<b>Support (4)</b>	They do not insert text, but prepare resources, test examples, help to writers
<b>Reviewers (5)</b>	They are actually not writers, but persons that provide feedbacks. This role has very significant impact on overall quality of the content, as these were people with a lot of practical experience

### 3.3. Book writing

The book was titled *JS developers guide*. The book writing lasted for four months. Main goal of the book was to provide JS developers with advanced elements in JS programming, with focus on new standards and concepts in object oriented programming. The book is available at Gitbok and with open access. Following sections are in the book: Introduction, Reference types, Object oriented programming in JS, Event handling, JSON handling with JS, Asynchronous JS, Error handling and debugging, Javascript and HTML5, Advanced JS, Patterns in JS, Useful JavaScript libraries, JavaScript tools, Developing our JS framework, Introduction to JS frameworks.

Details related to the book readers and visitors is presented in figure 1.

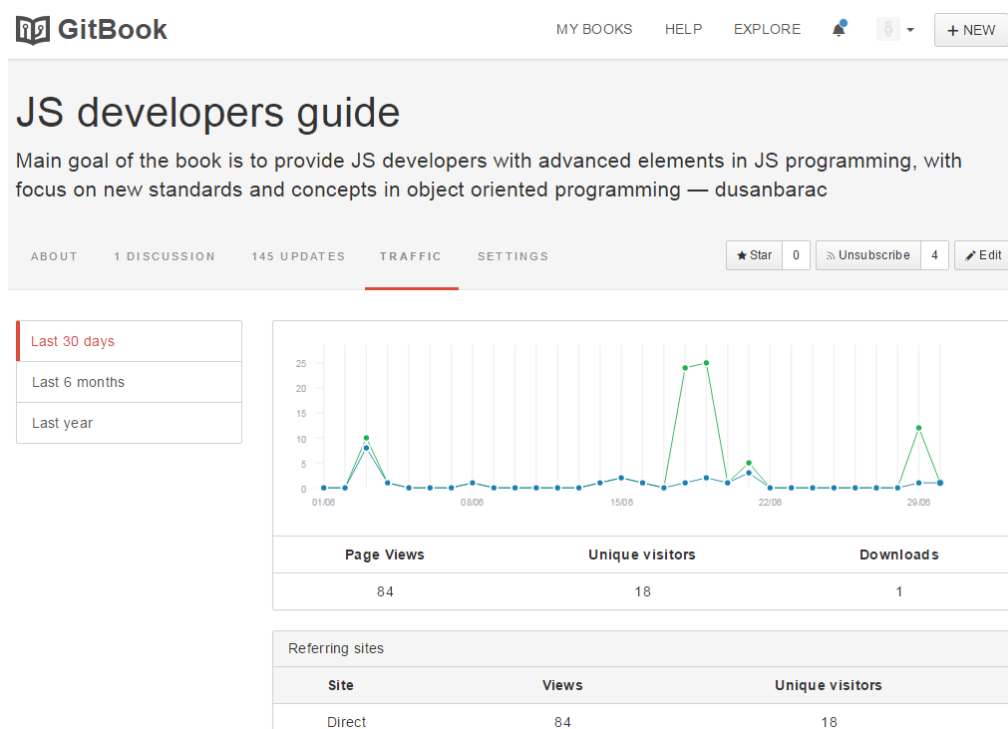


Figure 1. Details related to the book readers and visitors

Coding examples from the book were integrated with JSFiddle platform for testing. In this way, students can test all the examples and develop their own applications in JavaScript.

#### 4. Integration of book writing with e-learning ecosystem

##### 4.1. Moodle LMS course "Advanced JS"

Moodle is an open-source platform for e-learning. This platform is used by universities, schools, organizations and individuals to manage online courses, for implementation of educational activities and delivering learning content to users. Moodle is used by the best world universities (for example, <https://www.vle.cam.ac.uk/>, <https://mitconnect.mit.edu/moodle/>). The most important advantages of Moodle platform are: a high degree of flexibility and configurability, interoperability standards, full control of the activities in the educational process, an intuitive interface and ease of use, a large number of functionality, automatically updated versions, a very strong online communities, etc.

