# DECENTRALIZATION OF AGRICULTURAL SECTOR IN INCREASING LOCAL REVENUES IN THE PROVINCE OF ACEH

**Asnawi[1], Rasyidin[2]**

[1]Lecture,  Faculty of Economics and Business, University of Malikussaleh, Aceh,
[2]Lecture,  Faculty of Social and Politic Science, University of Malikussaleh,  Aceh,
INDONESIA.

asnaw1abd@yahoo.com

## ABSTRACT

*The objective of the research is to study the decentralization of the agricultural sector in increasing local revenue in Aceh province. Research method was conducted with the log-linear regression on data time series 1981/1982-2012. Results was found in the long term agriculture is significant and positively associated with local revenue. Plantation   significantly and negatively affect the local revenue while livestock significantly and negatively the local revenue. Fisheries significantly positively related to local revenues and Forestry significantly and negatively local revenues. While agriculture, farming, livestock, fisheries and forestry are insignificant and does not form relationships Granger causalit in the short term. Thus, in long term, local revenues in Aceh only influenced by agriculture, plantation, livestock, fisheries and forestry.*

**Keywords:** Decentralization, Local Revenues and Agriculture Sector

## INTRODUCTION

Regional development is an integral portion of national development, where the success of regional development is an indicator of the success of the national development. For achieve this, the central government has the authority to local governments to explore and develop their regions according to their potential. The decentralized authorization, aims create a regional financial autonomy in financing development activities of their own local revenue sources. Local independence is measured by the size of local revenue, compared with the local revenue from sources of government assistance or loan trades [1]. Reform of government policies directed decentralization with the aim of giving authority to local governments to increase revenue to support the development budget is based on the potential of the region. Regulation No. 25 of 1999, financing in the implementation of decentralization sourced from local revenues, were excavated from the area of wealth management. Regulation No. 33 of 2004 stated in the framework of the implementation of local government to serve the people, the central government gives tax authorities to the region in order to optimize revenue [2].

## PREVIOUS RESEARCH

According to Deddy (2002), clarify to: (1) 12 provinces are sensitive to enhancement local revenues, and 17 provinces with elasticity ≤ 1, where PDRB  is not enough changes affect the increase in local revenue; (2) The national average growth of local revenue was 2.66% and Aceh is among the provinces with sizeable local revenue growth, which amounted to 43.31%; (3) The average ratio of local revenues in APBD 2001-2002 was 27.17%, 17 provinces in Indonesia, including Aceh with higher local revenue growth. However, its contribution to Local Budged Revenue (APBD) has decreased. This is due to an increase in the amount of

equalization funds received; (4) the financial capacity of Aceh province in the category of medium, index IKK 0.38 [3].

Santoso and Rahayu (2005) founded the local revenue as a reception area that reflects the level of independence of the region, the greater income native to the area, the less dependence on the centre and make the region self-sufficient in implementing decentralization fiscal [4]. Local revenue collected under the legislation in force. Murtadha (2013), founded that the elasticity of local revenues to revenues gross regional domestic fishery sector without oil and gas, constant prices showed a positive and elastic (4.35 %) which means the rate of growth of the fisheries sector is responsive to growth in local revenue [5]. However, the contribution Local revenue in fisheries sector to the average area since 1981/1982 to 2012 are very small, are 0.005 % with a growth rate of 2.77 %.

## PROBLEMS RESEARCH

Special autonomy of Aceh, intended for local governments to reduce dependence on financing for development to the central government. Halim (2008) says that the higher the ratio of local independence means the level of local dependence on central government finances is smaller. Because of local governments should be able to multiply the sources of the potential of their region through increased revenue [1]. The agricultural is a potential sector that can contribute to local revenues in the province of Aceh, where the judging just too small contribution of the agricultural sector, during 2010, of 1.09%, 2011 (1.16%), and 2012 (1.11%) (Aceh in figures, 2012) [6].The low contribution of agriculture to local revenues of the agricultural sector in the province have not been able to increase local revenue and yet so ready to welcome the special autonomy from the central government. Therefore, according to Deddy (2002) almost regions in Indonesia are largely financial dependency with the central government is still large, 17 provinces in Indonesia (56.62%), including Aceh province [3].

