IOSR Journal of Economics and Finance (IOSR-JEF)
e-ISSN: 2321-5933, p-ISSN: 2321-5925.Volume 6, Issue 5. Ver. II (Sep. - Oct. 2015), PP 69-74
www.iosrjournals.org

Determinants And The Impact Foreign Investment To Economic Growth And Unemployment In Java-Bali Region

Christimulia Purnama Trimurti [1], Made Sukarsa[2], Made Kembar Sri Budhi[2], I Gusti Wayan Murjana Yasa[2]
[1] *Doctoral Program of Economic Science, Udayana University, Bali, Indonesia*
[2] *Departement of Economic, Faculty of Economics and Business, Udayana University, Bali, Indonesia*

Abstract: *This study aims to find the determinants of foreign direct investment coming into the Java-Bali and analyze the impact of foreign investment on economic growth and unemployment in the Java-Bali. The research methodology used in this research is quantitative method using secondary data 2004-2012 period, using key informants and some informants who cooperate with foreign investors for a deeper investigation of some of the results of this study. This study uses Path analysis through partial least square (PLS). The study found wages and no significant negative impact on FDI, Economic Stability does not significantly affect the FDI, Human Capital and significant positive effect on FDI, Human Capital and significant positive effect on wages, FDI positive and significant impact on economic growth, FDI effect positive and significant impact on unemployment. Results of this study have implications for practical namely: 1) Changes in wages that always happens every year in Java and Bali does not affect foreign investment, 2) Changes in economic stability did not result in changes in foreign investment, 3) Changes in human capital resulted in a change in planting foreign capital, 4) Changes in human capital resulted in a change in wages, 5) Changes in foreign investment will lead to changes in economic growth, 6) Changes in foreign investment resulted in changes in unemployment. This affects the results of theoretical research on: 1) Strengthening existing theories such as: The Theory of Differential Rates of Return Hypothesis, Theory vicious circle of Nurkse, Harrod Domar growth theory, growth theory Solow, Romer growth theory, theory of acceleration; 2). Not in line with the theory as: Country Risk Hypothesis Theory, Theory of The Location Hypothesis, theory of capital accumulation Jhingan, balanced growth Doctrine.*
Keywords*: Determinants of FDI, Economic Growth, Unemployment.*

I. Introduction

Indonesian competitiveness of 144 countries has increased every year. Indonesia's ranking on the Global Competitiveness Index (GCI) rankings 50 world increased from 2012-2013 to rank 38 in the world in 2013-2014 (World Economic Forum, 2014). With the improvement of competitiveness Indonesia Indonesia increasingly becoming the investment attractiveness. Indonesian government to invite foreign investors to invest in Indonesia mainly invested in Java and Bali as an outline of the Java-Bali region has advantages in terms of quality of labor, business security, regional economic performance, and infrastructure. Indonesian government continues to pursue the creation of a conducive investment climate and expanding international trade for Java-Bali. Inflation stability is maintained because the area has significance for economic stability in the Java - Bali in creating an attractive investment climate for investors in the country and abroad to invest. Provincial Minimum Wages in the Java-Bali is increasing every year, and Human Capital for Java-Bali region also showed an increase every year. The flow of foreign investment is greater for the Java-Bali region compared to other regions in Indonesia, seen steady economic growth and decrease unemployment rate looks a little bit. The problems examined in this study can be formulated as follows. 1) Is labor a significant negative effect on foreign investment in the Java-Bali region ?; 2) Is the economic stability and significant positive effect on foreign investment in the Java-Bali region ?; 3) Is the human capital and significant positive effect on foreign investment in the Java-Bali region ?; 4) Do human capital and significant positive effect on wages of labor in the Java-Bali region ?; 5) Is foreign investment and significant positive effect on economic growth in the Java-Bali region ?; 6) Is foreign investment and significant negative effect on unemployment in the Java-Bali region ?. This study aims to: 1) To find more about the influence of labor costs on foreign investment in the Java-Bali region, 2) To find more about the effects of the economic stability of the foreign investment in the Java-Bali region, 3) To discover more about the influence of human capital on foreign investment in the Java-Bali region, 4) To find more about the influence of human capital to labor in the Java-Bali region, 5) To find more about the influence of planting foreign capital to economic growth in the Java-Bali region, 6) To find more about the influence of foreign investment on unemployment in the Java-Bali region.