Moodle is used in the implementation of the teaching process within the Department of e-business, at the Faculty of Organizational Sciences since 2004 (Barac et al., 2011). Currently, this platform has over 4000 registered users and more than 1,000 active users. Moodle platform enables us to carry out a large number of courses in courses on undergraduate, master and doctoral studies, as well as for courses for permanent education of employees in companies and alumni students.

Moodle is the core part of the whole e-learning system within Lab for e-business (Elab). The idea was to harmonize and integrate activities on crowdwriting with common e-learning activities performed via Moodle LMS. Namely, the e-learning courses organized by Elab has big audience that consists of

undergraduated and graduated students. Number of persons that has logged into course at least one was 51. This was good way to check a level of book quality. E-learning course "Advanced JS" was created and made open for all the students. Key learning resources such as video lessons, Power point, text scripts, examples, etc., were created upon content from the book (Figure 2.). In addition, a few means for knowledge check were created to: test, assignment, projects, etc. Sections in the book are mapped with course sections.

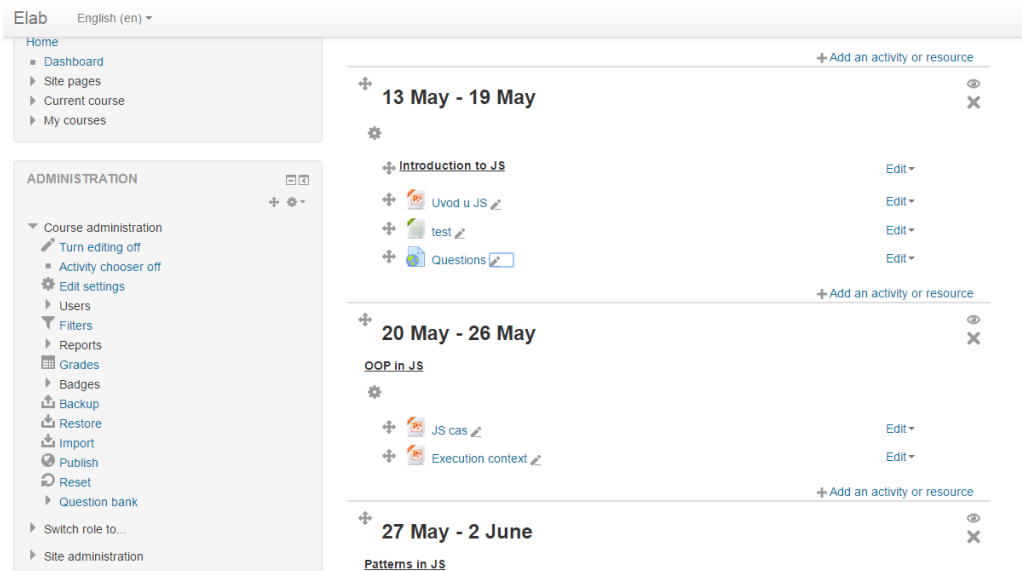


Figure 2. Details related to the book readers and visitors

#### 4.2. Lectures and labs

As an addition to e-learning activities traditional classes were conducted. The focus was on solving practical problems and issues in JS programming. It is important to emphasize that the lecturers were the same persons that has written sections in the book. "Main lecturers" were the persons from the book role "writer", while "support" person helped them during classes, work with students on practical examples of the JS code, etc. One of the goals was to get feedback from the attendees. Each section from the book was lectured through. All the participants in book writing were supported to invite their friends, colleagues, etc. to attend the course. There were 28 school classes in total. Average number of attendees (students and employees from few software companies) were 22. This was good way to examine the quality of book content as well.

### CONCLUSION

Crowdsourcing, as an emerging concept, has been successfully used in different contexts. Numerous studies pointed out that crowdsourcing could bring new value to educational processes. The potentials of crowdsourcing are huge, but more research should be done in order to identify best practices for application in educational contexts. The idea of the paper is to harness particular type of crowdsourcing, i.e. crowdwriting for writing JS book. Main contribution of the paper is reflected in the fact that crowdwriting was used in higher education context. In addition, innovative concepts and technologies were implemented in real education system. What is unique is the comprehensiveness of the approach and treating book

writing as the integral part of the whole system. Findings, conclusions and recommendations from the paper can be a good foundation and framework for persons who work at universities.

