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"Skilling Attracts Budgets From All Corners"-A Study İn Indian IT Sector

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Abstract

Economic productivity increases with increasing number of skilled workers being able to perform tasks more efficiently. Other than financial paybacks for the community, skills development brings huge personal benefits by creating new possibilities - new ideas, new jobs, a chance to escape poverty or attain new levels of individual accomplishment. Education and training are the key determinants of skilled workforce. A new world of work is emerging from the rapid and large-scale technology advancement and global connectedness, that has massively disrupted the jobs market. It is projected that by 2030, over 50% of the 2 billion youth across the globe will not possess the skills or credentials essential to be part of the global labor force. Countries worldwide have called out the need for reforming education and addressing the gap in 21st Century Skills. UNESCO has laid out recommendations in these regards to include in National Education Policies. United Nation's Sustainable Development Goal 4 stresses on the role of education to solve the global crisis. New educational programs on skill development and allocation of funds is visibly amongst the strategic objectives of organizations and nations. In a developing nation like India, the finance minister announced a whopping 3000 crore budget for the sole purpose of skill development in the country. With the outburst of several technological solutions that drive self-paced and self-directed learning, the individual learner's commitment and motivation has utmost significance towards success of these initiatives. While we observe that organizations and governments have begun to reserve budgets for skilling needs, will these investments yield results? Is this a scalable model in the long term? How much of these budgets can be used for working population? How committed are the individual citizens to their own skill development? Are they willing put their skin in the game? The present study was conducted to capture the individual's perspective on their willingness to spend money from their personal earnings for lifelong education and continuous upskilling. One of the key findings from the analysis of data collected by surveying 226 working professionals in the Indian IT sector revealed that 81% of the respondents are spending a portion of their earning for own skill development. Even if not spending currently there is a uniform willingness among 90% of the respondents to spend in the future. We studied in detail the variation in individual choice with changing demographic factors like age, work experience, gender, and digital dexterity. Through this article we share our findings and recommendations to the HR practitioners and organizations for redesigning the training objectives and budgets.

Keywords: *Self-directed learning, Skill development, Budgets, life-long education*

1 Introduction:

Fourth Industrial Revolution is a reality and the entire workforce will go through this paradigm of change. There is a greater focus on the impact of automation on work and what it will mean for jobs. To stay relevant in market competition and to exploit the economic opportunities most of the organizations embrace disruptions in technology. To gain momentum to this technological change and skill shortage, individuals, organizations, and the policy makers recognize the need for change in education reforms and training systems [13]. The surge to have agile learners is inevitable for organizations. The current strategies identified by organizations to address this shortage of skills is to hire a new talent with the skill, engage a third-party or a freelancer or a contractor with the skill or retrain the existing employees. If organizations need to build on its strategic capability it is critical to invest in developing high performing employees for upskilling or reskilling. But the outcome to such investment decisions invariably do not promise a return or the risk in the trade-off stays high. For the business leadership there are unanswered questions such as cost of paying for all or part of the training, risk of employee leaving the company for a

competitor, command for higher wage after training, employees acceptance of training, employees commitment to learning and the return on investment. This has become a barrier in creating a talent management model to map between new technologies, skills, and jobs. However, to thrive in the changing environment where new technologies decide on organizational efficiency and effectiveness it becomes an imperative to retrain, reskill, upskill employees [12].

