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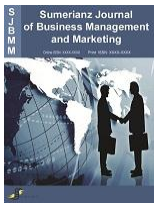

Original Article Open Access

"Determining Factors of Minimum Wage in the Member States of the OECD"

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Abstract

Undoubtedly, according to the literature, the minimum wage affects employment, consumer prices, inflation, student's enrollment levels in schools, exports, poverty, prosperity, demand and supply of products, labor and the general growth of a State. This article presents the results of a survey conducted using multiple regression. The main objective of this research was to find the factors that are determinants of the level of the minimum wage, the investigation of the existence of a relationship between the minimum wage and various aggregates and other indicators in the context of a state. This was achieved with the creation of a shuttle equation formed, which shows that of the 20 variables introduced in the model only the variables GDP billions US dollar, Net National Income per capita and GDP per hour worked, which affected the value of the minimum wage. Additionally, the survey results showed that the best predictor variable was GDP billions US dollar, followed by the rest of the model's variables but with continuously declining significance.

Keywords: Minimum wage; Development; Unemployment; Commodity prices; Labor.

1. Introduction

The reasons which led to the necessity of the minimum wage was first raised by Sidney and Beatrice Webb: a) manual and unskilled workers in most cases because of their lack of bargaining power, driven by very low wages and poor working conditions, and b) such salaries and working conditions do not cover the full social costs of labor (Kaufman, 2009). These events result in poor distribution of labor resources which in this way is subsidizes capital and consumers. Thus, a fair and adequate minimum wage can improve economic efficiency and fairness and cover the social labor costs, which are the result of its participation in the production procedure. So, according to Webb, a state of law must implement the minimum wage.

The approach towards the reasons for which a state should apply the minimum wage as a policy tool in accordance with (Guangrong and Chang, 2012) are the following: a) Protecting workers to collect a reasonable fee, and b) Establishing a social system and deepening the economic restructuring.

However, the negative impact of the minimum wage on employment was taken for granted for decades. It was during the 1990s that this view became questioned, when several studies based on surveys, showed that increases in the minimum wage have no negative impact on employment and sometimes the results were positive. This goes back to the study of Card and Krueger in 1995 when with the help of experimental reports and econometric evidence, they showed that increases in the minimum wage do not reduce employment (Doucouliagos and Stanley, 2009). Since then, many studies have been carried out which have raised many conflicting views on the minimum wage. Thus, a large number of researchers argue that the minimum wage policy is an ineffective policy tool. The main reason behind this argument is the loss of jobs associated with the legislation on minimum wages. As labor becomes more expensive, companies reduce hiring with a consequent welfare loss (Gorostiaga and Rubio-Ramírez, 2007). On the other hand, a large number of researchers argue that the determination of minimum wage can play an important role in alleviating the socio-economic destabilization and the reduction of income inequality (Bosch, 2015). Again, according to its proponents, the minimum wage should be considered as a useful tool in the hands of governments which have the aim to redistribute wage for the least well-paid workers (Lee and Saez, 2012). Simultaneously, through the minimum wage, the state of law promotes the investment in human resources, the entire economy is upgraded to work better with the concept of wealth creation whilst ensuring the development and existence of law (Gökhan and Visser, 2009).

Furthermore, this leads us to pose the question, is the minimum wage an effective policy? This is because a common debate among politicians is about what tactic brings better results for the redistribution of incomes and so the support of the weak: taxation or imposition and raising of the minimum wage? According to (Lee and Saez, 2012), when the labor supply of workers with low qualifications is low, the minimum wage should always be associated with a working premium. This is related to the fact that macroeconomic downturns lead to unemployment. In this case, when too many workers are chasing far few jobs, labor supply is intense and thus the calculation of the ideal tax to be paid can be significantly changed. Trying to clarify the same subject about a more effective policy (Bosch, 2015), in a survey he conducted in Belgium, France, Germany, Sweden and the United Kingdom in comparing the effectiveness between the minimum wage and collective wage bargaining, found that

while collective wage negotiations are more effective than the legal minimum wage in reducing disparities, both require state intervention in their embodiment.