## OBJECTIVE

The objective of the research is to study the decentralization of the agricultural sector, namely agriculture, plantation, livestock, fishery and forestry in increasing local revenue in Aceh province.

### Data and Sources

Data research used secondary data with the time series at 1981/1982-2012. The data on the development of product domestic regional bruto (PDRB) of agriculture, plantation, livestock, fisheries and forestry from Aceh in figure, the cooperation of the Central Statistics Agency (BPS) and the Aceh Development Planning Board (BAPPEDA) Aceh province. Data local revenue (PAD) sourced from Aceh in Figures, BPS and BAPPEDA Aceh province.

## THEORETICAL BASIC

Decentralization is a delegation of authority from the central government to local governments. Gabriel (1978) state that decentralization is another term for a local state that government administrative regions, namely local governments manage and regulate affairs administration in his own administrative [7]. Rondinelli and Cheema (1983), defines decentralization as the transfer of planning, decision-making or administrative authority of the central government to the central organization in the region, local administrative units, semi-autonomous and degree of organizations (companies), local government or non-government organizations [8].

**71**
**ISSN: 2223-9944,** e **ISSN: 2223-9553**
**www.journals.savap.org.pk**

Local revenue is one source income area, in addition to the central government, in the form of general allocation funds (DAU), a special allocation (DAK), balancing, oil and special autonomy. Kristiadi (1985) mentions local revenue broadly to include, reception derived from its own local government and central government which in practice may take the form of profit sharing payments and aid centres direct subsidies to the region for the special purposes [9]. Ichsan and Effendi (1995) mentions local revenues is essentially revenue from all sources things are determined by the government of Level I and Level II regulation No. 5 of 1974 local revenue consists of (1) local taxes, (2) levies, (3) a portion of the profit of local enterprises, (4) receipt of agencies and (5) other revenue. Regulation No. 18 of 2001 on special autonomy of Aceh, Article 4 paragraph (1) letter a mention of the source of local revenue Aceh Province, consisting of: (a) local taxes, (b) levies, (c) charity, (d) the results of companies belonging to the region and other areas of wealth management results were separated, and (e) other legitimate income areas [10].

Regulation number 11 of 2006, section 180 sources of local revenues and local revenues Aceh district/city, consisting of; (a) local taxes, (b) levies, (c) the results of the wealth management area separated belongs to Aceh/districts / cities that are legitimate and results of equity in Aceh, district / city, (d) Islamic obligation and (e) other revenue and revenue Aceh regency [11]. The regulation of Republic Of Indonesia number 33 of 2004 local revenue is earned income areas levied by local regulations in accordance with legislation. Act, No. 25 of 1999 Article 4 stated source of local revenue consists of; (a) the results of local taxes; (b) levies; (c) the results of companies belonging to the region and other areas of wealth management results were separated; and (d) other legitimate source revenues [2].

Reform of the law on local revenues continue to be made with regulation of Indonesia No. 33 of 2004, the types of income, namely; (1) local taxes; (2) levies; (3) the results of the wealth management area separated and (4) other elements legitimate local revenues. As for the other elements of local revenue that is illegal under the law number 33 of 2004, namely; (1) the sale of the wealth of separated areas; (2) current accounts; (3) interest income; (4) The difference advantage of the rupiah against foreign currencies; (5) the commission; (6) pieces or other forms as a result of the sale and or services by local [2]. Halim (2005) mentions the local revenue is derived from local revenue sources of the local economy. Sources of revenue are four types; (1). Local taxes, (2) local levies, (3) results of companies belonging to the region and result-owned wealth management separated areas, (4) other legitimate source revenues [12].

