Use the Johnson transformation method to Estimation the impact FDI on Economics and social indictors in Pakistan country

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Abstract—The relationship between investment and development of close relations in economic thought, foreign investment have been associated by the development of international trade, and helped to spread and increasing rates emergence transnational corporations National Furthermore mergers and acquisitions across borders, including the purchase of foreign investors Government Organizations that have been privatized, Has used the most of the world foreign capital to modernize and develop its production facilities and other components of the national economy, and foreign investment played an important role in economic development projects for the host countries if they have done these countries to choose their projects and their foreign partners, Investing can close the gap of resources and capabilities that are not available in the receiving countries, The research problem in that Economics sectors be affected by a lot of factors that affect one way or another by and by certain of these factors is not economic, so there are major factors leading to development and growth to the desired goal final namely economic well-being and these important factors is foreign direct investment (FDI) The orientation of the plan drawn about the problems and economic critical points, it leads to the activation of the entire economy, The research aims to targets several of them process the data to make it distributed naturally using functions transfers Johnson three SL, SU, SB, as well as estimate the econometrics models represent the relationship between foreign direct investment as an independent variable economic indicators for Pakistan country.

Keywords— *Economics, International Economics, Econometrics.*

I. INTRODUCTION

foreign investment played an important role in economic development projects for the host countries if they have done these countries to choose their projects and their foreign partners, Investing can close the gap of resources and capabilities that are not available in the receiving countries, and expanding the investor base in the country,

and through the participation of local capital and therefore a positive impact on the balance of payments and increasing exports and substitution of locally produced goods store imported goods, Add to expand the quality of local industries and also convey this investment advanced methods of management, training and production, marketing and transportation technology and indigenization and its contribution to the creation of more jobs and give the National Labor technical and managerial skills of modern directly leading to improved performance level national employment, The development, it represents Continuous endeavor to improve the quality of human life, taking into account the capabilities and potential ecosystem that embraces life, hence Sustainable development calls for not continuing consumption patterns present whether in the north or in the south and replace it with patterns consumer and sustainable productivity and without achieving such development there is no field of for a real application of the concept of sustainable development, and there is a close correlation between mutual economic development and environmental, social and that he cannot set up or applying any strategy or sustainable without political integration of these components together.

The research problem in that sustainable development be affected by a lot of factors that affect one way or another by and by certain of these factors is not economic, but also are the components of society as a whole combine with each other to achieve development and economic development so there are major factors leading to development and growth to the desired goal final namely economic well-being and these important factors is foreign direct investment (FDI) The orientation of the plan drawn about the problems and economic critical points, it leads to the activation of the entire economy, As the development can not only be done with the necessary funding and such funding may FDI represents one of the important aspects. The research aims to targets several of them estimate general trends for each indicator and then process the data to make it distributed naturally using functions transfers Johnson three SL, SU, SB, as well as

estimate the econometrics models represent the relationship between foreign direct investment as an independent variable economic and social indicators for Pakistan country.

II.   REVIEW OF PREVIOUS STUDIES

many researchers in this field published many papers and books deal with the effects of foreign investment on economic growth and on economic development and sustainable development, and this researchers has indicated (Kiyoshi Kojima 1978)[6] on the role of foreign direct investment and its impact on the economy, Publishing (M. TalhaAtik and Hung Tran2008)[8] research titled (FDI in Developing countries the case of Ericsson in Mexico and Vietnam) analyzed the role of investment in economic development, and Publishing (Sung-Hoon Lim 2008)[10] on the role of foreign direct investment on foreign trade in Korea and entitled (Foreign Direct Investment Policy and Incentives, Korea Trade-Investment, Promotion Agency (KOTRA)),), And published researcher (Tun, wai and wang 1982)[11] paper entitled (Determinants of private investment in Developing countries), research in this topic for determinants of investment in developing countries and stressed the role of private investment objective role of foreign direct investment, and published (European Commission research in 2006)[12] research titled (study on FDI and regional development), and published researcher (Edward graham 1995)[3] discussed the role of foreign direct investment in the global economy, other researchers publishing about the role of sustainable development of the economy and the role of foreign direct investment, The researchers (Meadows, D, H L., and Meadows 1972)[7] research entitled (on the determinants of growth and its factors), and the researcher (Jonathan M. Harris 2000)[5] published a book shows basic principle sustainable development and the role of foreign direct investment, & Publishing many researchers (Pearce D. W, and others 1989)[9] paper entitled (Blueprint for green Economy, Earth scan) and identified the role of the environment in economic development and pollution factors that limit the operations of development and economic growth, and pointed out all of the researchers on the impact of investment on environmental pollution and the impact on the proportion of carbon dioxide and published researcher (Donghynu Park 2008)[2] paper entitled (Foreign direct investment and corporate taxation, over view of the Singaporean experience) and Publishing the researcher (Irene Joas 2005)[4] entitled (the impact of foreign direct investment on sustainable Development in Africa) The impact of investment and its role in economic development and sustainable development.

III.   PAKISTAN'S INDICATORS DEVELOPMENT

Historical background

Pakistan Urdu language meaning "pure land" or the Islamic Republic of Pakistan also officially known is a country in South Asia, separated from India on the basis of religion, where they were considered state of Indian Muslims, a nuclear state. And the word "Pakistan" means earth clean or pure land.