II. Theoretical Studies

Classical economists Smith said economic growth is influenced by two main factors namely total output growth and population growth (Arsyad, 1999). Traditional Neo Classical growth theory Solow (Todaro, 2000) said that growth in output is always derived from one or more than 3 (three) factors that increase in the quality and quantity of labor, additional capital (savings and investments) and refinement of the technology.

Harrod-Domar (Sukirno, 2000) said that in essence seeks to show the requisite investment needed to create growth is steady or Steady Growth that can be defined as growth that will always create fully use the tools of capital will always prevail in the economy.

Romer in New Growth Theory that economic growth is determined by the production system, not from outside the system. Advances in technology is bound, growth is part of the decisions of economic actors to invest in knowledge. Capital greater role than just a part of growing income if the capital is not only physical capital but human capital concerns (Romer, 1994).

Vicious Cycle Theory of Nurkse said low productivity will result in a low income (Jhingan, 2010). An educated citizen generate high income and high productivity (Nafziger, 2006). Investment in human capital should be done well in order to positively impact their income (Todaro & Smith, 2012). The researchers found that the human capital and significant positive impact on wages in between Enrique and Elizabeth (2009) in Spanish, Munch & Rose (2008) in Denmark, Rusty (2010) in the United States, Anthony (2003) in Kenya.

The Country Risk Theory (Moosa, 2002) suggests that economic factors pose economic risks due to economic indicators such as: the acceleration of inflation and currency depreciation could affect the negative cash flow which prevents foreign investment into the country. Different locations in each country within the various factors of production such as labor and natural resources that make the existence of FDI in a country. One of the differences in the location of the costs of factors of production is low wages. Increase wages in a country lead to changes in the price of production factors so that the company is using more capital-intensive direction through the use of machinery or technology. It is caused by an increase in wages not keeping pace with the increase in productivity. Results of the study found that the economic stability and significant positive effect on foreign investment found by Mustapa, et.al. (2008) in MENA Countries, Melek (2013) in the OECD. Different studies found that economic stability does not significantly affect the influx of foreign investment was discovered by Vijayakumar (2010) in the BRICS Countries, economic stability and a significant negative effect on foreign investment found by Debab and Mansoor (2011) in Bahrain.

The Differential Rates of Return Hypothesis (Moosa, 2002) states that the capital of a country with a low rate of return move to countries that have high returns in a quick process. Investors are more attracted to countries that have a well-educated workforce, high productivity, low risk. The existence of an educated workforce it easier for growing companies. High productivity in a country will make a return on investment faster. In addition, the risk in an investment destination into consideration for investors to invest (Moosa, 2002). The researchers found human capital and significant positive impact on foreign investment in them by Agiomirgianakis, et.al. (2006) in 20 OECD nations, Rivero (2007) in 17 countries of Latin America, Armstrong (2009) in China, Talpos & Enache (2010) in the 10 new EU countries, Tiwari (2011) in four Asian countries, Debab & Mansoor (2011) in Bahrain. Other researchers have found human capital does not significantly affect the entry of foreign investment found by Checchi et al. (2007) in 147 countries.

The Location Hypothesis (Moosa, 2002) states that a different location in each country within the various factors of production such as labor and natural resources that make the existence of FDI in a country. One of the differences in the location of the costs of factors of production is low wages. Increase wages in a country lead to changes in the price of production factors so that the company is using more capital-intensive direction through the use of machinery or technology. It is caused by an increase in wages not keeping pace with the increase in productivity. The researchers found a significant negative effect of wages on foreign direct investment were found by Nasrin, et.al. (2010) in Bangladesh, Vijayakumar, et.al. (2010) in 5 BRIC countries, Odulukwe (2011) in five Southeast Asian countries, Quyom & Imran (2012) in 32 developing countries. Other researchers found the results of different studies are labor costs and a significant positive effect on foreign investment were found among them by Janicki & Wunnava (2004) in 14 countries, Wan (2008) in Mexico, Sapienza (2009) in 10 countries, Dauti (2009) in Macedonia, Mutascu & Fleischer (2010) in Romania, Liu and Qiu (2010) in 114 countries, Severiano (2011) in Portugal, Seetanah & Rojid (2011) in Mauritius.

