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Econometrics Paraphernalia, Big Data for G-20 Countries to Uplift through Scientific Analysis: A Conceptual View on Data Analytics

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Abstract
The study tried to analyses whether econometric tools and big data for G20 countries and beyond upliftment can be used for scientific analysis for sustainability so that in real life, theory can be attained and better utilization for benefits of G20 leadership by India through using appropriate data analytics. This may help to take suitable decision rapidly. As such research question is whether econometric tools and big data can be used for sustainability through scientific analysis in field of reality for the betterment of G-20 countries and also other countries of the earth irrespective of developed and underdeveloped countries? The study is mainly done based on conceptual view. Time period of the study is from January, 2023 to April, 2023.The study found that with caution econometrics tools and big data must be used for perspectives of macro and micro-scenario while big data can be used for larger volume of data right direction to the policy makers and appropriate leadership. Author suggested that econometrics tools should be used with appropriate carefulness so that spurious relationship cannot be disseminated rather if necessary qualitative judgment needs to be discussed to give clear cut picture of the estimated results based on the reality. Big Data analysis can help G-20 countries by acting a serious part in navigation the international economy over the noteworthy trials the situation expressions as commented by the author. Data analytics are progressively getting more positioning for enchanting rapid choice of the global, regional, domestic trade and business, financial, health, education sector, agricultural sector etc. Big data is nowadays in performance can carry vital role for large volumes of data which may be tested to assess the impact of G20 into diversified countries of the globe to attain sustainability.

Key Words: *Big Data, Econometric and Statistical Methods, Econometric Modeling, Micro econometrics, Macro Econometrics, G20, Financial Econometrics, Data Analytics.*

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1. INTRODUCTION

Econometrics uses economic theory, mathematics, and statistical inference to quantify economic phenomena (Ouliaris, 2011). It is a combination of economics, mathematical economics and statistics with an unbiassed to deliver numerical values to the parameters of economic associations. Econometrics differs both from mathematical statistics and economic statistics. Sustainability can effortlessly be collective, as well- renewable energy and resource management of a country is among the urban, the semi-urban and the rural sector. As such big day a may help sustainability of a country to understand the situation. Econometrics as statistical methods after adapting them to the problems of economic life can be used. These adopted statistical methods are usually termed as econometric methods. Such methods are adjusted so that they become appropriate for the measurement of stochastic relationships. These adjustments basically attempt to specify attempts to the stochastic element which operate in real world data and enters into the determination of observed data. There are several tools within econometrics that economists can use. These tools can use mathematical statistics and statistical theory to evaluate and develop economic hypotheses. Data analytics, digital innovation and creativity and also big data etc. are vital expansionary measures for the future trials in altogether corporate and financial parts of diversified countries including advanced, emerging and underdeveloped countries. Econometricians alter models established by economic theorists into forms that can be assessed. An economic model is generally a representation of diverse variables that exemplifies an association between the variables.

https://www.dfat.gov.au/trade/organisations/g20 (viewed on 20th April, 2023) commented that the G20 member countries conveys composed of the earth's foremost and systemically significant economies and its members signify 85% of global GDP, 75% of international trade and two-thirds of the earth's population. From 1st December 2022, India is the President of the G-20 member countries. Unfortunately, Bangladesh is not the member countries of the G-20 counties.

López-Robles et al. (2019) commented that big data term has a multidimensional approach where five main characteristics stand out: volume, velocity, veracity, value and variety which can help policy makers of the G20 countries and beyond. Big Data tend to be mixed-frequency data: when many series are examined, it is highly unlikely that all will be measured at the same frequency, unless all frequencies but one is arbitrarily discarded (https://www.sas.upenn.edu/~fdiebold/NoHesitations/DGMZ_intro.pdf, Viewed on 20.3.23). Statistical inference is a technique of creation of choices about the parameters of a population, founded on random sampling. Barnes, Guo, & Chan (2022) described that current developments in data-driven decision-making analytics investigate concentrating on diverse features of sustainability. As such sustainability is very much needed for not only economic development but also attain on human welfare and so that no one can behind left as per the fulfillment of SDGs 17 and their total 169 targets.

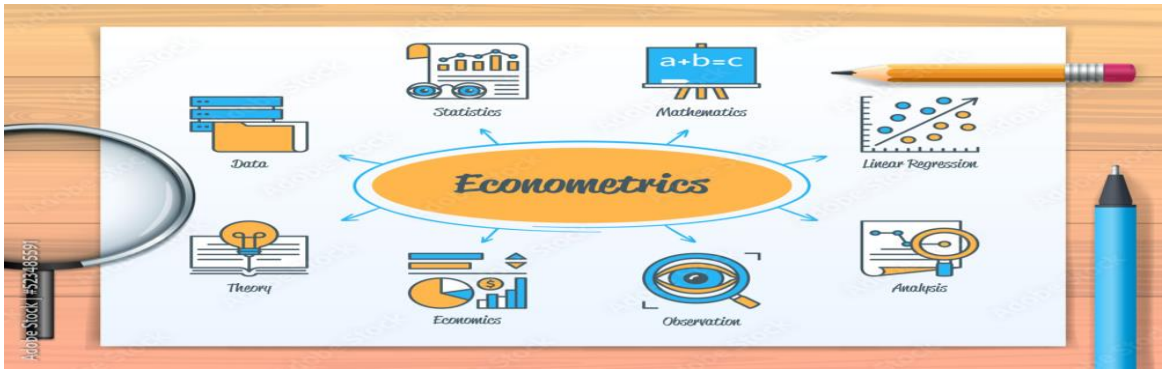
Econometrics skills are being required: sufficient math skill; Analytical ability; communicating ability; Problem-solving techniques. Econometrics is the science of testing economic theories. It is the set of tools used to forecasting future values of economic variables. It is the process of fitting mathematical economic model to real-world data. However, due to a nonexistence of diverse