Future research are primarily directed toward evaluation of the proposed approach. Results of the research related to readiness of students to participate in crowdwriting, quality of written content, feedback from readers, etc. would be quite useful. Additional activities for promoting and improving the book should be organized: handson lab, JS hackathon, fostering relations and know-how transfer from software companies, etc. In next phase, integration of all the components of the e-learning ecosystem should be done.

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# THE EFFECT OF PROJECT-BASED LEARNING APPROACH ON STUDENTS' DESCRIPTIVE PROCESSES WRITING SKILLS

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## ABSTRACT

The skill of Writing is an important skill in the four-components of the English language. However, in large numbers of learners, weaknesses in writing skills have been found. These problems need to be immediately addressed in order to achieve the goals of the National Educational Act of B.E. 2542.

This research has investigated the effects of Project-based learning approach on the students' descriptive processes in writing skills, as well as their attitudes towards Project-based learning. Simple random sampling was utilized to select the sample for the study which was comprised of 30 students from the Faculty of Technology at Khon Kaen University in their third-year, who were majoring in Food Technology. The instruments used to evaluate this investigation included lesson plans, pre-tests and post-tests, observation forms, and a questionnaire related to student's attitudes toward Project-based learning. Scores from the pre-test and post-test were analyzed by t-testing, while data retrieved from the observation forms and the questionnaires were analyzed using percentages, mean scores, and standard deviation. The results revealed that by using PBL approach, students' descriptive processes writing skills were distinctively developed at the statistically significant level of 0.01. It also increased their attitude toward Project-based learning positively.

**Keywords:** Descriptive processes writing, Project-based learning (PBL)



# A STUDY OF IODIZED SALT PRODUCTION COST IN THE CENTRAL REGION OF THAILAND

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## ABSTRACT

Since the Universal Salt Iodization (USI) of all salt for human consumption in the Kingdom of Thailand has been regulated by the Thai government, the Thai Food and Drug Administration (FDA) of the Ministry of Public Health (MOPH), salt producers have to ensure that the iodized salt contain the iodine level of 20-40 mg iodine/kg (20-40 ppm). In order to standardize the quality of salt, the FDA has subsidized the small scale mixing machines (40 kilogram/batch) and the large scale mixing machines (150 kilogram/batch) depending on the entrepreneurs' needs. The salt producers have to bear the machine cost for only 30 percent of the total price. This paper aims to calculate iodized salt production cost by the mixing machines in the central region including Bangkok metropolitan area and the border provinces.

The data were collected by in-depth interview of entrepreneurs in seven provinces including Bangkok, Nontaburi, Patumtani, SamutPrakran, SamutSakorn, Chonburi and Lopburi by non-proportional purposive sampling during 2014 and 2015. The sample size is 14 from a total population of 43. The prices of building, iodine mixing machines and equipment for iodine mixing and packing are considered as fixed cost and variable costs are labour cost, packaging materials cost, electricity and water costs. The average cost for iodized salt production in the Bangkok metropolitan area is 6,097 baht/ton (n=6) for small scale machine-mixing method and 6,119 baht/ton (n=4) for large scale machine-mixing method. Thus, the large scale mixing machine does not benefit from the higher amount of iodized salt mixing per batch because the machines are running at the average of less than half of the total capacity. Moreover, the average cost for iodized salt production in the border provinces of Bangkok metropolitan area is 5,891 baht/ton (n=4) for small scale machine-mixing method due to the plant rental cost outside Bangkok is cheaper than the rental cost in Bangkok and Metropolitan Area.

**Key Words**-Iodized Salt, Central Region, Production Cost.

## INTRODUCTION

In 2010, the MOPH has raised the Universal Salt Iodization into the emergency and regulatory measure. Thai FDA as a government agency responsible for revising and issuing the legislative measure on specifying that salt and seasoning shall contain iodine. Later in 2011, the Thai MOPH revised the notification and prescribed that edible salt shall contain iodine at the quantity of not less than 20 mg and not more than 40 mg per 1 kg of the edible salt which has been notified on 16<sup>th</sup> March 2011. This iodine level is recommended by the World Health Organization and UNICEF. Hence salt producers have to bear increasing cost of iodized salt.