Of course, the way they carried out the application of the minimum wage as a policy tool, depends on the convictions and beliefs of each nation. Hayes (2007) in a survey he carried out in the way in which US citizens perceive the redistribution of income in favor of the weak, concluded that Americans want to help the poor, but they prefer to do so through work and not through social assistance. The periodic raise of minimum wage, if only for the restoration of lost purchasing power due to inflation reasons, satisfies justice according to the Americans. Respectively for Brazil, Lemos (2009) concludes that the minimum wage could be an effective policy tool for combating poverty and inequality, without destroying too many jobs. She also adds that the minimum wage could be an effective tool not only for formal but also for the informal economy, where legislation is clearly not applied.

About the ability of the minimum wage to work as a policy tool, interest is and the issue related to the proportion of workers who receive it. In the USA for example, only2-3% of the workforce is receiving the minimum wage and therefore has no effect at all, politically. Conversely, in Turkey, where minimum wage serving the workers who are unregistered in unions (in the formal economy), but also for illegal workers in the black economy (where it functions as a ceiling), a very large number of workers are directly affected by the level of the minimum wage (Gökhan and Visser, 2009).

Concerning the method of determining the minimum wage, according to political economy, there are two prevailing views. The first view is based on the belief that the appropriate setting of the minimum wage level can only come, only after relevant government regulation, through which is achieved social balance without disrupting employment patterns. According to the second aspect, the best way of adjusting minimum wage is to leave the laws of labor supply and demand and probably through collective bargaining without any state intervention, towards leading to a better outcome (Saget, 2008). This view seems to agree with (Boeri, 2012), who claims that the minimum wage level varies from the extreme scenario where a government decides unilaterally, to the point where the minimum wage is the result of negotiations between trade unions and employers and the state has a passive role which simply offers legalization of agreements. Between these two extreme scenarios, there is a wide range of calculation methods depending on the role of the state and the potential of collective bargaining.

A key factor for the tasks that want to achieve each of the countries through minimum wage is and how to determine it. The mode setting contains concepts such as who determines it, together with the amount of which should be neither too high nor too low. But in fact, there is a great variation of minimum wage levels between countries as well as the way they are calculated. Minimum wages relative to average wages have a percentage range from the lowest 5% in Ethiopia to 95% higher in Nepal. Even within the EU, there is great variation in the levels of the minimum wage (Boeri, 2012). Conducting research in order to investigate the level of the minimum wage. Saget (2008) reached the conclusion that there are three categories of countries: a) in a significant number of countries, the minimum wage is so low in the wage structure that almost loses the right to be called a minimum wage because it ceases to be a limit for businesses. These countries are located mainly in the former Soviet Union, Africa and, to a lesser extent, in Latin America. b) In other countries, the article argues that the minimum wage is actually too high to be considered as a genuine minimum wage. These countries are in Asia, as well as in Latin America and Africa, where the minimum wage is too high in relation to the distribution of wages. c) Finally, in the middle group, the minimum wage is set at a level which, although it can vary greatly from one country to another, would seem to comply with the definition of the minimum wage.

There have been many researches conducted regarding whether the minimum wage negatively or positively affects employment, consumer prices, student enrollment levels in educational institutions (all levels), exports, poverty, prosperity, demand for products, demand and supply of labor, and general development. The reason for which all these studies were performed, is due to the influence of the minimum wage in these sectors of society and everyday life of the citizens of each country. Therefore, it would be nice that the minimum wage be fair, correctly calculated, effective for the practice for which it was created especially to fulfill the purpose for which it was created. So the level of the price it will receive (high-low) is a key factor of success. But in every country, the minimum wage is different, as different are the other factors I have mentioned, as different is the way of its specification. So what are those factors that determine and prescribe its amount? , How can we calculate the amount depending on the other factors received values that affect and are affected by it?, So within this article, a study is carried out which has as its main objective to identify the factors that are determinants of the level of the minimum wage, in other words, the investigation of the existence of a relationship between the minimum wage and various aggregates and indicators in the context of a State. At the same time, I examined the extent and effect size of each variable with respect to prediction and usefulness capability to the model. The article is divided into four sections. After introduction follows a summary of the determinants examined as modulators of the minimum wage level. The third section is the research, analysis and discussion of the results and control of assumptions. The fourth and final section presents the concluding part and recommendations.

