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TÜRKİYE'DE KADIN İSTİHDAMI VE İYİ YAŞAM ENDEKSİ

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WOMEN'S EMPLOYMENT AND WELL-BEING LIFE INDEX IN TURKEY

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MAKALE BİLGİSİ

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ÖZET

Kadın istihdamının artırılması ülkelerin ekonomik gelişmişlik düzeylerini artıracağı gibi ülkelerin sürdürülebilir kalkınma hedeflerine ulaşılmasına da katkıda bulunmaktadır. Hemen hemen nüfusunun yarısının kadınlardan oluştuğu ülkemizde kadınların istihdama katılımının artırılması belirtilen hedeflere ulaşma konusunda oldukça önem arz etmektedir. Bu amaçla Türkiye'de il bazında farklılık gösteren kadın istihdamı ile illerin yaşam endeks göstergeleri arasındaki ilişkinin incelenmesi amaçlanmıştır. Yapılan regresyon analizi sonucunda kadın istihdamı ile gelir ve servet arasında anlamlı ve pozitif, kadın istihdamı ile eğitim arasında anlamlı ve pozitif bir ilişki, kadın istihdamı ile altyapı hizmetlerine erişim arasında anlamlı ve negatif bir ilişki bulunmuştur. İllerde gelir ve servetin ve eğitimin iyileştirilmesinin kadın istihdamını gerekli düzeye getirebilmesi için olumlu yönde etkilediği tespit edilmiştir.

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ABSTRACT

In addition to improving the economic growth of a country, increasing the employment of women help the countries to meet their sustainable development goals. In our country, where women make up over half of the population, increasing women's participation in the workforce is crucial to accomplishing the stated objectives. For this purpose, it was intended to investigate the relationship between women's employment in Turkey, which varies by province, and the indicators of the province's Well-Being Life Index. A significant and positive relationship between women's employment and income and wealth, a significant and positive relationship between women's employment and education, a significant and negative relationship between women's employment and access to infrastructure services were discovered as a result of the regression analysis. It has been determined that improving income and wealth and education in the provinces have a favorable impact on women's employment in order to achieve the required levels.

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1. INTRODUCTION

The idea of rural-to-urban migration has evolved with the introduction of new industrial facilities in cities. Productivity in agricultural output has improved with global economic expansion and industrialization. This situation has caused the transition from the village to the city to speed up over time. As a result of this process, societal consumption habits have changed and living standards have risen. The majority of the production and consumption items that we once produced at home using our resources have the propensity to be purchased as a result of this transition. All of this has led to more men and women working in the workforce. On the other hand, the labor force employment rate has fallen as the length of education and retirement age have increased as a result of industrial expansion and social welfare development. The rate of women's labor force participation first declines and then increases as industrialization progresses, along with the level of social development.

It has been observed historically that agricultural cultures have had high employment participation rates. Following the pattern of events, employment involvement was seen to decrease as industrialization and urbanization increased, then rise in parallel with rising educational attainment. In the agricultural sector, women contribute to development by performing household tasks for free in order to support their families. Due to their poor general education levels, lack of vocational training, and lack of the labor force qualities that the industrial sector demands from its workforce, women have been excluded from the production process after the move to the city.

Women constitute almost half of Turkey's population. As it can be understood from the ratio of women in our population, the issue of women's participation in employment is very important for countries to achieve their sustainable development goals in addition to reach the economic development. The Sustainable Development Goals (SDGs), referred to as the Global Goals, were enacted by the United Nations in 2015 as a global call to action to eradicate poverty, maintain the environment, and provide peace and prosperity by the year 2030 will be experienced by everyone. The 17 SDGs expresses that development must balance social, economic, and environmental sustainability and that actions in one area will have an impact on results in others. Countries have agreed to give those who are falling behind the most priority while making progress. The SDGs aim to abolish hunger, poverty, and prejudice against women. The SDGs should be accomplished in every environment, which necessitates the use of all people's creativity, knowledge, technological abilities, and financial resources.

