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Founder
S. S. Shashi

Chief Editor
Dharam Vir

Volume 29, Number 1 (January-March), 2020



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(Autonomous, Regd. Recognized Charitable Organization of
Social Scientists, Authors, Journalists & Social Activists)

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Contents

1. Relationship among Agriculture and Manufacturing Value Added and Economic Growth in Pakistan <i>Nadia, Syed Wahid Ali and Rohail Pasha</i>	1
2. Consumers Perception towards the Value Added Tax (VAT) in Uttar Pradesh <i>Parul Tyagi</i>	14
3. Role of INGO in Livelihood Improvement : A Case Study of Community Action Nepal (CAN) <i>Shyam Kumar Karki</i>	31
4. Historical and Religious Significance of Seela and Lions around Panchakumari in Maitedevi Temple Premises <i>Mani Bhadra Gautam</i>	45
5. Right to Education : A Biggest Right to Child (Views of Dr. Murli Manohar Joshi) <i>Giriraj Singh</i>	57
6. Is there a Role of Religion towards Enhancement of Public Accountability? <i>Angelos Giannakopoulos</i>	64
7. A Study into the Muslim Approach towards Home Rule Demand <i>Shalini Pathak</i>	75
8. Constitutional Rights in South Africa : A Brief Study <i>Prahlad Kumar Bairwa and Beena Banshiwal</i>	83
9. Social Change and its Impact on Post Disaster Reconstruction in Nepal <i>Dipesh Kumar Ghimire</i>	99
10. Social Media : A Boon or Curse for the Youth in India <i>Priyanka Kapoor</i>	115
11. Use of E-Resources by the Faculty of Engineering Colleges of Sangrur District <i>Amritpal Kaur</i>	134
12. The Neuroscience of Employee Engagement <i>Richa Vats and S. K. Sharma</i>	146

Journal of National Development

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The Journal of National Development (JND) is an interdisciplinary bi-annual peer reviewed & refereed international journal committed to the ideals of a 'world community' and 'universal brotherhood'. The Journal is a joint effort of like-minded scholars in the field of social research. Its specific aims are to identify, to understand and to help the process of nation-building within the framework of a 'world community' and enhance research across the social sciences (Sociology, Anthropology, Political Science, Psychology, History, Geography, Education, Economics, Law, Communication, Linguistics) and related disciplines like all streams of Home Science, Management, Computer Science, Commerce as well as others like Food Technology, Agricultural Technology, Information Technology, Environmental Science, Dairy Science etc. having social focus/implications. It focuses on issues that are global and on local problems and policies that have international implications. By providing a forum for discussion on important issues with a global perspective, the *JND* is a part of unfolding world wide struggle for establishing a just and peaceful world order. Thus, the *JND* becomes a point of confluence for the rivulets from various disciplines to form a mighty mainstream gushing towards the formulation and propagation of a humanistic world- view.

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Relationship among Agriculture and Manufacturing Value Added and Economic Growth in Pakistan

Nadia*, Syed Wahid Ali and Rohail Pasha*****

The principal objective of the study is to examine the relationship of Manufacturing Value Added (MVA), Agriculture Value Added (AVA), and Pakistan's economic growth. Existence of long run relation among AVA, MVA and economic growth is checked by using annual time series data for the period of 1972 to 2017 collected from World Bank. Results of the study show that Agriculture Value Added (AVA), Manufacturing Value Added (MVA), Domestic Investment (DI), Trade Openness (TO) and Labor Force (LF) have long-run co-integrated relationship with GDP. The Granger causality analysis shows that there is bidirectional relationship between agricultural value added (AVA) and GDP. Similarly, TO and AVA have bidirectional relationship between each other.

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While the GDP granger cause Domestic Investment (DI), GDP granger cause Trade Openness (TO), Manufacturing Value Added (MVA) granger cause Agriculture Value Added (AVA), Domestic Investment (DI) granger cause Manufacturing Value Added (MVA), Trade Openness (TO) granger cause Manufacturing Value Added (MVA), Labor Force (LF) granger cause Manufacturing Value Added (MVA). It is also found that there is Bi-variate co-integration among GDP, AVA, MVA, DI, TO and LF. It is concluded that improvement in agriculture value added and manufacturing value added means increase in economic growth of Pakistan. Additionally, study suggest that agriculture value addition could be improved by using the modern technology.