modern technologies in earlier centuries, the real, monetary and external sector have faced several problems, resulting in significant issues in the organization's socio-economic, political and legal position. Quantitative analysis is the act of obtaining and analyzing measurable and verifiable data.

It is the science and art of using historical data to make quantitative policy recommendations in government and business. Purposes of Econometrics can be mentioned below: Formulation and specification of econometric models; Estimation and testing of models; Use of models.

Chart 1: Shows the econometrics with different dimensions at below.

Chart: 1



(Source: https://www.shutterstock.com/image-vector/risk-management-chart-icons-keywords-standard-2190103989, viewed on 5th March, 2023)

Chart: 2 Smiling young businesswoman standing near a concrete wall with business infographics and schemes. Concept of data representation.

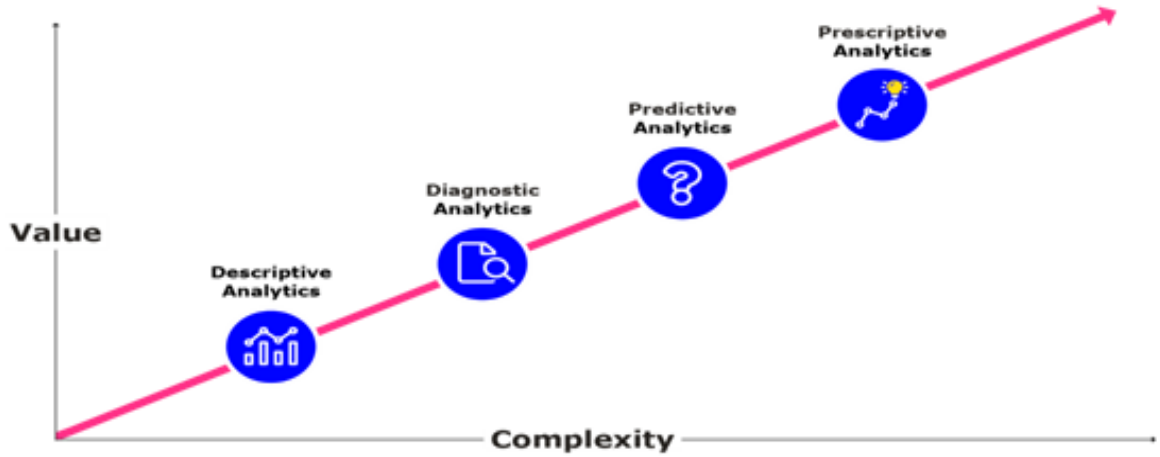
Chart: 2

(Source: https://www.123rf.com/photo_73813995_smiling-young-businesswoman-standing-near-a-concrete-wall-with-business-infographics-and-schemes.html?vti=m9sdh59btvdqf7ojtc-5-18&is_plus=1&origin=1, viewed on 22.03.23)

Bangladesh is an emerging country and it has been using digitization and as such digital innovation is properly utilizing. With the advent of time digital innovation and creativity in Bangladesh may rise. Relatively banking sector in Bangladesh is trying to accommodate digitization process. Education sector of the country also got benefits through arranging on line education during COVID-19 and after math. Data mining is a procedure applied through businesses to transform raw data which is being interested in beneficial to provide appropriate information.

Data analytics is the procedure of investigation of data sets in order to discovery trends and decision for concluding remarks about the information they cover. Data analytics can be beneficial for taking appropriate decision making. "Algorithms and machine learning also fall into the data analytics field and can be used to gather, sort, and analyze data at a higher volume and faster pace than humans can"(Cote, 2021). Data analytics are four types: Descriptive analytics; Diagnostic analytics; Predictive analytics; Prescriptive analytics (Source: https://www.futurelearn.com/info/courses/introduction-to-data-science-for-business/0/steps/264318,viewed on 1st Janaury,2023).

Figure: 1 Type of Data Analytics



Source:https://www.futurelearn.com/info/courses/introduction-to-data-science-for-business/0/steps/264318,viewed on 1st January, 2023

Economists were stepped into laboratories to generate data; other scientific researchers felt the same need to validate their hypotheses and had to collect data. Big data can be used in a larger volume of research work especially among the G20 member countries as well as beyond other countries of the earth.