Pakistan's four provinces or states, namely: Buxton Koah, Punjab, Pakistan's history dates back to 2500 years BC, where the thriving civilization around the Indus Valley, penalized for rule this region Persians and Alexander the Great and folks from Central Asia until the year 711 CE, 93 e sailed Arab Muslims across the Arabian Sea and they opened the Sindh province where spread of religion Muslim in this region. By the year 391 AH, 1000 AD Muslims conquered the Turks area of northern Pakistan from Iran, was founded by Mahmud of Ghazni Islamic kingdom included influence in some stages territory and the entire Indus Valley Baluchistan, support.Lahore has become the capital of the kingdom, then grew and evolved after that to become a major center of Islamic culture centers in the Indian subcontinent. Most areas has become known today as Pakistan, part of the Delhi Sultanate in 603 AH, 1206 AD, an Islamic empire includes northern India. The Delhi Sultanate lasted list until 933 AH, 1526 AD, ie, until the emergence of Babar, A Muslim ruler of Afghanistan invaded India and established the Mughal Empire. The Mongol empire that includes all parts that are both Pakistan and North and medial India and Bangladesh today, has grown during the reign of Mughal culture that combines elements from the Middle East and other Indian. This culture includes a new language is Urdu affected by both Indian and Persian. This was the language carries a new religion is Sikh religion by the growing influence in this period, bringing the number of holy places in   Pakistan's Punjab province.Began raging competition between European traders from the sixteenth century, in order to gain control of the business-yielding rewarding he performed between Europe and the East Indies. Has established several businesses residential complexes in India - and which later became a military barracks attack Indian cities and towns,In collaboration with the Mughal emperors. By the eighteenth century and the subsequent East India Company became the British Nationality largest trading power in India. East India Company was able to simplify aspects of influence and control over more parts of India. In 1740 the Mughal Empire began to disintegrate and collapse, and the East India Company - through its military arm - has fought a series of battles and confrontations in both Punjab and Sindh, during the

forties of the nineteenth century,it is then able to include these parts to the property group. In the year 1858 AD by the British government to take over the East India Company, and since then has become all the land that was owned by the East India Company, known as British India it under the rule of the British crown and not the rule of trading company British only, and varied mechanism British rule between the region and other there some areas directly ruled sentenced to a mostly Muslim areas in addition to Sri Lanka and there took its judgment areas local leaders or the so-called Maharaja,Some Muslims, but most of them Hindus, with affiliation and their loyalties to the British Crown and there is a third type strange zone of Kashmir that has been leased to the family Aldogra feudal Hindu under the Convention (lease contract) for a period of 100 years ending in 1946, although the vast majority of the population of the region were Muslims (about82%). Britain causing many schools, universities, educational systems eroticized joined by large numbers of Hindus while boycotted by the majority of Muslims who stayed to go to their own schools where only education on the principles of the Islamic religionAnd numeracy, which led to cultural gap among Hindus and Muslims and thus control Hindus on several important sites in the districts of various state, for this reason many reformers Islamists who have called for reform of the status of Muslims and increase awareness and knowledge they have as a first step towards freedom and independence,One of the main those Ahmed Khan who led the reform movement in the mid-nineteenth century began to plan the upgrading of the education level of the Muslim faith as a way to promote them, and that the establishment of scientific association literary "Ghazi Por" year (1280 AH = 1863AD,), was intended including deployment of modern views on history, economics, science, and English translation of the most important books in these subjects to the Urdu language even benefit the largest number possible and supporting their issue magazine called Assembly,Was published on the front pages reformist ideas, and his articles, which calls for the Muslims of India to be vigilant and advancement. The during the busy correctional labor establishment of two schools join them all denominations India, as it is a major step high-founded an educational institute to teach modern science in the city of Aligarh evolution later became prestigious university - later known as Aligarh Muslim University.

Johnson transfers

In 1949 derived Johnson system functions that were flexible and cover enough for multiple types of data and was this system practically and theoretically great benefit of giving the ability to transform this data from non-normal distribution to the normal distribution as the data

that was taken for estimation is non-normal distribution and thus Johnson had transfers to these condensed using functions gave the high flexibility of the data as it became distributed naturally.

Johnson transfers System of continuous random variable X be distributed is not known or unknown and this makes it impossible to get significant results from it, so Johnson makes three transfers they are in the following :

$$Z = \gamma + \delta f(\frac{X - \xi}{\lambda})$$

Where:
f= transformation function.
Z=standard normal random variable.
$\gamma \ and \ \delta = shape \ parameters. \ \lambda$
$= scale \ parameter \ , \xi$
$= location \ parameter$

Johnson assumed that δ> 0 and γ> 0 that the first transfer to Johnson defines natural as to logarithm system refers to the symbol distributional S_L and thus function takes the following form:

$$Z = \gamma + \delta In\left(\frac{X - \xi}{\lambda}\right), X > \xi = \gamma^* + \delta In(X - \xi), X > \xi$$

And SL includes transfer Natural logarithm Group.

The distribution system specified bounded distribution and symbolized by Johnson indicated S_B identified Johnson as the function following:

$$Z = \gamma + \delta In\left(\frac{X - \xi}{\xi + \lambda - X}\right), \xi < X < \lambda$$

As well as the distribution system set includes all the curves specified distributions, and distributions can be determined with a low and a high or a combination of both, and this system of distributions is a group that includes gamma distributions or distributions beta, and so on.

The non-specific distributions system and Johnson code symbol S_U has formulated and identified Johnson as the following:

$$Z = \gamma + \delta \ sinh^{-1}\left[\left(\frac{X - \xi}{\lambda}\right) + \left\{(\frac{X - \xi}{\lambda})^2 + 1\right\}^{1/2}\right], -\infty < X < \infty$$
$$= \gamma + \delta \ sinh^{-1}((X - \xi)/\lambda)$$

Thus, the curves non-specific distributions system includes t cover as well as natural distributions and between them [17].

Johnson transfer format for the three functions.

Data

For the purpose of showing the differences between real data and the transferred data will be included data values

between the real values and the values of format transfers   Johnson to Pakistan country as following:

Table I Pakistan Real Data

Years	FDI	GDP	Real value of Agr. Add%	Real value of Ind.Add%	Real value of Exp.Hi.Taq	Real value of Extr.Debt variable	Real value of Elctr. use variable	Real value of Mobil variable	Real value of Internet use variable	Real value of CO_2 variable
1991	258414487	4.54520E+10	25.7745	25.4458	0.02456	2.32921E+10	346.275	0.0074	*	0.593571
1992	336479857	4.86352E+10	26.3467	25.0183	0.03388	2.48506E+10	349.012	0.0114	*	0.616810
1993	348556958	5.14784E+10	24.9940	24.7177	0.07095	2.44602E+10	330.387	0.0132	*	0.644536
1994	421024639	5.18948E+10	25.5502	24.2647	0.05342	2.73235E+10	341.396	0.0199	*	0.683520
1995	722631561	6.06361E+10	26.1388	23.7967	0.04115	3.01686E+10	356.893	0.0322	0.00012	0.663417
1996	921976183	6.33202E+10	25.4828	24.1630	0.03251	2.97684E+10	362.915	0.0520	0.00299	0.722420
1997	716253125	6.24333E+10	26.7026	23.5104	0.08787	3.00128E+10	370.082	0.1006	0.02755	0.705453
1998	506000000	6.21920E+10	27.3101	23.8022	0.11424	3.22139E+10	395.266	0.1423	0.04395	0.708689
1999	532000000	6.29739E+10	27.0316	23.7386	0.31356	3.38414E+10	414.667	0.1880	0.05536	0.710628
2000	308000000	7.39524E+10	25.9294	23.3257	0.38790	3.27321E+10	447.961	0.2121	0.9564	0.736561
2001	383000000	7.23097E+10	24.0949	24.0174	0.29718	3.16654E+10	472.624	0.5033	1.31855	0.733833
2002	823000000	7.23068E+10	23.3539	23.8618	0.67451	3.35668E+10	468.775	1.1293	2.57743	0.758501
2003	534000000	8.32448E+10	23.3627	23.9052	1.21154	3.60033E+10	432.621	1.5701	5.04116	0.776383
2004	1118000000	9.79778E+10	22.1835	26.9875	1.09277	3.58818E+10	449.323	3.2227	6.16432	0.844473
2005	2201000000	1.09600E+11	21.4654	27.1011	1.38031	3.35661E+10	451.362	8.0502	6.33233	0.861267
2006	4273000000	1.27500E+11	20.3565	26.8728	1.44746	3.67106E+10	346.275	21.3645	6.50000	0.903052
2007	5590000000	1.43171E+11	20.4641	26.8924	1.38316	4.15311E+10	349.012	38.2234	6.80000	0.978331
2008	5438000000	1.63892E+11	20.3312	26.7921	1.85117	4.90574E+10	330.387	52.5672	7.00000	0.974532
2009	2338000000	1.61819E+11	21.5642	24.7305	1.71466	5.45879E+10	341.396	55.3344	7.50000	0.983671
2010	2018000000	1.76870E+11	21.1776	25.4339	1.68522	5.67729E+10	356.893	57.1369	8.00000	0.987693

Source:1- www.**worldbank**.**org**/**data**/**data**query.html
2- http://www.imf.org/external/index.htm

The researcher believes the data are turbulent and unstable and we are must make it stable until we can get a real estimates using regression models and therefore we use Johnson functions to transformation from unstable to stable data as table following :

Table II Johnson transformation data

FDI	GDP current(US $)	Agr. Add	Ind..Add	Exp.Hi.Taq	Extra. Debt variable	Elctr. use variable	Mobil use variable	Internet use variable	CO2 variable
-1.79792	-2.16631	0.53802	0.49253	-1.95000	-1.40282	-1.66655	-2.11444	*	-1.94799
-1.22080	-1.45447	0.76881	0.31859	-1.14035	-1.27092	-0.74092	-1.12812	*	-1.55420
-1.13398	-1.12244	0.30598	0.17123	-0.68948	-1.30651	-0.71556	-1.05049	*	-1.13913
-0.72889	-1.08374	0.46493	-0.11286	*	-0.98988	-0.52128	-0.88780	*	-0.65727
-0.01630	-0.53010	0.67506	-0.55723	-0.98180	-0.48530	-0.31647	-0.74081	-1.86000	-0.89198
0.20998	-0.41391	0.44419	-0.19191	-1.18306	-0.56928	-0.29954	-0.61443	-1.14797	-0.27154
-0.02521	-0.45062	0.97762	-1.01510	-0.59881	-0.51834	-0.25621	-0.45638	-0.73094	-0.42994
-0.43402	-0.46088	2.31109	-0.55053	-0.49579	-0.05549	-0.57378	-0.37681	-0.64350	-0.39863
-0.36571	-0.42807	1.30194	-0.63258	-0.12799	0.21750	-0.37942	-0.31397	-0.60022	-0.38013
-1.43949	-0.06086	0.59296	-1.53280	-0.04859	0.03983	-0.13696	-0.28706	0.01212	-0.14954
-0.91735	-0.10748	0.08334	-0.31923	-0.14765	-0.16458	-0.05086	-0.09600	0.02220	-0.17242
0.10848	-0.10757	-0.09135	-0.48005	0.17936	0.17673	0.04655	0.08166	0.18578	0.02423
-0.36076	0.16876	-0.08925	-0.43209	0.52417	0.47974	0.35248	0.15449	0.42330	0.15380
0.37027	0.45699	-0.39512	0.92924	0.44586	0.46729	0.55730	0.31584	0.54949	0.57110
0.86220	0.64652	-0.64172	0.95415	0.64861	0.17661	0.86247	0.53266	0.57233	0.65947
1.29071	0.90161	-1.69650	0.90336	0.70571	0.54808	1.05941	0.80955	0.59689	0.86030
1.45690	1.10368	-1.41615	0.90782	0.65092	0.88606	1.03005	1.06892	0.64675	1.16841
1.43998	1.35675	-1.80029	0.88467	1.95000	1.20082	0.72821	1.42700	0.68601	1.15422
0.90270	1.33175	-0.60232	0.17802	1.05566	1.35965	0.87392	1.60972	0.82746	1.18815

Source: from table 1 and use the Minitab 14 program

We are note the all real date are unstable and Johnson transformation method correct these date by use three functions as figures following:
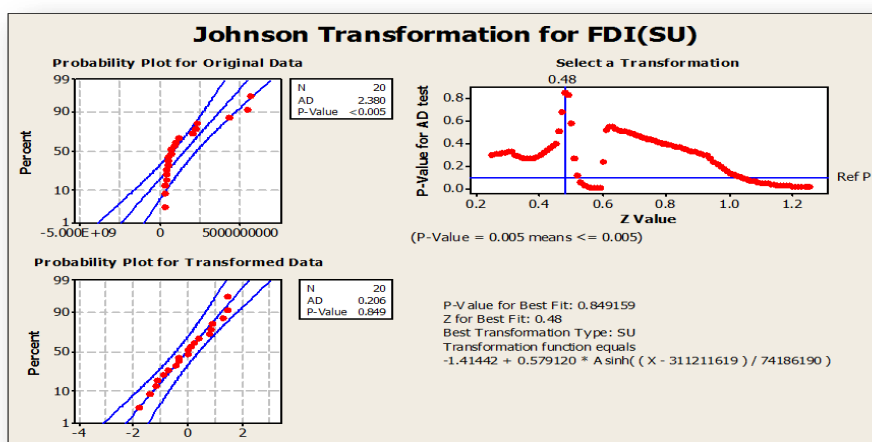

Fig. 1: Shows The Results of the Transfer of Foreign Direct Investment Data in Pakistan.
Source: from table 1 by using the Mintab-14 Demo program.