**METHODOLOGY**

Model to analyse the decentralization of the agricultural sector; agriculture, plantation, livestock, fishing, and forestry to increase local revenues in the Aceh are;

$$PAD = f (PTG, PKB, PTN, PIK, KHT) \quad\quad (1)$$

PAD is local revenues, PTG is agriculture, PKB is plantation, PTN is livestock, PIK is fishery, and KHT is forestry. For purposes of the study, the specification model of decentralized management of agriculture, plantation, livestock, fishery and forestry in increasing local revenues estimated in the log-linear form become:

$$\ln PAD = \beta_0 + \beta_1 \ln PTG + \beta_2 \ln PKB + \beta_3 \ln PTN + \beta_4 \ln PIK + \beta_5 \ln KHT + \varepsilon_t \quad\quad (2)$$

(PAD) is local revenues logarithmic, lnPTG isagriculture logarithmic, lnPKB is plantation logarithmic, lnPTN is livestock logarithmic, lnPIK is fisheries logarithmic and lnKHT is foresty logarithmic, $\beta_0$ is a constant, $\beta_1,...\beta_5$ is coeficient regression and $\varepsilon_t$ is the error term.

## Unit Root Test

Overall the variables included in the model of decentralized management of the agricultural sector in increasing local revenues Aceh by using time series data first needs to be tested stationary phase before cointegration test. The stationary test is used to avoid spurious regression [13]. The cointegration test to ensure the t and F test can be used. Only variable that has in same degree, likely to have a relationship co-integration relationship. Data time series is stationary if the mean and variant had development based on time. Likened $Y_t$ is a stochastic time series and mean, variant and covariant is:

Mean: $E(Y_t) = \mu$ (3)

Variant: $var(Y_t) = E(Y_t - \mu)2 = \sigma2$ (4)

Covariant: $\gamma k = E[Y_t - \mu)(Y_t + k - \mu)]$ (5)

$\gamma_k$ is covariant $Y_t$ and $Y_{1+k}$ at lag k. If, $Y_t$ is stationary, then the mean, variant and covariant is similar, although various levels of lag k (Kamal Hassan Bin Badrin, 2006/2007). The unit root test based on the functions described:

$Y_t = \rho Y_{t-1} + \mu_t$ (6)

$\mu_t$ is a variable disorder and fulfill all the assumptions Ordinary Least Squares (OLS) with zero mean, constant variant ($\sigma_2$) is not auto corelations. The value $\rho = 1$, then the stochastic variable $Y_t$ is stationary on the unit root test. If the time series data of differential by *d*, then the time series data integration on the degree *d* of $Y_t \sim I(d)$ [14]. Test used to test the unit root test is through Augmented Dickey Fuller or ADF [15] In the ADF test Statistics $\tau$ to be used to determine the unit root test of time series data. The equation of the unit root test is;

$$\Delta Y_t = \beta_1 + \beta_2 + \delta Y_{t-1} + \sum_{i=1}^{m} \alpha_i \Delta Y_{t-1} + \varepsilon_t \tag{7}$$

$\Delta Y_t$ the first derivative of the time series data $Y_t$ ($Y_t - Y_{t-1}$ $\beta_1$ is intercept, $\varepsilon_t$ is the error term and m is referring to the long lag.

## Cointegration Test

Cointegration Test used is the method of Johansen and Juselius (1990). This method is based on maximum likelihood estimation by likelihood ratio test statistic approach through eigentest maximum value or trace test. The second is the value of those statistics;

Trace Test statistic

$$\lambda_{\text{trace}}(\bar{r}) = -T \sum_{j=r+1}^{n} \ln(1 - \lambda_j) \tag{8}$$

Statistic Maximum Eigen value Test:

$$\lambda_{\text{max}}(\bar{r}) = -T \ln(1 - \lambda_{r+1}) \tag{9}$$

$\lambda_{\text{trace}}(r)$ is test statistic trace and $\lambda_{\text{max}}(r)$ statistic maximum test of value-eigen $\bar{r}$ is the rank cointegration, T is amount sample$\lambda$ is value than matric $\prod$.

