

The Changing Woman Role of Surveyers in Turkey

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Key words: Woman, Woman Employer, Survey Engineering and Woman, Turkey

SUMMARY

Positions of women in modern life are directly related to modernization and industrialization development of societies. The role of women in society is shaped by the culture of that society. Even though roles and expectations attributed to women vary according to the socio-economic and cultural structures, generally the position of women follow the men. Getting women's social, political and cultural rights, the process of taking part in the institutional structures started simultaneously modernization efforts in both developed countries and Turkey. Today, the labor force participation rate in half of the population of women is around 30% in Turkey. And also in Turkey, the ratio of men and women with higher education are an equal level with each other and the ratio of women with graduated from higher education are 35%.

This is possible to see women employees in Turkey in many business fields. Due to the approaches adopted in the structure of public opinion, occupations are classified according to gender. Especially evaluated in terms of Survey Engineering, despite taking the same theoretical information in training life, women engineers are second plan in contrast to man engineers in the events of the physical endurance such as land requirements and studies, transporting and using technical tools and equipment used for the measurement of land. Although it is created the perception of man's profession, it is possible to work women engineers and technicians in surveying applications. While rate of female students studying survey engineering are approximately between 12%-14.7%, there is an increase in rates in recent years. With developing mapping technology and business areas, there has been a change in the perception of the profession in our country. Along with this change, it is obvious that geomatics engineering profession are chosen by greater number of women. In this study, the role of changing and developing day by day of women engineers will be examined in surveying activities in Turkey. And also it will be focused on provided harmony by the women to technological progress in the profession, problems faced by areas studies and evaluation of the profession through the viewpoint of women.

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1. INTRODUCTION

Level of civilization of a society is closely related to the value that society has given to women. Societies didn't develop and advance during the periods that value can not be understood or not assessed adequately. The researches show, despite the women live longer than men in the world today, quality of their life is lower. Low level in the quality of life for women is directly related to women status in society(Eroglu,2004) .

According to the socio-economic and cultural structure of the country, even though roles and expectations attributed to women also vary, the position of women generally comes after men in all societies. Women in Turkey, despite all the negativity, succeeded in a male-dominated society are a source of pride for our community. Research of women's problems that women encounter in the business world and to be addressed in the context of social perceptions mechanisms of these issues is very important for attaining better condition of women in the future(Ozturk,2007).

Analyzing the position of women in working life, necessity of classification of countries according to their level of development arises. Considering the the place of women in working life, there are differences in the working conditions between developing countries that could not reach the urban society identity and countries economy based on agriculture that has completed industrial development and reach the urban society identity. Female labor force, while in countries and regions that has completed the industrial development is in the service sector, in developing countries and regions also are mainly in the agricultural sector(Tatlidil,1993).

Women in the historical process has participated in economic activity in varying combinations and status has been brought in every period. However, The Industrial Revolution with the participation of women in working life has a different significance. Because, with the Industrial Revolution that affects all communities women started to offer labor provision for charges in economic areas for the first time in the world and have taken place in working life under the "employee" status for the first time. For this reason, the Industrial Revolution is considered as the most important historical developments which are given rise to the concept of the paid female labor(Aytac, 1999).

2. WORKING LIFE OF WOMEN IN TURKEY

In Turkey, establishment announcement of Republic was in 1923. After 1923, legal status of women is determined in Turkey, like all contemporary countries. It is provided women having educated and being part of business. Moreover, women were given the right in 1930 to vote for elections and the right to participate in the National Assembly in 1934. The laws that define the social role of the indigenous women in the European countries were accepted to

apply for Turkey. Accelerated industrial, economical and social developments restructuring, leads for women to include in all the areas of the social life. Nowadays, Turkish women are to serve in broad diversity of highly qualified business sectors. However the women of whom population consists of approximately half of the total (49.3%) adequate existence in economical life can not be ensured(Colak,2007).

In our country, women are acquired with the opportunities opened by the Republic Period to be visible and to be show previously themselves. Along with Modernism and the Cultural Revolution in 1923, well-educated urban women have taken place such as teacher, pharmaceuticals, medicine, nursing, dentistry, advocacy, banking, architecture, engineering, faculty member areas in increasing rates(Arat,1996).