2. Specification Factors

2.1. Product Prices

According to the literature, the effect of the minimum wage in commodity prices is unclear and directly dependent on the circumstances of each state. Lemos (2006) in a survey she carried out in Brazil, concludes that increases in the minimum wage significantly increase the total prices. This effect is greater in the long term and also greater with the existence of high inflation, where companies can pass higher labor costs on prices and thus is relatively easy to waive the increases in the minimum wage. According to her, in Brazil an increase of 10% of the

minimum wage increases prices by 3.5%. It is, however, large in comparison with the 0.2% to 0.4%, a result which was respectively for the US. Nevertheless, estimates are that the influence of the minimum wage price is significantly lower in low-inflation periods.

In the United Kingdom, respectively, the increases in the minimum wage seem to have zero effect on the prices level. In particular, no company or business sector, where a growing in minimum wage level is observed, does not increase selling prices of their products for a period which is at least 6 months. Any (small) impact on selling prices appear gradually accumulating over time (Wadsworth, 2010).

Lemos (2008) in another article, she states that in the US, an increase of 10% in the minimum wage can influence a 0.4% in the general price level but the increase in food prices is over 4%.

2.2. Employment

The main aim of the minimum wage enforcement as a policy tool is to improve the welfare of low-paid workers. But its impact on employment has divided economists. Specifically, there are two views. The first point of view; which historically is the oldest- according to which, increases in the minimum wage leads to job loss, especially for workers with low wages such as young workers, women and low-skilled workers. From the other side- according to the second view, another group of economists argue that an increase in the minimum wage can have a positive impact on employment (Beugnot, 2013). Specifically, in a regression analysis carried out by Doucouliagos and Stanley (2009) showed that no negative effect on employment was observed by increasing the minimum wage. In contrast, in a regression analysis carried out by (Slonimczyka and Skott, 2012), it was found that reduction in the minimum wage led to a deterioration of pay level and employment of low-skilled workers and increased underemployment of highly skilled workers. The results of the minimum wage effects on employment, according to Marginean and Chenic-Cretu (2013) can't be generalized to all countries. Any study on the impact of minimum wage increase, should be carried out at national or regional level, because the effect depends on the share of the minimum wage to employees (how many and who receive the minimum wage), the relevant minimum wage (expressed as a percentage of the average salary), legal and cultural characteristics that affect the minimum wage, how many teens work, etc.

2.3. Prosperity- Development

The minimum wage could, in combination with other measures; to support a development model that could be achieved by increasing the working income of a growing number of workers. This is a development policy through which development is promoted and avoiding conflicts in society. Of course, whether this can happen in fact is something that divides economists. According to (Deakin and Green, 2009), the minimum wage has a positive effect on economic growth. In favor of the positive impact of the minimum wage in development, also argue Flaschel and Greiner (2009). They argue that through minimum wage is achieved a perfect mobility in the labor market (in terms of recruitment and redundancies), with variations in the employment rate to be socially acceptable, while ensuring minimum levels of income to all members of the workforce. So the minimum wage provides an increased stability in the economy by reducing the range of income distribution and the employment rate. This view is also argued by (Fanti and Gori, 2011), who assume that the minimum wage can promote economic growth and prosperity despite the partial emergence of unemployment. In favor of that minimum wage prevents growth as argued by Bauduin *et al.* (2008); (Askenazy, 2003).