Theory acceleration of Bickerdike and JMClark say the ratio between the value of capital stock with a value of production that can be unbuilt is fixed (Sukirno, 2000). The doctrine of balanced growth supported by Rosentein-Rodan, Ragnar Nurkse, and Arthur Lewis. Rosentein-Rodan argued that the entire industry will be established in Western Europe and Central Europe should be considered and planned as a giant corporation or trust, then the rate of economic growth will be faster than not designed together. Rosenstein-Rodan idea developed and elaborated by Ragnar Nurkse in his thesis (Jhingan, 2010).

Adam Smith and Veblen (Jhingan, 2010) emphasized the importance of human capital in the production. Adam Smith's ability to enter the entire population were obtained and useful. For Veblen, knowledge and technological skills is immaterial equipment or assets are not real people, without the physical capital can not be used productively. Solow growth model and Romer stressed also the importance of the human role in economic growth.

Harrod Domar growth theory, growth theory Solow, Romer bound growth theory, Balanced Growth Doctrine supports that the accumulation of capital importance for the economic growth of a region. Some researchers found that foreign investment and significant positive effect on economic growth include: Amal, et.al (2010) in Latin America, Bruno (2011) in 70 countries, Agrawal & Khan (2011) in China and India, Debab & Mansoor (2011) in Bahrain, Chien et al (2012) in Vietnam. Other researchers have found foreign investments and significant negative impact on unemployment among Balcerzak & Żurek (2011) in Poland, Palat (2011) in Japan, Shaari, et.al, (2012) in Malaysia, Habib & Sarwar (2013) in Pakistan , Tiwari (2011) in 4 countries. Capital investment no significant impact on economic development in three regions: Latin America and the Caribbean, America and the Middle East, Asia discovered by Nunnenkamp & Spatz (2003).

Theory of capital accumulation Jhingan Doctrine Balanced Growth penananaman supports the importance of foreign capital to reduce unemployment. Researchers found foreign investments and significant negative impact on unemployment among Balcerzak & Żurek (2011) in Poland, Palat (2011) in Japan, Shaari, et.al, (2012) in Malaysia, Habib & Sarwar (2013) in Pakistan. Other researchers have found that foreign investment does not affect the reduction of unemployment in Nigeria by Salami & Oyewale (2013), Velnampy, et al (2013) in Sri Lanka.

III. Research Methods

The unit of analysis in this study was 7 Province in Indonesia, and the population of this research are DKI Jakarta Province, West Java Province, Banten Province, Central Java Province, Yogyakarta Province, East Java Province, and Bali Province. The data is taken in the form of a combination of data time series and cross sectional (panel data), so the number of observation data is 63 during 2004 up to 2012. The variables have been obtained from BPS Indonesia and Bappenas Indonesia data bases. The data of the present study was fed into Path Analysis with Partial Least Square. Three variables are used in this study for finding the determinants of unemployment. Variable unemployment rate is used as dependent variable while independent variables are product domestic regional bruto, inflation, and minimum wages. A simple model is used to examine the variations in unemployment rate 7 Province in Indonesia.

There are number of factors which influence the unemployment rate. The functional form of the model is as:

MW = *f(HC)*
FDI = *f* (*ES*, *HC*, *MW*)
GDRP = f(FDI)
UN = f(FDI)
Where
FDI = Foreign Direct Investment in US Dollar
ES = Economic Stability (Inflation) in percent
HC = Human Capital (Education Index) in index
MW = Minimum Wages in Rupiah (millions)
GDRP = Gross Domestic Regional Bruto in percent
UN = Unemployment in percent

Research Hypothesis
H1 : human capital has a positive and significant impact on wages in Java and Bali
H2 : economic stability has a positive and significant impact on foreign investment in Java and Bali
H3 : human capital has a positive and significant impact on foreign investment in Java and Bali
H4 : wages have a negative and significant impact on foreign investment in Java and Bali
H5 : FDI has a positive and significant impact on economic growth in Java and Bali
H6: Foreign investment has a negative and significant impact on unemployment in Java and Bali

IV. The Empirical Results

On the basis of the quantitative data processed, analysis of the results from secondary data provided us important insight information for the sake of realizing the influential impact on unemployment. The findings are discussed along with critical explanation for the stated hypothesis.