In Turkey, there are 23 chambers represent architectures and engineers. These chambers are affiliated with Union of Chambers of Turkish Engineers and Architects (UCTEA) which is a civil society organization. UCTEA was established in 1954 and according to 2005 statistics the number of architect and engineer members reached 280.263 (UCTEA, 2006). Women constitute 13.5% (37.386) of the members of UCTEA (Colak,2007; UCTEA,2006). According to the 2013 statistics the number of architect and engineer members totally reached 423,360. While man constitute 336,671 of the members of UCTEA, 86.689(20,48%) women is accounted for this number(UCTEA,2013). So, the number of women engineers has increased year to year.

Table 1. Woman and Man Ratios of Union of Chambers of Turkish Engineers and Architects(Colak,2007;UCTEA,2013)

	Year	Women	Men	Total
UCTEA	2006	37.386 (14%)	242.877 (64%)	280.263
UCTEA	2013	86.689 (20%)	336.671 (80%)	423.360

In Turkey the chamber of surveying engineers and cadastre engineers is called Chamber of Survey and Cadastre Engineers (CSCE) which is also affiliated with Union of Chambers of Turkish Engineers and Architectures (UCTEA). CSCE has 9463 registered members, 1081 of these members is constituted by women and 8382 is constituted by men(Colak,2007; CSCE,2007). According to the 2013 datas, the number of woman reached 1684 while the number of men 10.554(CSCE,2013). So, as can be seen from the ratio of the number of women survey engineers increased year to year.

Table 2. Woman and Man Ratios of Chamber of Survey and Cadastre Engineers (Colak,2007;CSCE,2013).

	Year	Women	Men	Total
CSCE	2007	1081 (11%)	8382 (89%)	9463
CSCE	2013	1684 (14%)	10.554 (86%)	12.238

As in the process of rapid change in our world, in Turkey, changes in the features of the workforce and consumers has changed women's traditional status.As a result, women who take place in more effort in working life unfortunately do not benefit from labor force participation and career development opportunities. Even women with professionals training and experience still remain far behind the men in reaching their career goals(Ozturk,2007).

3. THE SUBJECT OF STUDY

Participating women in working life as a paid worker is accepted as one of important factor's for sustainable development. In Turkey, women's workface participation rate is low and is observed steadily loss year to year. Despite egalitarian form of laws, one of the considerable reasons for this loss is to not constitute necessary mechanism providing enter women into labor market and develop women's qualifications(Colak,2007; URL-1,2007).

Analyzing the status of women in Turkey, level of women's education is low, participation in working life are seen to be inadequate. In eliminating the these negative datas, increasing the educational level of women is of great importance. However, especially as engineering areas that women are not working a traditional and widely are faced with serious challenges. Due to the numerical scarcity at the stage student years (although change according to the different engineering disciplines), in the classroom, especially in group that have occurred in a teamwork, finding themselves alone in the middle of a lot of men are very high probability. Given the female identity, their actual performance that exhibit in such an environment is quite difficult. Moreover, female faculty member as role models is to less than his colleagues, thoroughly developing a professional self-esteem is difficult. This paper gives a profile of survey engineer women.

In our country, many studies have been done for women in working life. Aim of this study, groups within the engineering profession of Survey Engineering to get women increasing the level of education thoughts about working life and generally determined to conclusion of problems faced by behavior and attitudes in working life.

Stated these purposes and prepared in accordance with the direction of importance of the subject consists of three stages. The first of these application form "NEW GIRL STUDENT SURVEY FORM" that is applied to preparatory class, 1st class, 2nd class female students and formed to determine the cause of the increase in the number of girls of Department of Geomatics Engineering of Karadeniz Technical University. In the second stage generally

constitute the main subject of research "THE PROBLEMS OF MAP ENGINEER WOMEN IN TURKEY SURVEY FORM" that is prepared to identify women engineers facing challenges and troubles in their work lives. In the final stage "PROBLEMS OF WOMEN ENGINEERS WORKSHOP" that is regulated by the contributions of Branch of Trabzon in Chamber of Survey and Cadastre Engineers (CSCE) on 24 March 2012.