## Model VECM

VECM models to analyse the relationship between long-term and short-term between the variables used. Although, among the variables cointegrated in the long term, but in the short term the possibility of these variables are not balanced. VECM models assume that the inequalities in the short within a certain time series can be improved on next time series.

Corrected time series with VECM is parameterized lag (ECT (el, t-1)) is an adjustment parameter which measures the distribution of short-term to long-term [14]. In short term, likely among the variable scattering of each and cause an imbalance in the system. Therefore, the VECM will measure how far the system is out of balance the short term. Ganger R and C. ganger (1987) shows that, if the variable (say Xt and Yt) cointegrated [17], there will be improvement in the representation of the equation, which is intended to in discriminate movement or change in the dependent variable and the other variables torch. The Xt or both$\Delta$Yt $\Delta$ sequence of Error Correction Model (ECM) is equal to or t-1 (repair balance) which itself serves on Xt-1,$\varepsilon$may be caused by Yt-1. From the model VAR (vector autoregressive), we can define the VECM models:

$$\Delta Y_t = \sum_{i=1}^{n} A_i \Delta Y_{t-1} + \sum_{i=1}^{t} \varsigma_i \Theta_{t-1} + v_t \qquad (10)$$

Where;

$Y_t$ = in vector n x 1

$A_t$and$\varsigma_i$ = parameter estimate

$\Delta$ = deverative operator

$v_t$ = vector caused and effect the meaning for etimate in the Yt and $Y_t$ dan $\Theta$.

In addition to determining the direction of causality, VECM models can also descritionhort-term relationships and long-term. F test for each variable lag may explain the relationship of short-term and long-term through the t test for fixing the lag parameter. If the variables are cointegrated in the short term scattered towards the long-term balance, there will be a movement toward long-term equilibrium of the dependent variable [18]. Improvement of parameterized variable lag (ECT$_{(el, t-1)}$) is a parameter or variable adjustment which can measure the degree of scattering of the short term of the long-term. In the short term, the variables that may be strewn with each other will cause an imbalance in the system. Therefore, VECM can measure a system is out of balance short-term or not. VECM estimate by Ordinary Least Square (OLS).

## RESULT AND DISCUTION

Test the unit root test to spurious regression, from time series data 1981/1982-2012, based methods ADF as follows:

**Table 1. Stationary Test Method ADF**

| Variable | Level I (0) | | First Difference I (1) | |
|---|---|---|---|---|
| | *Intercept* | *Trend and Intercept* | *Intercept* | *Trend and Intercept* |
| *lnPAD* | | | | |
| Test statistic | 0,730535 | -1.988517 | -4.294740* | -4.236329* |
| Test Critical Values : 1% | -3.661661 | -4.284580 | -3.670170 | -4.296729 |
| Test Critical Values : 5% | -2.960411 | -3.562882 | -2.963972 | -3.568379 |
| Test Critical Values : 10% | -2.619160 | -3.215267 | -2.621007 | -3.218382 |
| Probability | 0,9909 | 0.5845 | 0.0021 | 0.0115 |

*lnPTG*

| | | | | |
|---|---|---|---|---|
| Test statistic | -1.406839 | -2.901937 | -5.791178* | -5.808122**
| Test Critical Values : 1% | -3.661661 | -4.284580 | -3.670170 | -4.296729 |
| Test Critical Values : 5% | -2.960411 | -3.562882 | -2.963972 | -3.568379 |
| Test Critical Values : 10% | -2.619160 | -3.215267 | -2.621007 | -3.218382 |
| Probability | 0.5661 | 0.1756 | 0.0000 | 0.0002 |

