

## **Role of Some Monetary Indicators on Nepalese Economic Growth**

**Bashu Dev Dhungel \***

### **Abstract**

*This research paper attempts to examine the causal association between major's Nepalese monetary factors and Gross Domestic Product growth from 1980–2019. To confirm the short-term and long-term contribution of monetary factors to Gross Domestic Product Growth, Johansen approach to cointegration and Error Correction Model has employed and the results have confirmed that the broad money supply and consumer price index positively and significantly affects Gross Domestic Product growth whereas bank rate is seemed to be negatively and significantly effect on Gross Domestic Product growth in Nepalese economy. Moreover, Error Correction coefficient term (-0.4) confirms the emergence of a nexus between the monetary related variables and Gross Domestic Product growth at 40% speed of adjustments towards the equilibrium.*

*Keywords:* broad money supply, GDP growth, error correction term, bank rate, co-integration

### **Background**

The monetary factors such as money supply, mild inflation rate, interest rate, exchange rate are key determinants of economic growth of the nation. Positive change in monetary factors helps to reduce poverty and inequality boosting up economic growth, employment opportunities, per capita income, and living standard of the people within the nation (Phibian, 2010). Nepal has been trying to achieve these macroeconomic objectives; however, Nepal has been unable to achieve them for a long period. This might be the lack of correct knowing the contribution of monetary factors to GDP growth. Subsequently, this paper aims to investigate the contribution of macro-monetary indicators to GDP growth of Nepal.

The relationship between monetary factors and economic growth has been playing an important role in the economic development of developing countries (Hussan & Haque, 2017). The Keynesian school of thought believes that "money does not matter," hence monetary factors are incapable to effect on economic

---

\* *Associate Professor, Department of Economics, Ratna Rajyalaxmi Campus, Tribhuvan University, Nepal.*

growth, whereas; monetarist believes that “money does matters”. Nevertheless, new Keynesians firmly believe that money supply positively affects the real macroeconomic variables in the short-run like GDP, employment level owing to price rigidity and inadequate inflows into the marketplace (Hussan et al, 2017). Therefore, monetary development is unimaginable without a sufficient amount of money supply, appropriate amount of credit supply, and fitting monetary states of the country.

The money supply also influences economic growth from Nepal's perspective, as a different increase in monetary supply to promote sustainable economic growth is achieved by the former government. The monetary power (the central bank of Nepal) has supplied appropriate quantities of money in the form of paper and coins. The Central Bank of Nepal statistics indicates that the supply of broad money growth in 2018 was 19.8% whereas in 2019 the supply was 13.8%. Meanwhile, Nepal's economic growth in 2018 was 6.7%, which is 2.3% higher in 2019 (Nepal Rastra Bank, 2019). Hence these figures indicate that money supply positively effects on Nepalese economic growth. This study tries to investigate the relationship between money supply and economic growth of Nepal.

### **Review of Literature**

Empirical reviews have been carried out from different sources to examine the relationship between macro-monetary indicators and GDP growth of Nepal. Theoretically, the money supply has made positive impact on GDP growth, as mentioned by the followers of Monetarists and Keynesians (Chaitip et al, 2015). The IS-LM and aggregate demand-aggregate supply aspects are used to explain the impact of money supply on the economic growth of the country. Irving Fisher ( an American economist) also describes how exchange equation  $MV=PT$  links money supply to economic growth (Vaish, 1974). Previous empirical studies are therefore focused on examining the causal relationship between major monetary factors and economic growth.

The causal relationship among monetary factors such as money supply, inflation rates, devaluation of domestic currency, and economic growth in Indonesia was investigated by Hassain (2005). This study was concentrated to explore the effects monetary variables, through appropriate channel, to receive high volume of economic growth by employing data sets from 1954-2002. The multiple regression model was used to examine the nexus between explained and explanatory variables. This paper has concluded that GDP growth was a direct function of monetary factors in Indonesia.