Figure 1
Results Algorithms

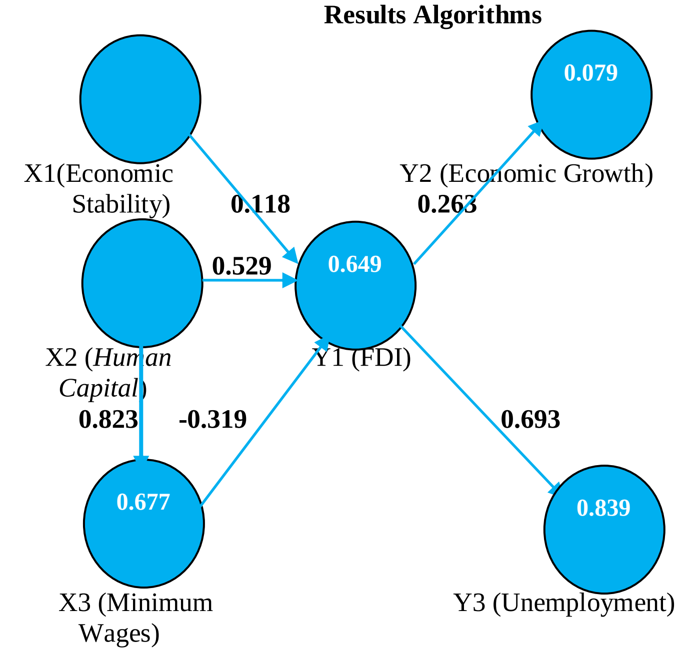
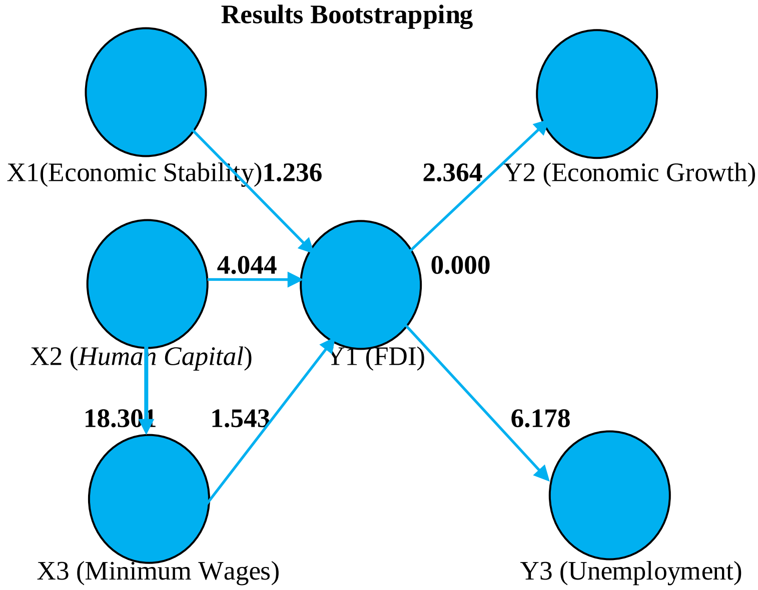


Figure 2
Results Bootstrapping



Based on simple linear regression test showed that human capital has a positive and significant impact on the wages of workers with a significance level of less than five per cent of the value of 18.301 t statistic. This means that human capital affect the increase in labor costs. Increasing labor intellectual abilities impact on increasing labor costs. Based on the above analysis can be structured model of labor is influenced by human capital in the form of the regression equation as follows: X2 = 0,823X1 ………………………………………(1)