*lnPKB*

| | | | | |
|---|---|---|---|---|
| Test statistic | -1.172094 | -3.605990** | -5.035609* | -5.046570**
| Test Critical Values : 1% | -3.661661 | -4.296729 | -3.670170 | -4.296729 |
| Test Critical Values : 5% | -2.960411 | -3.568379 | -2.963972 | -3.568379 |
| Test Critical Values : 10% | -2.619160 | -3.218382 | -2.621007 | -3.218382 |
| Probability | 0.6736 | 0.0462 | 0.0003 | 0.0016 |

*lnPTN*

| | | | | |
|---|---|---|---|---|
| Test statistic | -2.173000 | -5.714944* | -6.889850* | -6.944529**
| Test Critical Values : 1% | -3.670170 | -4.284580 | -3.679322 | -4.309824 |
| Test Critical Values : 5% | -2.963972 | -3.562882 | -2.967767 | -3.574244 |
| Test Critical Values : 10% | -2.621007 | -3.215267 | -2.622989 | -3.221728 |
| Probability | 0.2196 | 0.0003 | 0.0000 | 0.0000 |

*lnPIK*

| | | | | |
|---|---|---|---|---|
| Test statistic | -1.779460 | -3.012115 | -6.969137* | -7.295911**
| Test Critical Values : 1% | -3.661661 | -4.284580 | -3.670170 | -4.296729 |
| Test Critical Values : 5% | -2.960411 | -3.562882 | -2.963972 | -3.568379 |
| Test Critical Values : 10% | -2.619160 | -3.215267 | -2.621007 | -3.218382 |
| Probability | 0.3832 | 0.1451 | 0.0000 | 0.0000 |

*lnKHT*

| | | | | |
|---|---|---|---|---|
| Test statistic | -1.939387 | -2.560873 | -5.952121* | -6.130410**
| Test Critical Values : 1% | -3.661661 | -4.284580 | -3.670170 | -4.296729 |
| Test Critical Values : 5% | -2.960411 | -3.562882 | -2.963972 | -3.568379 |
| Test Critical Values : 10% | -2.619160 | -3.215267 | -2.621007 | -3.218382 |
| Probability | 0.3108 | 0.2992 | 0.0000 | 0.0001 |

* (**) reject $H_0$, showing stationary variables significant at 1% (5%).

Based on Table 1, the test stationary unit root using the ADF method showed that local revenue (PAD) is significant in the I (I) intercept and trend and intercept or stationary by using regression constant (intercept) and a trend at 1%. (PTG) is Agriculture significant at the 1% level I (1) to intercept and intercept and trend meaningful time series data is stationary. (PKB) is Plantation significant at the 5% level I (0) with the trend and intercept and significant at 1% at the level I (I) intercept and trend and intercept. (PTN) is live stock is significant at the 1% level I (0) with the trend and intercept and significant at 1% at the level I (I) intercept and trend and intercept. (PIK) is Fisheries significant at the 1% level I (1) to

intercept and intercept and trend. (KHT) is Forestry significant in I (1) in intercept and trend and intercept respectively at the 1% level of confidence.

**Table 2. Test of Variables Cointegration Johansen used Trace Test and Max-Eigen Value**

| Vector | Null Hyp Not cointegrated Statistics | Statistic Value | Trace Max-Eigen | Critical Value 0,05 | Critical 0.01 |
|---|---|---|---|---|---|
| lnPAD | r = 0** | 149.5154 | 3.11188** | 94.15 | 103.18 |
| lnPTG | r ≤ 1** | 76.40348 | 32.32426** | 68.52 | 76.07 |
| lnPKB | r ≤ 2 | 44.07922 | 18.61686 | 47.21 | 54.46 |
| lnPTN | r ≤ 3 | 25.46236 | 16.49893 | 29.68 | 35.65 |
| lnPIK | r ≤ 4 | 8.963427 | 5.866948 | 15.41 | 20.04 |
| lnKHT | r ≤ 5 | 3.096479 | 3.096479 | 3.76 | 6.65 |

* (**) Test Trace and Maximum Eigen Value, significant at the 5% (1%).