[Keywords : Agriculture value added, Domestic Investment, GDP, Labor Force, Manufacturing Value Added, Trade Openness, Pakistan]

JEL Classification : E22, E31, F1, O13, O14, O47, O53.

1. Introduction

The major objective of the developing countries is to enhance economic growth. Pakistan is an agrarian economy because mainstream of its population directly or indirectly related to this zone. Contribution of this sector is almost 19 percent of Gross Domestic Product (GDP) and about half of hired labor force is associated with it and their source of revenue is related to this sector.

Agriculture sector is performing its important role to enhance the Pakistan' economy. Owing to the different factors such as political, social, environmental and weather changes, benefit from agricultural production is not at the required level of the country (Shah, Haq and Froot, 2015). Agriculture play an important role in the growth of the economy, particularly for developing countries like Pakistan, because of its more purchasing power its economy is considered as the world's 25th largest economy. Contribution of the agriculture sector in GDP is 5.28% in Pakistan.

Agriculture sector has prominent connection to the rest of economy which is ignored area from statistical point of view, while the main supply of raw material such as seed, fertilizer, pesticides, tractors and agricultural apparatuses to the industrial sector is due to agriculture sector.

“Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs”. Manufacturing sector has a significant importance for every country but specialty for developing countries like Pakistan. This paper observes that in Pakistan how the economic growth is influenced by the agriculture

value added. The significance of this paper can be simplified from the data that in Pakistan there is a massive works on agriculture but less on agriculture value added. Additionally, we are relating to the maximum current data to discover the linkage between agricultural value added and economic growth in Pakistan.

Agriculture value added is still attached with traditional factor of production and contribution of agriculture sector is below its potentials (Hamid and Ahmad, 2009).

Estimate the effect of agricultural value added going on economic growth in Pakistan is the core aim of the paper. According to the generation of development economist, agricultural productivity is an essential part of the economic development strategy that can be improved through it (Matsuyama, 1992).

Gylfason (2000) and Shah et al. (2015) all argue that Pakistan 'economic growth is negatively affected by the agricultural exports and has adverse relationship with each other. Furthermore, more dependency on agricultural sector reduce the economic growth by restricted the role of other important sectors of the economy. Therefore, the study tried to fill this gap created by inconsistency results of the previous studies about agricultural sector and economic growth.

2. Literature Review

In literature on agriculture sector and economic growth there are several studies which discussed this area. Agricultural economists have been persuaded and explored that agricultural segment is completely involved in the country's economic growth (Wong, 2007). Theoretically, through a variation of links, the agriculture sector give the contribution to the economic growth (Johnston and Mellor, 1961). In Southeast countries, importance of this sector has been shown empirically that is more for those developing economies who are agrarian. Their rich natural resources and reliance of national income to this sector supported Asia (Rahman, 1998). In developing countries, panel analysis used to observe the significance of agriculture sector to the economic growth by Gardner (2003) and Tiffin and Irz (2006). Their consequences shown a causality direction significant from agriculture to economic growth. But Tiffin and Irz (2006) stated the unclear results for developed countries.

Gollin, Parente and Rogerson (2002) investigated that agricultural productivity growth is most important determinant in the process of economic growth. For poor countries. McArthur and McCord (2017) emphasizes that economic growth will be greater due to the higher agricultural productivity which become the cause of structural changes. Agricultural export subsector and economic growth is equally effected by the investment (Dawson, 2005).

Apostolidou, Kontogeorgos, Michailidis and Loizou (2014) find that the agriculture value added plays substantial role in economic development having positive impact on agriculture sector. Tiffin and Irz (2006) demonstrated the direction of causality for agricultural value added per worker to GDP per capita is clear in developing countries, while unclear in developed countries. That shows agriculture is the engine of growth in developing countries. Hye (2009) identifies that both agricultural output and industrial output affect each other. Matahir and Tuyon (2013) investigated that in long run agriculture sector enhance the economic growth while in short run direction of causality is none. Raza and Mehboob (2012) states that GDP and subsector of agriculture has positive relationship with each other and become the cause of increasing economic growth in Pakistan. Anríquez and Stamoulis (2007) identifies that best source of rural development is still the agricultural sector.

While some studies claims that agriculture sector is negatively related with economic growth (Shah et al, 2015 & Gylfason, 2000).