Description:
X2 = Minimum Wages
X1 = *Human capital*

In Figure 1 and 2 can be seen that economic stability does not have a significant effect on foreign investment at an error rate of less than five per cent of the value of statistics for 1.236, human capital has a positive and significant impact on foreign investment at an error rate of less than five percent of the statistical value for 4.044, and minimum wage of labor did not have a significant effect on foreign investment at an error rate of less than five percent of the statistical value of 1,543. Based on the analysis above can be created regression model, namely:

Y1 = 0,118X1 + 0,529X2 - 0,319X3………..…………………………(2)
Description:
Y1 = FDI
X1 = Economic Stability
X2 = *Human capital*
X3 = Minimum Wages

Based on simple linear regression test showed that foreign investment has a positive and significant effect on economic growth with a significance level of less than five percent of the 2,364 T-statistic. This means that foreign investment effect on economic growth. Increasing foreign investment funds have an impact on increasing economic growth. Based on the above analysis can be structured model of economic growth is influenced by foreign investment in the form of the regression equation as follows: Y2 = 0,263Y1 .... (3)
Description:
Y1 = Foreign Investment
Y2 = Economic Growth

Based on simple linear regression test showed that foreign direct investment has a positive and significant effect on unemployment with a significance level of less than five percent by T-Stats for 6.178. This means that foreign direct investment a positive effect on unemployment. Increasing foreign direct investment impact on rising unemployment. Based on the above analysis can be structured model of unemployment is influenced by foreign direct investment in the form of the regression equation as follows: Y3 = 0.693Y1…………………………….(4)

Description:
Y1 = FDI
Y3 = Unemployment

V. Conclusion

Human Capital and significant positive effect on the wages of labor. Foreign investors provide wages for workers in the Java-Bali based on knowledge and skills possessed. Human capital changes resulted in a change in wages. If human capital in the area of Java and Bali, the better the reward will be higher. The results of this study reinforce the vicious circle theory of human capital Nurkse is positive and significant impact on labor costs.

Economic stability not significantly affect foreign investment. This is different to theory and research results are used as the basis of this study, so the theory that economic stability and significant positive effect on foreign investment does not apply to foreign investment in Java and Bali. This is caused by the potential of the domestic market in the Java-Bali very great views of the population is more dense than the other regions, the economic activities which are mostly located in the region supported the availability of its resources. Residents in the area of Java and Bali are also very open to foreign investment, causing comfort in investing. Weak Rupiah against Foreign Currencies mainly US $ to make investment in the region is relatively cheap compared to investing in the countries in the world.

Reference

[1]. Agiomirgianakis George, et. al., (2006), The Determinants of Foreign Direct Investment: A Panel Data Study for The OECD Countries, City University London, Discussion Paper Series No.03/06, www.ideas.repec.org
[2]. Amal Mohamed, et.al., (2010), Determinants of Foreign Direct Investment in Latin America, Revista Journal Vol.4 No.3, ISSN:1988-7116, www.gcg.universia.net
[3]. Armstrong Shiro, (2009), Japanese FDI in China: Determinants and Performance, Asia Pacific Economic Papers No.378, Australia-Japan Research Centre, The Australian National University, www.scirus.com
[4]. Anthony Wambugu, (2003), Education, Employment and Earnings in Kenya; Economic Studies, Department of Economics School of Economics and Commercial Law Goteborg University, ISBN 91-88514-83-8, ISSN 1651-4289 print
[5]. Arsyad Lincolin, (1999), Pengantar Perencanaan dan Pembangunan Ekonomi Daerah, Edisi Pertama, BPFE Yogyakarta
[6]. Agrawal Gaurav & Khan Mohd. Aamir, (2011), Impact of FDI on GDP: A Comparative Study of China and India, International Journal of Business and Management Vol.6 No.10, www.ccsenet.org/ijbm
[7]. Balcerzak Adam P. & Żurek Mirosława, (2011), Foreign Direct Investment and Unemployment: VAR Analysis for Poland in the Years 1995-2009, European Research Studies, Volume XIV, Issue (1)
[8]. Bruno Randolph L. & Campos Nauro F., (2011), Foreign Direct Investment and Economic Performance: A Systematic Review of The Evidence Uncovers A New Paradox, www.scirus.com
[9]. Chien Nguyen Dinh et.al., (2012), FDI and Economic Growth: Does WTO Accession and Law Matter Play Important Role in Attracting FDI? The Case of Vietnam, International Business Research Vol.5 No.8, ISSN 1913-9004, Published by Canadian Center of Science and Education, www.ccsenet.org/ibr
[10]. Checchi Daniele et al., (2007), Skilled Migration-FDI & Human Capital Investment, Discussion Paper No.2795, Forschungsinstitut zur Zukunft der Arbeit, Germany, www.ssrn.com