Eliminating all forms of discrimination against women and girls is crucial for a sustainable future and is also a fundamental human right. Empowering women and girls has been shown to support economic growth and development. Due to United Nations Development Programme (UNDP)'s dedication to gender equality, there has been a significant improvement in this area over the past 20 years. Girls are now more likely to be enrolled in school than they were 15 years ago, and gender parity in primary education has been attained in the majority of regions. However, even if there are more women working than ever before, there are still some significant inequalities, and often women are not given the same employment privileges as men. Major barriers still exist in the form of sexual abuse and exploitation, unequal distribution of domestic and care work, and prejudice in the public sector. Migration, conflict, and natural disasters continue to have a disproportionately negative impact on women and children. Giving women equitable access to land, property, sexual and reproductive health, as well as to technology and the internet, is crucial. Although there are already more women than ever holding public office, encouraging more women to lead contribute to greater gender equality.

Globally, three out of four men join the workforce, while one in two women joins the workforce (International Labour Organization, 2020). While participating in the labor market does not directly mean well-being, women's participation in work life is very beneficial from a policy point of view. For this reason, paid employment provides more self-government and affects than unpaid domestic labor (Kessler-Harris, 2003; Kabeer, 2008). Women participate more to household tasks and childcare, which also generate economic value. On the other hand, women lag behind men in their families and society. Women's empowerment may be related to women's attainment of equality in other areas, such as access to health services (Beneria, 1981). The fact that women face extra difficulties in the labor market causes women's abilities to be misunderstood and in some cases not evaluated. Therefore, equal distribution in the labor market can provide significant gains in Gross Domestic Product (GDP), especially for developing countries (Hsieh et al., 2019).

In the last twenty years, the fertility rate has declined, the education of women has ascended and many economic progress has been achieved in Turkey. There has not been a proportional increase in the women's employment rate during last two decades. Turkish Statistical Institute (TUIK) presented Woman with statistics report each year. When the employment rate of the European Union (EU) member countries in 2015 has been examined; The country with the highest women's employment rate was Sweden with 74%, while the country with the lowest rate was Greece with 42.5%. The average women's employment rate of the EU member countries is 60.4%. Turkey's employment rate for those above the age of 15 ranged from 46.3% to 47.1% to 42.8% from 2015 to 2018. This rate has been 65%, 65.1%, 65.6%, 59.8%, for men in 2015 to 2018, respectively. For women, these percentages have been 27.5%, 28.0%, 28.9%, and 26.3% from 2015 to 2018, respectively. These rates indicate that the women employment rate is below the average of EU countries. These numbers show that the expected progress in women's employment hasn't been achieved yet.

TUIK published the Household Labor Force Survey in 2020 to underline the current situation of the labor force in Turkey. It has been seen that the number of male and female population in Turkey is approximately equal in years. But, this report expresses that the employment rate for women is less than half of the employment rate for men. Women's employment rate occurred at 28% with a 2.2 percent increase in 2021 compared to the previous year. Male employment rate occurred as 62.8 % with a 3.4 percentage increase in 2021 compared to the previous year. The provinces with the highest employment rates are Tekirdağ, Edirne, and Kırklareli, with 52.0%, and the provinces with the lowest employment rates are Mardin, Barman, Şırnak, and Siirt, with 29.9% (TUIK, Labour Force Statistics, 2021). The report's findings indicate that regional differences exist in employment rates.

There are differences in the regional structure of the society and different regional characteristics regarding women's employment. The decision to participate in women's employment depends on many drivers such as social status, educational status, child care status, other household tasks, employment opportunities in the region. To examine these regional differences, various indicators have been developed and these values have been examined, analysed, and used in policy development.