After doing extensive literature of agriculture sector and economic development we finds that there is still a gap needed to be filled, such as the impact of agriculture value added on economic growth of Pakistan is less considered.

3. Theoretical Framework and Methodology

According to the Robert M. Solow (1956), two factors of production are used to produce the output, capital and labor, while $L(t)$ is rate of input. The production function is used for technological possibilities.

$$Y = F(K, L).$$

In 1992, Solow Growth Model is extended by Romer and the form of the production function will be,

$$Y(t) = F\{K(t), A(t), L(t)\}$$

Where time is denoted by t and

“Knowledge” or “Effectiveness of labor” is represented by A.

A dominant question in development of economics is the role of agriculture for the process of economic growth from several spans (e.g., Johnston and Mellor 1961).

Econometric model of the study is below,

$$GDP = a_0 + a_1 AVA + a_2 MVA + a_3 DI + a_4 TO + a_5 LF +$$

GDP = Gross Domestic Product

AVA = Agriculture Value Added

MVA = Manufacturing Value Added

DI = Domestic Investment

TO = Trade Openness

LF = Labor Force

= Error Term

Table-1 : Variables and Measurements

Variables	Measurements
Dependent Variable Gross Domestic Product	Gross domestic product in million rupees at market prices is used as a proxy for Economic growth.
Independent Variables	
Agriculture Value Added	Agriculture corresponds to ISIC divisions 1-5 and includes forestry, hunting, and fishing, as well as cultivation of crops and livestock production.
Manufacturing Value Added	Manufacturing refers to industries belonging to ISIC divisions 15-37. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs.
Domestic Investment	Gross domestic investment consists of outlays on additions to the fixed assets of the economy plus net changes in the level of inventories.
Trade Openness	Exports of goods and services represent the value of all goods and other market services provided to the rest of the world.
Labor Force	Labor force comprises people ages 15 and older who supply labor for the production of goods and services during a specified period.

Note : Source World Bank (2017)

An annual time series data are used in this study for 1972 to 2017 and data source is World Bank .In the model to check the stationarity, the variables series are performing the unit root tests. To find whether the variables are stationary and to control orders of the variables of integration, Augmented Dickey Fuller and Phillip Perron (PP) tests are applied. Co-integration Analysis is applies to check the long run relationship of the variables in this study. And the Granger Causality Test also conducted in this study.

4. Empirical Results and Discussion

4.1 Descriptive Statistics

The basic features of dataset is defined by the descriptive statistics of data and the central tendency has three measures of a random variable are mean, median, and mode (Gujarati, 2004). So, in the model all the variables are estimated by the descriptive statistics.

Table- 2 : Descriptive Statistics

	GDP	AVA	MVA	DI	TO	LF
Mean	88053.45	20476.34	12124.91	13416.59	11316.74	39.11652
Median	56265.4	13050.17	8339.121	9341.199	9059.233	33.61
Maximum	304951.8	64778.79	36540.24	44200.83	30699.24	69.96
Minimum	6324.884	2071.976	916.9583	723.2574	855.5562	19.61
Std. Dev.	83537.55	18883.07	10749.23	11676.98	9434.698	14.51566
Skewness	1.192069	1.211375	1.015721	1.046079	0.75224	0.568674
Kurtosis	3.176876	3.09328	2.683844	2.927398	2.259175	2.134243
Jarque-Bera	10.95451	11.26698	8.101195	8.399593	5.3902	3.91593
Pro-bability	0.004181	0.003576	0.017412	0.014999	0.067536	0.141145
Sum	4050459	941911.6	557745.9	617163.4	520570.1	1799.36
Sum Sq. Dev.	314000000000	16000000000	5200000000	6140000000	4010000000	9481.7
Observations	46	46	46	46	46	46

Source : Software E-views 9

The standard deviations of the variables show that ferocity is highly unstable by GDP. For Kurtosis, 3 is the standard value whereas the value of Kurtosis of GDP and AVA are greater than 3 which shows that data has the leptokurtic distribution. While the values of MVA, DI, TO and LF are less than 3 which shows Platykurtic distribution.