Table 2 is found both statistical tests provide consistent decisions. Trace through the statistics show that there are two cointegrated vector equation at the 5% significance level. Meanwhile, through max-eigen statistic found to form two vectors cointegrated equations are also at significant level of 5%. This means, there is a long-term relationship between the variables. Therefore, the null hypothesis is rejected succeeded with at least a form of two equations cointegrated vectors by using statistical trace and one cointegrated vector equation is using max-eigen statistically.

Decision Johansen cointegration test method trace and max-eigen statistic statistics show a form of long-term relationship between local revenue (PAD) by determining, based on table 4 below:

**Table 3. Results Long Term Relationship VECM Model**

| Variable | Coefficient | t-statistic |
|---|---|---|
| C | 0.053040 | - |
| lnPTG(-1) | 0.860134 | 4.15263* |
| lnPKB(-1) | -2.484106 | -16.1623* |
| lnPTN(-1) | -0.812566 | -8.95934* |
| lnPIK(-1) | 1.195495 | 5.72522* |
| lnKHT(-1) | -0.765106 | -5.17030* |

* (**) indicates significant at 1% (5%).

Table 3 is the result of research by VECM models in the long term that indicates that agriculture (PTG) is significant at the 1% level of confidence and positively related to local revenue (PAD). (PKB) is Plantation and a significant negative effect on local revenue (PAD) at the 1% level of confidence. (PTN) is .livestock negatively related to local revenue (PAD) and significant at the 1% level of confidence. (PIK) is significant at the 1% level of confidence that are positively related to revenue (PAD and Forestry (KHT Fisheries) is significant and negatively related to local revenue (PAD), with a confidence level of 1%.

**Table 4. Results Short-term relationship VECM Model**

| Variable | Coefficient | t-statistic |
|---|---|---|
| C | - | 2.29128 |
| ECT$_{t-1}$ | -0.024433 | -0.32252 |
| lnPTG(-1) | -0.010347 | -0.03669 |
| lnPKB(-1) | 0.531915 | 1.09033 |
| lnPTN(-1) | -0.008355 | -0.21214 |
| lnPIK(-1) | -0.142777 | -0.78988 |
| lnKHT(-1) | -0.057989 | -0.30120 |

\* (\*\*) indicates significant at 1% (5%).

Table 4 ECT$_{t-1}$ value insignificant that shows all the independent variables does not happen speed of adjustment is significant. This means do not bear the burden of adjustment lag to balance in the long term. In other words, the selected variables are exogenous. In addition, all variables found to be free; agriculture, farming, livestock, fisheries and forestry) is not significant, both on the confidence level of 1% and 5%, which means do not form relationships Granger causality in the short term. Thus, local revenue (PAD) only influenced by agriculture, plantation, livestock, fishery and forestry in the long term.

## CONCLUSION AND RECOMENDATION

Results of research with VECM model approach, showed that agriculture (PTG) were significant in the long term and are positively related to local revenue (PAD). This means that in the long term agricultural/food crops can increase local revenue in Aceh provision, because the construction of irrigation facilities continue to be improved and the intensification of agriculture/crop began to be implemented. However, agriculture/crop is still not able to improve productivity optimal. Steps to be taken, are policies that support increased agricultural productivity/crop, given the need for agricultural products/crops continues to increase. Fisheries (PIK) was significantly related to positive in the long term to increase local revenue (PAD). Modernization of the fisheries sector in the province is able to increase productivity, both sea and inland fisheries. However, the limitations of yield management tool will reduce the income of fishermen and farmers. Strategic policy is the growth of the fisheries sector investment to increase revenue. Ranch (PTN) is significant in the long term and negatively related to local revenues. Increased demand for livestock commodities can't be met by industrial livestock sector in Aceh, even more dependent on supplies from North Sumatra This, due to the lack of the livestock industry in Aceh. Regulatory policy is to encourage the growth of the livestock industry and grow the livestock industry that is productive and selective in the livestock industry potential of the session demand and potential areas.