2.4. Rest of the Factors

Regarding the fight against poverty and avoiding the Malthusian trap of poverty refers Dessing (2002), where in a relevant model he developed, appears that an increase in minimum wages may lead to this result. He also argues that a higher minimum wage, may increase the school enrollment, labor productivity and domestic demand for consumer goods, thus increasing the demand for labor. Increasing the minimum wage several times can lead to increased productivity (McLaughlin, 2009). Strong unions and strong collective bargaining accompanied by significantly lower wage inequality and a much smaller proportion of workers paid below the existing minimum wage (Garnero *et al.*, 2015). The insertion of the minimum wage according to Pacheco and Cruickshan (2007) seems to have a significant positive impact on enrollment levels in adolescents' school. A recent survey conducted by Sabia (2015) using data from 1979 to 2012 in the US, showed that increases in minimum wages are not related to changes in the overall state of the GDP. Estimates show that a 10% increase in the minimum wage is associated with a 1% to 2% reduction in GDP. But there seems to be some other relationship between GDP and the minimum wage. According to Waltman and Marsh (2007), there is a strong correlation between the level of the minimum wage and the percentage of GDP spent on social welfare among countries that have minimum wage policies.

3. Research

3.1. Research Methodology

A research conducted for the prediction of the minimum wage numerical value, that applies and therefore is likely to be so in the future, using data relating to the country concerned and affect negatively or positively to the ongoing of this value. To serve this purpose I used multiple linear regression which was performed using the statistical package SPSS ver.20 and mode selection of variables was forward. According to this method, the null hypothesis is as follows:

H_0 = the actual change in the index R^2, is zero.

So if the observed level of significance is less than the level I set, then the variable is inserted into the model. In this process, I retained the default of 5%, which theoretically raises the program.

The multiple linear regression was constructed with a dependent variable the minimum wage as it displayed numerically for the last 6 years in the archives of OECD, in its the statistic service (OECDa, 2015; OECDb, 2015). The independent variables that were selected for insertion in the palindromic model and their numerical data came from the records of the OECD Statistics Service (Economic Co-operation and Development), (OECDa, 2015; OECDb, 2015) and selected for a period of five years (where data were available). Additionally, as a criterion for their selection was the adequacy of statistical data which would allow satisfactory processing for exporting results and conclusions (Table 1).General Data The independent variables finally reached 20, while the total number of cases to be processed was 150.

Table-1. General Data

General description	Name of the OECD file	Name in the model
Educated Index	Attained below upper secondary education 25-64 years old	Educat
Social Protection and Well-being	Life Satisfaction (Average Score)	life_satisf
Macroeconomic debt ratio	Total government debt % of GDP	debt_perce
Child Well-being	Average disposable income	Child
Trade union Action	Trade Union Density	Unions
Financial resource invested in education	Expenditure per student	exp_stud
GDP per capita and productivity	GDP per hour worked	productivity
Unemployment rate	Harmonized Unemployment rate	Unemloy
Expenditures on health care	Share of gross domestic product	exp_health
Short term Economic Indicator	Industrial Production	ind_prod
Short term Economic Indicator	Long-term interest rate	Interest
Science, Technology and Patents	Total Patents per year	Patents
Strictness Indicator of Employment Protection	Strictness of Employment Protection-individual and collective dismissals	Strictness
Taxes Revenues	Tax Revenue as % of GDP	Taxes
International Trade –Balance of Payment	Net trade in goods	Tradepou
Transport- Road Safety	Fatalities per million inhabitants	Transport
Finance- Insurance Statistics	Insurance Density	Insurance
International Trade –Balance of Payment	Goods, exports	Exports
National accounts	Gross Domestic product, billions, US dollars	GDP
National accounts	National Income per capita	NNI-capita

3.2. Analysis of Results – Discussion

Table 2 gives information on the description of variables (remaining 10) that were involved in the model (Mean, Standard. Deviation) and the final number of cases (36) involved in the outcome.