Studies on measuring social progress, a notion that encompasses both the economic and non-economic aspects of life, have increased in recent years. In this new assessment approach focused on the individual, both objective standards and personal judgments are utilized. TUIK introduced an life index for the first time to evaluate, compare and observe the lives of persons and families at a provincial level in terms of life dimensions, using objective and subjective indicators with the life index in provinces. An indicator system that constructs a basis for observing and improving all aspects of life in the province has been developed. Well-Being Life Index includes eleven measurements of province life, including housing, work life, income and wealth, health, education, environment,

security, civic participation, access to infrastructure services, social life, and life satisfaction, and presents these dimensions represented by 41 indicators in a single composite index structure. The housing index is a factor in the quality of life of the individual and the household, which is used as a shelter and living space, and in terms of its characteristics. The work life dimension provides to get easier financial resources. In addition, the opportunities offered enable people to improve themselves, increase their self-confidence level and feel that they are more beneficial to humanity. The income and wealth dimension provides the opportunity to meet the basic needs of people and to protect against economic and personal risks. The health dimension represents the quality of life in terms of the general health status of individuals, the adequacy of health infrastructure and facilities, and satisfaction with health services. It is the education dimension index, which provides the necessary knowledge, skills, and competencies for individuals to participate in society and the economy efficiently. The environmental dimension has an undeniable effect on the health and sustainable life of individuals. The security dimension is one of the most basic needs of individuals and can be considered a prerequisite for their other vital activities. The civic participation index is an important dimension in terms of making people announce their demands and wishes in matters concerning their lives in the province they live in and contributing to the administration. Access to infrastructure services is an important dimension of the quality of life in terms of showing the capacity and satisfaction of accessing infrastructure services in the living area. The social life index positively affects other life dimensions of individuals such as health and work life by having strong social relations and various social activities. It is the dimension of life satisfaction, which expresses the level of satisfaction arising from meeting the needs and wishes of people at different times and areas of their lives. These indices reveal the current situation of the provinces (TUIK, 2015).

Differences in the development levels of provinces, geopolitical conditions of the regions and cultural differences affect general employment and women's employment. Since women's employment is an important element of sustainable development (especially Goal 5: Gender Equality), it is an area that needs to be examined in detail and policies should be developed in this regard. The women's employment should be discussed in more detail in order to avoid falling behind the global trend of rising women employment. It was meant to investigate into the relationship between the indicators of the province's Well-Being Life Index and women's employment, which differs by province in Turkey.

The remained part of the paper has represented an order as follows. The second part briefly presents the literature review. The third part explains the method. The fourth part presents the findings. In the last part, results and conclusions are represented.

2. LITERATURE

Zhong et al. (2011) presented a study to reveal the perceptions of male and female students, educators, and recruiters in the industry on gender and group diversity. The factors that affect women's advancement in business life were discussed. Mahmoudiyan and Rashvand (2012) examined the social and demographic factors affecting the employment status of women with higher education degrees. The analysis presented the significant relation with independent variables and the ratio of employed women. In addition, according to the results of the multivariate study, university graduate women between the ages of 35-49 are more likely to find a job. Subramaniam et al. (2016) noted that the number of women at the senior management level in Malaysia was still quite low. This study examined the main challenges that women face in their career advancement in Malaysia and a questionnaire was applied to the women. Kıral and Karlılar (2017) surveyed working and non-working women to specify the components affecting women's labor force participation in Adana. Age, marital status, education level, total family income, place of residence, and the perspective of the environment on women's working status are the most important. Akgeyik (2017) analyzed the trends