Lashkary and Kashani (2011) used the samle data from 1959-2008 to explore the effect of macro-monetary indicators on economic growth in Iran. Real economic

growth was used as a explained variable, whereas employment, real money supply, actual growth in public expenditure, the oil revenue growth rate, and exchange rates were used as explanatory variables to assess the impact of monetary factors on growth. The relationship between the dependent and independent variables was tested using the OLS econometric approach. According to finding, the amount of money in circulation has no meaningful impact on Iran's economic growth. Meanwhile, having been set the role of monetary indicators in the per capita GDP growth in Iran as objective, Nouri and Samimi (2011) applied annual data sets from 1974-2008 and the study found the direct relation between GDP growth and monetary factors. Furthermore, the study envisaged the positive association between macro-monetary indicators with GDP growth, while consumer price index seemed to be a negative function of economic growth.

During the period from 1981-2010, Ikechukwu (2012) has taken the actual exchange rate, the broad money supply, and the real interest rate as exogenous variables and actual GDP as endogenous variable to examine the nexus between money supply and actual GDP growth in Nigerian economy using secondary data. Finally, this study showed that there was significant nexus between monetary factors and economic growth of Nigeria and, other variables made an insignificant impact on the actual gross domestic product.

Having been set the impact of major monetary indicators in the economic growth in the CEMAC region as objective, Nijmanted et al. (2016) applied annual data sets from 1981-2015 by employing on former research strategy based on the selection approach for the primary components. The explained variable (GDP growth) and explanatory variables (money supply, interest rates, and inflation) were used in the auto-regressive distributed lagging model and vector error correction model and the study found the direct relation between GDP growth and macro-monetary indicators. Furthermore, the study envisaged the positive association between macro-monetary indicators with GDP growth CEMAC zone; whereas inflation is an impact factor and it caused considerable destabilization of economic growth.

Hussain and Haque (2017) carried out empirical research to explore the impact of monetary indicators (Broad money supply, interest rate) on GDP per capita as proxy for economic growth in Bangladesh by employing time series data. The cointegration approach and vector error correction model (VECM) were used to estimate the effect of monetary variables on growth. This study found that monetary factors significantly effects on GDP growth in Bangladesh.

Aslam (2017) investigated the nexus between monetary indicators (money supply, exchange rate, and interest rate) as independent variables and economic

growth (GDP growth) as a dependent variable in Sri Lanka by employing annual data from the years 1959-2016. The nexus between the response and stimulus variables was investigated using a multivariate econometric model. The authors of this article showed that increasing the money supply has a favorable and significant impact on the Sri Lankan economy's GDP growth. This paper concluded that monetary factors have played a positive role in Sri Lanka's GDP growth.

The impact of the supply of money, inflation, and interest rates on Nigeria's economic growth was analyzed by Gatawa, Abdulgar, and Olarinde (2017) using the 1973-2013 time-series data. The impact of monetary factors on GDP growth in Nigeria was investigated using a VAR model and a Granger causality test with a vector error correcting model. The VEC model indicated that broad money supply had a positive influence, whereas inflation and interest rates hurt GDP growth in the long run.

Dingela and Khobai (2017) investigated the dynamic impact of broad money supplies ( $M_3$ ) on per capita GDP using the data from 1980-2016 in South Africa. The Autoregressive Distributed Lag model (ARDL) and the Error Correction Model (ECM) was used to assess the cointegration between monetary indicators and GDP growth. Four variables in the macroeconomic model, namely, per capita GDP, broad money supply ( $M_3$ ), Interest Rate (INT), inflation rate, were used in the model. The findings showed that GDP per capita is the positive and significant function of monetary indicators in both the short-run and long-run in Africa.

There are several international studies in case of effect of money supply on per capita GDP growth according to the aforementioned literature. However, no relevant studies exist in the Nepalese context.

## **Method**

This study comprises analytical as well as descriptive type of research to explore the contribution of major monetary indicators (broad money supply, bank rate, consumer price index) and GDP growth in Nepal.

## **Research Design**

This study has used quantitative information to analyze the role of key monetary factors on GDP growth in the Nepalese context. The analysis is made with the help of statistical econometric tests and to make the facts more meaningful descriptive research design is carried out. The impact of key monetary factors on economic growth is analyzed by using a quantitative research design. Other endogenous and exogenous

variables that affect economic growth are also examined along with key monetary factors. Due to the quantitative nature of the study, the descriptive method is widely used.

### **Sample and Variables**

This is a quantitative study which has used secondary data from different sources. Time series data covering forty years from 1980-2019 are used to find out the impact of key monetary factors on GDP. The main variables of key monetary factors represent the broad money supply ( $M_2$ ), consumer price index (CPI), and bank rate (BR).

