

Impact of Agriculture, Manufacturing, Commodity Producing Sectors and Service Sectors on GDP Growth Rate: Empirical Evidence from Pakistan 1994-95 to 2021-22

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ABSTRACT

Purpose: The present study is aimed at assessing the economic significance of Agriculture (A_t), Manufacturing (M_t), Commodity Producing (CPS_t), and Service Sectors (S_t) towards GDP (Q_t) growth rate of Pakistan. **Method:** Time series data ranges from 1994-95 to 2021-22 from authenticated sources were utilized for present research study. Econometric analysis i.e Augmented Dickey Fuller Test, Log-linear response functions, Autoregressive Distribute Lags Model, Bound Test, relationships, Co-integration and Long Run form for estimating short and long run relationships, Lagrange Multiplier (LM) Test, Normality Test, Granger Causality Test, Impulse Response Function and Walt Test were employed. **Results:** Findings revealed that respective variables (Q_t, M_t, S_t) were stationary at level $I(0)$ order of integration and respective variables (A_t , and CPS_t) at 1st difference $I(1)$. ARDL examined co-integrating relationships between tested variables in the model. F Stat value of Bound Test is worked out 4.97, which were more than upper bound's critical value, hence by rejecting H_0 hypothesis and accepting H_1 , long run association established between tested parameters. The value of Co-integrating equation is significant ($P > 0.05$) and negative (-0.954981), depicting adjustment speed towards short and long run equilibrium. No serial correlation was observed in the model. Findings revealed uni-directional causal relationship between GDP and Services ($P > 0.05$), between Commodity Producing Sector (CPS) and Services ($P > 0.05$) and between Manufacturing Sector and Services ($P > 0.1$) indicating long-term relationship in the cointegration test. Impulse Response Analysis indicated negative as well as positive responses; shock to GDP noticed symmetric impact on Agriculture, Manufacturing, Commodity Producing and Services Sectors of Pakistan in short run and long run. Wald test confirmed the significance of independent variables for a model.

Conclusion: Results revealed positive and significant impact of Agriculture Sector (A_t), Manufacturing Sector (M_t), Commodity Producing Sector (CPS_t) and Services Sector (S_t) on GDP (Q_t) Growth Rate of Pakistan over a period of time 1994-95 to 2021-22.

Implications: The study concludes the implications in terms of causes and effects of Agriculture, Manufacturing, Commodity producing and Service sectors, which could be overcome and significantly impacted on economic growth through maximum utilization of cultivable land to address under utilization of lands, division of labour force to address unemployment, capital accumulation to address poverty and entrepreneurial skills to address issues in means of communication and transport.

Keywords: GDP, Impact of sectors, ADF, causality, Co-integration, Long run & Pakistan.

INTRODUCTION

Agriculture, Industrial, Manufacturing and Services are the major business sectors of Pakistan's GDP. The fundamental purpose of this study was to present developmental plan of sectoral development and suggest policy implications meeting the commitment of potential investments for foster diversification and significant growth in Agricultural, Industrial, Manufacturing and Services sectors. The productive sectors would help in generating revenue, as source of improving balance of payment and trade, which would ultimately improve the social and economic well beings of community (Muzammil, 2020 & Uddin, 2015). Pakistan's sectors in respect of Commodity Producing (i.e Agriculture and Manufacturing) and Service Sectors had been contributing significantly in the development of Pakistan's Economy (Islam, 2020 & Nazish, 2013). It was felt dire need for government functionaries and policy makers to pay special attention towards industrial and manufacturing sectors (Ali et al., 2020).

JUSTIFICATION

The present study aimed at assessing the economic significance of commodity producing sectors alongwith services sectors towards GDP growth rate of Pakistan economy. This study is unique in sense which covers almost all business sectors alongwith sub sectors of Pakistan especially taking into account its economic significance towards economic growth of Pakistan. Though each and every business sectors of Pakistan has significant importance and long lasting tangible contribution in the GDP Growth, Exports Promotion, Imports Substitution, Poverty Alleviation, Capital Formation, employment opportunities generation, earning foreign exchange through exports and remittances etc. Hence this study will provide platforms and avenues for further economic growth and development by utilizing efficient uses of such business sectors, which would results in strengthening food security through capital formation and productive use of human resources with a view to reduce poverty in the country.