in women's labor force participation and the factors affecting the increase in participation according to the 2007-2016 period data of TUIK and stated that the increase in the education level of women, the increase in the average age of marriage among women, the decline in the fertility rate, the increase in the divorce rate affect women's labor force participation positively. Bongaarts et al. (2019) investigated the relationship between women's employment and having children at home for women in fifty-eight countries in Asia, Latin America, the Middle East and North Africa, and sub-Saharan Africa. They found that there is a negative relationship and this relation changes by world region, age of child and mother's job. Aksoy et al. (2019) analysed the factors determining women's employment for the years 1988-2018 with the ARDL bound test method. They depicted that the number of married women and the unemployment rate have a significant effect on women's employment. Economic conditions were the most important factor determining women's employment in Turkey. Dhanaraj and Mahambare (2019) analysed the role of family members living together in the decision of married women to start non-agricultural work in rural India. Their experiments were based on a survey conducted in 2005 and 2012. They pointed out that accessibility to jobs and availability of childcare reduce the negative impact of the joint family on women's work. Aliyev et al. (2020) discussed the factors of women's likelihood to work in Azerbaijan. Martinez et al. (2020) investigated the effects of public transportation on women's employment outcomes in Peru. They presented that the accessibility of the public transportation and safer and faster transportation can contribute women's employment. Şahin and Alp (2020) examined the contribution of women's labor force participation to economic growth. They used the variables of gross domestic product, gross fixed capital formation and women labor force participation rate. The results of the analysis showed that the increase in the labor force participation rate of women has a positive effect on the Gross Domestic Product. Koolwal (2021) presented a survey research agenda to collect data in rural women's employment and developed the design of rural employment policies considering gender. Şahinoğlu and Ağırkaya (2021) investigated the women workforce employed in the central districts of Erzurum by using survey. They applied factor analysis and one way analysis of variance. Conflicting roles had been demonstrated to have the most significant effect on women's employment. Ercan (2021) presented a measurement for womens'development level in Turkey and EU-9 countries. The indices developed to measure the level of development of women were evaluated. They emphasized that it is necessary to produce radical policies that enhance women's participation in the workforce, eliminate barriers to entry to the market, and increase their education levels. Alhalwachi and Mordi (2022) presented the factors affecting women's career path in Bahraini banking sector. They used the qualitative method and content analysis were applied to analyse the collected data.

3. METHOD

Quantitative research method is essentially an objective research method that can be repeated and based on measurement and observation. In quantitative research, statistical and mathematical models are used to analyse data and group them specifically. In this study, relational model is applied. Relational model is a scanning approach that aims to determine the existence of change between two or more variables (Karasar, 2011).

A regression model with more than one explanatory variable is called a multiple regression model (Montgomery and Runger, 2005). Models established to examine the relationship between dependent variable and independent variables are called multivariate regression models.). The data analysis is conducted using the multivariate regression method in the study. The model describes the complex structure between variables and summarizes the data. With the help of the independent variables used in the model, the value of the dependent variable can be estimated. It is a statistical

research method that shows which of the independent variables affect the value of the dependent variable more (Alpar, 2011).

The multivariate linear regression model generated while investigating the relationship between n independent variables and the dependent variable is as in equation 1 below.

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_n x_n + \epsilon \quad (1)$$

In this model, the parameters $\beta_z \ (z = 0,1, \dots, n)$ are the regression coefficients, x_z are independent variables, ϵ is error term, and *y* is dependent variable. In the multiple linear regression method, there are some assumptions. These assumptions are (Göktaş & Öznur, 2010; Büyüköztürk, 2015):

- The dependent variable must be a continuous variable at the level of proportional or equally distributed measurements.
- The variables should be normally distributed.
- There should be a linear relationship between the variables.
- There should be no multicollinearity between independent variables.
- Observation values should not have extreme values.
- The errors of the estimates are normally distributed.
- There should be homoscedasticity.
- Errors must be independent of each other.

The contribution of some of the independent variables constituting the model to the model may be insignificant in multiple linear regression analysis. For this reason, "variable selection," which entails choosing the independent variables that would "most appropriately" describe the dependent variable and eliminating unimportant variables from the model, is carried out (Alpar, 2003). Cox and Snell (1974), Hocking (1972), Myers (1990) and Thompson (1978a, 1978b) discussed the selection of variables in regression or the generation of the best model. Forward selection method, backward selection method, stepwise selection method are the methods developed for variable selection (Alpar, 2003). The most appropriate regression model is identified using the forward selection method by incrementally including an independent variable. The regression model is generated using the backward selection method by starting the model with all independent variables and removing one variable at a time. The forward selection method and the backward selection method are applied simultaneously in the stepwise selection approach (Çakır Zeytinoğlu, 2007). Stepwise selection method has been used in the study. The stepwise selection method consists of updating the forward selection method. The argument previously added to the model is reevaluated with partial F statistics. An independent variable previously added to the model can be removed from the model in later steps (Montgomery et al., 2001). In this method, the aim is to select the variables that are not related to each other and that affect the dependent variable the most, after the independent variables that can affect the dependent variable are determined theoretically. The most important benefit of the stepwise selection method is that it provides a solution to the multicollinearity problem (Işık, 2006).