4. CREATING SURVEY

The first stage of the study for administration, "NEW GIRL STUDENT SURVEY FORM" consists of 5 questions is prepared that determine the causes of the number of Geomatics Engineering department girl students increase in recent years to preparatory class, 1st class, 2nd class female students.

After the researching the relevant heading that is the title of the work in the direction of forming the main subject, specific topics have been created resulting from this research. The various expressions have been created under these topics and new expressions are derived. Afterwards studies analyzed for female employees, a survey has created in order to generally determine the problems of women map engineers in Turkey benefiting from "IDENTITY PROBLEMS AND DERECOGNITION SURVEY" applied by Branch of Trabzon in the Chamber of Industrial Engineers and "FEMALE COLLEAGUES SURVEY PROBLEMS" applied by Branch of Trabzon in the Chamber of Mechanical Engineers. Created survey is firstly applied to the 10 map engineering women who primarily working in Trabzon Cadastre Directorate. Their ideas on the subject is obtained and questions forming the set of survey is investigated again. After this review the irrelevant questions are eliminating and the final feature is given to the relevant survey. Survey has been made available in the internet utilizing survey site(URL-2, 2013).

This survey consists of 10 questions can be considered as a scale for determination and evaluation of the problems faced to working surveyor women in Turkey. The first two questions consists of related problems are to remove the profile of participants; working sector (public-private), marital status, whether they have children, whether their husband works (if they work, expression).But, any specific questions that is to reveal the identity of persons are not asked. The other 8 questions generally has been created the position of women of surveyors in business life the problems faced to be taken into account their perspectives. Given the final shape survey form is asked to complete 100 Union Of Chambers Of Turkish Engineers and Architects(UCTEA) of female engineer members working in the industry via e-mail.

THE PROBLEMS OF SURVEY ENGINEER WOMEN IN TURKEY FORM

This survey is intended to prepare identifying problems that woman surveyors is generally facing in their work life.

1. Working in private sector
 Working in public institutions.
2. Did you choose survey engineering willingly, or unwillingly?
 Yes
 No
3. What you say for expression of engineering profession is not an appropriate survey engineer woman?
 Yes, I agree.
 No, I disagree.
4. During your working life did you encounter with gender discrimination?
 Yes
 No
5. Acepting the job do you have equal behavior compared to your male counterparts?
 Yes
 No
6. Did you face with gender discrimination in job postings while participating in the survey?
 Yes
 No
7. Do you receive different wages more from your colleagues in the same job?
 Yes
 No
- 8-9. Did you face to perform work below the level of professional knowledge and skills?
 Yes
 No
10. Do you love your land work and are willing to go to land work?
 Yes
 No

Figure 1. The Problems of Map Engineer Woman in Turkey Survey Form

The third and final stage, at the meeting held under the PROBLEMS OF WOMEN ENGINEERS WORKSHOP which was organized by CSCE on 24 March 2012 to a female student from 1st Class, 4th Class and a newly graduated female students of Department of Geomatics Engineering of Karadeniz Technical University and 15 women mapping engineers working in both public and private sector. They are coming together and has spoken on the problems previously created on the choice of profession. Professional experience were shared and an overall evaluation has been made to answer questions by a series of data.

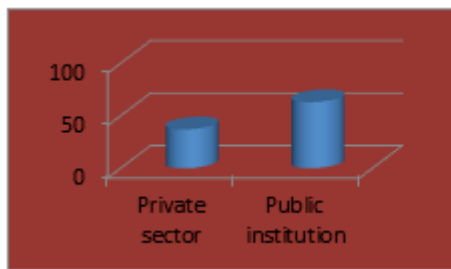
5. EVALUATION OF THE STUDY FINDINGS

In the first stage, "NEW GIRL STUDENT SURVEY FORM" that is is regulated to investigate the cause of the increase in the number of female students of Karadeniz Technical University Faculty of Engineering, Geomatics Engineering Department, is filled out by hand giving for preparatory class, 1st class and 2nd class female students by face to face interview technique. Answers to each question in the survey grouped into the following general conclusions were reached:

- 98% of surveying female students has chosen willingly Department of Geomatics Engineering.
- Ranked reasons for choosing the Department of Geomatics Engineering is preferably observed that a ratio of 41% with good job opportunities a profession, a ratio of 23% the advice of guidance teachers, 14% the advice of surver engineers and also a ratio of 10% prefers to choose due to the interest to the profession.
- All the girls attended survey form that is survey engineering profession is suitable for women.
- While 96% of girls of department of Geomatics Engineering don't want to change their departmant,14% of these want to change.
- Female students attending the survey, while a ratio of 51% women think department of the name change from Geomatics Engineering help in eliminating for the relief of troubles that you made to the profession in the future, a ratio of 49% think the opposite.

