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The Effect of Public Expenditure on Education and Economic Growth in Malaysia

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Abstract: ***This examination was meant to create and assess the effect of instruction use and monetary development in Malaysia from 1970 to 2015. To utilizing the Multiple Linear Regression Model into the Gross Domestic Product (GDP) to Real Gross Domestic Product (RGDP) which was a needy variable dependent on the free factor of Government uses on training (EduG) and cash supply or fund (Fin). The examination likewise broke down the impact of the model towards applying Ordinary Least Squares test (OLS), spellbinding measurement, typicality test, coefficient test, Co-incorporation test, and residuals measurement Test. This examination additionally endeavored to add to the current writing by expediting new proof the connection among training and financial development and too explored whether formal models shed any light on the case that instruction assumed a focal job in development. The exact outcomes bolstered the principle speculation of this examination that open spending on training has influenced with a positive effect on monetary development in Malaysia. The finding of the investigation clarified the Null (H0) Hypothesis which isn't rejected and the positive effect of training with monetary development in Malaysia. The guidance was helped to build up a deferential country and increment the human capital, channel the cerebrum, money related exercises, remote trade, societies, and universal center point to raise the financial tackle. In this examination, the huge worth is acknowledged among training and development in Malaysia and it is exceptionally helpful for further research. A more prominent assignment of assets on training costs could make the Malaysian economy increasingly powerful.***

Keywords: Economic Growth; Government Expenditures on education; Hypothesis, Multiple Linear Regression Model and international educational hub

1. Introduction

Higher education enrolments crosswise over Asia have encountered touchy development in the course of the most recent multi-decade, the consequence of expanding school investment rates, expanding dimensions of wealth, and the quality training in consequent life openings. Instruction is commonly considered as a basic and ground-breaking instrument in redesigning financial development, upgrading income at the private dimension, disheartening and diminishing destitution, enabling individuals, empowering wellbeing and adaptability in condition and advancement aggressiveness in the economy. In each spending limit, the administration of Malaysia reports different improvements in the instruction area with higher government consumption on it. This expansion happens with the conviction that the instruction of youngsters in creating nations is critical for further financial development and guaranteeing maintainable majority rule government bringing about more prominent soundness and improved way of life.

According to Mohd Yahya (2012), education is one of the most important determinant factors of economic growth. It is not only him but also some prominent classical and neoclassical economists such as Adam Smith, Romer, Lucas and Solow believed so as they emphasized the contribution of education in developing their economic growth theories and models. For example, education has been focused highly on ensuring economic growth in the main theoretical growth models of Robert Solow in 1957 and the model of Romer in 1990.

In Malaysia, as a knowledge-based economy country, education is recognized as the driver of economic growth aside from land, labor and physical capital. The knowledge accumulated through education will contribute to Malaysian economic growth.

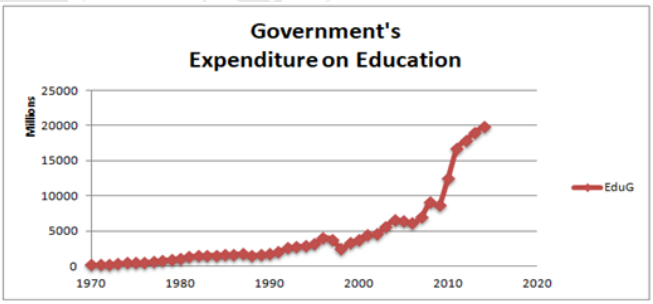

Figure 1.1: Education Expenditure by Government the yearly Data from 1970 to 2015
Source: www.worlddatasheet.com (19702015)

As can be seen from the line chart, the Malaysian Government increased the educational expenses to develop the nation which is positively correlated in reaching the goal towards the economy. From 1970 to 1998, the expenditure on education increased slowly and became almost 5000 million. Then it experienced rapid growth in the beginning in the twenty-first century and by the end of that period (2015) the expenditure climbed by around 15000 million.

1.2 Research Question with the problem statement

Schooling has an imperative impact and major huge for making countries like Malaysia, which is the circumstance in this examination. In this investigation we will jump at

the chance to clarify the Government consumption on training is recorded in an expanding pattern for as long as decades. The principle ponders that have inspected the effect of the instructive dimensions on monetary development are introduced beneath:

- The connection between instruction use and financial development in Malaysia.
- Does instruction assumes a focal job in the development and why the Malaysian Government needs to use the training consumption to improve itself as an informed country and advance in the worldwide instruction showcase.