The stepwise selection method can be summarized as follows (Kayaalp et al., 2015). The correlation matrix between the independent variables is constructed. The independent variable that has been shown to have the most effect on the dependent variable is initially added to the model. Depending on the selected significance level, the model is either kept in or removed from model according to the t or F test of the correlation coefficient between this independent variable and the dependent variable.

In the second step, one of the remaining independent variables is selected as the second independent variable that significantly affects the dependent variable, and the correlation is calculated and tested

by including it in the model. According to the result, it is determined whether the model remain or not.

In the third step, similar operations are performed as in the second step. Partial correlation coefficients of the variables other than the variables included in the model are calculated and tested. This process is repeated for all variables as long as the relations at the chosen significance level are significant, and it is decided whether to enter the model or not.

In multivariate regression analysis, the relationships between all independent variables and the dependent variable are determined simultaneously. The significance of the established model is tested with t and F tests. Hypothesis in these tests are presented in equation 2.

H_0=$\beta_0 = \beta_1 = \cdots = \beta_n = 0$ and

H_1=$\beta_z \neq 0$ (2)

In these hypothesis tests, H0 hypothesis is based as all the regression coefficients are equal to zero and H1 hypothesis is based on the fact that at least one regression coefficient is different from zero. After these tests, if the H0 hypothesis is accepted, it is concluded that there is no relationship between the dependent variable and the independent variables in the linear model or that the independent variables cannot explain the change in the dependent variable in the linear model. If the H1 hypothesis is accepted, a relationship can be established between the dependent variable and the independent variables in the linear model, and at least one of the regression coefficients is different from zero.

In multivariate regression analysis, the existence of strong relationships between independent variables reduces the explanatory effect of the model. If there is a strong relationship between the independent variables, methods to eliminate this situation should be applied. This situation is called the multicollinearity problem. Calculation of the Variance Inflation Factor (VIF) and Condition Index (CI) is used to detect multicollinearity and the calculated values are compared with the recommended lower limit values. In multivariate regression analysis, the lower limit of VIF values is 10 for the multicollinearity problem to occur. Another approach applied to determine whether there is a multicollinearity problem is to examine CI. The CI is calculated by examining the eigenvalues of the correlation matrix of the independent variables. For the detection of the multicollinearity problem, the lower limit of the index must be 30, and the problem of multicollinearity occurs between the number of independent variables whose value are above 30, as well as the number of condition indexes (Tabannick ad Fidel, 2013).

The Durbin-Watson test is a frequently used technique for determining autocorrelation. When performing a regression analysis, statistical software may offer the option of executing the Durbin-Watson test. A test statistic from the Durbin-Watson tests has a range of 0 to 4. Values closer to 0 or 4 imply stronger positive or negative autocorrelation, respectively, whereas values closer to 2 (the middle of the range) suggest less autocorrelation.

SPSS Package program is utilized in the data analysis. As a result of the analysis performed in the study, the *p* values being less than 0.05 indicate that the linear relationships established between the dependent and independent variables are statistically significant.

4. EXPERIMENTAL RESULTS

In this study, the effect of some indicators of the living place on women's employment is examined. As an indicator of women's employment, the women's employment rate has been discussed. As a living place criterion, the Well-Being Life Index published in 2015 by TUIK has been taken into consideration. We consider ten indicators except working life because the employment rate is taken

into account when calculating the Work Life indicator. The main indicators used in the study are: Housing, Income and Wealth, Health, Education, Environment, Security, Civic Participation, Access to Infrastructure Services, Social Life, Life Satisfaction. The Women's employment rate is taken from key labor force indicators by provinces and gender, 2011 published by TUIK. It has been used in the study since it is the latest data published by TUIK regarding the indicators discussed. In this study, stepwise selection method has been employed. α =0.05 was used to add the independent variable to the model and α =0.10 to take it out of the model. By keeping the model flexible and increasing the margin of error, it is ensured that more variables remain in the model (Kayaalp et al., 2015).

First, regression hypotheses are established. H_0 hypothesis is: 'None of the independent variables have a significant effect on the estimation of the dependent variable'. H_1 hypothesis is : 'At least one of the independent variables has a significant effect on the estimation of the dependent variable'.