To examine the impact of above stated explanatory variables on GDP growth, this study uses following explanatory variables:

$\ln(M_2)$  refers to log of the  $M_2$ .

BR refers to the bank rate which is the proxy of the rate of interest, and  $\ln(GDP)$  refers to the log of GDP as the proxy of economic growth.

### **Model Specification**

Data on GDP,  $M_2$ , CPI, and BR have been classified and made up-to-date. All of these data were analyzed with the help of Eviews program version nine. This study has used the model to find out the actual association between key monetary factors and economic growth in Nepal through Johansen's approach to cointegration. This study adopts the model which considers economic growth as measured by the annual growth rate of nominal GDP. The semi-log model is written as:

$$GDP = f(M_2, CPI, BR) \dots\dots\dots (I)$$

In equation

$$\ln GDP = \beta_0 + \beta_1 \ln M_2 + \beta_2 \ln CPI + \beta_3 BR + \mu \dots\dots\dots (II)$$

Where,

$\ln$  = Natural logarithm

GDP = Gross domestic product, i.e. dependent variable

M = Broad money supply

CPI = Consumer price index

BR = Bank rate

$\mu$  = Error term

$\beta_0$  is the intercept and  $\beta_1$ ,  $\beta_2$ , and  $\beta_3$  are the parameters. They are associated with  $M_2$ , CPI, and BR respectively. Where, GDP is called the dependent variable and  $M_2$ , CPI, and BR are called independent variables. Quantitative analysis of secondary data was used to conclude with this Johansen approach to cointegration.

### Testing for Stationary

The unit root test is very important task to avoid the problem of spurious result in case of time series data. The time series data may have a problem of non-stationary in nature and it creates a perennial problem in the data analysis process. Thus, the study intends to conduct a test for Stationary by employing Augmented Dick Fuller test (ADF) and Phillip Perron (PP) test to look out for stationary and establish the order of integration. The ADF and PP tests simply run a regression of the series' first difference against the series' first lagged value, constant, and time trend :

Without intercept and trend  $\Delta Y_t = \rho Y_{t-1} + \mu_t$  ..... (III)

With intercept  $\Delta Y_t = \alpha + \rho Y_{t-1} + \mu_t$  ..... (IV)

With intercept and trend  $\Delta Y_t = \alpha + \beta T + \rho Y_{t-1} + \mu_t$  .... (V)

In the above equation, if  $\mu_t$  are correlated Dickey and Fuller have developed a test, known as ADF test. The ADF test is accompanied by adding the lagged values of the dependent variables. The ADF test is carried out as the following equation:

$$Y_t = \alpha + \beta T + \rho Y_{t-1} + \sum_{i=1}^k \beta_i \Delta Y_{t-i} + e_t \quad \text{..... (VI)}$$

Where,  $e_t$  is a pure white noise error term and  $\Delta Y_{t-1} = (Y_{t-1} - Y_{t-2})$ ,  $\Delta Y_t = (Y_{t-1} - Y_{t-2})$ , etc.  $k$  is the lagged values of  $\Delta Y$  and  $t$  is the trend.

The hypothesis is

H0:  $\rho = 0$  There is a unit root in variables

H1:  $\rho \neq 0$  The series is stationary or there is no unit root

### **Co-integration Analysis and Vector Error Correction Model**

This article investigates whether monetary considerations influence economic growth or whether money supply influences economic growth; on the assumption that major monetary factors positively affect economic growth and vice versa. The broad money supply, consumer price index, and interest rate serve as proxies for monetary variables, while GDP serves as a proxy for growth. Because the variables are in 1(1) order, the Johansen co-integration test is a better method for examining the long-run relationship between economic variables (monetary factors and economic growth). The trace test ( $\lambda_{trace}$ ) and the maximal eigenvalue test ( $\lambda_{max}$ ) are two likelihood ratio test statistics suggested by this approach. Testing the number of co-integrating relationships (r) by setting the null hypothesis, there are no more than r cointegrating vectors against k, where k is the number of variables in the model. The maximum eigenvalue test compares the null hypothesis of r cointegrating vectors to that of r + 1.