The concern attached with the training budgets is search of an agile life-long learner who will integrate their personal goal to organization goal. How committed are these individuals to their own skill development? The present study aims to capture the individual's perspective on their willingness to spend money from their personal earnings for lifelong education and continuous upskilling, built on the conceptual model of Self-Directed Learning. According to Knowles [8], self directed learning is a process in which individuals diagnose own learning needs, set up goals, identify requisite resources and evaluate outcomes of their learning without the help of others. Researchers emphasize that the "critical dimension to self-directed learning" is the learner's active control of the learning process [9] and the acceptance of personal responsibility for one's own learning [2]. With the outburst of several technological solutions that drive self-paced and self-directed learning, the individual learner's commitment and motivation has utmost significance towards success of these initiatives. However, the success of an organization is determined by its agility, investment in human capital and the mindset of the learners

1.1 Massive deconstruction and reconstruction of jobs & Shifting demands for skills

Certain kinds of routine work are on the front lines, including the analytical activities of administrative assistants and bank cashiers, and the manual jobs of warehouse assistants, assembly line workers, and delivery drivers. Many tasks within these jobs are likely to be automated: For instance, delivery workers now scan packages and generate automated driving statistics. The agenda for routine, lower-skilled work in this new world includes upskilling (giving employees access to new and often higher-value tasks within the same job) or re-skilling (making them able to accomplish a completely new set of tasks). This massive de-construction and re-construction of jobs is inevitably bringing a cluster of new skill sets required to perform tasks on the job [7]. As a reaction to these phenomena, there is divide getting created between two kinds of people, one who have the right skills for these new age jobs and another who do not. The unrelenting speed of technological advancement and the slow pace of education and training has become a virtuous cycle widening this gap. Skills today have short life spans and by the time enough people are trained, the demand shifts to new skills [4].

1.2 Polarization of talent & upsurge in re-skilling and up-skilling of working population

The widening talent gap has forced many organizations to engage in mass scale skill-development programs for their existing employees. Learning existing skills in newer, deeper ways is often required when the routine tasks of a job become automated. The more individuals know about a job's function, the more they understand an industry, the more valuable they become to an employer. Up-skilling programs look at continuous development of individuals to better understand and align with their job requirements and perform against the same. On the other hand, there is also emphasis on identifying people whose existing skills have gone completely redundant or less competitive, and they learn and develop new skills which has a demand to continue or dominate the industrial landscape. However, obtaining a higher level of education or training also carries a cost. The shifting demands in skills and widening talent gap [10], hence calls for a talent budget or funding.

1.3 Funds & Reforms for people development

The need for funds and reforms in education and skill development has been recognized by nations worldwide. Allocation and management of funds and resources effectively is imperative towards ensuring

that people have the skills and competencies required to thrive in the new world of work. The Indian government has forecasted that by 2030, India will have the largest working-age population and have recently unveiled a plan to open 150 higher education institutes[6], start apprentice training and funds in the range of 3000 crores for skill development and 99,300 crores for education[11]. According to Association for Talent development organizations spent $1,273 per employee on direct learning [1]. Approximately 1.5% of our Gross Domestic Product (GDP) is contributed towards education and training after school, most of which is received by vocational colleges and the National Skills Fund, among others. Several Edutech firms have brought learning platforms to promote self-directed learning and shift the onus of skill development to individuals [3]. Many of these platforms have matured to operate in a consumer driven model, where learners can initiate and pursue any skill development fully by self-direction by spending money from their own pockets and sponsoring own skill development. But are people committed to leverage these opportunities. Will spending money for upskilling from personal earnings, enhance commitment and effectiveness in skilling and reskilling initiatives?

2 Why and How did we conduct this research?:

There is sufficient evidence to support increasing interest of organizations and governments towards funding and sponsoring skill development of people. At the same time, there is also evidence that many of these initiatives and huge budget allocations not resulting in desired outcome owing to lack of continuity, consistency, and ineffective participation of individual learners. What has not been adequately heard about is the voice of the people. The recipients engaged in the talent development process strategized by organizations. This study was conducted to examine individual's world, with respect budgets for upskilling or reskilling self during their career.

2.1 Research Objectives

To examine the interest of Indian working professionals to spend a portion of their earnings for skill development and pursue life-long through self-directed learning.

To analyse the influence of demographic factors like age, gender, digital dexterity, work experience and annual income on their decision to spend for self-skilling and learning.