1.3 Objective of the study

The main objective of this study is to determine the necessity of education in Malaysia to develop the country's economic growth.

The specific objective of this study is as follow;

- To assess the connection between higher education and financial development.
- To evaluate the correlation between money and monetary development and Education is indispensable to build the RGDP from GDP; there is no noteworthy connection between education expenditure and account. Understanding the Hypothesis about the instruction-use by Government is fundamental to building up the nation's development and there is no critical connection between training consumption with monetary development moreover the show of the Hypothesis.

2. Research Background

As a creating nation, Malaysia is endeavoring to expand its generation and improve its pay dispersion in the meantime is putting a major exertion to guarantee its objective. Along these lines so as to accomplish the target, Malaysia has embraced various approaches to expand its consumption on training to create monetary development. For a considerable length of time instruction is accepted to be an impetus in expanding one's salary. Other than that, training additionally makes social portability conceivable. As social portability is made conceivable, better salary appropriation among the family unit is never again distant. Pay conveyance in Malaysia has not achieved the perfect dimension. In the meantime, there is also space for an expansion underway which thusly prompts monetary development in general- illuminated by Abu Samah & Maryam (2013).

As per Al-Yousif (2001), he referenced that the consumption of the legislature in social part assumes a significant job in the boosting financial of a nation by keeping up peace, giving monetary foundation, fitting clashes among private and social interests, expanding work profitability through training and wellbeing and upgrading trade ventures.

Glomm and Ravikumar (1997) discovered that the administration consumption will prompt long haul monetary development by concentrating on two kinds of government use which are merchandise and enterprises and innovation speculation. Later they gave a model which the administration use on wellbeing which can help in broadening the human life expectancy may draw in the private financial specialist because of an appropriation from government and thusly prompt development.

Further examinations done by Goupta, Verhoeven, and Tiongson (2002), the legislature has a ton of divisions to spend so as to improve it. Among the administration consumptions, the instruction divisions are one of the parts that can be legitimized by the social rate of return which demonstrates the all-out estimation of all advantages got from the spending allotted to a specific zone. The past scientists have shown a positive effect of government spending on instruction whereby they have affirmed that administration spending will prompt an expansion in the rate of instructive accomplishment.

An examination led by Ram (1989) has shown a huge part of instructive consumption is taken up as an educator's pay. Along these lines, genuine spending on training is thought to be used at a similar degree. Numerous nations especially creating country has put a substantial need on expanding training consumption. Governments over the world accepted that training makes profitability and increment conceivable henceforth rising pay and advance financial development all in all. At long last, the development in training likewise empowers proficiency to increment and a superior monetary open door for each of them, a factor which is particularly required in nations with high-salary imbalance.

Further examinations done by Goupta, Verhoeven, and Tiongson (2002), the administration has many divisions to spend so as to improve it. Among the administration uses, the instruction parts are one of the segments that can be defended by the social rate of return which demonstrates the all-out estimation of all advantages got from the spending allotted to a specific zone.

In Malaysia, as an information-based economy nation, training is perceived as the driver of monetary development beside land, work, and physical capital. The learning aggregated through training will add to Malaysian financial development. An examined report utilizes the Musgrave model to use on the development of government spending and end. The rate of government consumption would be high as the monetary allowance spends on the essential infrastructural offices, for example, training, wellbeing, streets, power, water supply which these are the necessities that can be made the economy move to higher advancement, said by (Abdul Jabbar Abdullah, 2013).

2.1 Methodology

This part will display the procedure and the wellspring of Data dependent on the writing audits. The kind of information is utilizing for a chosen length. Its definitions, just as the information sources, will be clarified in

subtleties. This part will exhibit the techniques utilized in this exploration and this section will portray how the examination was done as far as research structure, information gathering, model detail, and information investigation.

2.2 Research Design

Research configuration is the outline to satisfy targets and responding to questions- said Cooper and Schindler (2008). An unmistakably characterized by techniques utilized in the gathering; understanding and breaking down the information will give a structure to the investigation. Targets of the investigation ought to be incorporated also to get the fitting data when taking care of the issue shared by Zikmund, Babin, Carr, and Griffin (2010).

2.3 Data Collection

As indicated by Pannerselvam (2006), elective information is gathered from sources that have just been made with the end goal of first-time use and future employment. The quantitative information is shown as a supreme genuine GDP for the financial development and outright estimation of government consumption on the instruction division.