OBJECTIVES

Major Objectives are;

1. To analyze empirically the economic significance of Agriculture, Manufacturing, Commodity Producing and Service Sectors towards GDP growth rate of Pakistan.
2. To find out causes, effects and consequences of Agriculture, Manufacturing and Service Sectors and possible solutions in improving economic growth of Pakistan.

HYPOTHESIS

Ha1: Economic significance of Agriculture and Manufacturing sectors towards economic growth of Pakistan.

Ha2: Economic significance of Commodity Producing and Service sectors towards economic growth of Pakistan.

RESEARCH METHODOLOGY

METHOD, STRUCTURE OF DATA, RANGE OF DATA AND SOURCES OF DATA:

The present study adopted methodology comprised of structure of data, data range and data sources. In this respect, Time series data ranges from 1994-95 to 2021-22 from authenticated sources of Pakistan Economic Surveys, Federal Statistical Bureau, World Bank etc were utilized for present research study. (Dickey and Fuller, 1981) was employed to test the stationarity of error terms in regression model. ARDL Model run in case all tested variables, Moreover, to estimate the short term and long term association between parameters, Bounds Test, Johansen Coinegration Test and Error Correction Mechanism were employed (Pesaran & Shin, 1998), Granger causality Test was used to indicate bidirectional, unidirectional or no causality moving. Impulse Response analysis was employed to check the direction and magnitude of casual relationship, (Pesaran & Shin, 1998). Application of Normality test was to determine whether a sample data has been drawn from a normally distributed population or not. The Wald test as parametric statistical was measured to confirm whether a set of tested parameters are found significant for econometric modeling. EViews, being relevant statistical package was used for time series econometric analysis throughout research study.

Econometric Model

The econometric equation to assess the impact of Agriculture, Manufacturing, Commodity Producing and Services Sectors on GDP Growth Rate of Pakistan is symbolically presented as follows;

$$Q_t = \alpha_0 + \alpha_1 A_t + \alpha_2 M_t + \alpha_3 CPS_t + \alpha_4 S_t + e_t \text{-----}i$$

Where,

Q_t = GDP Growth Rate of Pakistan in year t.

α_0 = Constant Coefficient.

$\alpha_1, \alpha_2, \alpha_3$ and α_4 = Slopes Coefficient

A_t = Agriculture Sector in year t.

M_t = Manufacturing Sector in year t.

CPS_t = Commodity Producing Sector in year t.

S_t = Services Sector in year t.

e_t = Stochastic term in year t.

Application of logarithm on both sides of equation i, hence;

$$\text{Log } Q_t = \text{Log } \alpha_0 + \alpha_1 \text{Log } A_t + \alpha_2 \text{Log } M_t + \alpha_3 \text{Log } CPS_t + \alpha_4 \text{Log } S_t + \text{Log } e_t \text{-----}ii$$

RESULTS AND DISCUSSION

Unit Root Tests for Tested Variables: Augmented Dickey-Fuller (ADF) Test has been employed for assessing Unit Roots of tested variables ($Q_t, A_t, M_t, CPS_t, S_t$) have firmed the integration order of stationary at I(0) level in case of variables (Q_t, M_t, S_t) and at I(1) level in respect of variable (Q_t, M_t, S_t) as presented in Table 4.1.

Table 4.1: Unit Root Test for Tested Variables ($Q_t, A_t, M_t, CPS_t, S_t$)

Variables	ADF (Levels)		ADF in 1st Differences		Integration order through differencing approach I()
	Intercept	Intercept & Trend	Intercept	Intercept & Trend	
Q_t	-3.59	-3.52	-5.11	-4.99	I(0)
A_t	-2.72	-2.59	-4.73	-4.39	I(1)
M_t	-3.83	-3.81	-6.51	-6.27	I(0)
CPS_t	-3.82	-2.62	-5.23	-5.11	I(1)
S_t	-3.99	-3.91	-6.29	-6.06	I(0)

Note: All parameters measured in natural logarithms; 95% critical values = -2.98 (without trend); and 95% critical values = -3.60 (with trend)

The present study is in line with past studies conducted by Rehman et al. (2019); Baig et al. (2020); Ali et al. (2022) and Tampubolon (2023).