Table-2. Descriptive Statistics

	Mean	Std. Deviation	N
Minimum wages	15264,5600	5754,29600	36
Attained secondary education 25-64	25,4561	14,64849	36
Debt % of GDP	51,8810	29,01140	36
Trade Union density	20,3626	10,47256	36
GDP per hour worked	41,1670	13,33400	36
Unemployment rate	9,1580	3,60950	36
Long-term interest rate	4,7719	1,51815	36
Strictness of employment protection	2,1019	,89205	36
Insurance Density	2575,1102	2429,49706	36
GDP billions US dollars	1577,9969	3366,49013	36
Net National Income per capita	90,3950	26,02091	36

Table-3. Correlations

Pearson Correlation	Minimum Wages	Sig. (1-tailed)	Minimum wages
Minimum wages	1,000	Minimum wages	
Attained secondary education	,166	Attained secondary education	,166
Debt % of GDP	,183	Debt % of GDP	,143
Trade Union density	,462	Trade Union density	,002
GDP per hour worked	,841	GDP per hour worked	,000
Unemployment rate	-,264	Unemployment rate	,060
Long-term interest rate	-,420	Long-term interest rate	,005
Strictness of employment	-,355	Strictness of employment	,017
Insurance Density	,672	Insurance Density	,000
GDP billions US dollars	,103	GDP billions US dollars	,276
Net National Income per capita	,81	Net National Income per capita	,000

Table 3 (Correlations) gives us a picture of the ability of the model that was formed to fulfill, as regards the correlation between the variables: a) The independent predictors not to have a high correlation between them and b) To have a high correlation with the dependent variable minimum wages. Studying Table 3 I note the following: in the second column (which shows the Pearson correlation values) the variables with the highest level of association with the dependent variable in numerical order are: GDP per hour worked with Pearson r = 84,1% (, 841), Net National Income per capita with Pearson r = 83,1%, Insurance Density with Pearson r = 67,2%, Trade Union density with Pearson r = 46 , 2%, Debt% of GDP with Pearson r = 18,3%, Attained secondary education with Pearson r = 16,6%, and GDP billions US dollars with the lowest level of linear correlation and Pearson r = 10,3%, while negative relationship show the variables, Unemployment rate variables, Strictness of employment and Long-term interest rate with Pearson r respectively -26.4%, -35.5% and -42%. Respectively, in 4th column with Sig. (1-tailed) prices trying to control the existence of a relationship between the dependent variable with the relevant independent variables, therefore, I formulated the null hypothesis as follows:

H_0: There is no linear relationship between the dependent variable minimum wages and the independent variables.

Thus, in those independent variables that value Sig. (1-tailed) is greater than 5% (as defined) does not have a high linear correlation and therefore the null hypothesis is true. So I noted that the independent variables for which the null hypothesis isn't true are: GDP per hour worked, insurance density, Net National Income per Capita and trade union density. At this point, it should be clear that in this table are recorded simple correlations and not the behavior of these 10 variables when imported into multiple reciprocating models.

Table-4. Variables Entered/Removed(a)

Model	Variables Entered	Method
1	GDP per hour worked	Forward (criterion: Probability –of- F- to enter<= .050
2	GDP billions US dollars	Forward (criterion: Probability –of- F- to enter<= .050
3	Net National Income per capita	Forward (criterion: Probability –of- F- to enter<= .050

a Dependent Variable: Minimum wages

Table 4 shows us that eventually the variables that have managed to be introduced in the shuttle model, according to the forward method and level of statistical significance of less than or equal to 5% - were the variables GDP per hour worked, GDP billions US dollars and Net National Income per capita

Table-5. Model summary [(d)] using Forward Method

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	841[a]	,707	,699	3159,20	,707	82,118	1	34	,000	
2	,886[b]	,786	,773	2744,13	,078	12,063	1	33	,001	
3	,937[c]	,877	,86	2107,82	,092	23,931	1	32	,000	1,996

a. Predictors: (Constant), GDP per hour worked
b. Predictors: (Constant), GDP per hour worked, GDP billions US dollars
c. Predictors: (Constant), GDP per hour worked, GDP billions US dollars, Net National Income per capita
d. Dependent Variable: Minimum wages

In table 5, we see the first model, created only by inserting variable GDP per hour worked, which may explain 70.7% of the dispersion with multiple coefficients of determination R Square =, 707, while the addition of the variable GDP billions US dollars in the second model increases the unexplained dispersion at 78.6%. Finally, the third model with three predictors GDP per hour worked, GDP billions US dollars, Net National Income per capita, manages to explain 87.7% of the total dispersion in the dependent variable which means that the model has a good fit to the data (Stevens, 2002). The adjusted coefficient of determination of the first model, Adjusted R Squared with

a value of 86.6% (lower than previous R Square, because of adaptation) reveals the high predictive power of our reciprocating model which is justified by the higher value of 5 for the ratio n / K = 150/20 = 7.5> 5 (n= cases, K= independent variables).

