Abstract: In the era of Industrial revolution 4.0, both the developed and developing economies are transforming everyday when newer technologies keep coming in and pose threats to the traditional jobs. The obsoleted skills are wiped out from the market rapidly and being replaced by the new age expertise. This makes the IT workforce look for various alternatives for their survival and future security. This has been investigated many times by various analysts that jobs are being eradicated quickly in the IT industry but only a few have critically examined the motivations & challenges one faces while working with these dynamics of this industry. This paper aims to bridge this gap. A secondary data analysis from various real-time case studies and research reports has been done to gain prolific insights into the issue. It has been found that although the speed of workforce cut-down with big players in the market has been exponential but parallely it is noted that people have started adapting to the new scenarios with the help of coping strategies like skill diversification, skill enrichment, planning and working towards entrepreneurship and freelancing for personal goals. This is giving rise to a new style of multi-jobbing which is also referred to as moonlighting in the context of emerging human resource development. In this industry, freelancing is being extensively used to do moonlighting due to technology facilitation.

Keywords: Moonlighting, Knowledge Workers, Knowledge economy, IT/ITes professionals, Gig Economy, double-jobbing, freelancing, multi-jobbing, part-time employment

I. INTRODUCTION

When USA faced the financial crash in 2008, a huge workforce had to face the pink slips in the lieu of shortage of funds with the organizations to pay for personnel costs. In the last two years (2015-17) also, large IT firms made extensive lay-offs in lieu of cash crunch and skill obsolescence. One can have a glance below for recent examples of big IT and ITES firms laying off significant number of employees for a variety of reasons like cost cutting, increased automation and what not.

Table 1: Layoffs in IT and ITES Firms in the time period 2015-17

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Organization</th>
<th>Industry</th>
<th>Layoffs (Approx)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cognizant</td>
<td>IT</td>
<td>15000 employees</td>
</tr>
<tr>
<td>2</td>
<td>Cisco</td>
<td>IT</td>
<td>14000 employees</td>
</tr>
<tr>
<td>3</td>
<td>DXC Technology</td>
<td>IT</td>
<td>6000 employees</td>
</tr>
<tr>
<td>4</td>
<td>Capgemini SA</td>
<td>IT</td>
<td>7000 employees</td>
</tr>
<tr>
<td>5</td>
<td>Infosys</td>
<td>IT</td>
<td>6000 employees</td>
</tr>
<tr>
<td>6</td>
<td>Wipro</td>
<td>IT</td>
<td>4000 employees</td>
</tr>
<tr>
<td>7</td>
<td>HCL Tech</td>
<td>IT</td>
<td>3000 employees</td>
</tr>
<tr>
<td>8</td>
<td>Tech Mahindra</td>
<td>IT</td>
<td>3000 employees</td>
</tr>
<tr>
<td>9</td>
<td>Snapdeal</td>
<td>Ites- Shopping Website</td>
<td>Almost 1000 Employees</td>
</tr>
<tr>
<td>10</td>
<td>LeEco</td>
<td>IT Chinese Smartphone maker in INDIA</td>
<td>Exiting India by cutting 85% manpower</td>
</tr>
<tr>
<td>11</td>
<td>Yepme</td>
<td>Ites- Shopping Website</td>
<td>Reduced headcount by 80%</td>
</tr>
<tr>
<td>12</td>
<td>PropTiger.com</td>
<td>Ites-Online Reality Portal</td>
<td>200 Employees</td>
</tr>
<tr>
<td>13</td>
<td>Stayzilla</td>
<td>Ites- Homestay Venture</td>
<td>200 Employees</td>
</tr>
<tr>
<td>14</td>
<td>Flipkart</td>
<td>Ites- Shopping Website</td>
<td>700 Employees</td>
</tr>
</tbody>
</table>

Table 1: Reports about IT Layoffs by The Hindu (2018), CNBC (2018), Business Insider (2018) etc.; retrieved from [18] to [24]; last accessed 13 February 2018

This is the reality of survival of the fittest in any organization. Fittest here means those persons who have kept them abreast of the competition in which they are thriving to be able to maintain their positions in the organizations. The financial crash of US made the so called ‘Gig economy’ terminology take birth in 2008.
This was also the time when ‘Uber’ birth took place and everything representing the evolution of Gig economy followed. With the conception of Uber, people started thinking that they can earn additionally to their primary jobs with the help of their own vehicles on the way to their personal destinations without being worked extra actually. So what exactly is this Gig economy? Sillin Nathaniel (2017) in an article in the Economic Times defines Gigs as the alternative work arrangements that very often depend on the latest technology and a desire to set one’s own schedule and pay. He says that Gig workers include a variety of workers like temporary help agency workers, on-call employees, contract workers, independent contractors and off course freelancers. Today the face of Gig economy has evolved manifolds. There are a number of online platforms providing a bridge between work seekers and work providers. The situation has totally changed from ambiguous searchings and hirings through consultancy firms to digitally secured platforms. Harvard & Princeton researchers measured this growing economic force in the US and told that they (Gig workforce as part of total workforce) have grown from 10 % in feb 2005 to 16 % in the late 2015 and the trend is indicating a much anticipated hike in the times to come.