4.2 Unit Root

A test of stationarity (or nonstationarity) that has become widely popular over the past several years is the unit root test. An important assumption of the DF test is that the error terms are independently and identically distributed. Phillips and Perron use nonparametric statistical methods to take care of the serial correlation in the error terms without adding lagged difference terms. Since the asymptotic distribution of the PP test is the same as the ADF test statistic (Gujarati, 2004). Matching and freely distribution in data is the basic assumption of Augmented Dickey Fuller Tests. Another assumption is that the value of variance should be constant. Furthermore, Stationarity have been checked at level but the outcome was non- stationary, after taking first difference the required results for stationarity have achieved. (Gujarati, 2004)

Table-3 : Unit root test statistics

		Level		First Difference	
		Statistics	Probability	Statistics	Probability
GDP	PP	6.140643	1	- 3.986982	0.0034
AVA	PP	1.670058	0.9995	- 5.212124	0.0001
MVA	PP	2.941958	1	- 6.720653	0
DI	PP	2.609957	1	- 4.695781	0.0004
TO	PP	-0.146872	0.9376	- 5.859021	0
LF	PP	4.692563	1	- 6.789569	0

Source : Software E-views 9

Statistics of the unit root test show that all the variables are stationary at first difference by applying the Phillip Perron (PP) Test in the study.

4.3 Co-integration

According to the co-integration a linear combination of two or more time series can be stationary in spite of being separately non-stationary. Long-run, or equilibrium, relationship between the two (or more) time series is shown by the co-integration. (Gujarati 2004). But the direction of causality is not presented by the co-integration (Hendry & Juselius, 2001 and Shah, Bakar & Azam, 2016).

Table-4 : Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigen-value	Trace Statistic	0.05 Critical Value	Prob.**	
None *	0.790189	182.3044	95.75366	0	Co-Integration
At most 1*	0.660922	113.5963	69.81889	0	Co-Integration
At most 2*	0.476154	66.00911	47.85613	0.0004	Co-Integration
At most 3*	0.382031	37.56059	29.79707	0.0052	Co-Integration
At most 4*	0.310664	16.38262	15.49471	0.0367	Co-Integration
At most 5	0.000306	0.013458	3.841466	0.9075	No Co-Integration

Source : Software E-views 9

Note : * show the significance level at 5%

Table-5 : Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigen-value	Max-Eigen Statistic	0.05 Critical Value	Prob.**	
None *	0.790189	68.70816	40.07757	0	Co-Integration
At most 1*	0.660922	47.58716	33.87687	0.0007	Co-Integration
At most 2*	0.476154	28.44852	27.58434	0.0387	Co-Integration
At most 3*	0.382031	21.17797	21.13162	0.0493	Co-Integration
At most 4*	0.310664	16.36916	14.2646	0.0229	Co-Integration
At most 5	0.000306	0.013458	3.841466	0.9075	No Co-Integration

Source : Software E-views 9

Note : * show the significance level at 5%

The result for multivariate co-integration analysis is presented in this table for all the series. The results show that variables are co-integrated with GDP in long run.

Table-6 : Bi-variate Co-integration

Variables	Eigenvalue	Trace Statistic	0.05 Critical Value	
GDP AVA	0.395435	27.73033	15.49471	Co-Integration
	0.119256	5.587465	3.841466	
GDP MVA	0.388035	25.4398	15.49471	Co-Integration
	0.083411	3.832249	3.841466	
GDP DI	0.440782	31.43805	15.49471	Co-Integration
	0.124785	5.864577	3.841466	
GDP TO	0.370406	24.22995	15.49471	Co-Integration
	0.08424	3.87203	3.841466	
GDP LF	0.379993	21.31164	15.49471	Co-Integration
	0.00631	0.27854	3.841466	
AVA MVA	0.273525	15.96247	15.49471	Co-Integration
	0.042311	1.902231	3.841466	
AVA DI	0.162449	12.43462	15.49471	No Co-Integration
	0.099974	4.634595	3.841466	
AVA TO	0.296331	15.56144	15.49471	Co-Integration
	0.00222	0.09778	3.841466	
AVA LF	0.293516	18.52268	15.49471	Co-Integration
	0.070879	3.234703	3.841466	
MVA DI	0.207733	18.59891	15.49471	Co-Integration
	0.172913	8.353203	3.841466	
MVA TO	0.183924	10.79401	15.49471	No Co-Integration
	0.041198	1.851089	3.841466	
MVA LF	0.353069	23.82709	15.49471	Co-Integration
	0.100584	4.66442	3.841466	
DI TO	0.167138	8.372779	15.49471	No Co-Integration
	0.007375	0.325711	3.841466	