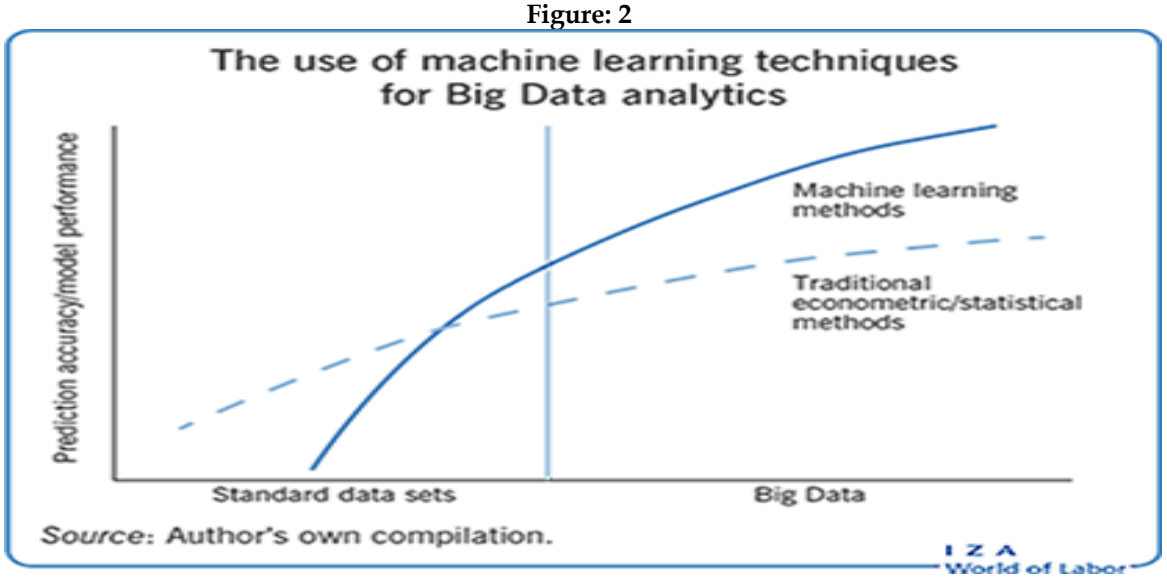
2. USE OF BIG DATA

The absolute magnitude of the big data elaborate may necessitate more commanding data manipulation tools. Research may have more potential predictors than appropriate for estimation,

so that researcher needs to do some kind of variable selection. Large datasets may allow for more flexible relationships than simple linear models which will help data analytics. Machine learning methods such as decision trees, support vector machines, neural nets, deep learning, etc. may permit for more operative customs to model complex relationships.

Figure: 2 shows below the use of machine learning techniques for big data analytics.

Figure: 2



(Source: Harding, & Hersh, https://wol.iza.org/articles/big-data-in-economics/long, viewed on 02.02.2023)

A good example is the ongoing debate over existing models' failure to predict or untangle the impact on the global economy due to the ongoing Russia-Ukraine War and creation of global recession over the G20 member countries and beyond. Now if we consider testing around impact of more than 150 countries macroeconomic factors then we may take big data of for an emerging country like Bangladesh the researcher can see after 52 years of independence how macro economy over the time period goes through the ups and downs.

With increasing use of data and manifold interdisciplinary research questions addressed to it the panels become larger and more complex which will be helpful to get accurate data analytics for the benefits of the India's slogan of G20.

3. RESEARCH QUESTIONS

Research question of the study is whether econometric tools and big data can be used through scientific analysis in field of sustainability for the betterment of G-20 countries and also other countries of the earth irrespective of developed and underdeveloped countries?

4. OBJECTIVES OF THE STUDY

[i] To proper utilization of data analytics to take decision making process through utilizing the econometrics tools and big data.

[ii] To estimate how G-20 can utilize data analytics for applicability's of econometrics and big data.

[iii] To provide some impactions of the study.

5. LITERATURE REVIEW

Federer (1991) described that who is knowledgable about the theory and application of sampling procedures,shouldbe employed. Five desirable properties of any econometric model are as follows: Theoretical plausibility; Explanatory ability; Accuracy of the estimates of the models' parameters; Forecasting ability; Simplicity (Koutsoyiannis, 1978). Different Stages of Econometrics can be mentioned as: Develop a theory or hypothesis; specify a statistical model; Estimate the model's variables; perform a test. Schumpeter (1978) argued that it is unreasonable to expect the economist to forecast correctly what will actually happen as it would be to expect a doctor to prognosticate when his patient will be the victim of a railroad accident and how this will affect his state of health. Griffiths et al.(1993) depicted that great stress is placed on the proper analysis and interpretation of economic data. Hansen (1996) described that econometrics is alchemy since econometricians can create nearly any result desired, but it is also science because econometricians also know how to reject and avoid spurious models. Pindyck, & Rubinfeld (1998) opined that the decision to build a time -series model usually occurs when little or nothing is known about the determinants of the variable being studied ,when a larger number of data points are available and when the model is to be used largely for short-term forecasting. Stock, & Watson (2003) argued that the conceptual framework for the analysis requirements to deliver together a numerical response to the question and a measure of how exact the reply stands. Greene (2004) argued that the ARDL is model with a classical disturbance. Kumar (2005) commented that in the process of formulating a research problem there are two important considerations: the use of concepts and the construction of hypotheses.