P-value for best Fit: 0849159

Z for Best Fit: 0.48

Best Transformation Type:SU

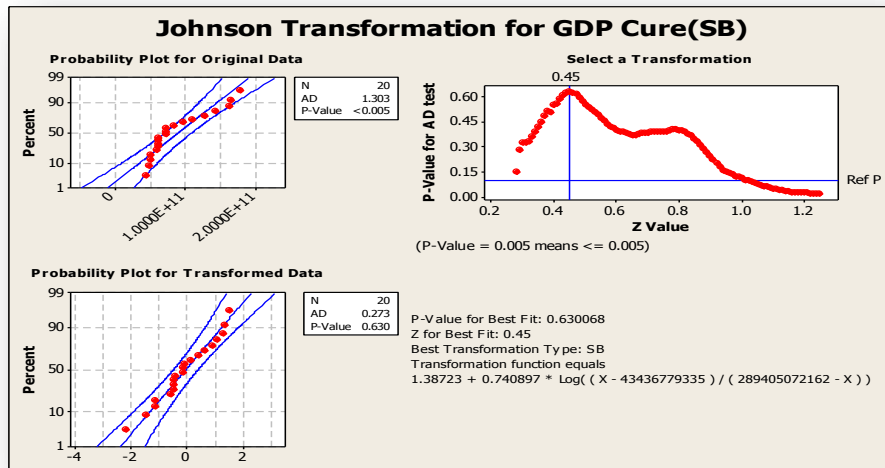Transformation Function equals: $-1.41442 + 0.579120 * Asinh((X-311211619)/74186190)$

Fig. 2: Shows the Format Transfer Johnson of GDP Pakistan and the Results of the Transformational Function.
Source: from table 1 by using the Mintab-14 Demo program.

P-value for best Fit: 0.630068

Z for Best Fit: 0.45

Best Transformation Type:SB

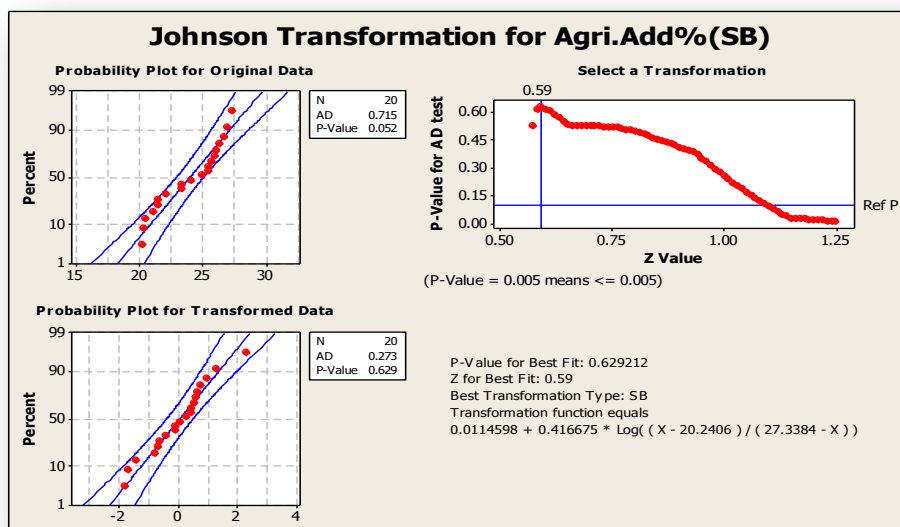Transformation Function equals:$1.38723 + 0.740897 * \log((X-43436779335)/(289405072162-X))$

Fig.3: Shows the Results of Transfer Value Added of the Agricultural Sector Variable in Pakistan.
Source: from table 1 by using the Mintab-14 Demo program.

P-value for best Fit: 0.629212

Z for Best Fit: 0.59

Best Transformation Type:SB

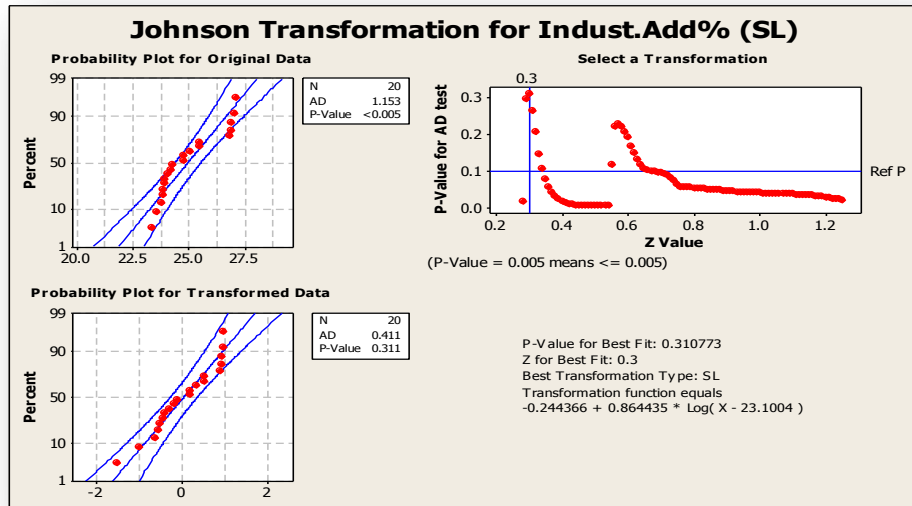Transformation Function equals:$0.0114598 + 0.416675 * \log((X-20.2406)/(27.3384-X))$

Fig. 4: Shows the Results of the Transfer and the Transformational Function Curves for Johnson
Source: from table 1 by using the Mintab-14 Demo program.