Besides monitoring, publicity campaign and iodized salt producers' development, the MOPH introduced the iodine mixing machine subsidization policy to small and medium scale iodized salt producers. This policy was raised to increase the quality of the iodized salt and ensure that iodine disperses

homogeneously as stated in the regulation. Also, during the first three years after the subsidization, the experts provide the advice on the development of iodized salt processing and quality management system. To ensure that the iodine salt producers will be able to continue their business after the law enforcement, the survey on cost analysis of salt producers were conducted. This paper aims to calculate iodized salt production cost by small and large scale mixing machines in the central region including Bangkok metropolitan area and the border provinces. The data were collected by in-depth interview of 4 sample from the total population of 14 entrepreneurs in seven provinces including Bangkok, Nontaburi, Patumtani, SamutPrakran, SamutSakorn, Chonburi and Lopburi by non-proportional purposive sampling during 2014 and 2015.

### **Salt Industry in Thailand**

In Thailand, salt is produced from two primary sources: a sea water (sea salt) and underground salt deposit (rock salt). The sea salt is produced in the area along the coast of the Gulf of Thailand. The production period is in dried season during November to May. The primary production of sea salt is in the south of Thailand. Whereas, the boiled rock salt is normally done in the dried season during November to June and excessively practiced in the Northeastern region: Ban Dung district, Udon-thani province and Kutruakham district, Sakonnakorn province. Boiled rock salt is also traditionally produced in the North region. The practice of boiling salt is one of the oldest methods of producing salt and continues to be practiced in Thailand by numerous small scale producers (total production volume is less than 700 tons/year) and medium scale producers (total production volume is 700 - 5,000 tons/year). Also, there are a few producers of large-scale rock salt by boiling and vacuum processing.

### **Iodization Technology**

There are two main methods for salt iodization including a manual mixing technology and a machine mixing technology. In the past, most of small-scale producers used the hand mixing technique. This is when the salt producers spray the potassium iodate solution ( $KIO_3$ ) on the pure salt and mix them in by hand. The equipment for dripping or spraying  $KIO_3$  solution for manual iodine mixing technology can be divided into five categories includes plastic bottles, watering pots, foggy bottles, spray guns and sprayers. For the machine iodine mixing technology, there are batch-type mixing machines and continuous-type mixing machines used. The machines can provide more dispersion and accuracy of iodine content in the iodized salt.

### **The Government Policy on Iodine Mixing Machines Subsidization**

In order to substantially improve the production and quality of the iodized salt, the iodine mixing machines subsidization was launched. The iodine mixing machine, the ribbon mixing machine, as illustrated in Figure 1 was developed in 2012 from the prototype salt iodization machine that developed by the King Mongkut's Institute of Technology Ladkrabang, Bangkok. It provides a batch mixing and takes about 4-5 minutes in order to provide an accurate and consistent level of iodine to a batch of salt. The iodine mixing machine comes in 2 capacities; small (40 kilograms/ batch) and large (150 kilograms/ batch). The machine has been tested and certified by the Institute of Nutrition, Mahidol University that it holds the capability to produce iodized salt that meets quality standards required by law.

Later in 2013, the FDA has subsidized a hundred mixing machines, 70 small-scale mixing machines and 30 large-scale mixing machines, to qualified salt producers depending on the entrepreneurs' needs. The entrepreneurs should pay 30 percent of machine prices and the government subsidized the rest of the price. A total of 100 entrepreneurs in 24 provinces received the mixing machine, 51 machines were

installed in the Northeastern region, 43 machines were installed in the Central region, 5 in the Northern region and 1 in the Southern region (Luangpituksa, 2013). In the central region, 28 entrepreneurs are in the Bangkok metropolitan area, 7 entrepreneurs are in the west central region and 8 entrepreneurs are in the east central region.



Figure 1 The iodine mixing machine(1) Large scale iodine mixing machine and  
(2) Inside the mixing chamber.

## METHODOLOGY

### Data Collection:

The data were collected by in-depth interview of 14 sample (32.5%) from the total population of 43 by non-proportional purposive sampling during 2014 and 2015. The interviews and observations were conducted at the salt production plants from 10 small-scale mixing machine operations and 4 large-scale mixing machine operations in Bangkok, Nontaburi, Patumtani, SamutPrakran, SamutSakorn, Chonburi and Lopburi provinces. In this study, the area of study is limited to only small rock salt producers in the central region because in the northeastern region, the salt producers are highly concentrated in only two provinces which are Mahasarakham and Udon-thani provinces. Therefore, there will be no difference in the production cost in the northeastern region. Moreover, more than 75% of the mixing machine subsidized by the MOPH in the central region are installed in the Bangkok Metropolitan region.