[11]. Dauti Bardhyl, (2009), Determinants of Foreign Direct Investment in Macedonia. Evidence from times series 1994-2008, Proceeding of FIKUSZ'09 Symposium for Young Researchers 2009, Published by Budapest Tech Keleti Karoly Faculty of Economics Budapest Hungary, www.uni-obuda.hu
[12]. Debab Nassima & Mansoor Ali Al, (2011), Determinants and Impact of FDI on Bahrain's Economy, Research Journal of International Studies – Issue 21, www.eurojournals.com
[13]. Enrique López-Bazo & Elisabet Motellón, (2009), Human Capital and Regional Wage Gaps, Working Papers 2009/24, 29 pages, Research Institute of Applied Economics
[14]. Janicki Hubert P. & Wunnava Phanindra V., (2004), Determinants of Foreign Direct Investment: Empirical Evidence from EU Accesion Candidates, Applied Economics ISSN 003-6848, www.tandf.co.uk/journals
[15]. Habib Malik Danish & Sarwar Saima, (2013), Impact of Foreign Direct Investment on Employment Level In Pakistan: A Time Series Analysis, Journal of Law, Policy and Globalization, Vol.10, ISSN 2224-3240 (Paper) ISSN 2224-3259 (Online)
[16]. Jhingan M.L., (2010), Ekonomi Pembangunan dan Perencanaan, Cetakan ke-13, PT. Raja Grafindo Persada Jakarta
[17]. Liu Qing & Qiu Larry D., (2010), Cross-Country Externalities of Trade and FDI Liberalization, www.scirus.com
[18]. Melek Akdogan Gedik, (2013), Determinant of Foreign Direct Investment for OECD Countries: Evidence from Dynamic Panel Data Analysis, British Journal Economics, Finance, and Management Sciences, ISSN 2048-125X
[19]. Moosa Imad A., (2002), Foreign Direct Investment (Theory, Evidence, Practice), First Published, Palgrave
[20]. Munch Jakob Roland & Rose Skaksen Jan, (2008), Human capital and wages in exporting firms, Journal of International Economics 75(2008)363-372, www.elsevier.com
[21]. Muntascu Mihai Ioan & Fleischer Anne-Marie, (2010), A VAR Analysis of FDI and Wages, International Journal of Economic Sciences and Applied Research 3 (2): 41-56
[22]. Mustapa Sadni-Jallab, Monnet Benoit Patrick Gbakou, Rene Sandretto, (2008), Foreign Direct Investment, Macroeconomic Instability and Economic Growth in MENA Countries, African Trade Policy Centre, ATPC Work in Process No.69, Economic Commision for Africa
[23]. Nafziger Wayne E., (2006), Economic Development, Cambridge University Press, pp.334 Nasrin Shamima et al., 2010, A Study of Major Determinants and Hindrances of FDI inflow in Bangladesh, Working Paper No.144 ISSN: 0904-8154, Aalborg University, www.scirus.com
[24]. Nunnenkamp Peter & Spatz Julius, (2003), Foreign Direct Investment & Economic Growth in Developing Countries : How Relevant Are Host-Country and Industry Characteristics?, Kiel Working Paper No.1176, www.ssrn.com
[25]. Odulukwe Onwuka Kevin, (2011), Wage-Regional Trade Bloc and Location of Foreign Direct Investment Decisions, Asian Economic and Financial Review, Nigeria, Nnamdi Azikiwe University Awka, Anambra State, Nigeria, www.aessweb.com
[26]. Palát, (2011), The impact of foreign direct investment on unemployment in Japan, Acta Universitatis Agriculturae Et Silviculturae Mendeliane Brunensis, Volume LIX, 27, Number 7