I should note at this point that Gnardellis (2003), points out that Adjusted R^2 is an unbiased estimator of the population multiple coefficient determination. Index R^2_{change}, in the first model with only participating variable GDP per hour, worked received value 70.7%. In the second and third model the introduction of variables GDP billions US dollars and Net National Income per capita, adds to the value of R 7.8% and 9.2% respectively. The column entitled sign. F change, which contains the statistical significance of the relevant variables, in terms of their introduction to Model- I observed that it takes values significantly below the limit of 5% I set. Finally the index Durbin- Watson takes the value 1.996 which is satisfactory for the model.

Table-6. Coefficients

Model	**95% Confidence Correlations**		**Correlations**			**Unstandardized Coefficients**		**Standardized Coefficients**	t	Sig	Collinearity Statistics	
	Lower Bound	Upper Bound	Zero order	Partial	**Part**	B	Std. error	**Beta**				
											Torerance	VIF
3(Constant) -GDP per	-7961,	-2104,5				-5032,8	1437		-3,5	,001		
Hour worked -GDP	-16,97	259,02	,841	,301	,111	121,026	67,7	,280	1,78	,084	,156	6,429
billions US Dollars	-1,062	-,536	,103	-,738	-,38	-,799	,129	-,467	-6,1	,000	,670	1,492
-Net National Income Per capita	107,01	259,72	,831	,831	,303	183,371	37,4	,829	4,89	,000	,133	7,494

Table 6 contai ns all the information about the 4-parameter equation of the shuttle which was constructed based on the sample data, the assistance of the Forward method and is located in B column.

Minimum wages= 121.026* GDP per hour worked-0.799* GDP billions US dollar
+183.371* Net National Income per capita

Thus, in the formed equation according to absolute values found in the column for t values, the most important and best predictor variable is the variable with the highest absolute value (| 6,180 |) = - 6,180 ie. Variable GDP billions US dollar, followed by the variable Net National Income per capita, which receives a lower price ie. (| 4,892 |) = 4,892. The variable GDP per hour worked takes an absolute value which is within the interval (-2, +2) and for this reason has little value and contribution to the formation of the shuttle model.

3.3. Control of Admissions

3.3.1. Independent Control Admission

Methodologically, there is an independent control realization obligation. This research stems from the fact that the number of observations (cases) involved in the model is much greater than the number of p coefficients of the shuttle model [cases=36 , number of independent predictors K=3, p=K+1=3+1+4 < 36]. However Table 5 through the value of Durbin-Watson index is 1.996 ensures our independence of observations because it is between 1.5 and 2.5.which is 1.996 ensures our independence of observations because it is between 1.5 and 2.5.