Where,  $\lambda_{trace}(r_0) = -T \sum_{j=r_0}^k \log(1 - \lambda) \dots\dots (VII)$

$\lambda_{max}(r_0) = -T \log(1 - \lambda_{r+1}) \dots\dots\dots(VIII)$

Here, a total number of observations is represented by T, endogenous variables are the K, the largest eigenvalue obtain from the coefficient matrix is  $\lambda$  and,  $\lambda_{trace}(r_0)$  is a chi-square distribution with  $k - \lambda_r$  degree of freedom.

In the case of the cointegration test, it is necessary to choose the appropriate lag length. To select the appropriate lag structure a VAR model is fitted in the model. After the selection of lag from Schwarz Criterion (SC) and other appropriate tests, the Johansen test has been performed to examine the cointegration between explained and explanatory variables.

Finally, the Vector Error Correction Model (VECM) is performed from the following equation;

$\Delta GDP = \beta_0 + \beta_1 \sum_i^k \Delta GDP_{t-1} + \beta_2 \sum_i^k \Delta CPI_{t-1} + \beta_3 \sum_i^k \Delta M_{2(t-1)} + \beta_4 \sum_i^k \Delta IR_{t-1} + \lambda ECT_{t-1} + \epsilon_t \dots\dots (XI)$

Where,

$\Delta$  = first difference of the variable

$ECT_{t-1}$  = one period lagged error correction term

$\lambda$  = Short term coefficient of the error correction term ( $-1 < \lambda < 0$ )

$\epsilon_t$  = white noise term

## Data Analysis and Discussion

GDP has taken as a dependent variable, and  $M_2$ , CPI, and IR are regarded as independent variables. Besides, to estimate the effects of monetary variables on GDP Johansen approach to cointegration is used with semi logged variables by using Eviews version 9.

### Descriptive Statistics

This paper has used descriptive statistics to describe the characteristics of variables for the investigation. Descriptive statistics show the nature of data and confirms the data are appropriate for further analysis or not. The descriptive statistics table shows the mean, median, dispersion, and normality of the data (Table 1)

**Table 1 :** Descriptive Statistics of Variables for Period of 1980 to 2019

	N	Min	Max	Median	Mean	Std. Dev.	Jarque -Bera
LnGDP	40	10.21	16.87	12.75	12.71	1.52	0.65
Ln $M_2$	40	8.75	14.62	11.84	11.65	1.75	1.93
LnCPI	40	1.68	4.74	3.54	3.33	0.88	1.98
IR	40	3.60	9.90	6.50	6.57	1.47	1.07

*Source: Calculation Based on Data On Quarterly Economic Bulletin of NRB (2000, 2017)*

Table 1 shows several observations, measures of central tendency, the measure of dispersion (standard deviation), minimum and maximum values, and Jarque-Bera statistics.

Similarly, Table 1 shows descriptive statistics for all the variables LnGDP, Ln $M_2$ , LnCPI, and LnBR all have positive mean and median values. The result indicates that the average broad money supply is 11.65 percent with a minimum value of 8.57 percent and a maximum of 14.62 percent. The standard deviation of the broad money supply is 1.75 percent, which shows the variability of the broad money supply in Nepal. The value of Jarque – Bera statistics is 0.65. Similarly, mean values of LnGDP, LnCPI, and BR are 12.71, 3.33, and 6.57 percent with standard deviations of 1.52, 0.88, and 1.07 percent respectively. Finally, Table I also presents the value of Jarque-Bera, which shows the nature of the distribution of variables included in the study.



### Stationary Test result

This test is used to find out the annual data sets are stationary or not; if the variables have a unit root, the regression result from the variables will be spurious. As a result, each variable in the study is subjected to a unit root test utilizing the ADF and PP tests. The unit root test results are shown in Table 2.

**Table 2 :** Stationary Test at the Level

Name of the Variables	Test Statistic			
	ADF		PP	
	Calculated Value	Critical value at 5 %	Calculated Value	Critical value at 5 %
LnGDP	-2.06	-3.54	-2.06	-3.54
LnM <sub>2</sub>	-1.82	-3.54	-1.72	-3.54
LnCPI	-1.86	-3.54	-1.84	-3.54
Br	-3.18	-3.54	-2.68	-3.54

*Source: Calculation based on the Data Sets of NRB Quarterly Economic Bulletin (2000, 2017)*

Table 2 exhibits that variables (LnGDP, lnM2, lnCPI, BR) have unit root at a 5% level because the test statistic values are less than the critical value. The ADF and PP test \ result, therefore, confirms that variables include in the model have unit root at the level. However, the data sets of the variables are either stationary in first difference or not which is shown by Table 3.