[27]. Quyom Khachoo Ab & Imran Khan Mohd., (2012), Determinants of FDI inflows to developing countries: a panel data analysis, MPRA Paper No.3728, www.mpra.ub.uni-muenchen.de
[28]. Rivero Diego Eduardo Vacaflores, (2007), Capital Flow to Latin American Countries : Effects of Foreign Direct Invesment and Remittances on Growth and Development, A Dissertation Doctor of Philosophy, Texas A&M University, www.scirus.com
[29]. Romer David, (1996), Advance Macroeconomics, McGraw-Hill
[30]. Rusty Tchernis, (2010), Measuring human capital and its effects on wage growth, Journal of Economic Surveys (2010) Vol. 24, No. 2, pp. 362–387
[31]. Salami A.O., Oyewale I.O., (2013), Impact of Foreign Direct Investment on Employment Generation in Nigeria, International Journal of Economic Development Research and Investment, Vol.4 No.1 April 2013
[32]. Shaari Mohd Shahidan, Hussain Nor Ermawati, Mohd Suberi bin Ab. Halim, (2012), The Impact of Foreign Direct Investment on the Unemployment Rate and Economic Growth in Malaysia, Journal of Applied Sciences Research, 8(9): 4900-4906, ISSN 1819-544X
[33]. Sapienza Elvira, (2009), Interaction between Export FDI, Central-Eastern Europe, Dipartimento di Scienze Economiche-Matematiche e Statistiche, Universita degli Studi di Fogia, Quaderno n.13/2009, www.scirus.com
[34]. Seetanah Boopen & Rojid Sawkut, (2011), The Determinants of FDI in Mauritius: a dynamic time series investigation, African Journal of Economic and Management Studies Vol.2 Iss.1, www.emeraldinsight.com
[35]. Severiano Andreia Alexandra Faria, (2011), The Determinant of FDI in Portugal - A Sectoral Approach, Master of Science in Economics, Universidade Catolica Portuguesa, www.clsbe.lisboa.ucp.pt
[36]. Sukirno Sadono, (2000), Makroekonomi Modern: Perkembangan Pemikiran Dari Klasik Hingga Keynesian Baru. Raja Grafindo Pustaka
[37]. Talpos Ioan & Enache Cosmin, (2010), Searching for Human Capital Determinant of Foreign Direct Investment Inflows in The EU New Member States, Annales Universitatis Series Oeconomica 12(1), www.oeconomica.uab.ro
[38]. Tiwari Aviral Kumari, (2011), Tourism-Exports and FDI as a Means of Growth: Evidence from four Asian Countries, The Romanian Economic Journal Year XIV No.40, www.scirus.com
[39]. Todaro Michael, (2000), Pembangunan Ekonomi di Dunia Ketiga, Penerbit Airlangga, Jakarta, P.17,213
[40]. Todaro Michael & Smith Stephen C., (2012), Economic Development, Eleventh Edition, Adisson Wesley
[41]. Velanampy Thirunavukkarasu, Achchuthan Sivapalan, Kajananthan Rajendran, (2013), Foreign Direct Investment, Economic Growth, And Unemployment: Evidence from Sri Lanka, Annamali Business Review, Volume 04, special issue 01, July – December 2013, ISSN: 0974-1690, www.ssrn.com
[42]. Vijayakumar Narayanamurthy, et.al., (2010), Determinant of FDI in BRICS Countries: A panel analysis, International Journal of Business Science and Applied Management Vol.5 Issue 3, 2010, www.business-and-management.org
[43]. Wan Yuet Wei, (2008), Political and Macro Economic Determinants of Foreign Direct Investment in Mexico, The Park Place Economist Volume 2 Issue1 Article 11, Illinois Weslyan University, www.ssrn.com.