Influence of Technology, its Impact on Urban Migration Productive Capacity

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Abstract: Innovative technology create new ways that have developed integrity and complexity. In the current scenario with active drive, the Fourth Industrial Revolution builds on the Digital Revolution, representing new ways in which technology becomes embedded in decision making. With new waves, sustainable economic development needs to be relooked. Where does India stand, in its development of human capital? Has skill development grown with technology, if not, is there any scares to Indian sustainable growth with human capital. Technology and globalization are significantly changing work. Has technology boosted productivity? Should Techeconomics use information economics blend for productive sustainable goals? To investigate these issues firstly, stages in the technology revolution is looked upon to recall shocks. Trends in urban population, migration stock, is analyzed and thirdly, technology facilitators, labor force, devices, and broadband subscriptions are analyzed. Also, India's export of services relating to information and communication is taken into account. Does theory indicate technology has expanded production capacity, however, traditional economic theory and law do they hold relevance today with static technology assumption? Various production laws have developed theory assumptions with absolute static technology. With progress in technology. Indian urban population, in its, technology innovation has acknowledged as passive adapters and an attempt to find and explore innovation is of little attempt. The paper would like to find, if there are very few able-bodied minds that have impacted productive capacity while rest are passive adapters. Penetration has raised scope for the export market, rather a perception is sliding due to indifference and trade-off mindset of the labor force.

Keywords: Technology, information, reception, perception

Introduction: Technomics the sequence of innovation through intelligent able-bodied minds are revolutionized, this possibility has scaled up wider market mechanism. Breakthrough in technology has enlarged the scope of empowering information flow. In a recurring environment of technology economics of different phases, innovation technology, as well as information adaptability, are highly correlated. Technological change does play a central role, whether in the resource allocation or in the stages of advancement and development[1]. In economics theory, many of the supposition is being treated as technology constant. Has this technology been able to distribute and develop humans in various regions? If only intelligent has the techniques of dissemination of technology, then can all highly educated on gender-based would continue with technology reception. Technology perception is recurring in nature. Highly intelligent are correlated with increased copyrights When it comes to technology economics with cost efficiency how productive capacity is reached, is more or less a proxy- a substitution or deputation base sequence.

Is there a technology gap in productive capacity? Technology has facilitated the possibility of decision making. The main facilitators are international migration, higher education, information and communication technology, the export of services, government policy, various gadgets and devices of internet connectivity. Today's debate, do people face scarcity in resource allocation of communication information?. No, but with a revolution in technology, information asymmetry is observed to be with the possibility of tapping human resources. This is evident with an efficient market mechanism driven through digital transformation. In a world of endogenous technical change, policy initiatives by the responsible administrators have enhanced a wider scope to promote the innovation process. In the era of courageous transnational corporation technology dissemination differs in performance, through subsidies, managed trade and workplace democracy.

Review of Literature

Saoray[2] in his research paper, 'The changing role of technological factors in explaining efficiency in Indian firms' has investigated the efficiency of firms during the period 1991 to 2001, has used the concept of frontier production functions. Based on secondary data it has been observed that inefficiency has been examined based on external competition and technology flow from outside such as royalty payments, exports, and import of raw materials has become significant in the year 2001 which was not the case in the year 1991. Impact of investment in technology through domestic factors seem to be important in the year 1995 as both the R&D variable and the vintage of the capital variable are significant, Researcher indicates that there seems to be a change in the relative importance of the domestic factors of investment as opposed to the external factors of technology investment. The study suggests

[1] J. Stan Metcalfe, Technology and economic theory, Cambridge Journal of Economics, Volume 34, Issue 1, 1 January 2010, Pages 153–171, https://doi.org/10.1093/cje/bep075

[2] Dr. Saon Ray, Assistant Professor, TERI School of Advanced Studies, Darbari Seth Block, IHC, Lodhi Road, New Delhi-110003.

that the factors relating to technology and international orientation have become significant in explaining inefficiency in the year 2001 compared to the year 1991.