Agung (2009) depicted that to select the best option for a specific data set is not an easy task (22). Baltagi (2011) observed that the encounters for the 21st century is to thin the gap between theory and practice but this gap has been broadening with theoretical research increasing more and more abstract and extremely mathematical without an application in unimportant in practical field. Big Data's other remaining challenge of creating new approaches to data management and analysis is also no small feat (Kempe, 2012). Kohler, & Kreuter (2012). stated that "in practice, however, reading data into stata is not always that easy -either because the data you want to use are in a format other that Stata ,such as SAS ,SPSS or excel or because they are not available as a machine readable dataset." (395). Fan, Han ,& Liu (2014) emphasized that on the viability of the sparsest solution in high-confidence set and point out that exogeneous assumptions in most statistical methods for Big Data cannot be validated due to incidental endogeneity and can lead to wrong statistical inferences and consequently wrong scientific conclusions. Landefeld (2014) observed that with cautious care to incentives, protection of privacy, and combination of non-statistical data with existing statistical data, big data can perform a great role in enlightening the

correctness, appropriateness, and significance of economic statistics at a lower cost than growing current data collections. Mayer -Schonberger, & Cukier (2014) described that "Big data helps us do what we already do better, and it allows us to do new things altogether" (194). Varian (2014) described that Orthodox statistical and econometric techniques such as regression often work well, but there are issues unique to big datasets that may require different tools.

Agénor, & Montiel (2015) described that energetic stochastic general equilibrium (DSGE) models with financial resistances was further to replicate in what way the financial crisis takes redesigned human thinking on the part of such resistances in creating and spreading actual and financial shocks for which their might needuse of big data toanalyseforsustainability.To build up a competitive advantage related to big data firms need to develop two new competencies: firms need to attract employees who have the ability to develop and train algorithms or to design and/or to set up and run meaningful experiments; firms need to use big data to look forward and understand evolving customer needs (Lambrecht, & Tucker, 2015). Kothari, & Grag (2016) opined that sample design refers to the technique or the procedure the researcher would adopt in selecting items for the sample. Wang, & Liu (2016) mentioned that they implemented their modeling method into a unified data analytics platform, which allows to incorporate analytics algorithms as plug-ins in a flexible and open manner. Mullainathan, & Spiess (2017) argued that "Machine learning algorithms are now technically easy to use: you can download convenient packages in R or Python." Wrg (2019) depicted that "Both Econometrics and Machine learning try to define a function that defines a set of predictor variable that will model a predicted variable:

$$y = f(X) + \varepsilon$$

$$X = (x_1, x_2, \ldots, x_n)$$

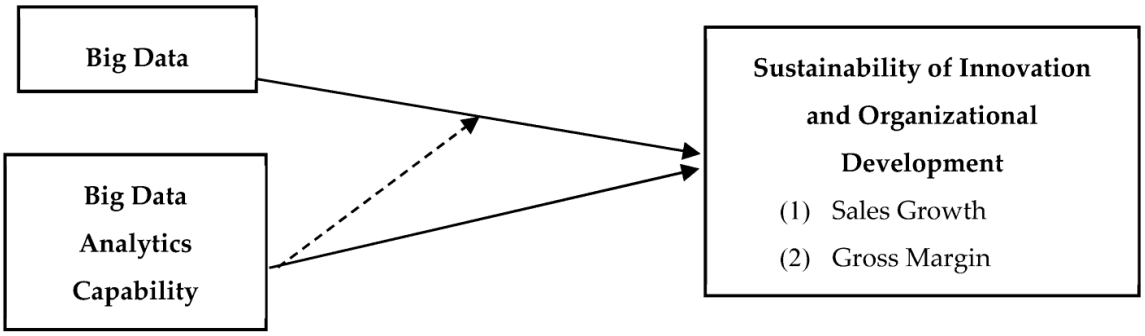
ε are realizations of random variables i.i.d., of law N (0, σ2) also called residual and come from econometrics, otherwise y = f(x) belong to machine learning….. Machine learning purpose is y in most of case meanwhile Econometrics purpose is to estimate β of each predictor.

$$y = \beta_0 + \beta_1 x_1 + \ldots + \beta_n x_n$$

Lv, Iqbal, & Chang (2018) depicted that scientific simulation based on big data and collaborative work has to be developed for succeeding Computer-Aided Design/Engineering (CAD/E) of sustainable systems. Urban big data to solve research problems in spatial science (Yamagata, & Seya, 2019) which is a considerable constituent of current anthropological natural features.