Table 4.2: Log-linear response functions for Tested Variables ($Q_t, A_t, M_t, CPS_t, S_t$)

Dependent Variable: GDP

Method: Least Squares

Time Series Data: 1994-95 to 2021-22

Variable	Coefficient	Standard Error	t-Stat	Probability*
C	0.065774	0.073906	0.889977	0.3831 ^{ns}
AGRICULTURE	0.003519	0.015284	0.230210	0.8201 ^{ns}
MANUFACTURIN				
G	0.010739	0.011661	0.920925	0.3671 ^{ns}
CPS	0.459896	0.022364	20.56406	0.0000 ^{***}
SERVICES	0.512728	0.020684	24.78831	0.0000 ^{***}
R ²	0.996846	Adjusted R ²		0.996273
F Stat	1738.328	Durbin-Watson stat		1.655356
P value	0.000000			

***Significant at 1%

^{ns} = Non-Significant

The estimated econometric equation to assess the impact of Agriculture, Manufacturing, Commodity Producing and Services Sectors on GDP Growth Rate of Pakistan is presented as follows;

$$LQ_t = 0.065774 L\alpha_0 + 0.003519 LA_t + 0.010739 LM_t + 0.459896 LCPS_t + 0.512728 LS_t \text{ -----}iii$$

Table 4.2 indicated positive and significant impact of Agriculture Sector (A_t), Manufacturing Sector (M_t), Commodity Producing Sector (CPS_t) and Services Sector (S_t) on GDP Growth Rate of Pakistan (Q_t) over a period of time 1994-95 to 2021-22. In case of Agriculture Sector, the value of its coefficient is 0.003519 means by increasing 1 unit by Agriculture Sector, Dependent Variable as GDP Growth Rate is increased by 0.003 units, In case of Manufacturing Sector, the value of its coefficient is 0.010739 means by increasing 1 unit by Manufacturing Sector, Dependent Variable as GDP Growth Rate is increased by 0.01 units, In case of Commodity Producing Sector, the value of its coefficient is 0.459896 means by increasing 1 unit by Commodity Producing Sector, Dependent Variable as GDP Growth Rate is increased by 0.46 units and in case of Services Sector, the value of its coefficient is 0.512728 means by increasing 1 unit by Service Sector, Dependent Variable as GDP Growth Rate is increased by 0.51 units. The perusal of Table 4.2 provides that R^2 and Adjusted R^2 value is 0.99 which indicated that independents variable such as A_t , M_t , CPS_t , S_t are predicting 99% Dependent Variable as Q_t . The R^2 value is 99%, revealed overall fitness of estimated equation. F value is worked out as 1738.328 ($P > 5\%$) revealing significant relationships between dependent and independent variables in estimated model, which tells us overall combined effects and overall Fitness of the Model. The present study is in agreement with past studies conducted by Alexander et al. (2013); Ali et al. (2020); Abdelaal and El-Shafei (2021); Ali et al. (2021) and Tampulolon (2023).

Table 4.3: Autoregressive Distribute Lags Model for Tested Variables (Q_t , A_t , M_t , CPS_t , S_t)
 GDP as Dependent Variable
 ARDL Method (1, 1, 1, 0, 0)
 Time Series Data: 1994-95 to 2021-22

Variable	Coefficient	Standard Error	t-Stat	Probability*
GDP(-1)	0.045019	0.027212	1.654395	0.1154 ^{ns}
AGRICULTURE	0.001398	0.013819	0.101137	0.9206 ^{ns}
AGRICULTURE(-1)	-0.035077	0.011737	-2.988572	0.0079***
MANUFACTURING	0.009757	0.010546	0.925197	0.3671 ^{ns}
MANUFACTURING(-1)	-0.017797	0.010743	-1.656545	0.1149 ^{ns}
CPS	0.461493	0.020141	22.91301	*
SERVICES	0.521269	0.019476	26.76477	0.0000**