According to Steven Globerman[3] factors that promote closer and stronger linkages between technological change and productivity change can be at least two levels One, is they can encourage a faster rate of technological change by accelerating and or deepening the introduction and diffusion of new "best practices", Two, they can promote the more effective commercialization and use of new best practices. Additional factors that have been identified as relevant are education and skill level of the workforce; the extent of competition in domestic industries; the openness of the domestic economy to foreign trade and foreign direct investment; strength and nature of intellectual property protection; the social "infrastructure"; and government policies of various types. Potential channels for the international transmission of technical knowledge include imports of capital goods and intermediate inputs; foreign direct investment; joint ventures and strategic alliances; technology licenses; and migration of skilled labor. Some studies have attempted to evaluate the robustness of these various channels of international technology transfer, although most do not address the issue in any comprehensive manner.
Education[4] also tends to be "conventional wisdom" that universities and technical colleges can promote the productivity, enhancing effects of new technology, among other things, encouraging the dissemination of "laboratory" results to industrial practice. In principle, government research institutions can play the same role, although the absence of a teaching function these organizations deprives one mode of faster commercialization of new technology, i.e. the migration of students into the industry as researchers and administrators.

Engelbrecht[5], among others, shows that general human capital is a vehicle of international knowledge transfer associated with productivity catchup amongst OECD countries. That is, general human capital better equips organizations to exploit potential technological spillovers from abroad. At the same time, scientific expertise in production facilities can promote faster and more effective diffusion of technology from a company's research facilities to its production facilities.

When economists are engaged in understanding the structure of production, exchange trade relations, has enhanced the movement of international mobility. When technology and trade are looked upon for growth and development, uncertainty and culture within the economy seem to be taken into account. Have technological waves transformed its radical scale and

[3] Steven Globerman, Linkages between Technological change and productivity growth, Western Washington University Occasional Paper Number 23 May 2000

[4] Ibid page 21

[5] Engelbrecht, H.J. "International R&D Spillovers, Human Capital and Productivity in OECD Economies: An Empirical Investigation." European Economic Review, 41, 8 (1997):1479–88.

importance? But the innovation has also unfolded complexity. Although technology has surpassed various stages of advancement, Is the technology integrative and comprehensive?

The First Industrial Revolution[6] used water and steam power to mechanize production. The Second used electric power to create mass production. The Third used electronics and information technology to automate production. Now, a Fourth Industrial Revolution is building on the Third, the digital revolution that has been occurring since the middle of the last century. It is characterized by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres. The thirst and quest for progress are remarkable but also involves high risk significantly. [7]Big progress is inspired by bigger dreams, and this is backed by talent and up-gradation in human capital. Gaps are usually measured as differences in productivity between a given nation (sector) and the most advanced or 'frontier 'nation (sector) in the world. Innovation activity is proxy either 'technology input' or 'technology output' measures. The former include expenditures on research and development and on the education and employment of scientists and engineers. Labour productivity is an important economic indicator that is closely linked to economic growth, competitiveness, and living standards within an economy. Labour productivity represents the total volume of output (measured in terms of Gross Domestic Product, GDP) produced per unit of labor (measured in terms of the number of employed persons) during a given time reference period.

A sequence of shocks[8] reveal that human brains were ill-prepared in the 70s, non-convertibility of the dollar into gold, severe oil crisis during the same time. This occurrence of decision had jolted the world economy. The sequence escalated the twin problem of unemployment and inflation that embraced every other economy. Whose ability is recognized to rectify this turmoil situation? Is the government intervention or market mechanism. The threats that the world face, from climate change to overpopulation. Economic and political uncertainties abound: trust in markets is down since the 2007-09 financial crisis; trust in governments is battered by rising inequality and geopolitical insecurity; technology is disrupting the job market in both advanced and emerging economies. The collapse of the Soviet Union made the world flat[9] and egalitarian.