**Table 3 :** Stationary Test at First Difference

Name of the Variables	Test Statistic				Order of Integration
	ADF		PP		
	Calculated Value	Critical value at 5 %	Calculated Value	Critical value at 5 %	
LnGDP	-5.89	-3.56	-33.89	-3.56	1(1)
LnM <sub>2</sub>	-4.16	-3.56	-4.15	-3.56	1(1)
LnCPI	-4.72	-3.56	-4.72	-3.56	1(1)
Br	-4.04	-3.56	-14.94	-3.56	1(1)

*Source: Calculation based on the Data Sets of NRB Quarterly Economic Bulletin (2000, 2017)*

Table 3 result indicates that all variables (LnGDP, lnM2, lnCPI, and BR) are stationary at first difference. The variables (LnGDP, lnM2, lnCPI, and BR) are integrated at the same order 1(1), therefore it is appropriate to use Johansen co-integration approach to test whether the series is a long-run association or not for 1980 – 2019.

The outcome of the Johansson approach to cointegration test is shown in Table 4. The null hypothesis of no cointegration ( $r=0$ ) is tested against the alternative hypothesis at least one cointegration ( $r \geq 1$ ) arises in the model. The Table 4 shows that the test statistical value is greater than critical value in both case at a 5% level of significance implying the rejection of null hypothesis ( $r=0$ ) and acceptance of at least one cointegration equation exist in the model and both  $\lambda_{max}(r_0)$  and  $\lambda_{trace}(r_0)$  criteria; and it confirms the long-term relationship between the monetary indicators and GDP growth. The long-run association of the variables in the study is shown in Table 4.

**Table 4 :**  $\lambda$  Trace and  $\lambda$  Max Tests

Null Hypothesis	Alternative Hypothesis	Statistical Value	5 % Critical Value	Prob.	Eigen Value
$\lambda_{trace}$ tests $r = 0$	$r > 0$	52.91	47.85	0.01	0.54
$\lambda_{max}$ tests $r = 0$	$r = 1$	28.09	27.58	0.04	0.54

*Source: Calculations based on Data Sets from NRB Quarterly Economic Bulletin (2000, 2017)*

The existence of co-integration in the model is shown by  $\lambda$  trace and  $\lambda$  max statistical value at appropriate significance level. The existence of one cointegrating vector is shown by trace statistical value as well as its corresponding probability value which is less than 5% and  $\lambda_{max}$  statistics and its corresponding probability value also less than 5%. Thus, both the  $\lambda_{max}$  and  $\lambda_{trace}$  tests reject the null hypothesis of no long-run association between the variables includes in the study. Thus, the key monetary factors and GDP growth are long-run associations.

**Table 5 :** Error Correction Model

Regressors	Coefficient	T statistics	Probability
Ect(-1)	-0.40	5.3186	0.000
Constant	2.3454	7.3421	0.0001
$\Delta \text{LnCPI}(-1)$	0.37	2.99	0.046
$\Delta \text{LnM}_2(-1)$	0.43	3.6311	0.0421
$\Delta \text{Br}(-1)$	0.10	3.72	0.0008
Adjusted R <sup>2</sup> = 0.65			
F statistics = 3.66			
Durbin Watson test = 2.16			
Breusch- Godfrey Serial correlation LM test = 11.10 P (0.0264)			
Heteroscedasticity test = F (5.0534) P (0.0005)			

*Source: Calculations based on NRB Quarterly Economic Bulletin (2000, 2017)*

The presence of cointegration among the variables is shown by the statistically significant and negative ECT (-1) coefficient (-0.6171) indicating that in the current year, more than 40% of last year's disequilibrium is corrected; therefore the disequilibrium level of growth rate is corrected at the speed of 40% speed of within a year. In other words, the divergence from long-run equilibrium is modified to the point where approximately 40% of the disequilibrium is corrected in a year.