Hao, Zhang, & Song (2019) built following theoretical model for big data resources influence sustainability of innovation and organizational development which is shown in Figure: 3

Figure: 3



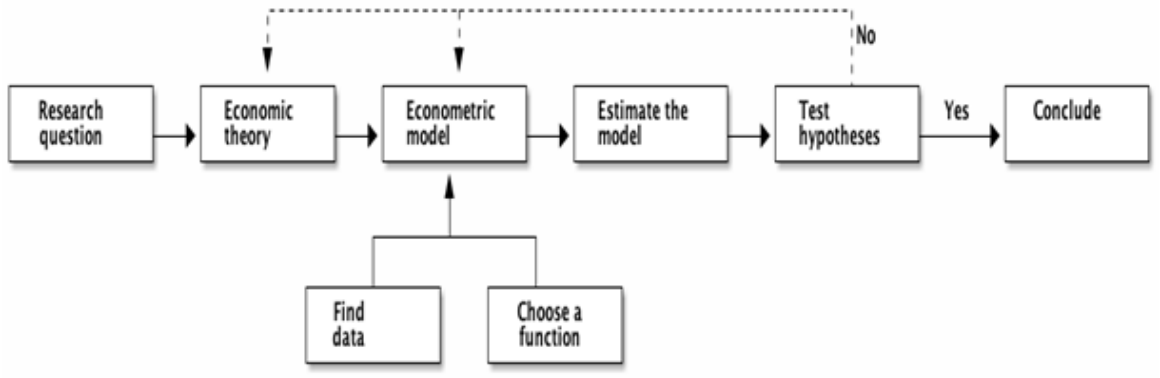
(Source: Hao, Zhang, & Song, 2019)

Ali(2020) found that though massive investment will be needed but in the long run medical robots and block chain technology will helpful for the patients in Bangladesh as they can get better health care management system. Gentle (2020) argued that to partition the observed variation in one variable into variation due to its relationship to the other observable variable and residual, unexplained variation. Mukherjee et al. (2020) commented that in the field of financial econometrics, big data has been created tremendous gains as the amount of data available for using modeling and prediction.

Bickley, Chan, & Torgler (2022) opined that AI and Big Data will not solve the problem of compatibility of intentions and expectations of different people. Salcedo, & McCormick (2020) commented that in SPSS, one must use the compute variable dialog and researcher's formula is not saved in the dataset-only the result is saved in the dataset (438). Saran, & Sarma (2022) argued that at the G20 Leaders' Summit in Bali last month, Prime Minister (PM) Narendra Modi pledged that the principle of "data for development" will be integral to India's G20 presidency.

A workflow of Econometric Research

Chart: 3



(Source:https://isem-cueb-ztian.github.io/Intro-Econometrics-2017/handouts/lecture_notes/lecture_1/lecture_1.html, viewed on 3.3.23)

6. METHODOLOGY OF THE STUDY

The study is done based on secondary sources. Exact sources will be mentioned. Time period of the study is from January 2023 to April, 2023.A conceptual view on data analytics has been reflected in the study. Exact sources of quotation will be mentioned.

7. TYPES OF ECONOMETRICS

Theoretical econometrics: The theoretical econometrics includes the development of appropriate methods for the measurement of economic relationships which are not meant for controlled experiments conducted inside the laboratories. The econometric methods are generally developed for the analysis of non-experimental data.

Applied econometrics: The applied econometrics includes the application of econometric methods to specific branches of econometric theory and problems like demand, supply, production, investment, consumption, savings, purchasing power parity, exchange rate etc. The applied econometrics involves the application of the tools of econometric theory for the analysis of economic phenomenon and forecasting the economic behavior.

Econometrics may include time-series analysis or regression analysis. It consists of multiple linear regression. Some other econometrics tools include linear programming, correlation, and regression, simulation equation, frequency or a probability distribution, etc.

8. SCIENTIFIC METHOD

The scientific method comprises making an observation, forming a question, creating a hypothesis, experimenting, analyzing, and concluding the experiment. Make observations and choose sample based on population. Kmenta (1986) observed that statistical inference is concerned with generalizations about the population on th basis of information provided by a sample. Gujrati (2015) described that statistical inference requires estimation and hypothesis testing.

A research problem is a clear statement about an area of concern, a condition to be improved upon, a difficulty to be eliminated, or a troubling question that exists in scholarly literature, in theory, or within existing practice that point to a need for meaningful understanding and deliberate investigation.

The Sentinel (2022) described that G20 Agenda set be India was under the theme of "One Earth, One Family, One Future" on 1st December, 2022.They argued that Pime minister Narendra Damodardas Modi of India's has been stressed upon G20 priorities will be established in collaboration with both its G20 partners and its fellow travelers from the global South.