2.2 Methodology

The present study is descriptive research based on Survey Method. Demographic analysis of (Age, Digital Dexterity, Work experience, Income and Gender) of the sample population was planned. Primary data was used for the study.

2.3 Data Collection Method:

2.3.1 Instrument

Participants were surveyed with two questions, one to measure are they currently spending money from their earnings for self-skill development and if so, what fraction of their earnings are they spending. The second question was to examine the willingness of the respondents to spend money from their earnings for self-skill development and life-long education. Additional information on Age, Digital Dexterity, Work Experience, Income and Gender were collected for gaining more insights and draw conclusions on the influence of demographics on their decision to spend on skill development.

2.3.2 Sampling Plan

The respondents are Indian working professionals who were reached through our industry network and LinkedIn. Snowball technique was used to expand the network with further reference from respondents. Only people working in organizations were chosen to participate. Independent workers and entrepreneurs were excluded from the survey. A sample size of 226 was attained for the study.

2.3.3 Tools Used for Data Analysis:

IBM SPSS Version 25, 64-bit edition was chosen to conduct statistical analysis owing to its popularity with social science research and user-friendly interface. Cronbach Alpha test, One-Sample Kolmogorov Smirnov test, Weighted Mean, Frequency, Chi square test, Pearson Correlation, one-way ANOVA were used during the analysis. Microsoft Excel was used to study preferences against various demographic components.

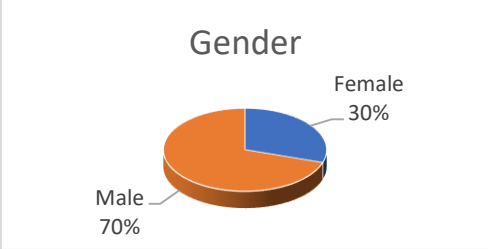
2.3.4 Normality Test for the sample

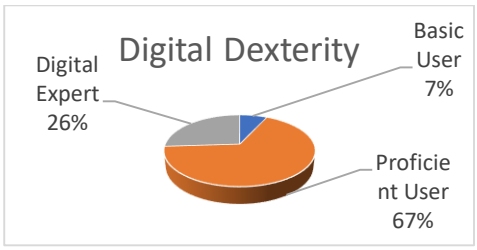
As the following experiments required hypothesis of normal distribution of the same as the pre-requisite for the analysis, it become necessary to test the truthfulness of the hypothesis of normal distribution of collected data. "normality test statistics by 'kolmogorov- smirnov test' measure that whether a particular distribution differs significantly from normal distribution. a one-sample kolmogorov smirnov test failed to reject the null hypothesis that the data followed a normal distribution at .05 level significance (variables 1-2 N = 226 each, and P > .05 each).

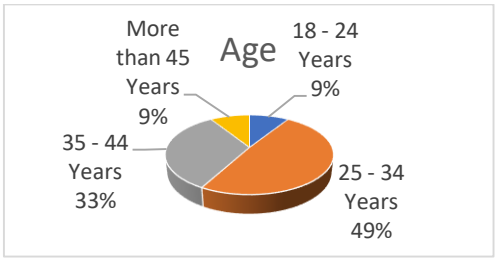
3 Research Findings:

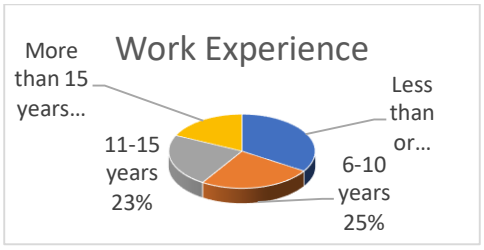
3.1 Sample Demographics

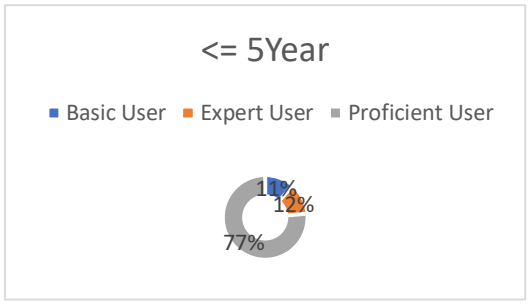
Figure. 1 represents the demographic distribution of the sample population that was studied. Gender, Work experience, Digital Dexterity and Age of each respondent was captured during the data collection. For gender, respondents were given three options of Male, Female and Prefer not to disclose. Out of the 226 respondents 70% were male and 30% were females. Digital dexterity (proficiency with information and communication technologies) is an important enabler for self-directed learning in the digital era. Three options (Basic User, Proficient User, Digital Expert) were given for respondents to identify their level of proficiency with use of digital media. In the sample studied 7% identified themselves as basic users, 67% as proficient users and 26% as Digital Experts. 49% of the respondents were in the 25-34 years age bracket, followed by 33% in the 35-44 years, 9% were in the 18-24 years and 9% in more than 45 years category.34% of respondents were freshers with less than or equal to 5 years of work experience, 25% has 6-10 years of work experience, 23% had 11-15 years and 18% has more than 15 years of work experience. The pattern of gender distribution and digital dexterity was also examined with changing work experience. With increasing work experience female representation is reducing. Freshers (less than or equal to 5 years of experience) have largest percentage of proficient users, while number of digital experts go up, so do basic users. With increasing experience people tend to fall in the two extremes of either being a basic user or an expert and less in the proficient user category.

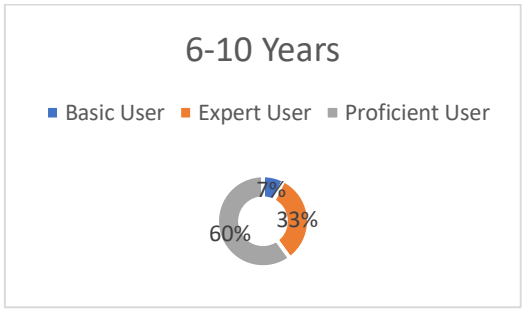












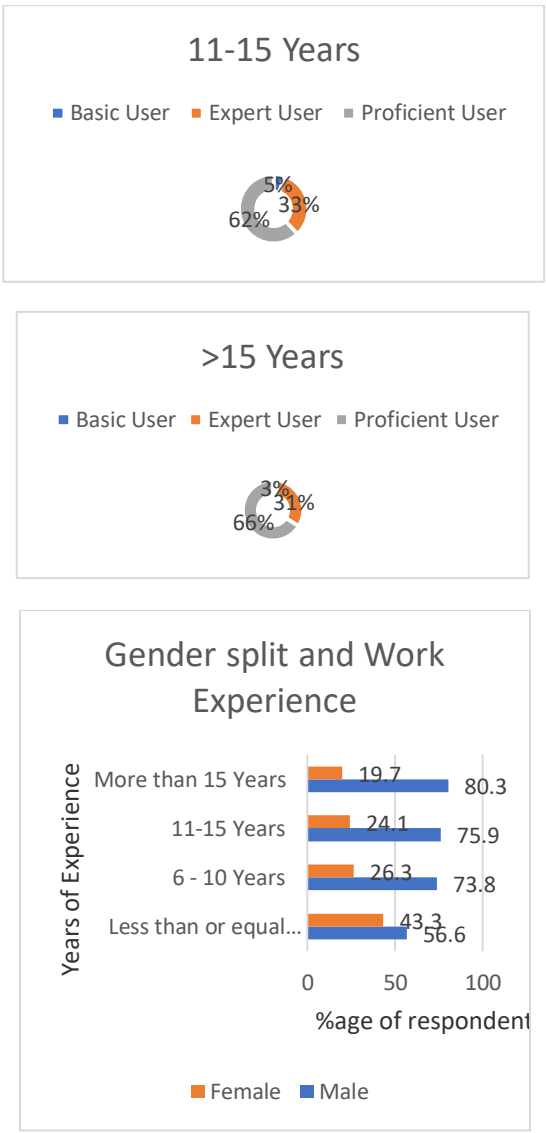


Figure 1.