At the 5% level, the anticipated short-term dynamics were signs indicating a short-run causal relationship between GDP growth and monetary factors. Table V shows that GDP growth and broad money supply in Nepal have a positive and statistically significant relationship. The broad money supply coefficient at lag one is 0.43, implying that a 1% rise in broad money supply results in a 0.43% increase in GDP in Nepal. As a result, the increase in the broad money supply ( $M_2$ ) has a beneficial impact on Nepal's GDP growth. Similarly, the coefficient of bank rate (- 0.10) indicates a negative and statistically significant association between the bank rate and GDP growth. According to the findings, a 1% increases in the bank rate causes a 0.10% drop in GDP in Nepal. The fact that the CPI coefficient is positive and statistically significant indicates that modest inflation has a beneficial impact on Nepal's GDP growth.

All diagnostic tests confirm that the model has no problems of serial correlation, autocorrelation, and heteroscedasticity. The F statistics is 3.6635 which also indicate that overall model is a good fit.

## **Conclusion**

The result of Johansen's approach to cointegration demonstrates that monetary indicators play important role for GDP growth. The negative coefficient of error correction term is statistically significant indicating the possibility of equilibrium convergence in each period with adjustment reflected by different terms. According to the estimated model, monetary factors have a positive and considerable impact on Nepal's GDP growth. Thus, this paper is in the favour of monetarism money as matter for economic growth. This result on the basis of economic growth is a positive function of monetary variables is consistent with the results of Njimanted et al, (2016); Hussain and Haque (2017); and Dingela and Khobai (2017). Thus, Nepal's monetary authority should adopt the expansionary monetary policy to improvement the country's GDP growth in the future.

## References

- Aslam, A. L. (2017). Impact of money supply on Sri Lankan economy: An econometric analysis. *International Letters of Social and Humanistic Sciences*, 67(1), 11 – 17.
- Chaitip, P., Chokethaworn, K., Chaiboonsri, C., & Khounkhalax, M. (2015). Money supply influencing on economic growth-wide phenomena of AEC open region. *Procedia Economics and Finance*, 24, 108-115. [https://doi:10.1016/S2212-5671\(15\)00626-7](https://doi:10.1016/S2212-5671(15)00626-7)
- Dingela, S., & Khobai, H. (2017). The dynamic impact of money supply on economic growth in South Africa: An ARDL approach. *Nelson Mandela University MPRA Paper No. 82539*.
- Gatawa, N. M., Abdulgafar, A., & Olarinde, M. (2017). Impact of money supply and inflation on economic growth in Nigeria. *Journal of Economics and Finance*, 8(3), 26- 37.
- Hassain, A. (2005). Granger causality between inflation, money growth, currency devaluation, and economic growth. *International Journal of Applied Econometrics and Quantitative Studies*, 7(3), 45- 65.
- Hussain, M. E., & Haque, M. (2017). Empirical analysis of the relationship between money supply and per capita GDP growth rate in Bangladesh. *Journal of Advances in Economics and Finance*, 2(1), 54 – 66
- Ikechukwu, N. (2012). *The impact of money supply on economic growth in Nigeria*. Department of Economics Cristias University, Amorji – Nike, Enugu, Nigeria.
- Lashkary, M., & Kashani, B. H. (2011). The impact of monetary variables on economic growth in Iran: A monetary approach. *World Applied Science Journal*, 15(3), 449 – 456.
- Ministry of Finance (2017). *Economic survey 2017*. Kathmandu: Ministry of Finance.
- Njimanted, F. G. Akume, D., & Mukute, E. M. (2016). The impact of monetary variables on the economic growth of the CEMAC zone. *Expert Journal of Economics*, 4(2), 54-67.
- Nepal Rastra Bank (2017). *Quarterly economic bulletin volume 51 and number 4*. Kathmandu: Nepal Rastra Bank.
- Nepal Rastra Bank (2020). *Quarterly economic bulletin volume 54 and number 3*. Kathmandu: Nepal Rastra Bank.
- Nouri, M., & Samimi, A. J. (2011). The impact of monetary policy on economic growth in Iran. *Journal of Scientific Research*, 9(6), 740 – 743.
- Phibian, N. O. (2010). The quantity theory of money: Evidence from Nigeria. *Central Bank of Nigeria Economic and Financial Review*, 48(2), 91 – 107.
- Vaish, M. C. (1974). *Macroeconomic theory*. Delhi: Vikash Publishing House.
- Wiley, J. (2015). *Applied econometric time series*. New Delhi: Wiley India.