In the second stage of the study,“THE PROBLEMS OF MAP ENGINEER WOMEN IN TURKEY SURVEY FORM " that is derived from survey statistics from survey site are determined as follows:(URL-2, 2013)

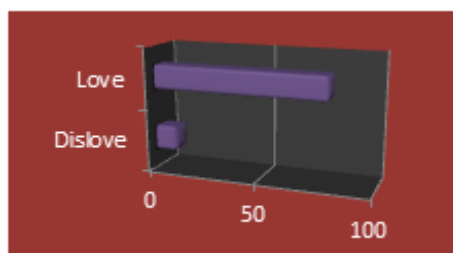
- While 37% of woman survey engineers is working in the private sector, 63% of them are employed in public institutions.



Options	Percentage (%)
Private sector	%37
Public institution	%63

Figure 2. According to the Answers to Question 1 in Problems of Survey Engineers Women in Turkey

- While 65% of woman survey enginners love training received in this profession, 35% of woman survey enginners



Options	Percentage (%)
Love	%65
Dislove	%35

Figure 3. According to the Answers to Question 2 in Problems of Survey Engineers Women in Turkey

- Occupational groups within the Survey Engineering 88% of the women respondents don't join that Survey Engineering isn't suitable for women and the parts of 12% agree with this view and believes that such a classification is done correctly.

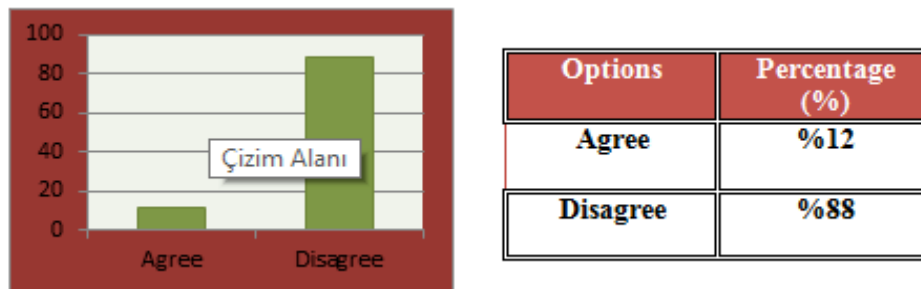


Figure 4. According to the Answers to Question 3 in Problems of Survey Engineers Women in Turkey

- While respondents of 58% stated to encounter gender discrimination during the work life, 42% of them stated not to encounter such an discrimination.

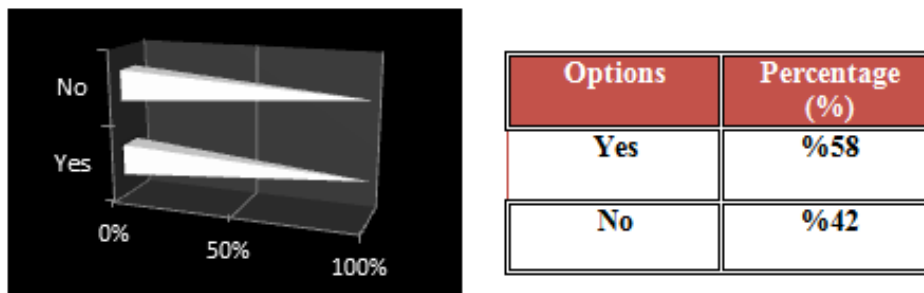


Figure 5. According to the answers to Question 4 in Problems of Survey Engineers Women in Turkey

- While a ratio of 36% Survey women engineer who responded to the survey question "Accepting the job do you have equal behavior compared to your male counterparts?" "Yes", 64% of them answer "No".