### Cost Analysis:

The average total cost of production comprises of raw material cost, capital cost and operating cost, iodization cost, and packing cost as illustrated in Figure 2 and 3. The capital cost is capital investment cost on building or rental cost and the operating cost is the plant's electricity bills, indirect labour cost, and office utilities. The iodization cost includes the subsidized price of mixing machines and equipment for the iodization process which considered as fixed cost (FC), and variable costs (VC) are labour cost for iodine mixing process, quality control process (I-kit), machine electricity and water bills for washing the machine. The packing cost is the cost of tools and equipment for packing process, packaging materials and direct labour.

The fixed cost includes the capital cost,  $\text{KIO}_3$  mixing equipment and tools, packing equipment and tools. The depreciation cost of building,  $\text{KIO}_3$  mixing equipment and tools and packing equipment are calculated by straight line method and unit of production method as follows;

$$\text{Straight-line depreciation (Baht/Year)} = \frac{\text{Cost of Asset (Baht)}}{\text{Estimated Lifetime (Year)}}$$

$$\text{Units-of-production (Baht/Ton)} = \frac{\text{Straight-line Depreciation Cost (Baht/Year)}}{\text{Total Production Volume (Ton/Year)}}$$

The variable cost is calculated by the sum of all variable costs for capital cost and operating cost, iodization cost, and packing cost and then divided by the total production volume per year to find the total variable cost of production per unit (Baht/Ton).

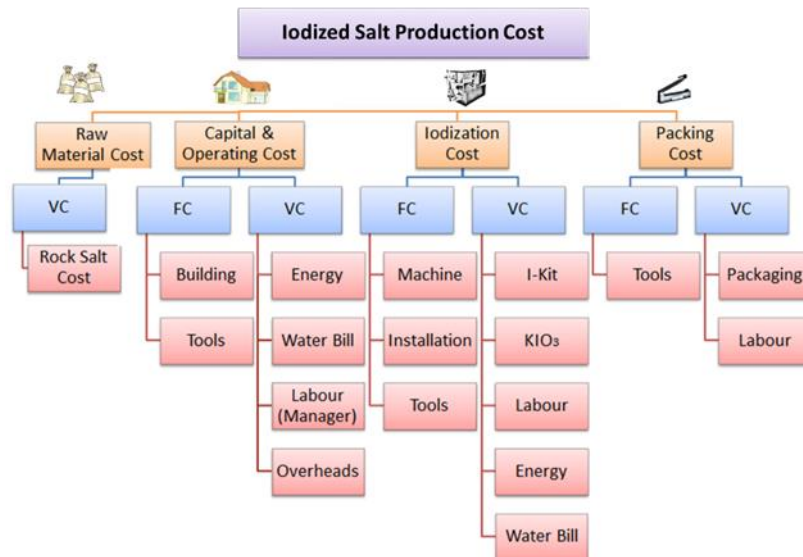


Figure 2 Composition of iodized salt production cost



Figure 3 The iodine mixing machine and equipment for the iodization process



Figure 4 List of tools and equipment for packing

## RESULTS

### I. The inner zone: Bangkok and metropolitan area

The data were collected by in-depth interview of 10 sample by non-proportional purposive sampling during 2014. The interviews and observations were conducted at the salt production plants from 6 small-scale mixing machine operations and 4 large-scale mixing machine operations. According to Table 1, the average cost for iodized salt productions are 6,097 baht/ton for small scale machine-mixing method and 6,119 baht/ton for large scale machine-mixing method. The large-scale mixing machine does not benefit from the higher amount of iodized salt mixing per batch because the machines are running at the average of less than half of the total capacity.