3.3.2. Control of Distribution Regularity

Figure-1. Histogram

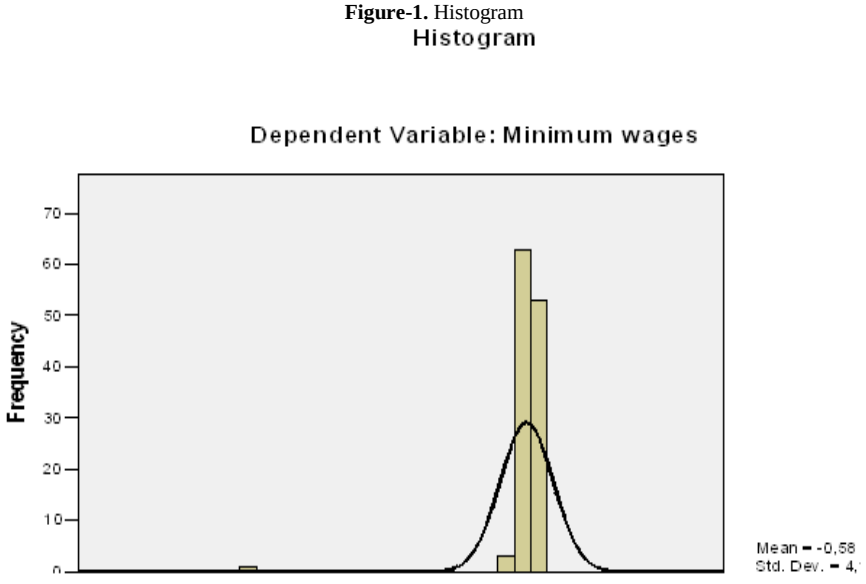

Figure-2. Normal P-P Plot of Regression Standardized Residual

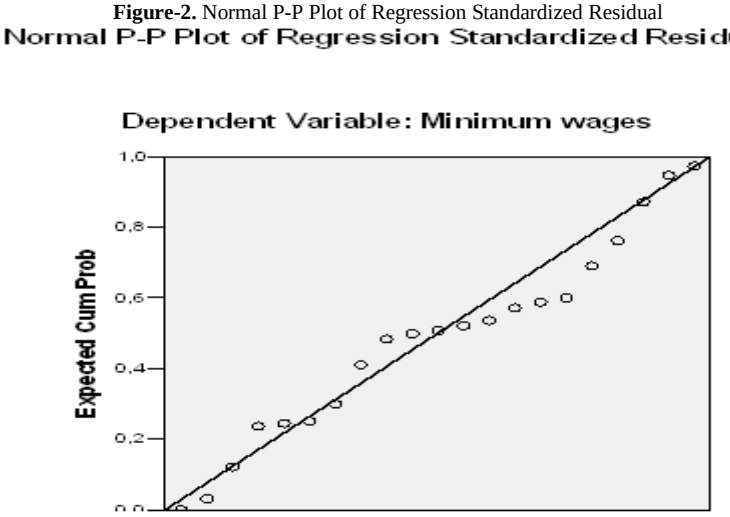

Figure 1 shows the distribution of Standardized Residuals, where the existence of the regularity of the distribution observed by the bell of Gauss. The same conclusion leads and Figure 2 wherein the vertical axis I included the cumulative frequencies of the expected values of the dependent variable Minimum wages, and the horizontal axis includes the cumulative frequencies of its observed values. Since there is a great approximation of points (dots) on the graph with the line bisecting the axes Y and X, that creates another reason which confirmed the regularity condition.