The information was organized every year from a time of 1970 to 2015 (45 years). The example was picked principally based on information accessibility. The majority of the quantitative information was gathered from different dependable sources for the most part from the Economic Planning Unit of Malaysia, Ministry of Finance Malaysia, World Bank, Penn World Table, and International Monetary Fund.

2.4 Model Specification

Increment in GDP per capita or at the end of the day development for GDP per capita is influenced by few factors for the most part training spending. So as to guarantee the legitimacy of the impact, a model is created as a feature of the investigation to indicate how GDP per capita development is influenced by a couple of factors. Time arrangement information is utilized in Multiple Linear Regression Model. In the course of adopting the model specification and proposed by Norimah, Emilda and Dayang (2016)

The Multiple Linear Regression model of this study is

written as;

$$Yt = \alpha_0 + \alpha_1 Edu + \alpha_2 Fin + \varepsilon_t$$

(Equation 1)

Where,

Y_t = Real economic growth,

α_0 = Constant,

Edu = Education expenditure,

Fin = financial or broad money supply

α_1 & α_2 = Slope coefficient,

ε_t = Error term of statistic

t = Time series Data (1970 to 2015)

After the factors in the investigation being substituted into the capacity and the logarithm capacity applying to equation 1 as pursues;

$$InRGDP = \alpha_0 + In\alpha_1 EduG + In\alpha_2 Fin + \varepsilon_t$$

(Equation 2)

Here,

InRGDP = Real Gross Domestic Product in Logarithm;

2.5 Data Analysis

There are a ton of kinds of tests that can be utilized to lead the investigation. A portion of the investigation tests that accessible resemble direct relapse, connection test, typicality test, co-reconciliation test, and unit root test.

As per the test, it's conceivable to get some essential data about the outcomes, as pursues:

- Despite the fact that Multiple Linear Regression estimator and the OLS estimator has huge changes and co-differences that will prompt trouble in making an exact estimation.
- Inferable from the above result, sure interims will, in general, be a lot more extensive. This will prompt the acknowledgment of the "zero invalid speculations" all the more promptly.
- Likewise, because of the principal outcome, the t proportion of at least one coefficient will, in general, be measurably irrelevant.
- In the meantime, despite the fact that the t proportion of at least one coefficient is factually irrelevant, the pointer measure for the integrity of fit, R2 can be high.
- The OLS estimators and their standard mistakes can be delicate to little changes in the information.

2.6 Research Analysis and Reports

This section will present the findings of the empirical results regarding the impact of education expenditure on economic growth in Malaysia from the year of 1970 to 2015 that which explained the model in the previous discussion as well as the result in this study. According to the equation-2, it's possible to modify the empirical analysis of the impact of education expenditure on economic growth in Malaysia. The equation-3 can be written in a framework as follow;

$$InRGDP = \alpha_0 + \alpha_1 InEduG + \alpha_2 InFin + \varepsilon_t$$

(Equation 3)

Table 1: The Model Summary Analyzed by SPSS application

Model Summary

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	.998[a]	.996	.996	.044542747744015	.996	5365.762	2	42	.000	1.113

a. Predictors: (Constant), InE-Fin, InE-EduG
b. Dependant variable: InRGDP

- R is the square base of R-Squared and is the relationship between's the watched and anticipated estimations of the reliant variable.
- R-Square - is the extent of fluctuation in the needy variable which can be clarified by the free factors. This is a general proportion of the quality of affiliation and does not mirror the degree to which a specific free factor is related to the reliant variable.
- This table gives the R and R2 values. The R worth speaks to the relationship and is 0.998 in the "R" Column, which demonstrates a high level of connection. The R2 esteem, the "R Square" segment shows the amount of the absolute variety in the needy variable, can be clarified by the free factor. For this situation, 99.6% can be clarified, which is.
- Compute and translate the coefficient of assurance of R2, the coefficient of assurance is 0.996; along these lines, about 99.6% of the variety in the training use on development is clarified by the instruction variable.
- The relapse condition seems, by all accounts, to be helpful for making forecasts since the estimation of R2 is extremely near 1 (.996 > 1.00) where money and instruction use by Government is significant so as to clarify as the Real Gross Domestic Product is the needy variable.
- This is an alteration of the R-squared (.996 >1.00) that punishes the expansion of incidental indicators to the model.
- Std. Error of the Estimate – This is additionally alluded to as the root mean squared blunder. The sexually transmitted disease. The blunder of the Estimate in this report is .04454; it is the standard deviation of the mistake term and the square foundation of the Mean Square for the Residuals in the ANOVA report.
- The basic straight relapse is determined the indicator variable as a needy variable dependent on the autonomous variable. A critical relapse condition is using them ; (F (2, 42) = 5365.762), where is the P worth shows P < .000 and the R2 = .996 and 99.6% of the fluctuation side effects can be clarified by one's dismissal H0 delicately.
- In the meantime, despite the fact that the t proportion of at least one coefficient is factually irrelevant, the pointer measure for the decency of fit, R2 can be exceptionally high.
- The OLS estimators and their standard blunders can be exceptionally touchy to little changes in the information.