C	0.039295	0.075950	0.517385	0.6112 ^{ns}
R ²	0.997990	Adjusted R ²	0.997208	
F Stat	1276.433	Durbin-Watson stat	1.925688	
P value	0.000000			

gnificant at 1%
lon-Significant

Perusal of Table 4.3 provided the application of Auto-Regressive Distribute Lags Model (ARDL) included lags of both dependent and independent variables as regressors. Since both order of integration at level I(0) and at 1st difference I(1) conditions are present, thereafter the findings of ARDL approach, reveled that Agriculture, Manufacturing, Commodity Producing and Services Sectors of Pakistan impacted significant influence on GDP Growth Rate of Pakistan, Hence, ARDL examined co-integrating relationships between tested variables in the model. The present study is on the analogy of previous studies ducted by Baig et al. (2020); Islam et al. (2020); Ghimire et al. (2021); Emam (2022); Khan et al. (2022) and Sayef and Malek (2022).

Table 4.4: Bound Test for estimating long run relationships among Variables ($Q_t, A_t, M_t, CPS_t, S_t$)

ARDL Bounds Test
Time Series Data: 1994-95 to 2021-22
HO: No long-run relationships

Test Stat	Value	k
F-Stat	4.969178	4

Bounds Critical Values

Significance	I0 Bound	I1 Bound
10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

HO= No Long Run Relationships between variables

HI = Long Run Relationships between variables

Bound Test is used to ensure the existence of long run relationships between tested variables in the model. Perusal of Table 4.4 provided probability value of F statistics as 4.97, which is higher than upper limit of bound critical value, hence by rejecting HO hypothesis and accepting HI, long run association established between tested variables in the model. The current study is associated with past findings of Manzoor et al. (2021) and Emam (2022).

Table 4.5: Co-integration and Long Run form for measuring short and long run relationships among Variables ($Q_t, A_t, M_t, CPS_t, S_t$)
 ARDL Cointegrating and long term form
 GDP as Dependent Variable
 Model: ARDL Approach (1, 1, 1, 0, 0)
 Time Series Data: 1994-95 to 2021-22

Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(AGRICULTURE)	0.001398	0.013819	0.101137	0.9206
D(MANUFACTURING)	0.009757	0.010546	0.925197	0.3671
				0.0000**
D(CPS)	0.461493	0.020141	22.913010	*
				0.0000**
D(SERVICES)	0.521269	0.019476	26.764770	*
				0.0000**
CointEq(-1)	-0.954981	0.027212	-35.094593	*
Cointeq = GDP - (-0.0353*AGRICULTURE - 0.0084*MANUFACTURING + 0.4832*CPS + 0.5458*SERVICES + 0.0411)				
Long Run Coefficients				
Variable	Coefficient	Standard Error	t-Stat	Probability*
AGRICULTURE	-0.035267	0.020526	-1.718145	0.1029
MANUFACTURING	-0.008419	0.015374	-0.547579	0.5907
				0.0000**
CPS	0.483248	0.025688	18.812055	*
				0.0000**
SERVICES	0.545842	0.024592	22.195550	*
C	0.041148	0.078978	0.520999	0.6087

***Significant at 1%
 ns = Non-Significant

Perusal of Table 4.5 indicated highly significant relationships in respect of Commodity Producing Sectors and Services Sector in short as well as long run between tested variables in the model. The value of Co-integrating equation is negative and significant (-0.954981), depicting speed of adjustment towards equilibrium which shows conversion not diversion. The present study is in line with past studies conducted by Charles (2018); Degu (2019); Ali et al. (2020) and Nyamekye (2021).

Table 4.6: Lagrange Multiplier (LM) Test for higher order Correlation between Error Terms of tested variables ($Q_t, A_t, M_t, CPS_t, S_t$)

Lagrange Multiplier (LM) Test:

F-stat	0.282215	Prob. F(2,16)	0.7578	
Obs*R-squared	0.885947	Prob. Chi-Square(2)	0.6421	
Test Equation:				
RESID as Dependent Variable				
ARDL Method				
Time Series Data: 1994-95 to 2021-22				
Variable	Coefficient	Standard Error	t-Stat	Probability
GDP(-1)	0.011430	0.032555	0.351090	0.7301 ^{ns}
AGRICULTURE	0.000133	0.014755	0.008996	0.9929 ^{ns}
AGRICULTURE(-1)	-0.003682	0.013306	-0.276742	0.7855 ^{ns}
MANUFACTURING	0.000567	0.012901	0.043977	0.9655 ^{ns}
MANUFACTURING(-1)	-0.005705	0.013750	-0.414938	0.6837 ^{ns}
CPS	-0.000938	0.021408	-0.043797	0.9656 ^{ns}
SERVICES	0.000639	0.023032	0.027743	0.9782 ^{ns}
C	-0.012386	0.084690	-0.146250	0.8856 ^{ns}
RESID(-1)	0.037405	0.303488	0.123250	0.9034 ^{ns}
RESID(-2)	-0.223314	0.305229	-0.731626	0.4750 ^{ns}
R ²	0.034075	Adjusted R ²	-0.509258	
F Stat	0.062715	DW	1.876452	
P Value	0.999894			

ns = Non-Significant

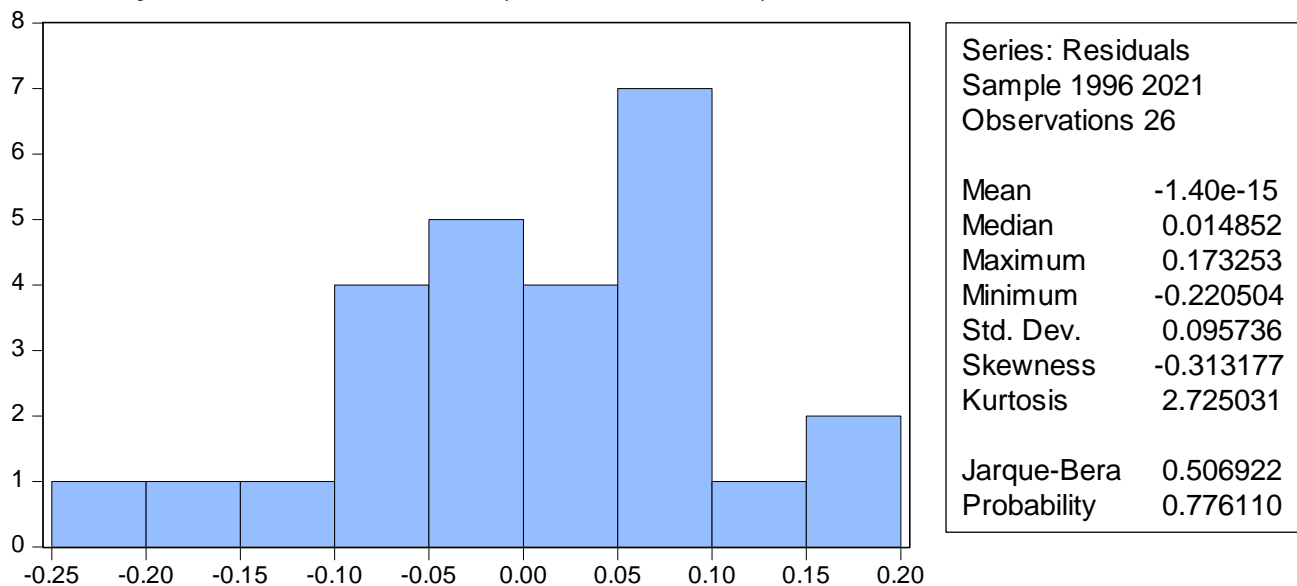
Lagrange Multiplier (LM) Test for higher order Correlation between Error Terms

HO: No serial correlation between variables

HI: Serial correlation between variables

Since the probability values of all tested variables (i.e Q_t , A_t , M_t , CPS_t , S_t) are greater than 5% significance level ($P < 0.05$) as shown in Table 4.6, hence HO is accepted, which revealed there is no serial correlation in the model. The current study is associated with past studies conducted by Hashim et al. (2016) and Alnegrish (2023).

Figure 4.1: Normality Test for tested variables (Q_t , A_t , M_t , CPS_t , S_t)



A normality test is determined to draw sample data from a normally distributed population.