P-value for best Fit: 0.310773

Z for Best Fit: 0.3

Best Transformation Type:SL

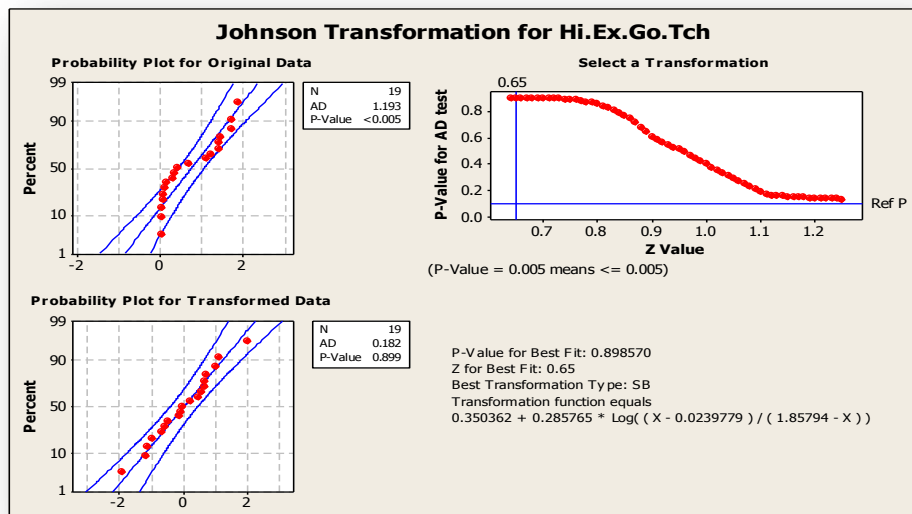Transformation Function equals:-0.244366+0.864435*log(X-23.1004)

Fig. 5: Shows the Results of Transfer Function Johnson and the Curves of Exports of High-Tech Goods Variable in Pakistan.
Source: from table 1 by using the Mintab-14 Demo program.

P-value for best Fit: 0.898570

Z for Best Fit: 0.65

Best Transformation Type:SB

Transformation Function equals:0.350362+0.285765*log((X-0.0239799)/(1.85794-X))
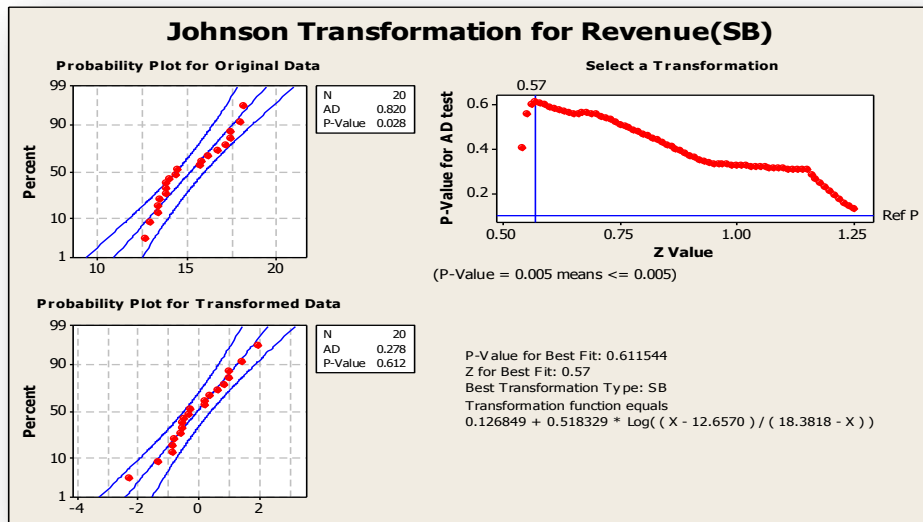
Fig. 6: Shows Variable Revenue Curve with all the Results the Johnson Transfer Depending the Function Chosen in Pakistan.
Source: from table 1 by using the Mintab-14 Demo program.

P-value for best Fit: 0.611544

Z for Best Fit: 0.57

Best Transformation Type:SB

Transformation Function equals:0.126849+0.518329*log((X-12.6570)/(18.3818-X))
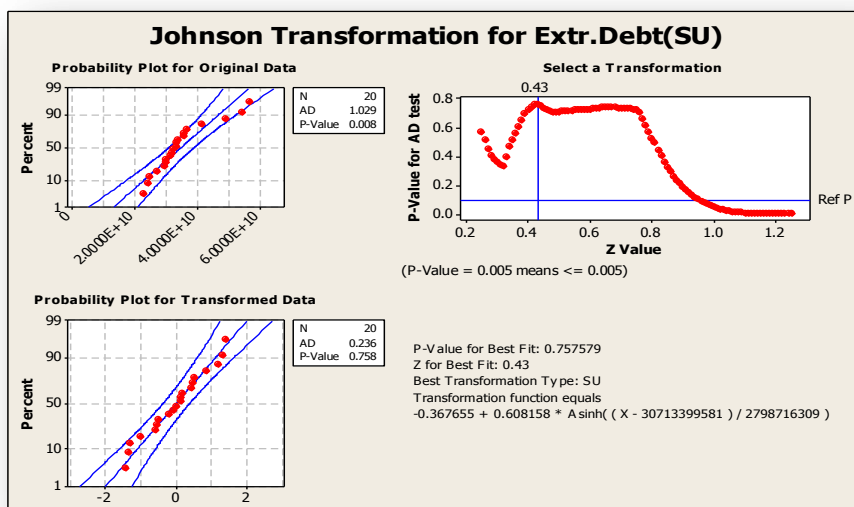

Fig. 7: Shows the Results the Transfer Johnson Total of External Debt Variable and the Curves of it.
Source: from table 1 by using the Mintab-14 Demo program.