Theoretical Economic Dynamism

[6] Klaus Schwab Founder and Executive Chairman, World Economic Forum14 Jan 2016, https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/

[7] Sebastian Buckup, Head of Programming, Global Programming Group, Member of the Executive Committee, World Economic Forum, 16 Jun 2016

[8] Nixon effect, https://www.weforum.org/agenda/2016/06/the-poetry-of-progress

[9]ter Thomas L Friedman, The World is Flat, A brief history of 21st century,

The crisis in capitalism that became apparent in the late 1960s high- lighted the limitations of Fordism and the weaknesses of the branch-plant economies it created. Those economies suffered from a lack of locally autonomous decision making, increasingly narrowed occupational opportunities, and corporate sector enterprises that no longer provided industrial environments conducive to indigenous economic growth[10] (Gillespie, 1983; Scott and Storper, 1992). [11]Analytical attention has now shifted towards indigenous development and local capacities to generate self-sustaining economic growth.

The astonishing link between economics and economic theory is that does it continue to be conservative that the economy no longer divides the well-being of the people, but slaughtering productivity. No, crushing the way technology reception and perception are perhaps are looked upon average productivity. Productivity is also accounted for with mobility and human capital stock. Acknowledging and accepting technology makes the productive frontier to move outbound benefitting remarkable and patented innovators. Perception is looked upon as the replacement of innovation. But how does education and skill of oneself is recognized and involvement of inclusiveness in government policy decision making? This depends upon the trigger of education and does India stands impartially the same, among different categories or regions of educational group those who are graduated and employed.

Take demand theory with simple technology factors is assumed to be constant, but with emerging e-commerce and product differentiation technology has facilitated commerce and trade. Technology has facilitated cost-effectiveness with the utmost customer care and delivery. Content to conservative economic theories could necessarily be supplemented and need to incorporate such dynamism in decision making. Although fundamental market forces are examined with pricing instincts, the need is to overcome constancy in economic theory. Here the perception needs to be addressed through well-connected instances of how e-commerce has widened economies of scale. The perception of technology as an accelerating force in human evolution dropped to progress was replaced with innovation.

Similarly, the production function shows how much output can be produced with a given amount of capital and labor. The production function can shift due to supply shocks, which affect overall productivity. Examples include changes in energy supplies, technological breakthroughs, and management practices. Besides knowing the production function, one must also know the quantities of capital and labor the economy has. Reception of technology is overwhelmed, but how perception vagaries cause fluctuations. Is it application technology

[10] Gillespie A (Ed.), 1983 Technological Change and Regional Development (Pion, London)

[11] Scott AJ, Storper M, 1992, ``Industrialization and regional development'', in Pathways to Industrialization and Regional Development Eds M Storper, A J Scott (Routledge, London) pp 3 ^ 17

and pop up an advertisement that has influenced with increase mobile gadgets, that is just acknowledged as high technology.

Take an instance of computer technology how computers and skills are moving in a positive direction and highly correlated. Using data on employment and computer usage over the period 1988–1991, Frank Lichtenberg[12] has estimated the extent to which computer equipment and computer-oriented personnel have contributed to output in U.S. businesses. As part of this study, Lichtenberg estimated the marginal rate of technical substitution of high-tech labor computer and information systems personnel or low-tech labor workers employed in activities other than information systems and technology. The reason is MRTS is so large that once the firm has invested in the acquisition of computer equipment, the marginal product of high-tech, computer-literate workers is much higher than the marginal product of low-tech workers with fewer computer skills. Lichtenberg notes that his estimate of the MRTS of low-tech and high-tech workers is consistent with the experience of real firms.