DI LF	0.295527	18.52648	15.49471	Co-Integration
	0.068306	3.113035	3.841466	
TO LF	0.289753	19.66431	15.49471	Co-Integration
	0.099472	4.610068	3.841466	

Source : Software E-Views 9

The results for Bi-variate relationship of GDP, AVA, MVA, DI, TO and LF are shown in the above table. When the trace value is greater than the critical value it shows that presence of the long run relationship of the Bi-variate co-integration exist among the variables. GDP is co-integrated with AVA, MVA, DI, TO and LF in the long run. Similarly AVA has the bivariate relationship with MVA, TO and FL. While the Bi-variate relationship not exist between the AVA and DI, MVA and TO, and DI and TO in the long run. Furthermore, all other variables show the bivariate co-integration among themselves in the table.

4-4 Results Granger Causality Test

In the table the first column displays the null hypothesis for possible rejection at different significance level. Whereas second shows the observations third F statistic and fourth column indicate probability value. On the behalf of the probability value, i.e. the value of AVA does not Granger cause GDP is 0.0227. It means that agriculture value added has positive impact on economic growth. And the value of GDP does not Granger cause AVA is 0.0084. It also show that Gross Domestic Product has positive impact on agriculture value added. That means AVA and GDP have bidirectional relationship with one another. Similarly, TO and AVA have bidirectional relationship between each other. While the unidirectional relationship exist among the GDP and DI, GDP and TO, MVA and AVA, DI and MVA, TO and MVA, LF and MVA. So, the value of GDP is positively affected by the DI and TO.

Table-7 : Pairwise Granger Causality Tests

Null Hypothesis	Obs	F-Statistic	Prob.
AVA does not Granger Cause GDP	44	4.18031	0.0227
GDP does not Granger Cause AVA		5.41712	0.0084
MVA does not Granger Cause GDP	44	0.14637	0.8643
GDP does not Granger Cause MVA		1.70592	0.1949

DI does not Granger Cause GDP	44	0.94624	0.3969
GDP does not Granger Cause DI		3.39224	0.0438
TO does not Granger Cause GDP	44	2.03034	0.1449
GDP does not Granger Cause TO		5.43715	0.0083
LF does not Granger Cause GDP	44	2.40777	0.1033
GDP does not Granger Cause LF		0.3203	0.7278
MVA does not Granger Cause AVA	44	5.08505	0.0109
AVA does not Granger Cause MVA		0.42387	0.6575
DI does not Granger Cause AVA	44	2.6399	0.0841
AVA does not Granger Cause DI		1.01145	0.373
TO does not Granger Cause AVA	44	9.91498	0.0003
AVA does not Granger Cause TO		10.2765	0.0003
LF does not Granger Cause AVA	44	2.98034	0.0624
AVA does not Granger Cause LF		0.7408	0.4833
DI does not Granger Cause MVA	44	3.73569	0.0328
MVA does not Granger Cause DI		3.21101	0.0512
TO does not Granger Cause MVA	44	5.61544	0.0072
MVA does not Granger Cause TO		1.93285	0.1583
LF does not Granger Cause MVA	44	3.86287	0.0295
MVA does not Granger Cause LF		0.4647	0.6318
TO does not Granger Cause DI	44	1.85895	0.1694
DI does not Granger Cause TO		2.41105	0.103
LF does not Granger Cause DI	44	2.14264	0.131
DI does not Granger Cause LF		0.26733	0.7668
LF does not Granger Cause TO	44	2.17238	0.1275
TO does not Granger Cause LF		1.0056	0.3751

Source : Software E-Views 9

5. Conclusion

This study is try to examine relationship among the Manufacturing Value Added, Agriculture Value Added and economic growth of Pakistan. The results show that AVA, MVA, DI, TO and LF are co-integrated with GDP in long run.

The Granger causality analysis shows that Agricultural Value Added (AVA) has appositive effect on the economic growth.

Furthermore, there is bidirectional relationship between agricultural value added (AVA) and GDP. Similarly, TO and AVA have bidirectional relationship between each other. While the unidirectional relationship exist among the GDP and Domestic Investment (DI), GDP and Trade Openness (TO), Manufacturing Value Added (MVA) and Agriculture Value Added (AVA), Domestic Investment (DI) and Manufacturing Value Added (MVA), Trade Openness (TO) and Manufacturing Value Added (MVA), Labor Force (LF) and Manufacturing Value Added (MVA). So, the value of GDP is positively affected by the Domestic Investment (DI) and Trade Openness (TO).