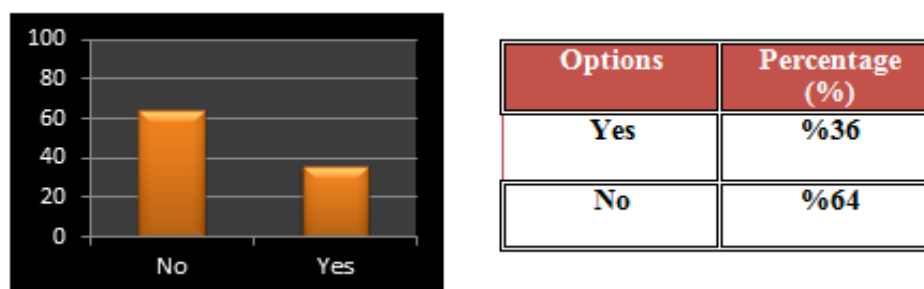
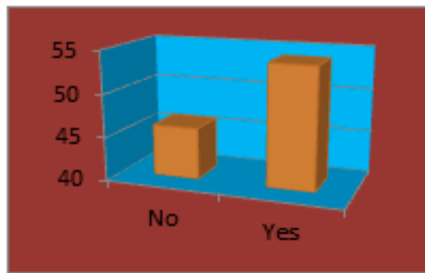


Figure 6. According to the answers to question 5 in Problems of Survey Engineers Women in Turkey

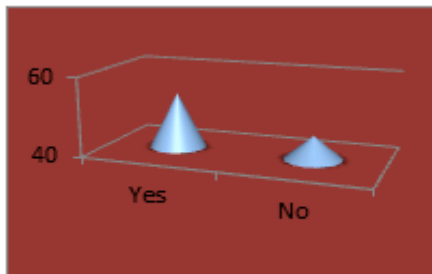
- A ratio of 65% women engineers participating in the survey stated that often faced with gender discrimination in job postings, 35% of them not.



Options	Percentage (%)
Yes	%65
No	%35

Figure 7. According to the answers to question 6 in Problems of Survey Engineers Women in Turkey

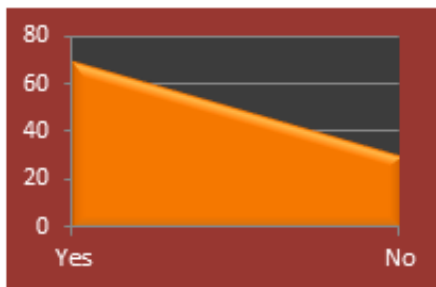
- A ratio of 54% of women survey engineers noting that they don't receive different charges than male colleagues for the same job, 46% of them receive different charges.



Options	Percentage (%)
Yes	%54
No	%46

Figure 8. According to the answers to question 7 in Problems of Survey Engineers Women in Turkey

- A ratio of 46% of women survey engineers stated that face to perform work below the level of professional knowledge and skills, 54% of them stated that not to encounter such a situation.



Options	Percentage (%)
Yes	%46
No	%54

Figure 9. According to the answers to question 8 and question 9 in Problems of Survey Engineers Women in Turkey

- While A ratio of 75 of women survey engineers expressing to love their land work and are willing to go to land work, 25% of them state that the exact opposite.

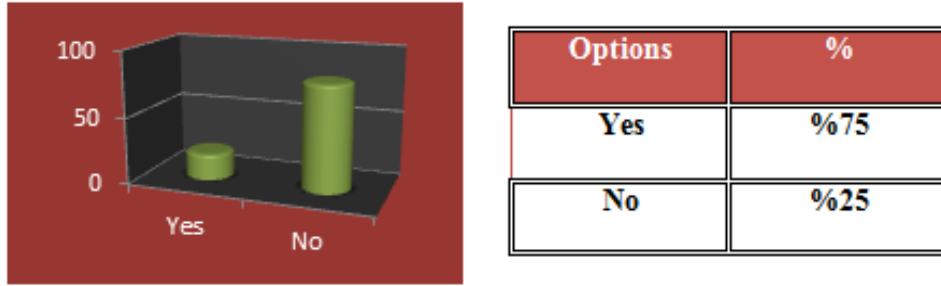


Figure 10. According to the answers to question 10 in Problems of Survey Engineers Women in Turkey

In the final stage, women who are increased the level of education thoughts are gotten about working life. And also reached an overall assessment of the conclusions by the relationship exhibited behavior and attitudes faced by working against them. The problems that woman survey engineers faced in general are determined and reached an overall assessment by the relationship of the conclusions.