P-value for best Fit: 0.757579

Z for Best Fit: 0.43

Best Transformation Type:SU

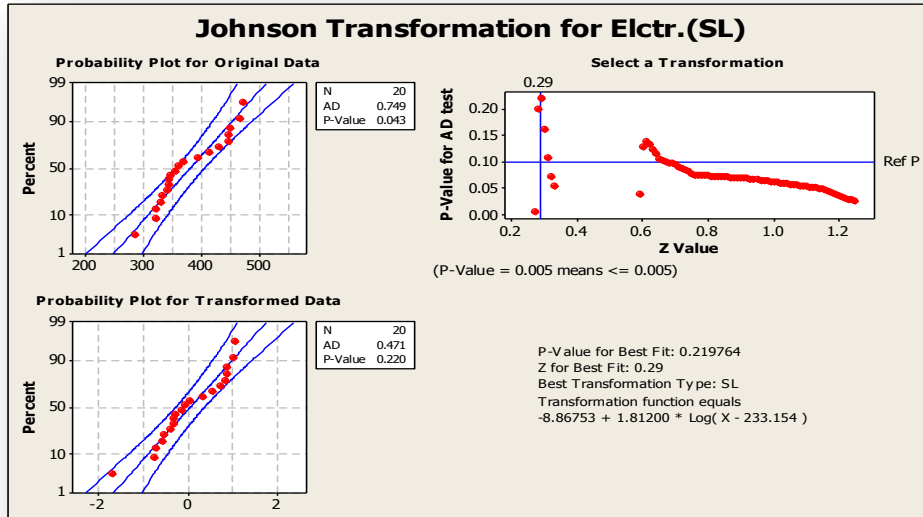Transformation Function equals:-0.367655+0.608158*Asinh((X-30713399581)/2798716309)

Fig. 8: Shows the results of estimating transfers Johnson variable electric power.
Source: from table 1 by using the Mintab-14 Demo program.

P-value for best Fit: 0.219764

Z for Best Fit: 0.29

Best Transformation Type:SL

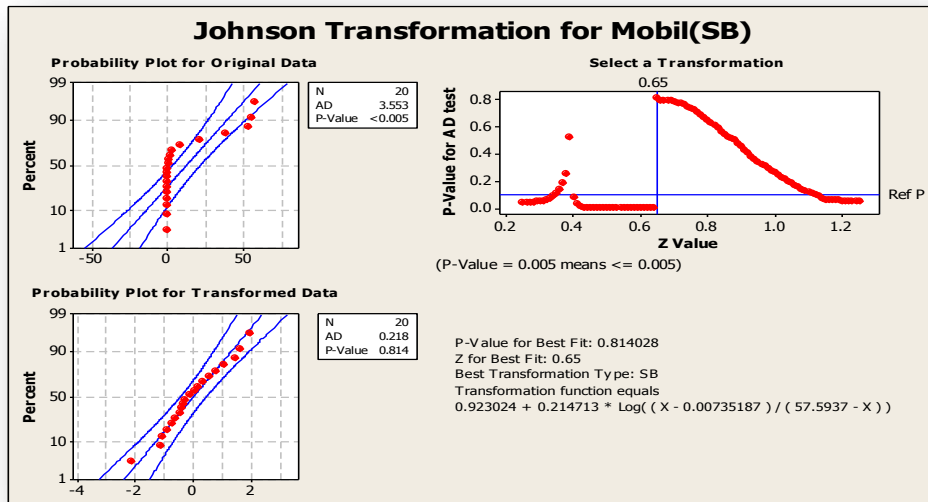Transformation Function equals:-8.86753+1.81200*log(X-233.154)

Fig. 9: Shows the results of estimating transfer Johnson and elected function curves number of cellular phone user's variable.
Source: from table 1 by using the Mintab-14 Demo program.

P-value for best Fit: 0.814028

Z for Best Fit: 0.65

Best Transformation Type:SB

Transformation Function equals:0.923024+0.214713*log((X-0.00735187)/(57.5937-X)).
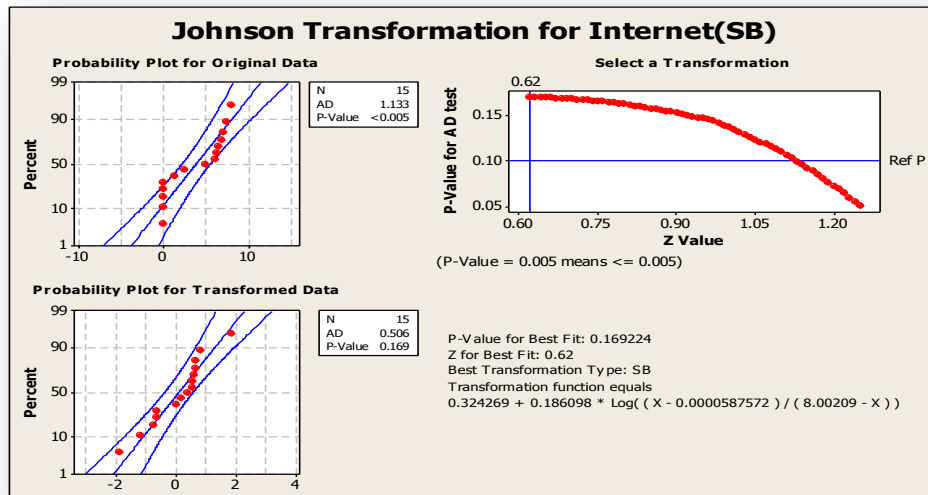
Fig.10: Shows the results of estimating transfers Johnson for a number of Internet user's variable.
Source: from table 1 by using the Mintab-14 Demo program.