This was the picture of Gig economy evolution in the world through US but India is also not much behind. It’s the second ranker in terms of the volumes of Gig workforce. This workforce is commonly referred to as Moonlighters or very often Freelancers, although they have a very slight difference in respect of holding a primary occupation. Freelancers may or may not hold a primary job but moonlighters do and ultimately may become freelancers after quitting it.

So, the main challenges before the ordinary workforce in the knowledge century are:

1. Competing among the colleagues for survival in the job in lieu of rapid automations
2. Balancing between work, family and self actualization needs
3. Planning for retirement, illnesses or unforeseen circumstances
4. Choice of double or multiple jobbing for beating inflated prices of their requirements
5. Competing among fellow multi-jobbers for fair prices of work done

In any case, the compulsion to do multi-jobbing in the name of freelancing has been witnessed as a common practice to overcome the above mentioned challenges.

Anand J and Pillai S (2017) discuss the figures of freelancers in the Indian workforce in TOI as per the study-report by Manipal Global Education- one of India’s largest Education services Groups. They say that

1. India is second to US in number of freelancers i.e. 15 million
2. Most common jobs performed by them are data visualisation, data mining, digital marketing and social media, all basically related to the IT industry
3. The main reasons found out for doing freelancing are better pay and expertise in emerging technologies.

We can try to correlate these results with the evolution of so called Gig economy in India prominently in IT industry this way. Earlier, Indian gig economy used to be an extrapolation of temporary and contract employees but now with the ever-changing demands of the IT skills required by the IT firms, they can’t expect homogenous group of talent in one team anymore. Firms need to hunt for hyper-specialised millennials for the new age technological assignments. The study also shares that there has been a boom of freelancers due to expansion of internet and mobile phones. That’s where moonlighting and crowd-sourcing come into the picture. In the IT industry, moonlighters are generally referred to as freelancers. They are basically who hold multiple jobs which may constitute one full time and 1 or 2 part time jobs. Alternatively, they may hold all part time jobs and make a portfolio out of their different job profiles to market themselves before the prospective employers.

II. LITERATURE REVIEW

Paxon & Sicherman (1994) have defined multiple job holding as the practice in which individuals hold two or more jobs simultaneously. Several researchers (Huiskamp, Sanders & Van den Bossche, 2011) have assumed and concluded that moonlighting may add to the enhanced functioning of labor markets but little evidence is available to support this hypothesis in the literature(Dorenbosch, Boneschansker, Sanders & Koppes, 2013; Wu, Baimbridge & Zhu, 2009).

The available literature has mostly focussed on the reasons and motivations to practice multi-jobbing. There are researches available which focus on the consequences of multi-jobbing like imbalance in work-life, effects on job satisfaction and organizational citizenship behaviour or loyalty(Jamal, 1986).

As in the today’s knowledge oriented economies, the responsibility of managing careers is solely considered the responsibility of the individuals, it has become the need of the hour for working people to be proactive at work and screening and grabbing the appropriate opportunities to switch jobs according to their knowledge, skills and dynamically updating capabilities. This phenomenon has promoted the thrust on holding multiple jobs. According to the available literature Shisko and Rostker (1976), Boheim & Taylor (2004); Kimmel & Conway (2001); Panos, Pouliakas & Zangelidis (2014), Huiskamp et al. (2011) people generally do multi-jobbing for the following main motives;

1. To make both ends meet or recover from their financial stressful conditions when they are not able to meet their expenses through their primary jobs.
2. To upgrade or diversify their skill levels when they want to stay abreast and competitive in shrinking employment opportunities in a developing economy.

3. For creating extra wealth for leisure or extra responsibilities of the family.
4. For having job enrichment if the primary and secondary jobs are carried out in similar industry.
5. For becoming entrepreneurs for which they can’t afford to leave their primary jobs before reaching the breakeven point.