2.7 Coefficients

Table 2: The Coefficient

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	1.559	.087		17.926	.000	1.383	1.734					
	InE-EduG	.581	.062	.587	9.394	.000	.456	.706	.996	.823	.091	.024	41.995
	InE-Fin	.328	.049	.414	6.638	.000	.228	.428	.994	.716	.064	.024	41.995

a. Dependent Variable: InRGDP

Where is,

$$InRGDP = 1.559 + 0.581InEdu + 0.328InFin$$

(Equation 4)

$$t = (17.926) + (9.394) + (6.638)$$

$$Se = (.087) + (.062) + (.049)$$

$$R^2 = .996$$

$$F* = 5354.76$$

As per the report investigation, the outcome recommends that all autonomous variables are essential to builds the

nation's monetary development at 99.6% certainty dimension of instruction used by the Government. It implies that the autonomous variable of InEduG and InFin, are significant in impacting monetary development (GDP). Be that as it may, the autonomous variable of InEduG, InFin, and ward variable InRGDP are adequately identified with the nation's development and they are unequivocally associated with one another. Here is the huge worth under .005 (P > .005) and the certainty level at 99.6%; have the option to use that there is no connection between Government consumption on instruction and nation's development and the Hypothesis is acknowledged and it's NULL Hypothesis (H0).

Table 3: Multiple Linear regression descriptive and correlations output

Correlations

		InE-Fin	InE-EduG
InE-Fin	Pearson Correlation	1	.988**
	Sig. (2-tailed)		.000
	N	46	45
InE-EduG	Pearson Correlation	.988**	1
	Sig. (2-tailed)	.000	
	N	45	45

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

2.8 Residuals statistics

Table 4: The residuals analysis report

Residual Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	8.79033756256104	11.4861650466 9190	10.2661606417 8140	.695634908407 175	45
Std. Predicted Value	-2.122	1.754	.000	1.000	45
Standard Error of Predicted Value	.007	.021	.011	.003	45
Adjusted Predicted Value	8.79794311523 438	11.4804716110 2295	10.2665081687 9413	.695382396141 513	45
Residual	-.072506360709667	.106554105877 876	.000000000000 001	.043518639636 747	45
Std. Residual	-1.628	2.392	.000	.977	45
Stud. Residual	-1.667	2.444	-.004	1.006	45
Deleted Residual	-.076031178236008	.111206449568 272	-.000347527012 725	.046189253196 346	45
Stud. Deleted Residual	-1.704	2.607	.002	1.026	45
Mahal. Distance	.112	9.171	1.956	1.688	45
Cook's Distance	.000	.087	.020	.023	45
Centered Leverage Value	.003	.208	.044	.038	45

a. Dependent Variable: InRGDP

Predicting the outcomes of some groups compared to stander value. About the error term in the report,

Minimum, S_e = .007

Maximum, S_e = .021

Mean, S_e = .003 (p > .005)