Let us also infer to a most important type of law constant returns to scale, Cobb–Douglas production function is often used by economists to study issues related to input productivity or production costs. For example, Sandra Black and Lisa Lynch[13] estimated Cobb–Douglas production functions to study the impact of "high performance" workplace practices (such as total quality management or employee involvement in decision making) on worker productivity in U.S. firms. Specifically, Black and Lynch used data from the late 1980s and early 1990s to explore whether changes in Cobb–Douglas production function coefficients (especially α in the equation $Q = AL^{\alpha}K^{\beta}$, which reflects the productivity of workers) were affected by workplace practices adopted by firms. Their findings were mixed. Total quality management, a highly hyped management practice adopted by many firms in the late 1980s and early 1990s, aimed at increasing product quality or reducing manufacturing defects, was not associated with enhanced worker productivity. By contrast, the adoption of benchmarking practices (i.e., setting targets based on the successes of other firms in, say, reducing defect rates) and the involvement of workers in regular decision-making meetings seemed to have a positive impact on productivity.

Infonomics is the use and adaptability to e-commerce through search in an economic way. Today, information is power, sparingly, this has led to the rise of e-commerce, the renovation of industries and the rise of distribution economy. [14]Socially, e-trade has altered human interactions, politically, it has exaggerated relationships between the monarchs and the

[12], Computer use and productivity growth in Federal government agencies, "Computer Use and Productivity Growth in US Federal Government Agencies, 1987-92", JINDE, Vol. 46, no. 2 (June 1998): 257-279.
[13] Black, Sandra E. and Lisa M. Lynch. "How To Compete: The Impact Of Workplace Practices And Information Technology On Productivity," Review of Economics and Statistics, 2001, v83(3, Aug), 434-445.
[14] Martin Wolf Ibid

governed. From 2015[15] with the digital divide, 81 percent of households in the developed world had internet access, the proportion in all developing countries was 34 percent and the proportion for the least developed countries was a mere 7 percent. It is not yet clear whether the rapid spread of access will prove more important than the persistent differences in its availability. Bust optimism discussion remains to transform the whole regions in the entire global unreached locations. Transformation is awaited and hence economic use of information technology is all needed. In continuation of the arrival of the world wide web, internet and mobile, this evolving technology has drastically reduced growth in output productivity. This is evident from advanced economy like US[16] grew at a rate of 3 percent a year in the 10 years up to 1966, after which the growth rate declined, falling to just 1.2 percent in the 10 years to the early 1980s. After the launch of the worldwide web, the moving average rose to 2.5 percent in the 10 years to 2005. But it then fell to just 1 percent in the decade to 2015. A decomposition of the sources of growth in productive capacity underlines the point. Over the 10 years up to and including 2015, the average growth of "total factor productivity" in the US a measure of innovation was only 0.3 percent a year.

The arrival of robots and artificial intelligence[17] could transform labor markets, translation even quite sophisticated skills jobless. This might generate detachments between the owners of the robots and the rest of the population as fundamental as those between landowners and landless laborers. Increase global communication reliance on cyberspace, of behemoth technology-enabled corporations and of "big data" raises difficult questions about privacy, national security, the ability to tax and, more broadly about the relationship between governments, corporations, and individuals.

Moving on to current profile of India's population reached 1,316 million people in March 2018.Its unemployment rate is 3.52% in December 2017.[18] The country's Labour force participation rate dropped to 53.79% in December 2017. Though 48% of Indians are literate in technology, only 14% in rural can use technology efficiently. Although, positive indications[19] research found by Mckinsey Global Institute, research states that with digital technologies by 2025, services like education, food allocation and health care likely to contribute at least $550billion, to India's national income. The current scenario reveals that

[15] Martin Wolf, Seven ways technology has changed us, January 2016, https://www.ft.com/content/7d9874c0-a25d-11e5-8d70-42b68cfae6e4

[16] Martin Wolf, The internet and mobile phones have failed to generate an upturn in the growth of productivity, us https://www.ft.com/content/7d9874c0-a25d-11e5-8d70-42b68cfae6e4

[17] Martin Wolf, Seven ways Technology has changed us https://www.ft.com/content/7d9874c0-a25d-11e5-8d70-42b68cfae6e4

[18] https://www.ceicdata.com/en/indicator/india/labour-productivity-growth

[19] **Raghunath A. MashelkarAnu Madgavkar, Closing India's technology gap,** https://www.livemint.com/Opinion/TCX1HNeJXfeGwhOabvAJHL/Closing-Indias-technology-gap.html

existing application technology sure to drive genomics, financial services. Mckinsey's findings reveal that India as part of cluster with Egypt, Indonesia, Thailand, and the Philippines are characterized by barriers like affordability, incentives, infrastructure, and capability. Hence, India technology spillover perceived as affordable but the actual scenario reveals with low price devices and data plans relative to the rest of the world look like Internet access is inadequate between urban and rural.