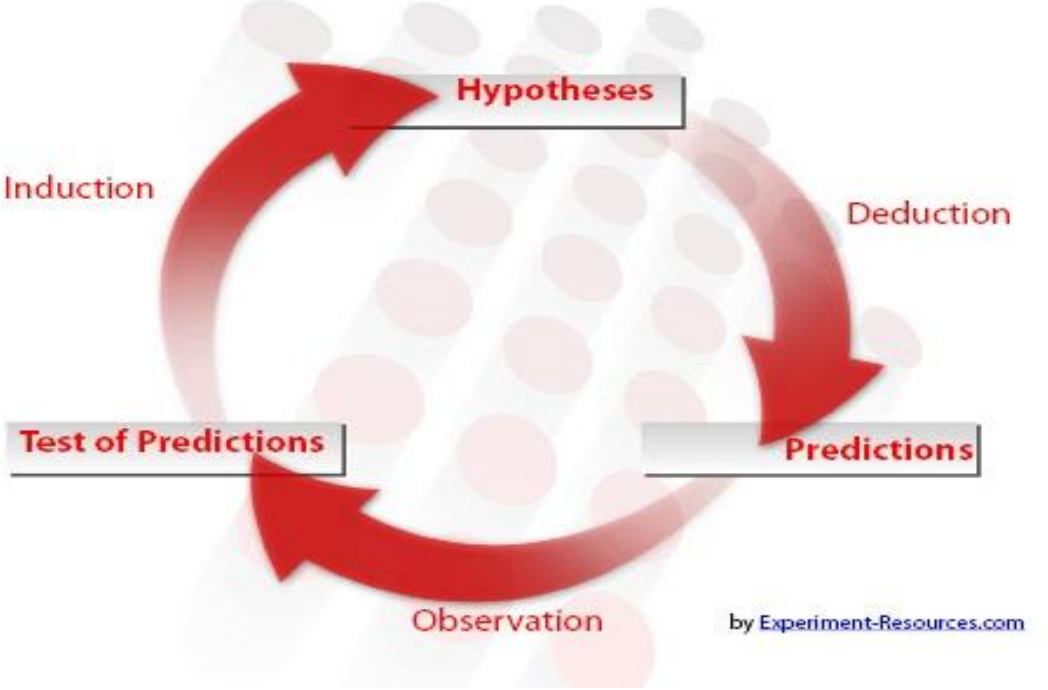
Propose a hypothesis is being considered as an idea which needs to establish in real life. For example, that if we assume null hypothesis as G 20 does not helpful to create One Earth, One Family, One Future then alternative hypothesis G 20 does not helpful to create One Earth, One Family, One Future. On the basis of the hypothesis, one tailed or two tailed testing is being used. However, the testing of the research work need to be free from Type: I, Type: II error free and also free from type III and type IV error.

Experimental design is to test the hypothesis which must be scientific reasoning. Then the study must determine whether or not the hypothesis is accepted or rejected. Findings of the Analyze the results of the experiment to form a conclusion and implications of the study is being required.

9. ESTIMATION OF THE RESULTS

This method helps to fast knowledge is learning by reasoning. Reliability and validity are ideas used to measure the distinction of research. Reliability mentions to the level to which the consequences can be copied when the research is frequent beneath the like circumstances. Validity refers to how exactly a technique events what it is intended to the amount. Now in the chart: 4, the study will show how hypothesis building to test of predictions where observations are actively in a circular flow act to do the research work.

Chart: 4



(Source:https://isem-cueb-ztian.github.io/Intro-Econometrics-2017/handouts/lecture_notes/lecture_1/lecture_1.html, viewed on 3.3.23)

Induction refers to particular to general while Deduction refers to General to particular.

Econometrics can help economists to test theories or hypotheses, whether existing or new or specially to prove the worthiness of G20 slogan made by India to transform into reality for which need to become accurate, reliable and timely data analysis and is implementing being required. It can convert data into a specific model to make decisions that support empirical data. It allows economists to convert economic theories into quantifiable metrics.

Econometrics is also crucial for establishing trends between datasets. Economics includes theories or models, which are usually qualitative statements. By using econometrics, economists can convert qualitative statements into quantitative statements. It uses statistics, economic theories, and mathematics to test economic phenomena. Econometrician can use prepackaged software that allows for straightforward analysis.
Multiple linear regression, heteroscedasticity, restrictions in hypothesis testing, issues of model misspecification and an introduction to big data techniques such as shrinkage methods to exploit large datasets for statistical inference.

9.1 Priori Model

For each of the independent variables in the data set, what is the researcher's "a priori" expectation of the sign of the relationship with dependent variable.

9.2 Model specification

Estimator must be BLUE which means best, linear, unbiased estimator. Researcher should be cautiously handling to specify the model.
Now the study will quote from Ali, Tiwari, & Raza (2017)' article which was referred in the reference of this article:

Quote

"In this section the study briefly explains about Autoregressive Fractional Integrated Moving Average (ARFIMA) model, Fractional Integrated GARCH (FIGARCH) model and the Fractional Integrated Asymmetric Power ARCH (FIAPARCH) model.

Autoregressive Fractional Integrated Moving Average (ARFIMA) model

Following the Granger and Joyeux (1980), and Hosking (1981), for the series $x_t, t = 1,...,T$ the ARFIMA(r, d, s) model may be expressed as follows:

$$\Psi(L)(1-L)^d(x_t-\mu)=\Theta(L)\varepsilon_t \quad (1)$$

$$\varepsilon_t = z_t\sigma_t \quad z_t \sim (0,1), \quad (2)$$

Where μ is conditional mean and ε_t is independent and identically distributed (i.i.d.) with a variance σ^2, and L is the lag operator as denoted earlier. $\Psi(L)=\psi_1 L+\psi_2 L^2+...+\psi_r L^r$ and $\Theta(L)=\theta_1 L+\theta_2 L^2+...+\theta_s L^s$ are the autoregressive (AR) and moving-average (MA) polynomials lie outside of unit cycles, respectively.