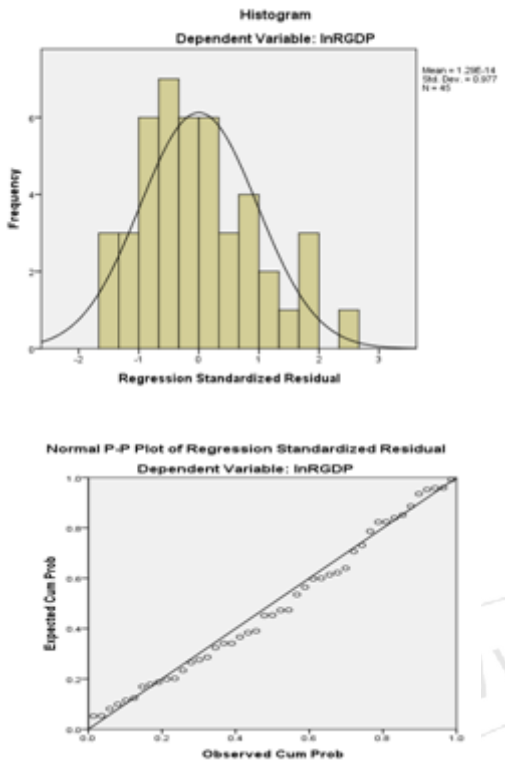

Figure 1: Regression chart

We have also generated a P-P plot to check that our residuals are normally distributed (Figure 1). We can use this plot to compare the observed residuals with what we'd expect if they were normally distributed (represented by the diagonal line). We can see that, aside from a minor.

Education is the moral way to ascend the knowledgeable human capital and they are assets for the nation. Government has so many regular activities to develop the country's value and growth, education is one of them. About the journal reviews and data analysis, the value of education and government expending on education is affect positively on social development. To increase the national gross domestic product the education is the major part of the country.

About the analysis and Hypothesis discussion, the value of education is very important to every country to develop the human capital with change the growth. For further study, have to identify the education sector which is more related to increase the human capital and the Government can take the necessary activities for it. The education is a back born for the country and the Government must arrange more activities to boost the respectful nation around the world. The consequence of this examination will concoct pointers that the Government uses on training and monetary development is decidedly proficient with a long-run relationship in Malaysia.

3. Recommendation and Conclusion

The target of this examination is to demonstrate the effect of instruction consumption on monetary development in Malaysia for the period 1970 to 2015. This part will condense the finding of this examination. The ends landed at dependent on the observational proof found over the span of the investigation. This paper arrangement is suggestions for development in instruction consumption by the legislature in Malaysia and recognized the investigation confinements and course and talk for further research chip away at the zone. According to the studies and analysis, it is clear about the strong relationship between education and economic growth. The impact of education expenditure on economic growth in Malaysia is highly accepted by the public. To improve as a respectful nation education is a major option and it works.

The Hypothesis of this study, the relationship between education and government expending is too close and there is no significant value with education and Government expenditure on education. Malaysian Government must control the education budget to develop active human capital. This examination embarks to decide the effect of instruction use on monetary development in Malaysia. The consequence of this examination will concoct pointers that the Government uses on training and monetary development is decidedly proficient with a long-run relationship in Malaysia. The more elevated amount contributes measurably noteworthy esteem (.996 > 1.00) of the conditions is speaking to the connection between the training consumption by Government and financial development. By expanding the quantity of value work, the Government has a fantastic opportunity to bothering the arrival and increment as a deferential country with qualified human capital. Besides, the Malaysian Government needs to use the spending limit for the training area and contributes to it to return. With respect to contribute and return relationship, to raise the contributing line, the arrival will likewise emphatically increment to build up the development and in a long run connection among contributing and return. With respect to the instruction consumption by Government and monetary development has a positive long-run relationship for nation's development over the timeframe.

At last, the effect of training consumption on monetary development in Malaysia is fundamental to intently screen as like other Asian nations. The investigation is effective to have a positive and long-run connection between Government use on Education and financial development. It is critical to the state; instruction can fabricate a quality country to expand RGDP and Human capital. The informed country is a fixed resource for the Government. An informed country never stops to do the budgetary exercises to change financial advancement.

References

[1] Abdul Jabbar Abdullah. (2013), Education and economic growth in Malaysia: The issues of education data, *International Conference on Economics and Business Research 2013(ICEBR2013)*, Procedia Education and Finance 7(2013), 65-72
[2] Asnarulkhadi Abu Samh & Maryam Ahmadian (2013), Education tourism in Malaysia: implications for community development practice, *Asian Social Science*, Vol 9(11), 17-23