Problem

The technological situation can be discussed on twin scenario basis one, fourth industrial revolution could yield greater equality, it could disrupt the labor market. An increase in technology is substituted for the labor the net displacement of workers by machines influences the intensity gap between returns to the capital as well as returns to labor. On the other hand displacement of workers by technology will go on the combined result in a disposable increase in safe and rewarding jobs.[20] The largest beneficiaries of innovation tend to be the providers of intellectual and physical capital the innovators, shareholders, and investors which explains the rising gap in wealth between those dependent on capital versus labor. Technology is, therefore, one of the main reasons why incomes have stagnated, or even decreased, for a majority of the population in high-income countries, the demand for highly skilled workers has increased while the demand for workers with less education and lower skills has decreased. The concern is information economics influence tends to decelerate average productivity and further spreads passive attitude among qualified individuals in the economy. Can technology be sustainable in ensuring productivity, among all highly employed productive populations?. The category could be passive acceptors and adapters but might not contribute to total productivity. Could productivity be a trade-off between less innovative or more leisure or continue with an unsustainable recurring changing feature of technology with disguise participation. When high adapters apply trade off what is the state of unskilled or emerging to qualify to contribute to innovation. In either way, the economy might have a jolt of gaining income.

Objectives of the Study

- To review the stages of technological revolution
- To examine the trend of urban demographic growth in India
- To analyze selected indicators of a technological wave that has impacted productivity

[20] Sebastian Buckup, Ibid

Methodology

Study confines to the Indian economy and secondary data from ILO data set for the period 2000-2016 have been chosen for the study Various research papers, newspaper articles relating to productivity are referred. Emphasis is on urban population and technology-based population, labor force with high education from ILO statistics were chosen and referred. XLstat software is applied to analyze sixteen years data and statistical tools like percentages, growth trends, Mann-Kendal test, Shapiro Wilk test, Pearson correlation, Multicollinearity test been used to analyze data based on technology influencing indicators.

Analysis and Discussion

Technology up-gradation has been examined by choosing variables like urban population, an urban agglomeration, population gender-wise and total labor force. The chosen indicator interprets that technology trend among the growing population shows a movement of oscillation from the total urban population. This is due to the restless labor force as the recipient of technology and adapts to contribute with expected production. However, the study reveals the migration of stock of human capital has been a dissipating technology environment. International migrant population data is irregular in its information, as this variable is made available once in five years. Therefore, migration of stock of human capital has always been either through technology spill over as well as a refugee.

Mann Kendall test on ***the International stock of migration*** reveals that as per the tested hypothesis whether there is regular flow in stock of human capital. Findings from the Kendall test states that the computed p-value is lower than the significant value, hence the null hypothesis is rejected. Because due to inaccurate flow and discontinuous data series.

Mann-Kendall trend test / Two-tailed test (International migrant stock, total):

Kendall's tau	-1
S	-136.000
Var(S)	589.333
p-value (Two-tailed)	< 0.0001
alpha	0.05

The p-value is computed using an exact method.

To find the growth in ***urban population and gender-based***, the Shapiro-Wilk test has been applied to find normality in distribution series. Eventhough growth among the agglomerated population is congested with technology wave being hyped in such urban regions normality test reveals that urban male and female to total urban population is consistently revealing a high level of trend series.