Table 1 Cost of iodized salt production in the Bangkok and metropolitan area

Type of Machine	Cost (Baht/Ton)				
	Raw Material Cost	Capital & Operating Cost	Iodization Cost*	Packing Cost	Total Cost
Small Mixing Machine 2014 (n=6) :	3,300	553	228	2,016	6,097
Large Mixing Machine 2014 (n=4) :	3,300	636	244	1,939	6,119

\* The iodization cost was calculated using the subsidy price of iodine mixing machine and  $KIO_3$

### II. The outer zone: Outside Bangkok and metropolitan area (Lopburi and Chonburi Provinces)

The data were collected by in-depth interview of 4 sample by non-proportional purposive sampling during February and March 2015. The interviews and observations were conducted at the salt production plants from 4 small-scale mixing machine operations. Cost for iodized salt production for small scale machine-mixing method for salt producer No. 1 is 6,130 baht/ton, salt producer No. 2 is 5,669 baht/ton, salt producer No. 3 is 5,902 baht/ton and salt producer No. 4 is 5,8674 baht/ton. The total average cost is 5,891 baht/ton as shows in Table 2. The researcher also calculated the iodized salt production cost excluded processing plant rental cost to minimize the differences between Lopburi province (about 150 kilometers north of Bangkok) and Chonburi province (about 80 kilometers east of Bangkok). As a result, the total average cost is 5,715 baht/ton because the capital cost is reduced from 591 baht/ton to 414 baht/ton.

The detail of total cost has shown that the material or rock salt cost and iodizing cost of these four salt producers are nearly the same. The packaging cost after rental price deduction is the main factor that made total cost of these four salt producers different; particularly the iodized salt at the total size of 1.8 kilogram per package, contained 300 grams/sachet at the pack of six sachets, that wrapped by plastic rope has the lowest total production cost at 5,252 baht/ton. However, the iodized salt contained 55 grams/sachet at the pack of 12 sachets gains the highest profit due to its highest retail price. Therefore, salt producers

should produce the iodized salt contained 55 grams/sachet at the pack of 12 sachets wrapped by tape because of the lowest packaging cost as illustrated in Table 3.

Table 2 Cost of iodized salt production outside the Bangkok and metropolitan area

Type of Machine	Cost (Baht/Ton)				
	Raw Material Cost	Capital & Operating Cost	Iodization Cost*	Packing Cost	Total Cost
Small Mixing Machine 2015 (n=4) :	3,300	591	271	1,729	5,891

\* The iodization cost was calculated using the subsidy price of iodine mixing machine and  $KIO_3$

Table 3 Cost of iodized salt production classified by the packing size outside the Bangkok and metropolitan area

Packing Size	Entrepreneur No.				Total Cost (Baht/Ton)
	1	2	3	4	
55 g x 12 sachets (Plastic rope)	-	-	6,287	-	6,287
55 g x 12 sachets (Tape)	6,694	6,124	-	6,179	6,332
100 g x 12 sachets (Tape)	5,953	5,384	-	5,439	5,592
300 g x 6 sachets(Plastic rope)	-	5,303	5,314	5,358	5,325
300 g x12 sachets(Plastic rope)	5,747	-	-	-	5,747

\* Plastic rope and Tape are the material for closing or sealing the secondary packaging.

## CONCLUSION

According to the interview and observation, the average cost for iodized salt production in the Bangkok metropolitan area is 6,097 baht/ton (n=6) for small scale machine-mixing method and 6,119 baht/ton (n=4) for large scale machine-mixing method. Thus, the large scale mixing machine does not benefit from the higher amount of iodized salt mixing per batch because the machines are running at the average of less than half of the total capacity. Moreover, the average cost for iodized salt production in the border provinces of Bangkok metropolitan area is 5,891 baht/ton (n=4) for small scale machine-mixing method due to the cheaper rental cost.

## RECOMMENDATIONS

### I. Recommendations for Iodized Salt Producers

The plant rental cost is one of main factor that affect the total cost of production, so the selection of location is also a major concern for salt producers. Also, salt producers should produce the iodized salt contained 55 grams/sachet at the pack of 12 sachets wrapped by tape because of the lowest packaging cost.

### II. Recommendations for Government Agencies

The government should continue subsidize potassium iodate (KIO<sub>3</sub>) and the financial supports to the small-scale salt producers to purchase a batch-type iodine mixing machine should be provided because the machine price is very high and small-scale salt producer may not afford to invest in the mixing machine.

### III. Study Limitation

The price data in 2014 and in 2015 are current price and the calculation of present values are not calculated. Moreover, the labours have different skill levels which affect to the total production volume and have a significant impact on the total cost of production.

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