HO: Sample data has been drawn from normally distributed

HI: Sample data has not been drawn from normally distributed

Since the probability value of Normality Test (0.776) is greater than 5% level of significance ($P > 0.05$) depicted in Figure 4.1, hence null hypothesis is accepted, confirming that sample data has been drawn from normal distributed. Hence relationships among tested variables are normal in the model. The present study is associated with past studies conducted by Khalid (2017) and Fernandez (2022).

Table 4.7: Granger Causality Test for tested variables (Qt, At, Mt, CPSt, St)

Pairwise Granger Causality Tests
 Time Series Data: 1994-95 to 2021-22
 Lags: 1

HO:	Obs	F-Stat	Probability
AGRICULTURE not Granger Causing GDP	26	0.02016	0.8883 ^{ns}
GDP not Granger Causing AGRICULTURE		1.71087	0.2038 ^{ns}
MANUFACTURING not Granger Causing GDP	26	0.31765	0.5785 ^{ns}
GDP not Granger Causing MANUFACTURING		0.00427	0.9484 ^{ns}
CPS not Granger Causing GDP	26	1.03621	0.3193 ^{ns}
GDP not Granger Causing CPS		0.09321	0.7629 ^{ns}
SERVICES not Granger Causing GDP	26	0.74039	0.3984 ^{ns}
GDP not Granger Causing SERVICES		4.84567	0.0380 ^{**}
MANUFACTURING not Granger Causing AGRICULTURE	26	0.80686	0.3784 ^{ns}
AGRICULTURE not Granger Causing MANUFACTURING		0.23182	0.6347 ^{ns}
CPS not Granger Causing AGRICULTURE	26	2.28603	0.1442 ^{ns}
AGRICULTURE not Granger Causing CPS		0.18807	0.6686 ^{ns}
SERVICES not Granger Causing AGRICULTURE	26	1.02772	0.3212 ^{ns}
AGRICULTURE not Granger Causing SERVICES		0.53200	0.4731 ^{ns}
CPS not Granger Causing MANUFACTURING	26	0.22507	0.6397 ^{ns}
MANUFACTURING not Granger Causing CPS		0.06040	0.8081 ^{ns}
SERVICES not Granger Causing MANUFACTURING	26	0.26646	0.6106 ^{ns}
MANUFACTURING not Granger Causing SERVICES		3.14217	0.0895 [*]
SERVICES not Granger Causing CPS	26	0.01477	0.9043 ^{ns}
CPS not Granger Causing SERVICES		4.65048	0.0417 ^{**}