Assumptions to be checked before constructing the regression model; The dependent variable must be a continuous variable at the level of proportional or equally distributed measurements; the variables should be normally distributed; there should be a linear relationship between the variables have been checked and it has been determined that the assumptions are met. A multivariate linear regression analysis has been performed to analyse the effects of variables on women employment. The generated correlation matrix was used to determine the multicollinearity between independent variables. The correlations between the variables are lower than .75. The results depict that there was no multicollinearity between independent variables. The minimum value of the standardized residual is -2,203 and the maximum value of the standardized residual is 3,028. The minimum value is higher than -3,29 and the maximum value is lower than 3,29. The maximum value of the Cook's distance is ,326 and this value is lower than 1. These results demonstrated that observation values don't have extreme values. Figure 1 shows that the errors of the estimates are normally distributed. Figure 2 depicts that there is homoscedasticity. Since the Durbin Watson test statistic is 2.005, there is no autocorrelation problem in this design and errors are independent of each other. It has been observed that the data provided the assumptions.

Figure1. Regression standardized residual

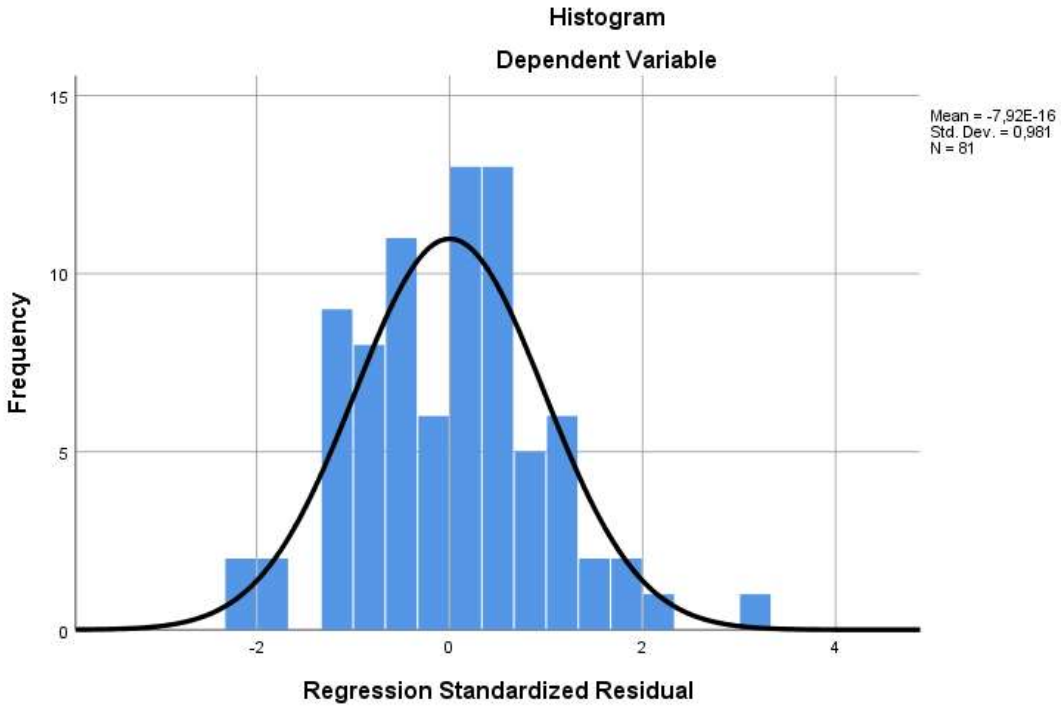
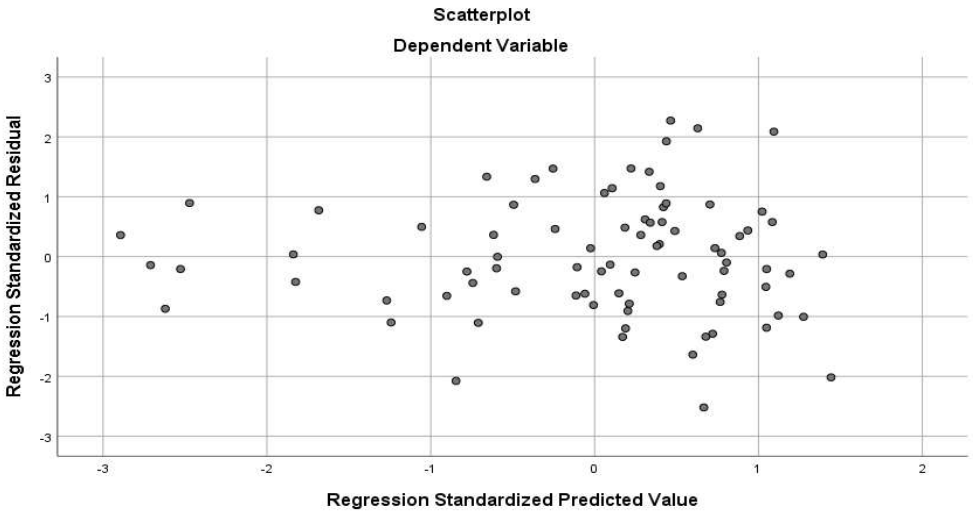