3.3.3. Control of Linearity and Disseminate Equality Admission

Figure-3. Scatterplot

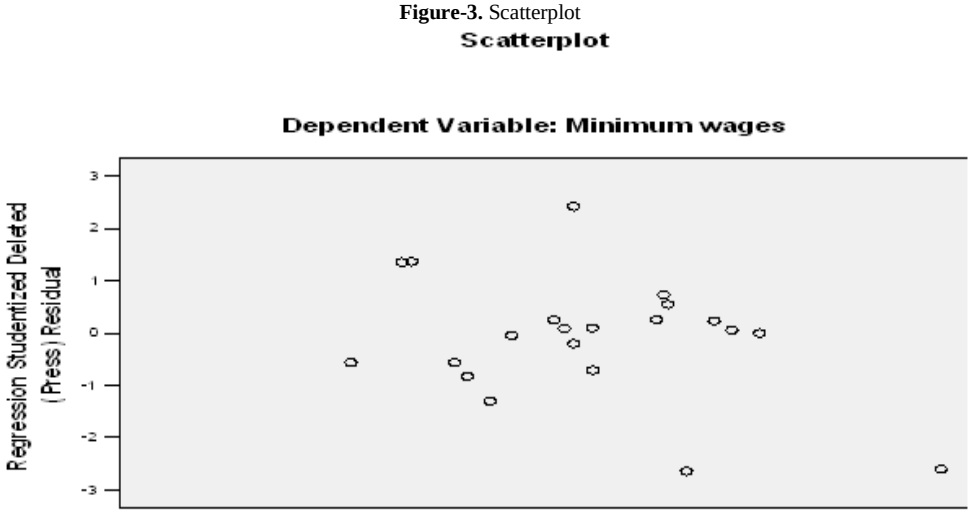

Figure 3 shows the scatter plot of Studentized Deleted Residuals, against Standardized Predicted Value. At this, the dots on the chart are distributed randomly within a horizontal band, which has as its axis the line starts from scratch. Also, there is an absence of patterns, and Systematic Clustering). The same chart also ensures the controlling assumption of dispersions equality. The dispersion stability is ensured by controlling the variability of the dependent variable prices, whichever shall be the same for each combination of values of the independent variables. In this graph, there is a lack of relationship between the residuals and the predicted values, which is ensured by the random distribution of dots in the graph.

3.3.4. Multi-Linear Evasion Control

The lack of multicollinearity creates the necessary conditions for finding the shuttle model created, a reliable estimator of the population and is checked against the following four indices:

3.3.4.1. Tolerance Factor

From Table 6 (Coefficients) and the tolerance index. This indicator explains the variation percentage or dispersion of an independent variable, which can not be explained by the linear relationship of that variable, with the rest of the shuttle model. According to Norusis (2002) where the tolerance index show values above 0.1, a fact which is observed in the relevant table, there are no multicollinearity problem in our data.

3.3.4.2. Variance Inflation Factor or VIF

From Table 6 (Coefficients) and the Variance Inflation Factor or VIF. This indicator is involved in the calculation of the coefficient R dispersion (Table 5, Model summary) for each independent variable. According to Myers (1990) and (Stevens, 2002), if the relevant index is not received value above 10, the regression analysis shows no problem of multicollinearity.

3.3.4.3. Eigenvalues

From Table 7 (Collinearity Diagnostics) and index Eigenvalues. None of the Eigenvalues are assigned the value of 0 which means that the independent variables of the model are highly correlated and thus none has of multicollinearity problem.

3.3.4.4. Condition Indexes

From Table 7 (Collinearity Diagnostics) and the Condition Indexes. These indexes are created if it formulates the ratio of the highest Eigenvalue with some smaller and then take its square root. According to Besley *et al.* (1980) if these indicators are below 30, which happens then there is no multicollinearity problem.

Table-7. Collinearity Diagnostics [a]

Dimension	Eigenvalue	Condition Index	Variance Proportions			
			Constant	GDP per Hour Worked	GDP billions US Dollars	Net National Income per capita
1	3,267	1,000	,00	,00	,02	,00
2	,682	2,189	,01	,00	,70	,00
3	0,045	8,519	,79	,10	,15	,02
4	,006	22,936	,20	,90	,13	,98

4. Conclusions – Proposals

The main objective of this research was to find the factors that are determinants of the level of the minimum wage, that is the investigation of the existence of the relationship between the minimum wage and various aggregates and other indicators within the framework of a state.

This was achieved with the creation of the shuttle equation modeled and described in Table 6 Coefficients in column B. There are all the data of the 4-parameter equation of the shuttle. All variables that exist in this equation affect the formation of the dependent variable «minimum wages» to the variable «Net National income per capita» and the variable «GDP per hour worked» to have a positive effect and the variable «GDP billions US Dollars "to be the only one that has a negative effect on the dependent variable.

The second objective of this research was to examine the degree and magnitude of influence of each variable with respect to prediction and usefulness capability in the model. This was achieved with the variable «GDP billions US dollar» be the best predictor variable among the three who remained in our reciprocating model by taking the largest absolute value. Below is, with decreasing value, but always important in shaping the final value of the dependent variable, the «Net National Income per capita», while the variable «GDP per hour worked» with an absolute value below 2, to affect significantly less the formation of the final price of minimum wage.

The research has enough restrictions. Findings can not be generalised without verification. Thus, there is a need for more extensive research by employing another sample with the use of other kind of dependent variable and using other or other independent variables. Also, research aiming the examination separately of each variable that influences the output of cases must be realized.

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