**Significant at 5%

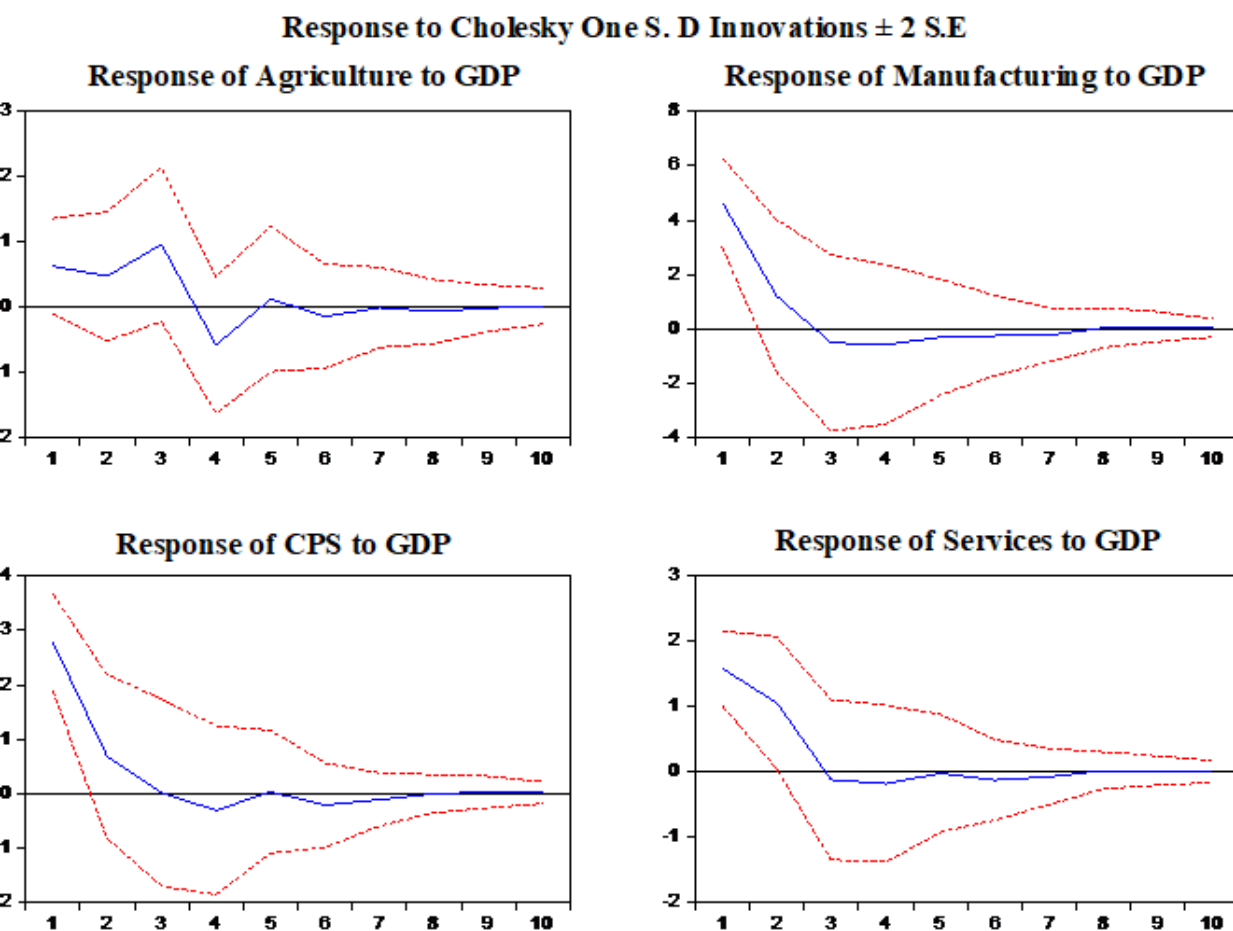
*Significant at 10%

ns = Non-Significant

Perusal of Table 4.7 revealed uni-directional causal relationship between GDP and Services (P>0.05), between Commodity Producing Sector (CPS) and Services (P>0.05) and between Manufacturing Sector and Services (P>0.1) indicating long-term relationship in the cointegration

test. While no causality exists between rests of paired variables. The present results are in agreement with past studies conducted by Singariya and Sinha (2015) revealed uni-directional relationship between GDP and industrial sector in India, contrary to present study, Gabriel et al. (2022) revealed uni-directional association from agriculture to economic growth in Nigera, Baig et al. (2020) indicated uni-directional causality between economic growth and manufacturing sector in India on the analogy of present study. The previous study on the analogy of present study conducted by Almozaini (2015) obtained long-term relationship in the cointegration test, revealing unidirectional causal relationship running from GDP to Oil services in Japan. The findings of present study in comparison with previous studies showed that the importance of agriculture and manufacturing sector have been shifted to the service sector and significantly contributed to GDP growth of Pakistan’s economy. The present study is in agreement with past study conducted by Zaman (2021).

Figure 4.2: Impulse Response Analysis for tested variables ($Q_t, A_t, M_t, CPS_t, S_t$)



Perusal of Figure 4.2 depicted red lines and blue line in all four responses of Agriculture, Manufacturing, Commodity Producing Sector and Service Sectors to GDP. Red lines referred to