Figure2. Regression standardized predicted versus regression standardized residual

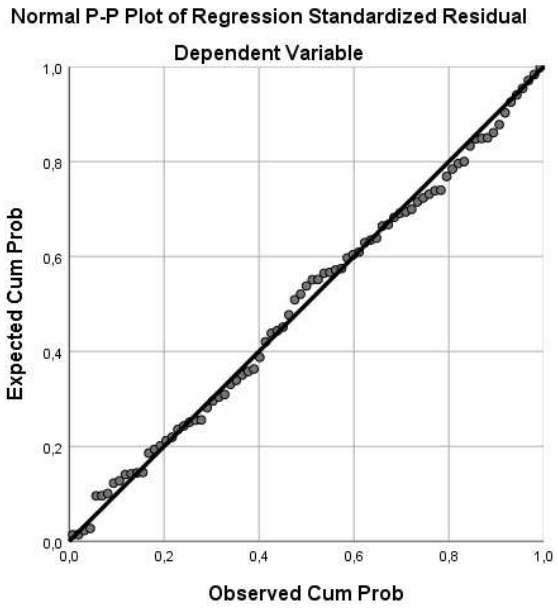


As a result of the analysis, a meaningful regression model, it is obtained that 40% ($R^2_{adjusted}$=.40) of the variance in the dependent variable is expressed by the independent variables. Income and wealth is a positive and statistically significant (*p*<.05). Education is a positive and statistically significant (*p*<.05). Access to infrastructure services is a positive and statistically significant (*p*<.05). The relationships in the multivariate linear model are given in equation 3.

$$Women's\ Employment = .173 + .160\ (Income\ and\ wealth) + .211\ (Education) - .237(Acces\ to\ infrastructure\ services) \quad (3)$$

According to Equation 3, Income and Wealth and Education variables have a positive effect and Access to infrastructure services have a negative effect on Women's Employment. In addition, the change of the value of variables explains 40% of the change in the value of Women's Employment. Figure 3 shows the congruence between the estimated Women's Employment rate from the above equation and the actual Women's Employment rate. The estimation performance of the estimation equation obtained in the multivariate analysis is high.

Figure3. Relationship between estimated and actual value



The significance levels of the regression coefficients in the relationships given in Equation 3 are analysed with t and F tests at α= 0.05 significance level. These tests are part of multivariate regression analysis. As presented in Table 1, the significance levels obtained for the t values in the regression analysis are smaller than the error level of α=0.05. Therefore, the regression coefficients in the multivariate empirical relationships established for the Women's Employment estimation are different from zero, and there are linear relationships with the dependent and the independent variables.

Table 1. t-test Results with Regression Model

Model	Unstandardized B	Coefficients Std.Error	Standardized Coefficient Beta	T	Sig.
(Constant)	,173	,028		6,151	,000
Income and wealth	,160	,067	,397	2,401	,019
Education	,211	,069	,417	3,070	,003
Access to infrastructure services	-,237	,062	-,538	-3,805	,000

Regarding the overall significance of the model, the results of the F test, which evaluated whether all independent variables have a linear relationship with the dependent variable. Since the significance levels obtained for the F values (,000) are lower than the α =0.05 error level, the hypothesis that all the regression coefficients are zero is rejected and it is confirmed that at least one independent variable has an effect on the dependent variable.