P-value for best Fit: 0.169224

Z for Best Fit: 0.62

Best Transformation Type:SB

Transformation Function equals:$0.324269+0.186098*\log((X-0.0000687572)/(8.00209))$.
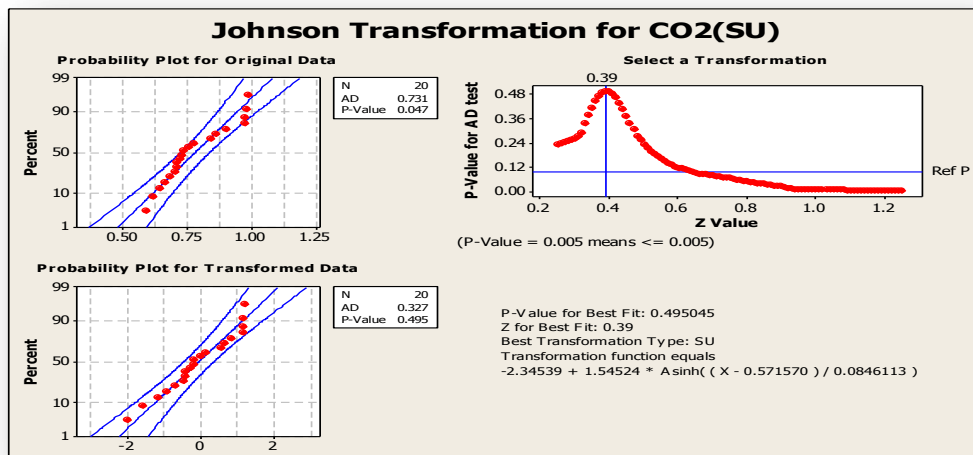
Fig. 11: shows the results of estimate transfers Johnson and Transfer function curves of pollution variable
Source: from table 1 by using the Mintab-14 Demo program.

P-value for best Fit: 0.495045

Z for Best Fit: 0.39

Best Transformation Type:SU

Transformation Function equals:$-2.34539+1.54524*A\sinh((X-0.571570)/(0.0846113))$

IV. THE MODEL

Description of the model

That any Econometrics model what only economic relations represents an economic phenomenon and hence the relationship model represented by economic variables that represent elements of the phenomenon of economic model, In this paper the elements phenomenon which is independent and dependent variables, can determine the dependent variables according to the description form, as follows:

❖ Development model: This model represents the gross domestic product and economics sectors of the State of the sample.

Parameters	GDP Model		Added value of the agricultural sector in GDP.		Added value of the industrial sector in GDP.		exports of high-tech goods as a percentage of the total Pakistani exports.		total external debt	
	Regression model by using the real data	Regression model by using the Johnson transformation	Regression model by using the real data	Regression model by using the Johnson transformation	Regression model by using the real data	Regression model by using the Johnson transformation	Regression model by using the real data	Regression model by using the Johnson transformation	Regression model by using the real data	Regression model by using the Johnson transformation
Constant	5982014465 (7.54)[1a]	-0.0015 (-0.01)[aaa]	25.719 (57.66)[1a]	0.0106 (0.06)[aaa]	24.0669 (86.23)[1a]	0.0399 (0.29)[aaa]	0.0250 (1.81)[1a]	-0.0006 (-0.0012)[1a]	2996315153 (13.23)[1a]	0.0444 (0.36)[aaa]
FDI	19.984 (5.60)[1a]	0.8311 (7.26)[1a]	-0.0000001421 (-5.82)[1a]	-0.7498 (-4.36)[1a]	0.0000001001 (4.56)[1a]	0.3965 (2.72)[1a]	0.0000000534 (4.75)[1a]	0.7319 (4.82)[1a]	3.122 (3.26)[1a]	0.6893 (3.33)[1a]
R^2	63.5%	74.5%	65.1%	51.4%	53.6%	29.1%	57.0%	57.8%	37.2%	61.2%
SE	2634663234	0.516808	1.48079	0.731554	0.926523	0.621190	0.464079	0.637131	751523101.4	0.550255
r	80%	86%	81%	72%	73%	54%	76%	76%	61%	78%
$F_{(2,10)}$	(31.33)[1a]	(52.65)[1a]	(33.84)[1a]	(19.03)[1a]	(20.76)[1a]	(7.36)[1a]	(22.54)[1a]	(23.26)[1a]	(10.64)[1a]	(28.43)[1a]
D.W	(0.483110)[out 1/a]	(1.2004)[in 1/a]	(0.538763)[out 1/a]	(0.94725)[between 1/a]	(0.868752)[out 1/a]	(0.746619)[between 1/a]	(0.570671)[in 1/a]	(0.957087)[between 1/a]	(0.410730)[out 1/a]	(0.965535)[between 1/a]

Models of economic indicators

❖ Models value added as a percentage of GDP to the sectors of agriculture, industry as well as to the foreign trade sector which represents exports of high-tech goods percentage of manufactured goods.

❖ Model of external debt: represents the dependent variable which assets total external debt DOD estimate to the U.S. dollar.

Pollution models

Represented by two models, one representing the dependent variable carbon dioxide estimated metric tons per capita and the second model represents the dependent variable ratio sanitation.

Informatics models

Also consist of the first two models representing the dependent variable cellular phone estimated for every 100 of the population, either second model represents the dependent variable number of Internet users per 100 estimated populations.

Formulation of the model

Researcher relies on a linear model as the best solution to reach the impact of FDI on development and growth in Islamic economies and which takes the following form:

$$Yi = \alpha + \beta\, Xi + Ui$$

Yi = Dependent variable (i=1,2,3,……….,n).
Xi = independent variable.
α = intercept.
B = slope.

And can estimate this model by the ordinary least squares method.

The theoretical prediction of signal parameter:

Expected researcher supposed that the impact of FDI is positive in its effects on all dependent variables except variable carbon dioxide which is referring negative It must appear signal negative for economic relationship and can explain that these negative showing causes no role for FDI in the influence of this type of variables.