95% confidence interval and blue line referred to Impulse Response Function. Response of Agriculture to GDP revealed that one standard deviation shock or impulse or innovation given to GDP resulted in an increase of production in Agriculture Sector upto 4th period and from 4th period onward, it was declined. In case of Response of Manufacturing to GDP, one standard deviation shock or impulse or innovation given to GDP resulted in an increase of production in Manufacturing Sector upto 3rd period and from 3rd period onward, it was declined. In case of Response of Commodity Producing Sector (CPS) to GDP, one standard deviation shock or impulse or innovation given to GDP resulted in an increase of production in CPS upto 3rd period and from 3rd period onward, it was declined. Response of Services to GDP indicated that one standard deviation shock or impulse or innovation given to GDP resulted in an increase of production in Services upto 3rd period and later 3rd period onward, it was declined. Since Impulse Response Function indicated direction and magnitude of casual relationships among tested variables, hence in all four responses, negative as well as positive responses existed, so shock to GDP noticed symmetric impact on Agriculture, Manufacturing, Commodity Producing and Services Sectors of Pakistan in short as well as in long run. The present study is in agreement with past studies conducted by Pesaran and Shin (1998) and Kashif et al. (2023).

Table 4.8: Wald Test for tested variables ($Q_t, A_t, M_t, CPS_t, S_t$)

Wald Test:

Equation: Untitled

Test Statistic	Value	df	Probability
F Stat	499.7859	(3, 22)	0.0000***
Chi-square	1499.358	3	0.0000***
Null Hypothesis: $C(1)=0, C(2)=0, C(3)=0$			
Null Hypothesis Summary:			
Normalized Restriction (= 0)	Value	Std. Err.	
C(1)	0.003519	0.015284	
C(2)	0.010739	0.011661	
C(3)	0.459896	0.022364	

Restrictions are linear in coefficients.

The Wald test a parametric statistical measured to confirm a set of independent variables are individually or collectively 'significant' for a model or not. It is used to estimate the short run relationships between variables.

HO: The value of independent variable is zero (0)

H1- The value of independent variable is not equal to zero (0)

Since the results of Wald Test in Table 4.8 indicated the probability values at F-test and Chi-Square values are less than 0.01 ($P > 0.01$), it means Null Hypothesis of assuming the values of

independent variable is zero (0) is rejected, confirming set of independent variables are significant for a model. The present study is on the analogy of past studies conducted by Degu (2019) and Muzammil (2020).

CONCLUSION

The present study was aimed at investigating the impact of Agriculture, Manufacturing, Commodity Producing and Services sectors in relationships with GDP growth rate of Pakistan over a period of time 1994-95 to 2021-22. In this respect, applications of various econometric techniques and approaches were used for assessing the impacts of Agriculture, Manufacturing, Product Producing and Service Sectors towards Pakistan's GDP. Results of Augmented Dickey Fuller Test towards GDP revealed order of integration at I(0) and I(1) levels among tested variables, Log-linear response function revealed significance influence of Commodity Producing and Services Sectors towards GDP, Autoregressive Distributed Log Model revealed significance influences of Agriculture (A_{t-1}), Commodity Producing (CPS_t) and Services Sectors (S_t) towards GDP, Bound Test, LM Test and Normality Tests revealed that long run relationship established between tested variables in the model, Granger Causality Test and Impulse Response Analysis revealed uni-directional causal relationship between GDP and Services ($P>0.05$), between Commodity Producing Sector (CPS) and Services ($P>0.05$) and between Manufacturing Sector and Services ($P>0.1$) indicating long-term relationship in the cointegration test, Wald test confirmed the significance of tested variables for a model. Authors arrived at concluding remarks that Agriculture, Manufacturing, Product Producing and Service Sectors impacted significant influence on GDP growth rate of Pakistan from 1995-96 to 2021-22.

POLICY IMPLICATIONS

Following policy implications of the study are as;

1. Since the performance of Agriculture, Manufacturing, Commodity Producing and Services sectors of Pakistan is far below target of even under developed countries, hence it is dire need to improve the respective share of such sectors towards GDP through provision of sufficient quantities of quality goods and services.
2. There is need to make sufficient and consistent investments in the provision of facilities i.e irrigation, machines, electricity, means of communications, market etc so necessary for the development of such productive sectors of Pakistan economy.
3. There is need to utilize human, physical and financial resources in such an organized way to improve the productive share of Agriculture, Manufacturing, Commodity Producing and Service Sectors in relation with Pakistan's GDP.
4. It is essentially required to promote extension programs for imparting skill oriented training to strengthen manpower in promoting such productive sectors.
5. This is also important to adopt the productive use of appropriate advance technology in relation with suitable environment for promoting such productive sectors in Pakistan.

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