In the multiple regression model, Tolerance and VIF values are examined to determine whether there is a multicollinearity between the independent variables. These values are presented in Table 2.

Table 2. Data on Tolerance and VIF values

Model	Collinearity Tolerance	VIF
Income and wealth	,336	2,977
Education	,498	2,009
Access to infrastructure services	,460	2,172

VIF values below 10 indicate that there is no multicollinearity problem. According to the analysis results given in Table 3, there is no multicollinearity problem based on the measurement of the VIF value.

In the study, the CI is also examined to determine whether there is a multicollinearity or not. The eigenvalues of the correlation matrix of the independent variables in the linear regression model and the CI related to these eigenvalues are given in Table 3. When the condition index values are below 30, there is no linear dependency relationship between the independent variables. All condition index values of the independent variables used in the model are below 30. Thus, there is no multicollinearity problem between the variables according to the condition index measurements.

Table 3. Data on Condition Index

Model Dimension	Eigenvalue	Condition Index
1	3,855	1,000
2	,086	6,677
3	,039	9,950
4	,020	14,054

According to all these analyses, the H1 hypothesis of the research is accepted as a result of evaluating the suitability by calculating the t and F tests, where the significance of the model was measured, and the VIF and Condition Indices, which is tested for multicollinearity. In other words, the linear models established between variables within the scope of the study and given in equation (3) are statistically significant.

5. CONCLUDING REMARKS

In Turkey, women constitute 49.9% of the population. The employment rate for women is typically lower than the employment rate for men. In order to promote the employment of women, which has been declining, active labor force programs have been devised in recent years. These initiatives have increased the number of employments held by women. For Turkey's economy to thrive and the SDGs to be met, women's engagement in the economy needs to expand. Turkey has not seen the necessary improvement in the women's employment rate compared to the rise in women's employment rates around the world.

The effect of regional differences on employment in the world is well known. In this study, the provincial factors affecting women's participation in employment, is discussed. This study investigates that the effect of the provincial conditions on women's employment and the relationship between them is analysed using statistical methods. While making regional evaluations, Well-Being Life Index is used. These indicators of the provinces are determined as the independent variables. The dependent variable is women's employment rate. As a result of the statistical analysis, it has been found that income and wealth, education, and access to infrastructure services affect women's employment. By using these indicator values of the provinces, the women's employment rate of the province can be estimated. Income and wealth, education the employment rate of women have a positive relationship and statistically significant. Accordingly, income and wealth and education have a beneficial impact on women's employment achievement, whereas access to infrastructure services has a negative impact.

The results obtained in the study have been compared with the results of the studies in the literature. Kıral and Karlılar (2017) identified the education and income factors are the important among the factors affecting women's labor force participation in Adana. Akgeyik (2017) showed that increasing women's educational attainment has a favourable impact on their engagement in the labor area. According to Aksoy et al. (2019), Turkey's economic situation has an impact on how many women are employed there. These results support the results obtained in this study.

The parameters taken into account when calculating the access to infrastructure services indicator are as follows: Number of internet subscriptions (per hundred persons), access rate of population to sewerage and pipe system, access rate to airport, satisfaction rate with municipal public transport services. It is observed that the women's employment rate in the more developed and big cities, where the value of the Access to infrastructure indicator is high and access to them is developed, is lower than the cities with a low value of this indicator. In other words, access to infrastructure adversely affects women's employment.

According to the study's overall findings, improvements to income and wealth and education in rural areas may have a positive impact on women's employment. The women's employment rate can be increased by making improvements and realizing projects on these issues. In order to increase women's participation in the labor force, this study emphasizes the significance of introducing radical policies that raise women's educational attainment, increase their income and wealth, remove barriers to entry into the market, and increase their engagement in the workforce. Future research

will compare the employment status of women in Turkey and other nations and examine what needs to be done globally to increase women's employment.

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