3.2 Spending a portion from earnings for continuous skill development already a trend among working professionals

3.2.1 81% of the respondents are spending a portion of their personal earnings already towards self-skill development

54% of the respondents admitted their spending pattern up to 1 percent of their annual personal earnings towards upskilling self. 16% claimed spending anything between 1 to 2 % of their earnings, while 13% indicated they spend even beyond 2% of their earnings towards skill development. The phenomenon of taking ownership for own development is evident in the sample population. Table 1 depicts the %age of respondents spending money in different brackets.

Portion of annual income used for upskilling self	%age of respondents
More than 2%	13%
Between 1 and 2%	16%
Upto 1%	54%
Not spending	19%

Table 1.

3.2.2 10% of the respondents are not willing to spend own money for life-long learning

The study further examined willingness to spend for self- skilling and development. 49% of the sample respondents expressed willingness to spend upto 1percent of their personal earnings towards regular self-upskilling. 4% of respondents willing to spend is more in the brackets with spend more than 1%. While 19% are not currently spending, but only 10% are not willing to spend. Table 2 depicts the %age of respondents' willingness to spend in different brackets.

Portion of annual income willing to spend for upskilling self	%age of respondents
More than 2%	15%
Between 1 and 2%	26%
Upto 1%	49%
Not spending	10%

Table 2.

3.3 More Income does not mean more willingness to spend from personal earnings for upskilling

We observe that while majority of the people earning upto 15 lacs per annum are willing to spend between 1 to 2 % of their annual earnings towards self-upskilling , on the other hand majority of those earning more than 15 lacs prefer to keep this spend only upto 0.5% of their earnings. This can be interpreted with the absolute value of this amount sufficing the need for undertaking self-upskilling. The uniformity in the preferred willingness to spend bracket also indicates to greater awareness among people about the market price. This can be a further scope of research. Table 3 illustrates above data (lpa stands for lacs per annum).

Income Group	Current spend bracket	Willingness to spend
Less than 3 lpa	upto 0.5%	1-2%
3 – 8 lpa	0.5 to 1%	1-2%
9-15 lpa	not spending	1-2%
16-30 lpa	upto 0.5%	upto 0.5%
More than 30 lpa	not spending	upto 0.5%

Table 3.

3.4 Females spend less than Male

Among the respondents, majority of the male chose 1-2% as the preferred bracket for spending towards self-upskilling. On the other hand female respondents preferred to keep it upto 0.5%. While the bracket for spend preference varied for Male and Female respondents , no difference was found in the willingness aspect of spending portion of personal earning towards upskilling, as the percentage of not willing to spend was the same for both genders. Table 4 illustrates above data

Gender	Preferred spend bracket
Male	1-2% of annual earnings
Female	upto 0.5% of annual earnings

Table 4.

3.5 Specialists spend more than basic and proficient technology users

In the study we captured the digital dexterity of the respondents in three categories namely “Basic User”, Proficient User”, “Digital Specialist”. We found increased interest among the digital specialists to constantly invest for own upskilling. While the preferred bracket for Basic and Proficient users was 1-2%, specialist preferred to spend more than 2% of their earnings for upskilling. Table 5 illustrates the same.

Digital Dexterity	Preferred bracket of spend
Basic User	1-2%
Proficient User	1-2%
Digital Specialist	More than 2%

Table 5.

3.6 More experienced people not spending on self-development, but willing to spend

An analysis of respondent preferences with their work experience highlighted that while less experienced are actively engaged in spending from their earnings for upskilling, the more experienced professionals are not spending now. This relates to the younger generation workforce being in the present world, while the older generation still trying to cope with the change. Table 6 illustrates spend trends with reference to work experience. However, it was also found that willingness to spend was common across all experience groups.