Shapiro-Wilk test (Urban population):

W	0.961
p-value (Two-tailed)	0.648
alpha	0.05

Test interpretation:
H0: The variable from which the sample was extracted follows a Normal distribution.
Ha: The variable from which the sample was extracted does not follow a Normal distribution.

As the computed p-value is greater than the significance level alpha=0.05, one cannot reject the null hypothesis H0.

Shapiro-Wilk test (Population, male):

W	0.959
p-value (Two-tailed)	0.610
alpha	0.05

Test interpretation:
H0: The variable from which the sample was extracted follows a Normal distribution.
Ha: The variable from which the sample was extracted does not follow a Normal distribution.
As the computed p-value is greater than the significance level alpha=0.05, one cannot reject the null hypothesis H0.

Shapiro-Wilk test (Population, female):

W	0.960
p-value (Two-tailed)	0.639
alpha	0.05

Test interpretation:
H0: The variable from which the sample was extracted follows a Normal distribution.
Ha: The variable from which the sample was extracted does not follow a Normal distribution.
As the computed p-value is greater than the significance level alpha=0.05, one cannot reject the null hypothesis H0.

Shapiro-Wilk test (Labor force, total):

W	0.946
p-value (Two-tailed)	0.399
alpha	0.05

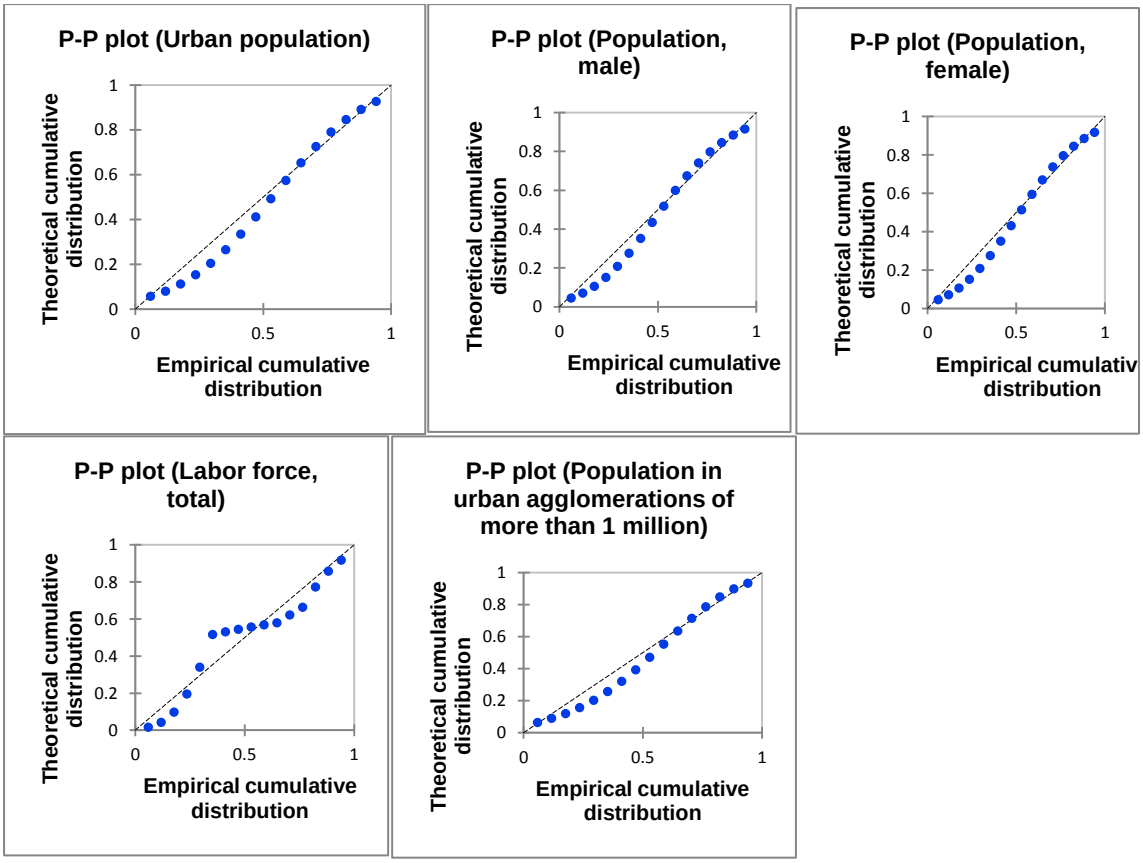
Test interpretation:
H0: The variable from which the sample was extracted follows a Normal distribution.
Ha: The variable from which the sample was extracted does not follow a Normal distribution.