[3] Daniel Landau (2017), Government expenditure and economic growth: A Cross-country study, *Southern Economic Association*, Vol 49(3)
[4] Damondar N.Gujarati & Dawn C.Porter(2010), Essential of Econometrics, 4th Edition the McGraw-Hill Irwin, the United States.
[5] Gerhard Glomm (1997), Productive government expenditure and long-run growth, *International of Economic Dynamics and Control*, Vol 21(1), 183-204
[6] Jan Bergerhoff & Lex Borghans (2013), International education and economic growth, *IZA Journal of European Labor Studies*, Vol 3(2)
[7] Kakar.Z.K. & Khilji.B.A.(2011), Relationship between education and economic growth in Pakistan: A Time series analysis, *Journal of International Academic Research*, Vol 11(1), 27- 32
[8] Kevin Sylwester (2002). "Can education expenditure reduce income inequality?" *Economic of Education Review*, Vol 21(1), 43-52
[9] Lingarag MALLICK. & Pradeep Kumar. (2016), Impact of education expenditure on economic growth in major Asian countries: Evidence from economic analysis, *Theoretical and applied Economics*, Vol XXIII(2), 173-186
[10] Mehment Mercan.(2014), The effect of education expenditure on economic growth : The case of Turky, *2nd World Conference on Business, Economics and Management- WCBEM 2013*, Social and Behavioral Science 109, 925-930
[11] Melissa W.Migin.(2015), Impacts of institutional characteristics on international students' choice of private higher education institution in Malaysia, *Higher Education studies*, Vol 5(1), 31- 42
[12] Moha Yahya, Fidlizan Muhammad., & Azila Abdul Razak, (2012), Education expenditure and economic growth: A casual analysis for Malaysia, *Journal of Economic and Sustainable Development*, Vol 3(7), 71-81
[13] Mohd Shahidan Shaari. (2014), Education-led economic growth in Malaysia, *SOP transactions on economic research*, Vol 1(1), 27- 32
[14] Mohammad Zeeshan.(2013), Foreign students' motivation for studying in Malaysia, *International Journal of Asian Social Science*, Vol 3(3), 833-846
[15] Mohun P. Odit (2010), The impact of education on economic growth: The case of Mauritius, *International Business & Economic Research Journal*, Vol 9(8)
[16] Naeem Ur Rehman Khattak.(2012), The contribution of education to economic growth : Evidence from Pakistan, *International Journal of Business and Social Science*, Vol 3(4), 145-151
[17] Norimah Rambeli, Emilda Hasim., & Dayang Affizah, (2016), Relationship between education expenditure, capital, labor force and economic growth in Malaysia, *International Journal of Academic Research in Business and Social Sciences*, Vol 6(12), 459-668
[18] Olayemi, S. O.(2012), Human capital investment and industrial productivity in Nigeria. *International Journal of Humanities and Social Science*, Vol 2(16), 298-307
[19] Panagiotis Pegkas.(2014), The Link between educational levels and economic growth: A neoclassical approach for the case of Greece, *Pegkas, International Journal of Applied Economics*, Vol 11(2), 38-54
[20] Permani. R. (2009), The role of education in economic growth in East Asia: survey, Asian pacific. *Economic Literature*, Vol 23(1)
[21] Pravesh Tamang.(2011), The Impact of Education Expenditure on India's Economic Growth, *Journal of International Academic Research*, Vol 11(3), 14-20
[22] Rahmah Ismail. (2009), The impact of human capital attainment on output and labor productivity of Malay Firms, *The Journal of International Management Studies*, Vol 4(1), 221- 230
[23] Rahmah Ismail. (1999), The role of financial sector in economic development: The Malaysian case, *International Review of Economics*, Vol 5(4), 463-483
[24] Rozilee Asid (2014), The impact of foreign direct investment and real exchange rate on economic growth in Malaysia: some empirical evidence, *Malaysian Journal of Business and Economic*, Vol 1(1), 73-85
[25] Sikiru Jimoh Babalola (2011), Long-Run relationship between education and economic growth: evidence from Nigeria, *International Journal of Humanities and Social Science*, Vol 1(14)
[26] Sri E. Sreenivasulu (2013), Role and importance of educational for effective growth of Indian Economy: An overview, *International Journal of Social Science*, Vol 7(5), 32-35
[27] Sue Lillyman (2014), Providing a positive learning experience for international students studying at UK universities: A literature review, *Journal of Research International Education*, Vol 13(1), 63-75
[28] Suriani Abdul Hamid, . & Suzyanty Mohd Shokory. (2013), A preliminary finding on international students choice for higher education at University Pendidikan Sultan, *Management Research Journal*, Vol 2(1), 122-129
[29] Tichaona Zivengwa.(2012), Investigating the causal relationship between education and economic growth in Zimbabwe, *Global Journal of Management and Business Research*, Vol 12(1), 106-117