6. CONCLUSION

Although women's participation in working life become necessary due to the economic conditions not voluntarily, at the same time women who every area of society work together with the men in now equal basis have achieved economic independence. This case has brought about significant changes in their status in society(Ozturk,2007).

Even in developed countries where women participation in working life is very common, this situation is a bit more restricted in Turkey. Problems of survey engineer women who participated in studies of surveyors in Turkey is determined to continue their work life with general training in this profession. A ratio of %88 respondents don't agree with the opinion that is not suitable for map women engineering within the profession of surveying engineering group. It is stated that 65% of women surveyor engineers frequently faced with gender discrimination in job postings. In general, the problems frequently encountered of survey engineering women working in the private sector is observed due to the separation of men and women employees. Despite taking huge profit-generating projects working sometimes day and night, It is understood they could not get enough rights resulting profits. However, as in each sector in survey engineering are known to be able to stand thanks to the company's certificate of survey engineering.

The biggest problem for employees in the state sector is seen in the control study of land. Necessary basic hygienic conditions for women engineers around the map is not provided, this situation especially in winter stated that further increases the transport where transport infrastructure is lacking. Furthermore in situations that require long working day than one day is stated that a number of the problems are about accommodation across the country.

In general, the problems frequently encountered survey women engineers working in the private sector is observed to result from female and male employees discrimination. Despite

throwing great profit-generating projects, it is understood that they could not get enough rights resulting profits. However, as in each sector also in mapping are known to stand the company's certificate of many surveyors women. The surveyor woman at the center of production should be ensured to get provision that they deserve in the distribution process.

In this study, women who are increased the level of education 'thoughts are gotten about working life. And also reached an overall assessment of the conclusions by the relationship exhibited behavior and attitudes faced by working against them. The problems woman survey engineers faced in general are determined and reached an overall assessment by the relationship of the conclusions.

REFERENCES

Arat, N., 1996. Türkiye'de Kadın Olmak, Türkiye'de Çalışan Kadınların Çalışma Yaşamında Karşılaştıkları Zorlukların Sosyo-Kültürel Nedenleri, Nisan

Aytac, S., 1999. TİSK, Türkiye de kadın işgücü seminerleri I-II, Women at work & Career, Yayın No.192, Aralık 1999, Ankara

Colak, E., 2007. The Status of Women Surveyors in Turkey, Strategic Integration of Surveying Services, FIG Working Week 2007, Hong Kong SAR, China, 13-17 May 2007.

CSCE, 2007. Member Statistics, Chamber of Survey and Cadastre Engineers, Ankara.

CSCE, 2013. Member Statistics, Chamber of Survey and Cadastre Engineers, Ankara.

Eroglu, K., 2004. Kadın Kuruluşları içinde Üniversite Kadın Sorunları Araştırma ve uygulama Merkezlerinin Yeri ve Önemi, C.Ü. Hemşirelik Yüksek Okulu Dergisi, 8 (2).

Ozturk, T., 2007. Türkiye'de Kadın Çalışanların İş Yaşamındaki Yerinin Analizi: İzmir'de Bir Alan Çalışması, Yüksek Lisans Tezi.

Tatlidil, E., 1993. Kentleşme Süresince Kadın ve Çalışma Yaşamı, Kadının Çalışma Yaşamı, Alman Kültür Merkezi, İzmir, 45-54.

UCTEA, 2006. Union of Chambers of Turkish Engineers and Architects (UCTEA) 38th Term Working Report, Ankara.

UCTEA, 2013. Union of Chambers of Turkish Engineers and Architects (UCTEA) 38th Term Working Report, Ankara.

URL-1, 2007. The Employment of Women, The Turkish Directorate General on the Status and Problems of Women (DGSPW) Official Web Site, <http://www.kssgm.gov.tr>.

URL-2 , 2013. www.online-anket.gen.tr

BIOGRAPHICAL NOTES

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