Work Experience	Current spend bracket	Willingness to spend
Less than or equal to 5 yrs.	upto 0.5%	1-2%
6 – 10 years	upto 0.5%	1-2%
11-15 years	do not spend	1-2%
More than 15 yrs.	do not spend	upto 0.5%

Table 6.

3.7 People in the 35 – 44 years are least interested towards spending for self-upskilling

Life stage does have an impact on careers. We observe that people in the age group of 35 – 44 years prefer not to spend from their personal earnings for upskilling themselves. Those upto 24 years prefer to reserve upto 0.5% for own upskilling, while those in the age group of 25-34 years are willing to spend between 1-2 % of their income for self-upgradation. Those above 45 years are also willing to spend as much as 1 – 2 % of their income, there is a stage in life where majority people prefer to not spend from own pocket. Table 7 illustrates the same.

Age	Current spend bracket	Willingness to spend
18-24 Yrs.	upto 0.5%	upto 0.5%
25 – 34 Yrs.	0.5 – 1%	1- 2%
35 -44 yrs.	do not spend	upto 0.5%
More than 45 yrs.	1 – 2 %	1 – 2 %

Table 7.

4 Summary and Discussion:

As we undertake this study, we find that the phenomenon of spending money from own pocket for upgrading skills during working life, is already prevalent. 81% of the respondents are spending a portion of their personal earnings already towards self-skill development. Even if not spending currently there is a uniform willingness to spend in the future. 10% of the respondents are not willing to spend own money

for life-long learning. Individual spend interest did not show any correlation to income. More Income does not mean more willingness to spend from personal earnings for upskilling. In fact, those earning more seem to be spending lesser portion of their earning for upskilling. Demographic facts like gender show varying preferences on the bracket of spend while overall there is consistent willingness to spend. Females spend less than Male. In fact, it also explains the impact of the gender gap in various social and economic indicators in India. People in high tech jobs and who are technology specialists are more attuned to keep themselves upgraded and spend more than those who use technology to augment their profiles. Specialists spend more than basic and proficient technology users. While the young generation sees this as a normal, the mid-career professionals are still struggling to embrace the change. More experienced people not spending on self-development, but willing to spend. Reasons for experienced people not willing to spend can also be associated to the feeling of "experience by itself is learning" [5]. The good observation here is their willing to spend and change their perspective Life stage does seem to impose restrictions to people's ability to pull out money for self-upgradation. People in the 35 – 44 years are least interested towards spending for self-upskilling. This can be related to enhanced domestic or family responsibilities, education of children etc. which could be causing constraints for individuals in this age group to invest time, efforts, and money themselves.

The present study indicates respondents show high level of awareness on the need for continuous upgradation of skills to stay relevant in career. People are aware that educational degrees is an entry qualification but not a necessarily a condition for staying relevant to their present work. Not just the need but there is also awareness on self-learning platforms and price ranges which is indicated by the amount of spend people are planning and deem required. Since a vast majority of today's workforce is the young generation, the new normal seems to have taken its place already and the other generations have also recognized the need to embrace the change. Given this interest, it is imperative for organizations to review their learning and people development strategies and re-examine ways to build a self- learning culture.