The process is said to be long memory at the long run as long as $d > 0$ in equation (1). In particular, for $d \in (0,0.5)$, and $d \neq 0$, the series is covariance stationary and mean reverting, with shocks disappearing in the long run; for $d \in (0.5,1)$, the series imply mean-reversion, however, it is not a covariance stationary process as there is no long run impact of an innovation

on future values of the process. For $d \geq 1$, the series is non-stationarity and non-mean-reversion. On the contrary, the process is said to exhibit intermediate memory, for $d \in (-0.5,0)$.

Fractional Integrated GARCH (FIGARCH) Model

Similar research on the volatility has led to an extension of the ARFIMA representation in ε_t^2, leading to the FIGARCH model. Baillie et al. (1996) have extended the traditional GARCH model to capture the long memory component in the return's volatility. The FIGARCH (p, ξ, q) model is given by

$$\phi(L)(1-L)^{\xi}\varepsilon_t^2 = \omega + [1-\beta(L)](\varepsilon_t^2 - \sigma_t^2)$$

or

$$\sigma_t^2 = \omega + \beta(L)\sigma_t^2 + [1-\beta(L)]\varepsilon_t^2 - \phi(L)(1-L)^{\xi}\varepsilon_t^2$$

Where $\phi(L) = \phi_1 L + \phi_2 L^2 + ... + \phi_q L^q$, and $\beta(L) = \beta_1 L + \beta_2 L^2 + ... + \beta_p L^p$. All the roots of $\phi(L)$ and $[1-\beta(L)]$ are assumed to stand in outside the unit root. The FIGARCH model provides greater flexibility for modeling the volatility as it nests GARCH. If ξ = 0, the FIGARCH (p, ξ, q) process reduces to a GARCH (p, q) process. The impact of a shock is said to decrease at a hyperbolic rate when 0<ξ<1. By allowing ξ to take a value within 0 and 1, FIGARCH permits for an intermediate range of persistence.

The Fractional Integrated Asymmetric Power ARCH (FIAPARCH) model

To take into account both the long memory and asymmetry features in the process of conditional variance behaviour, Tse (1998) has extended the FIGARCH (p, ξ, q) by introducing the function $\left(|\varepsilon_t| - \gamma\varepsilon_t\right)^{\delta}$ of the APARCH process. Formally, the FIAPARCH (p, ξ, q) can be written as follows:

$$\sigma_t^{\delta} = \omega[1-\beta(L)]^{-1} + \{1-[1-\beta(L)]^{-1}\rho(L)(1-L)^{\xi}\}\left(|\varepsilon_t| - \gamma\varepsilon_t\right)^{\delta}$$

where δ, γ and ξ are the model parameters. Some stylized facts on stock volatility can be captured utilizing the FIAPARCH process. For instance, if 0<ξ<1, as stated earlier, the volatility exhibits the long memory process. The γ $(-1 < \gamma < 1)$ accounts for the volatility asymmetry, in which positive and negative returns of the same magnitude do not generate an equal degree of volatility. The negative shocks are said to have more impact on volatility than positive shocks when γ>0, vice versa. The δ (δ>0), is a coefficient for the power term and should be specified by the data. The FIAPARCH process nests the FIGARCH process when γ=0 and δ=2.

The parameters of the various-type of GARCH models can be estimated by using nonlinear optimization procedures to maximize the logarithm of the Gaussian likelihood function.

10. DISCUSSION

Actually, aforesaid quotation is being used from the researcher's co-authored paper to give an idea how model can be specified which is very much important to get appropriate result and not spurious result and on that basis the researcher(s) can draw conclusion after estimation of the results which will be helpful for industrialist, agriculturist, educationist, environmentalists, health managers, doctors, nurses, tax personnel, financial activist, inclusion of financially unbanked, people national board of revenues, central banks of the countries, Balance of payments, travelers, entrepreneurs, law and order agencies, too build one planet, and overall policy makers and leaders of the world. G20 needs appropriate data warehouse and use with proper security so that data cannot be stolen and misuse of data can be treated as serious crime. E wastage of data should be properly kept with provision from reuse so that it may not create biodiversity. G20 may put emphasis on establishing green hydrogen plant as its suitability for transport, creation for innovative and creative development in the energy sector. As such also for doing cost-benefit analysis, data analytics may be used to establish green hydrogen plant.

11. CONCLUSION AND IMPLICATIONS

Econometrics can be used to in search of establishing the truth by the quantitative analysis. However, there may be some times wrong relationship i.e., spurious relationship can be estimated which need to be discarded. In that case qualitative analysis needs to be discussed to adjust problem solving. Dummy variable may be used to examine structural change over the time period. Basically, attempts to specify try to the stochastic element which operate in real world data and enters into the determination of observed data. Model specification should be done with cautiously so that error can be eradicated or negligible. Data should be properly and symmetrically available for doing research work.