The Estimation

Regression models to estimate the impact of FDI on economicindex as following table:

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$$t-table_{0.01} = 2.552 \; , t-table_{0.05} = 2.101, t-table_{0.10} = 1.734 \; , t-table_{0.20} = 1.330 \; , t-table_{0.25} = 0.688$$

$$F_{(2.20)}: 0.01\ table = 8.29 \;, F_{(2.20)}: 0.05\ table = 4.42 \;, F_{(2.20)}: 0.10\ table = 3.10$$

$$D.W_{0.01}: dl = 0.952 \;\; du = 1.147, \; D.W_{0.05}: dl = 1.201 \;\; du = 1.411$$

Between: Uncertain Area, in: acceptable Area ,out: Autocorrelation

Damdar N. Gujarati –Basic Econometrics- fourth Edition- McGraw –Hill companies -204-pp:961- 973[1]

Models		GDP Model		Added value of the agricultural sector in GDP.		Added value of the industrial sector in GDP.		exports of high-tech goods as a percentage of the total Pakistani exports.		total external debt	
I	Parameter	Regression model by using the real data	Regression model by using the Johnson transformation	Regression model by using the real data	Regression model using the Johnson transformation	Regression model by using the real data	Regression model by using the Johnson transformation	Regression model by using the real data	Regression model using the Johnson transformation	Regression model by using the real data	Regression model by using the Johnson transformation
	Constant	5982014.4165 (7.54)[a]	-0.0015 (-0.01)[a.a]	25.7149 (57.66)[a]	0.0106 (0.06)[a.a]	24.0669 (86.23)[a]	0.0099 (0.29)[a.a]	0.0520 (1.81)[a.a]	-0.0006 (-0.0012)[a.a]	3995151551 (13.23)[a]	0.0444 (0.36)[a.a]
	FDI	19.984 (5.60)[a]	0.8311 (7.26)[a]	-0.0000000142 (-5.62)[a]	-0.7498 (-4.36)[a]	0.000000001 (4.56)[a]	0.3965 (2.72)[a]	0.000000854 (4.75)[a]	0.7319 (4.62)[a]	3.177 (3.26)[a]	0.6693 (5.33)[a]
	SE	263466454	0.516808	1.48079	0.731554	0.926523	0.631190	0.464079	0.637131	731529104	0.650255
	R²	63.5%	74.5%	65.3%	51.4%	53.6%	29.1%	57.0%	57.8%	37.2%	61.2%
	r	80%	86%	81%	72%	73%	54%	76%	76%	61%	78%
	F(2.30)	(31.33)[a]	(52.65)[a]	(33.64)[a]	(19.03)[a]	(20.76)[a]	(7.38)[a]	(22.54)[a]	(23.26)[a]	(10.64)[a]	(28.43)[a]
	D.W	(0.483110)[net.1a]	(1.20043)	(0.538763)[net.1a]	(0.94725)[between.1a]	(0.866752)[net.1a]	(0.746819)[net.1a]	(0.576671)[net.1a]	(0.957067)[between.1a]	(0.410730)[net.1a]	(0.965535)[between.1a]

V. CONCLUSIONS

1- The impact FDI on GDP

Show of estimate that the regression model with data transformational for both variables has passed statistical tests and standard and been affected by FDI to GDP is positive and thus when to increase it will increase GDP value parameter If we increase investment one unit and show statistical and Econometrics tests significant parameter investment and significant model, as well as being free of problem of the Autocorrelation between self-residue random .

2- The impact FDI on the added value of the agricultural sector

Evidenced by the estimate the second model transfers Johnson both variables was the best models estimate of the economic relationship between FDI and the added value of the agricultural sector showed parameter investment significant at the level of significance of 1% as well as the estimated model at the same level on the basis of F-test and proven estimate free the model of problem Autocorrelation therefore can reliance on this model in the interpretation of the economic relationship as a show

of estimate FDI relationship and value added in the agricultural sector a negative relationship and therefore, the researcher believes that there is no role for FDI in the agricultural sector of Pakistan.

3- The impact FDI on the added value of the industrial sector

Estimate of impact the FDI on the value-added of the industrial sector becomes clear that the second models have passed the tests of statistical t, F did not pass the econometrics tests and therefore cannot be accepted the relationship because of having a problem econometrics but nevertheless they have emerged relationship FDI and value-added of the industrial sector relationship is positive, indicating that there is a clear impact in the industrial sector and there is a role to invest in it.

4- The impact FDI on the exports of high-tech goods

We are seen from the estimate of impact FDI on the exports of high-tech goods as a percentage of the total Pakistani exports that all the models estimated passing statistical tests but did not pass the econometrics tests with the exception of the regression model with data transformational, as the value of D.W has signed value calculated in the decision that's not crucial near the autocorrelation negative area and it is believed the researcher including that all tests were significant, the model near the fact in the interpretation of the relationship between FDI and exports of high-tech and this explains that foreign companies that invest in these commodities used cheap labor cost Pakistan in the production of such goods and exported abroad and this it stated parameter investment as it was its signal positive, which means that investment a positive impact on high-tech goods exports.

5- The impact FDI on the external debt

The estimate of impact FDI on the external debt that the best model estimator is the second model transfers Johnson both variables has passed all statistical tests and Econometrics tests and the relationship between FDI and external debt total positive relationship, when increase the variable of FDI leads to an increase of external debt, which means that there's all money go loans to investment in banks and this explains the positive relationship.

6- The impact FDI on the CO2

Although the estimate of impact FDI on the CO2 passing models statistical tests, but they did not pass econometrics tests represented D.W test the existence of the problem of autocorrelation which excludes relying on any estimator model to explain the relationship between investment and CO2.

7- The impact FDI on the consumption of electric power

The results of the second model transfers Johnson is the best model is estimated reflects the economic relationship between foreign investment and consumption of electric power, which is characterized by positive relation which shows that FDI also has a clear effect on the production of electric power as well as the consumption of special factories. The following shapes are lines regression models estimate the impact of foreign direct investment on the electrical power consumed.

8- The impact FDI on the number of cellular phone users per 100 populations.

The best estimated regression model is the second model transfers Johnson both variables as passed all statistical and econometrics tests and thus can be relied upon to interpret the economic relationship and that relationship FDI number cellphones positive relationship any increased investment leads to increase the number of mobile users this to say that investment big role in the presence of private companies in the networking thus affecting availability of information and the speed of transition in Pakistan, and graphs showing lines regression estimated and can observe regression line estimated using transfers Johnson both variables as the best line of regression models other two.

9- The impact FDI on the number Internet users per 100 populations.

From the above results, it turns out that all models estimated the impact of investment has passed statistical tests and the first model did not pass the econometrics tests represented test D.W and also that about 5 samples of the total sample, which showed that models have suffered from the problem of autocorrelation and therefore cannot rely on them to interpret explain economic due estimate failure to find the correct results, realistic and logical and therefore reject this estimate.

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