As the computed p-value is greater than the significance level alpha=0.05, one cannot reject the null hypothesis H0.

Shapiro-Wilk test (Population in urban agglomerations of more than 1 million):

W	0.959
p-value (Two-tailed)	0.604
alpha	0.05

Test interpretation:
H0: The variable from which the sample was extracted follows a Normal distribution.
Ha: The variable from which the sample was extracted does not follow a Normal distribution.
As the computed p-value is greater than the significance level alpha=0.05, one cannot reject the null hypothesis H0.



The plot chart along with the tested hypothesis reveals that the indicators chosen are normally distributed. Hence for sustainable economic development, demography growth there is a positive growth in the technology waves, that has made conducive growth to the development of India. Gender wise there is a high correlation in growth as well in a high level of education is attained. The total labor force with high export services is aligned with this population distribution. A known source (CEIC data) that Labour productivity year on year in India data reveals in the year 2006 productivity was high at 8.85% in the following year 2007 it went up to 9.37%, but in the 2008 productivity level fell drastically to the level of 3.91%.With improved policy planning and incentives. labor productivity increased from 7.76% to 9.79 % between 2008 and 2010. Further productivity of the labor force came down to 5.97 in the year 2011,again contribution fell to 4.83 in the year 2012. We could infer a discouraging impact with a reception to technology. The same performance continued in the following year and fell to 4.37. Heaps in illustration design reveal that there are fluctuations in the behavioral pattern on labor productivity, varying from 5.52% to 6.00%, and falling to 5.27 to 4.84 from 2013 to 2017. Hence, technology reception can be correlated compared to the perception of innovation waves within the economy. Therefore, it is evident that perception goes with a displacement of the labor force, substituting high innovation with low productivity.

Role of an administrative policy encouraging grants including technical exports, technical co-operation grants, ICT services exports, and high technology exports has made conducive technology waves of technology goods and services. Post liberalization from 2000 after Y2K tremendous encouragement is granted. Although productive capacity with India declined, initiatives on recurring skill development and upgrading are constant. Internet and mobile

cellular device have made reception to fascination but the perception of technology innovation lags among highly educated urban genders. Statistics reveal there is a vagary between 63-70% from 2000 to the year 2016. Mobility and migration among ICT communication have facilitated export services with expatriate organization policy. Correlation matrix reveals outstanding export service has earned potential, but technical cooperation reveals less relation. Here the table reveals the intensity of technical correlation is less. Innovation being correlated to skill and spillover, in India is mostly these two leakages that happened through mobility and migration of population.

Correlation matrix (Pearson):

Variables	High-technology exports (current US$)	ICT service exports (BoP, current US$)	Technical cooperation grants (BoP, current US$)	Grants, excluding technical cooperation (BoP, current US$)
High-technology exports (current US$)	**1**	**0.951**	0.207	0.375
ICT service exports (BoP, current US$)	**0.951**	**1**	0.150	0.440
Technical cooperation grants (BoP, current US$)	0.207	0.150	**1**	-0.294
Grants, excluding technical cooperation (BoP, current US$)	0.375	0.440	-0.294	**1**