Big data needs to be used in a greater area of the business process with a larger volume of data or macro-economic studies for longer time periods. The G20 member countries wish as "One Earth, One Family, One Future" certainly prepares the technical uprising, allowed by Big Data and their related technologies like AI ,IOT ,Block chain, Chatbot online etc.. Saran, & Sarma (2022)'s argument about that at the G20 Leaders' Summit Prime Minister (PM) India's initiate for the principle of "data for development" determination for essential to India's G20 presidency ongoing period may be effectively and efficiently used through application of econometrics and big data and if needed as a helpful instrument qualitative analysis too. For using econometrics or big data, decision making process may be helpful if it is based on the true picture of the scenario which must represent the truth of the population in a right direction. Policy makers may understand the practical exposure of the research work if it is scientifically done with real life exposure of the filed can be found and may implement decision for the welfare of the people and well-being of the respective country through using the technique of plan-do-check-act.

Data analytics should be done with utmost care and without biasedness. In 2023, data analytics is very significant to take appropriate decision starting from the agriculture sector to industry sector, cottage, micro, small, medium, enterprises, financial sector, hospitality sector, health sector, international trade, education sector, transportation sector. Among formal, semi formal and informal sector - data analytics may be used to take appropriate decisions with faster,

reliability and to give community services with more efficiently and effectively. Actually, sustainability from grass root level to upper level of the society development must be accompanied by for which use of econometrics and big data scientifically is being needed. By way of the earth converts extra dependent on data management, the study observes essential towards acquire near organize, understand besides usage of the data for human centric development. Shape inclusive information of data discipline gears and grow serious problem-solving techniques towards remain on the front of ace of the furthermost thrilling professions of modern period as assistances then improvement through getting appropriate knowledge in viable benefit in the job sector. Go through data hooked on visions that notify dangerous focused -based choice -oriented and result -oriented creation. Progress of data mining and modeling services in Data Analytics or specialize in progressive examination, biomedicine, computational methods or combination of economics and statistics or econometrics can gather real market-oriented data science sector. For a country of the earth -digital financial inclusion and financial literacy will be beneficial through appropriate utilization of data analytics too. A policy framework of the member countries who are relatively underprivileged must have a planning for going digital financial inclusion and financial literacy.

Human welfare of the society must be sustainable though perspective of the country's development depends on its overall structure and demography as well as socio-economic conditions. To attain sustainability, strategic planning for 5 years or more and day to day transactions or operational planning and tactical planning for 2/3 year must be well designed by the country and respective industry and whatever the planning is done it needs to be implemented with the condition that Plan-do-check-act will be applied for the greater prosperity and removing income inequality and social justice and to attain growth with equity. Environmental issues all over the planet are seeing a deep concern. To remove this sort of problems, big data if applied properly then a good ice breaking idea may be come up with.

Data analytics can help when the result will be used to come out from threat and opportunities turned become positively used by proper planning and implementation.

Countries advanced and underdeveloped both are indulging corruption which can be eradicated if political will and accurate data is in hand of the leaders who are in power. This challenge must be overcome through use of data analytics.

Sometimes it is found that in tertiary level who are bring to give logistic support with the help of powerful person started blame game against academicians and jeapordaidse good education. If proper action against evil forces can be taken and tertiary education main nucleus is students and teachers then logistic support providers cannot act as bureaucracy, petty bourgeoisie and red tapism by the so called logistic supporters in the educational and health sector can be stopped. As such proper and authenticated data is being needed to analyze to take action. Some emerging countries and underdeveloped nations give false data which created problems to understand and give forecasting model to develop the economy. As such consultant and organizations must free from window dressing as well as windfall gin.

Now India has been earned scope to give the global leadership in 2023 and turn to boost up her economy. The researcher subjectively believes that when Indian economy has a stronger tie with Bangladesh economy, it has positive impact on Bangladesh economy if good relationship between

these countries prevails. The reason behind pro India true supporter Awami league government which was democratically elected in Bangladesh check all nonsense of anti Indian terrorist activities stopped form the Bangladesh and very cordial relationship exists between these two countries. Bangladesh must try to be a member country of G-20 under the dynamic leadership of Prime minister of Sheikh Hasina. However, Rohiynga must be returned to their motherland Maynmar not only for the sake of Bangladesh but to keep stability in the area of south Asia as they are currently doing drug trafficking, prostitutions and as well as Islamic terrorism. If India, China and Russia for the safety of humanity arranged them to return their homeland then this South Asian part will be saved for which appropriate data is being need. A survey by the independent bodies are being required where India can taking leading part and also start negotiation with Maynmar.

Quantitative data set has an important function in economy and in many aspects. Especially towards policymakers all the developed model of economics including use of econometrics model for economics, optimization for Socio-economic largely depends on quantitative analysis with data set. Actual and well-organized analysis can gather consequences of the econometric tools and applicability of big data can help to attain correct quantitative analysis with relevant and correct data set and proper analysis of using appropriate model.

In future a study may be done to assess that more diversified number of countries of the earth including G20 member countries of the globe whether they have been affected and to what extent by the Russia and Ukraine war after COVID19 and aftermath and creating on going global turbulent situations through using appropriate data analytics through using big data, IOT and artificial intelligence and also use of block chain in multifaceted sectors of different countries and to eradicate the problems and transform the India's G20 slogan into reality must be execution with Bangladesh should be taken as one of the partner for economic development.

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