If the long run policies support the Agriculture value added and Manufacturing Value Added it will be beneficial for long run economic growth for Pakistan. It is recommended that agriculture sector would use the modern technology with high yielding seed, fertilizer and pesticides help to improve the productivity. Along with the agriculture sector, manufacture sector must be improved to increase the exports of the goods and services of the country.

References

- Anríquez, G., & Stamoulis, K., "Rural development and poverty reduction : is agriculture still the key?", *Working Papers 07-02*, Agricultural and Development Economics Division of the Food and Agriculture Organization of the United Nations (FAO - ESA),2007.
- Apostolidou, I., Kontogeorgos, A., Michailidis, A., & Loizou, E., "The Role of Agriculture in Economic Growth : A Comparison of Mediterranean and Northern Views in Europe", *International Journal of Business and Economic Sciences Applied Research (IJBESAR)*, 7(3), 81-102, December, 2014.
- Dawson, P. J., "Agricultural exports and economic growth in less developed countries", *Agricultural Economics*, 33(2), 2005, 145-152.
- Gardner, B. L., "Causes of rural economic development" (ãîèèää îà 25 êííôãðáíöèè IAAE), *Reshaping Agriculture's Contribution to Society*, International Convention Centre, Durban, South Africa, 16-23 August 2003.
- Gollin, D., Parente, S., & Rogerson, R., "The role of agriculture in development", *American Economic Review*, 92(2), 2002, 160-164.
- Gujarati, D. N., *Basic Econometrics : Student solutions manual for use with Basic econometrics*, New York : McGraw-Hill, Co., 2004.
- Gylfason, T., "Resources, agriculture, and economic growth in economies in transition", *Kyklos*, 53(4), 2000, 337-361.

- Hamid, A., & Ahmad, H. K., "Growth and productivity in purview of transitional dynamics in Pakistan agriculture sector", *Pakistan Economic and Social Review*, 47(1), 2009, 49-78.
- Hye, Q. M. A., "Agriculture on the road to industrialization and sustainable economic growth : An empirical investigation for Pakistan", *International Journal of Agricultural Economics & Rural Development*, 2(2), 2009, 1-6
- Johnston, B. F., & Mellor, J. W., "The role of agriculture in economic development", *The American Economic Review*, 51(4), 1961, 566-593.
- Matahir, H., & Tuyon, J., "The dynamic synergies between agriculture output and economic growth in Malaysia", *International Journal of Economics and Finance*, 5(4), 201361.
- Matsuyama, K., "Agricultural productivity, comparative advantage, and economic growth", *Journal of Economic Theory*, 58(2), 1992, 317-334.
- McArthur, J. W., & McCord, G. C., "Fertilizing growth: Agricultural inputs and their effects in economic development", *Journal of Development Economics*, 127, 2017, 133-152.
- Rahman, A. A. A., *Economic reforms and agricultural development in Malaysia*, ASEAN Economic Bulletin, 1998, 59-76.
- Raza, S. A., Ali, Y., & Mehboob, F., "Role of agriculture in economic growth of Pakistan", *International Research Journal of Finance and Economics*, 83, 2012, 180-186.
- Shah, S. W. A., Haq, M. A., & Farooq, R. M. A., "Agricultural export and economic growth : A case study of Pakistan", *Public Policy and Administration Research*, 5(8), 2015, 88-96.
- Shah, S. W. A., Bakar, N. A. A., & Azam, M., "Foreign direct investment, economic growth and terrorism events in Pakistan : A co-integration analysis", *International Journal of Academic Research in Economics and Management Sciences*, 5(4), 2016, 155-167.
- Solow, R. M., "A contribution to the theory of economic growth", *The Quarterly Journal of Economics*, 70(1), 1956, 65-94.
- Tiffin, R., & Irz, X., "Is agriculture the engine of growth?", *Agricultural Economics*, 35(1), 2006, 79-89.
- Wong, L. C., "Development of Malaysia's agricultural sector: Agriculture as an engine of growth", *ISEAS Conference on the Malaysian Economy : Development and Challenges*, January 2007.
- Hendry, D. F., & Juselius, K., "Explaining cointegration analysis : Part II", *The Energy Journal*, 22(1), 2001, 75-120. ★