## REFERENCES

[1]    Halim, A. (2008). *Regional Financial Accounting, (2nd Ed.), Jakarta: Salemba Publisher. ( In Indonesian)*

[2]    Republik Indonesia, (2004). Undang-Undang No. 33 Tahun 2004 : *Tentang Perimbangan Keuangan Antara Pemerintah Pusat dengan Pemerintah Daerah*, Jakarta.

[3]     Deddy , (2002). *Peta Kemampuan Keuangan Provinsi Dalam Era Otonomi: Tinjauan Atas Kinerja Pendapatan Asli Daerah dan Upaya yang Dilakukan Daerah*, www.bappenas.go.id/index.php/download-file/view/11284/3789.

[4]     Santoso dan Rahayu, (2005). Analsis Pendapatan Asli Daerah (PAD) dan Faktor-Faktor yang mempengaruhinya dalam Upaya Pelaksanaan Otonomi Daerah di Kabupaten Kediri. *Dinamika Pembangunan,* Vol 2.

[5]     Murtadha, (2013). *Desentralisasi Pengelolaan Sumberdaya Perikanan Dalam Upaya Meningkatkan Pendapatan Asli Daerah di kabupaten Aceh Utara*, Tesis (Tidak dipublikasikan), Program PascaSarjana Ilmu Manajemen, Universitas Malikussaleh.

[6]     Bappeda. (2012). *Perkembangan Pembangunan Daerah Aceh*, Bahagian Ekonomi.

[7]     Iglesias, U. G. (1978).R*regionalization and Regional Development in the Philippines,* UP-CPA, Manila.

[8]     Cheema, G. S., & Rondinelli, D.A. (1983).*Decentralization and Development, Policy Implementation in Developing Countries*, London: Sage Publication.

[9]     Kristiadi. J.B. (1985). Masalah Sekitar Pendapatan Asli Daerah, Prisma. No.12 Tahun 1985. Hal 35-43.

[10]    Ichsan.C., & dan Rustam, E. (1995). *Strategi Pengembangan PAD, Kodya Sabang* dalam memperkokoh Kerjasama Indonesia-Malaysia, Menyukseskan IMT-GT menjelang tahun 2000. FE Unsyiah dan FE_UKM Malaysia.

[11]    Republik Indonesia, (2006). *Undang-Undang No. 11 Tahun 2006 : Tentang Pemerintah Aceh*, Jakarta.

[12]    Halim, A. (2005). *Akuntasi Sektor Publik*, Salemba Empat. Jakarta

[13]    Granger, C.W.J., &dan Newbold, P. (1974). *Spurious regressions in econometrics*, Journal of Econometrics pp.111-120.

[14]    Kamal Badrin Bin Hassan. (2006/2007).*Inflasi di Malaysia: Kesan Daripada Faktor Dalaman atau Faktor Luaran?* Master Tesis (tidak dipublikasikan), Fakultas Ekonomi dan Perniagaan, Universiti Kebangsaan Malaysia, Bangi, Selangor Darul Ehsan. Malaysia.

[15]    Dickey, D.A., & Fuller, W.A. (1981). Distribution of the Estimators for Autoregressive Time Series with a Unit Root, *Econometrica.*49: 1057-1072.

[16]    Johansen, S., & Jeselius, K. (1990). Maximum Likelihood Estimation and Inference on Cointegration: With Applications to the Demand for Money, *Oxford Bulletin of Economics and Statistics, Volume 52*(1), ISSN 0305-9049.

[17]    Granger, R., & Granger, C. (1987).Co-Integration and Error Correction Representation Model Specification, *Journal of Econometrics 16,* : 121-276.

[18]    Mukhlis. (2007). *Faktor Penentu Pelaburan Langsung Asing di Negara-Negara ASEAN,* Master Tesis (tidak dipublikasikan), Fakultas Ekonomi dan Perniagaan, Universiti Kebangsaan Malaysia, Bangi, Selangor Darul Ehsan. Malaysia.