Values in bold are different from 0 with a significance level alpha=0.05

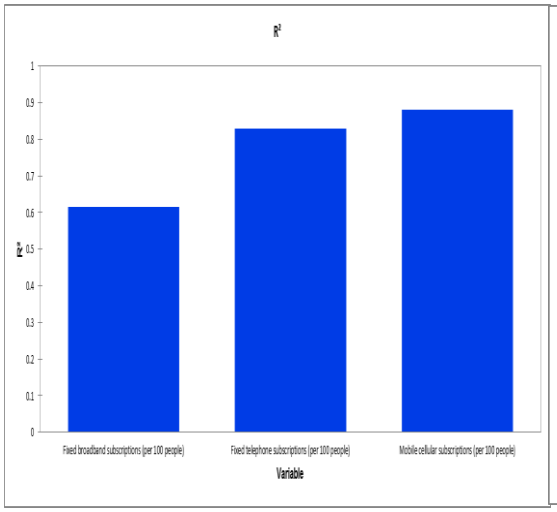
Next, the paper would like to look upon ***wave of technology*** facilitators, based indicators, chosen variables are fixed broadband subscribers (per 100 people), fixed telephone subscriptions (per 100 people)and Mobile cellular subscribers (per 100 people), multicollinearity statistics a regression model is applied to test interconnectedness and inter-correlation among chosen technology wave variables. The test reveals the variance inflation factor among chosen variables mobile devices will adversely impact the technology wave. While tolerance indicates the regression collinearity among these competing variables. Although all are private subscribers where mobile cellular has widespread wave based on affordability and accessibility. Here, productive innovation lags, however, penetration will continue to dominate.

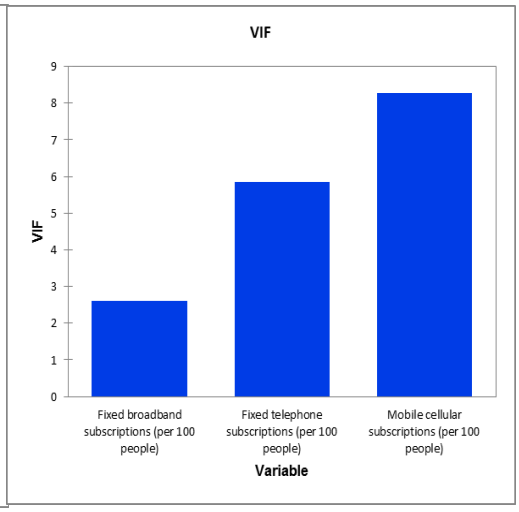
Correlation matrix:

Variables	Fixed broadband subscriptions (per 100 people)	Fixed telephone subscriptions (per 100 people)	Mobile cellular subscriptions (per 100 people)
Fixed broadband subscriptions (per 100 people)	**1.000**	-0.665	0.778
Fixed telephone subscriptions (per 100 people)	-0.665	**1.000**	-0.908
Mobile cellular subscriptions (per 100 people)	0.778	-0.908	**1.000**

Multicollinearity statistics:

Statistic	Fixed broadband subscriptions (per 100 people)	Fixed telephone subscriptions (per 100 people)	Mobile cellular subscriptions (per 100 people)
R^2	0.615	0.829	0.879
Tolerance	0.385	0.171	0.121
VIF	2.596	5.857	8.278





Conclusion: Productive capacity with waves of technology discussed from various indicators reveals a positive and advantageous environment. But within India, effort and policy need to be further pushed, by visualizing and then pressurize the learned and unlearned. Negotiation with strong bargaining power in the export market needs to improvise domestic skill development. Adoption of innovation within the economy, a motivating package from administrative human resource has to be streamlined. This could further enable the potential of able-bodied centers and encourage learned to contribute within the home country. Gender wise India possesses a high able-minded population, for sustainable

economic development instead of displacement or dislocation of workers, empowering need to be on a regular base. So, technology wave could be reduced and controlled making trade-off decision, that strengthens efficient human capital within the economy.

The scope of further research: Availability and access of data sources on skill development and reasons for gaps in research and innovation attempts could be made. However, this could be initiated with subscriptions at the institute level. The dense of an available data source at the international level is accessible. However, from the Indian perspective skill data is a gap.

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