5 Implications:

While at one end there is increasing automation and self- direction expected in learning, the organizational strategies for people development are still focusing on mandating training hours and other traditional extrinsic motivation theories to drive people to learning. Planning and spending a portion of own earnings is a powerful indicator of the level of commitment individuals are already showing towards own development. Traditional methods of incurring employee training cost serve the employer's good intentions to develop talent but carries with it a huge risk of underutilization of these company provided resources by employees. With the enhancing diversity in the skilling needs, the age-old practices of planned training for employees are not economically viable. Gone are the days when training could be done in batches for greater efficiency. Efficiencies of scale lie in online self-learning platforms, which have mushroomed the workplaces already, with little consumption. Having the skin in the game by spending for own development, will get employees to be more serious and bring more alignment in individual and organizational aspirations. If the skill gained was for the purpose of the business and an organizational need, then organizations can relook the methodologies to implement talent management. They can encourage self-skilling and learning during designate office hours, reimbursing cost partially or fully incurred, efforts to provide opportunities to get new work assignments as recognition to skilling etc. Such new approaches will enable more judicious usage of the monies flowing from all directions for skill development. As more jobs are getting deconstructed and reconstructed, skills and problems associated with jobs will change. It is important to use portion of budgets as investment in research and development of learning resources for such skills and make it available for the learners. In this changing world of work, Organizations must play the role of enabler for employees to learn and skill. Budgets can be used to re skill the unemployed and to offer subsidies for lower income groups to acquire or upgrade skills that are of high demand. Skills on demand are generally expensive to acquire.

6 Conclusions:

It is evident there is a general vote for taking responsibility for own learning among individuals. While the new generation are already tuned to retail shopping and pursue learning in areas of their interest, there is a need to find means for aligning them with the skills on demand for the business. The mid-career professionals besides adjusting to the new norms are also in a life stage that demands spend towards family and education of children. With an additional burden of their own upskilling, they find it difficult to manage their time and finances. This group particularly may require a differential treatment by the organizations. Given the budgets pouring from the governments and increased reserves within organizations, the findings on individual interest from this study indicate that skilling indeed is attracting budgets from all corners. An effective strategy could be to leverage include people's contribution, which eventually leads to greater effectiveness and utilization of resources. The central and organizational budgets can be used to drive alignment with demand of skills as well as uplifting those who are either unemployed or fall in the low-income group.

7 Limitations and Further scope of study:

The sample for this study was collected from the IT industry and these workers are generally attuned to technological developments and always seek to upgrade themselves, characteristic of this industry. Hence a similar study can be extended to non-IT industries to examine the state of mind of workers in other sectors. Further there is a scope to examine the strength of relationship between demographics and the willingness to spend for self-skilling. There is also a scope to investigate the intrinsic and extrinsic motivators that trigger an individual to be a life-long agile learner.

References

1. Association for Talent Development (2019), Annual State of the Industry report
2. Brockett, R. G., & Hiemstra, R. (1991). Self-direction in adult learning. New York: Routledge
3. Editorial Team, Edtech review (2020) , Edtech Conference March 2020, Website: http://edtechreview.in
4. Esther Care, Alvin Vista, and Helyn Kim(2019), Assessment of Transversal Competencies Current Tools in the Asian Region, , United Nations Educational, Scientific and Cultural Organization
5. Fazey, I., Fazey, J., & Fazey, D. (2005). Learning More Effectively from Experience. Ecology and Society, 10(2). Retrieved June 7, 2020, from www.jstor.org/stable/26267749,
6. India Education Policy(2019), Draft National Education Policy 2019, mhrd.gov.in/nep-new
7. International Labour Organization (2017), The Future of Work we want, A Global Dialogue, An ILO Centenary initiative, http://www.ilo.org/futurewewant
8. Knowles,M.S.(1975).Self-directedlearning:Aguideforlearnersandteachers.New York: Association Press.
9. Long, H. B., & Associates. (1989). Self-directed learning: Emerging theory and practice. Norman OK: Oklahoma Research Center for Continuing Professional and Higher Education, University of Oklahoma.
10. Manpower Group(2016), A Skills revolution in the human age
11. Skillreporter(2020), Special Budget Announcement Finance Minister (2020) , www.skillreporter.com/2020/02/news/skill...
12. Weiss, F, Klein, M & Grauenhorst, T (2014). 'The effects of work experience during higher education onlabour market entry: learning by doing or an entry ticket?' Work, Employment and Society, vol 28, no. 5, pp.788-807., 10.1177/0950017013506772
13. World Economic Forum (2015), New Vision for Education Unlocking the Potential of Technology, www.weforum.org