This implies that individuals don’t do multiple job holding just for earning more and more but there are a variety of reasons prevailing for supporting these practices. In the case of developing countries which generally undergo economic crisis, professionals keep themselves ahead of the upcoming situations of workforce reduction and rightsizing exercises by developing a secondary occupation well ahead the actual contingency.

There are not much evidences available on the investigations on the consequences of multiple job holding for individuals or for their organizations but in the available literature (Meyer & Allen, 1997, Dorenbosch et al., 2015), Wright and Kehoe (2007), Morrow (1983); Reichers(1985), Panos et al., (2011) both the positive and negative attitudes of employees practicing moonlighting have been discussed. Some of which are described below:

1. Organizational commitment is divided among two occupations and employees are not able to deliver their performance effectively and ultimately landed into burn outs and turnovers.
2. Individuals have competing commitments inside and outside their organizations due to multi-jobbing and they have limited time and energy to fulfill them, so they ultimately land into less loyalty towards their organization.
3. Multi-jobbers tend to be more engaged in their works having peculiar traits of supreme work satisfaction, high enthusiasm, job variety and job autonomy.
4. There is a greater trend of job mobility in multiple job holders. The ambitions to become one’s own boss is one of the most sought reasons for practicing multi-jobbing now-a-days.

III. RESEARCH METHODOLOGY

A qualitative multi-reports analysis has been used in this paper for data synchronization to gain fruitful insights into this issue. Collection of data has been done from real case studies which are available in the literature in the last five year news and data available in the internet resources.

Objectives
1. To understand the changing concept of job security in IT industry in India and world through the surveys conducted by leading moonlighting, freelancing and digital payments online platforms in the years 2012 to 2017
2. To examine the most challenging problems IT professionals face while moonlighting
3. To list out the coping strategies being practiced by moonlighters to overcome their challenges

IV. ANALYSIS AND DISCUSSION

Objective 1

Moonlighting and freelancing for IT/ITes Professionals

The Cambridge Dictionary (2010) defines moonlighting as “paid work that you do in addition to your normal job, especially without telling your employer” This is what is being done by the IT professionals in this dynamic phase of growing automation and rapidly outdating skills. People do work on a 9 to 5 job with an IT firm and simultaneously perform freelancing assignments in the evenings or at weekends for a variety of reasons. When people know that they have an expertise in an emerging technology, as discussed earlier, they tend to render their services as freelancers to the beneficiary firms in return of a payment. In this process, people search for those employers who require their specialised services and deliver when connected to the right ones.

This is called moonlighting whereas when employers search for specialised talent to fulfil their short term requirements out of the available talent pool in the market, it is termed as crowd-sourcing. It is also being used for senior management roles in some companies now. Traditionally firms used to do poaching for key positions in the organisations from the competitors firms and offered them with higher perks to join their company as a regular employee but now the picture is changing from traditional practice of Talent Poaching from Competitors towards crowd-sourcing people for a certain specialised assignment for a short duration of time. Organisations benefit a lot in terms of costs when they prefer crowd-sourcing instead of poaching practice. Online platforms have proved to be a boon for this kind of dynamics.

On one of the largest global online platform for freelancing services, Freelancer.com, the number of registered people from India is the highest which is more than 20 percent of the total registrations. The Indian registrations are 5.3 million and surprisingly 3.3 million from US, second to India. This means that Indians are more interested to work on freelancing assignments than US people are. The same is evident in the below results of the study conducted by freelancer.com.
Rising Moonlighting of IT/ITES Professionals in India

So, what actually comprise of this freelancing work? According to a report published in Times of India, the top three jobs available to the freelancers are Web, Mobile development, Web designing, data entry and Internet research which indicates that they are majorly IT related jobs.

**Table. 2 Top Freelancing jobs found by freelancers online in 2011-12**

<table>
<thead>
<tr>
<th>Jobs</th>
<th>Found by % of Freelancers</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHP Programmers</td>
<td>8</td>
</tr>
<tr>
<td>Website Designers</td>
<td>7.5</td>
</tr>
<tr>
<td>Graphic Designers</td>
<td>4.8</td>
</tr>
<tr>
<td>Search engine Optimisers</td>
<td>4.5</td>
</tr>
<tr>
<td>Data Entry Operators</td>
<td>3.6</td>
</tr>
<tr>
<td>Copy Writers</td>
<td>3.3</td>
</tr>
</tbody>
</table>


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**Changing Concept Of Job Security**

From the above facts disclosed by some of the leading researchers have pointed out that millennials working in the knowledge industry do a lot of freelancing. The reasons may vary from individual to individual but for persons working in the IT/ITES industry, the amount of income being received in lieu of freelancing is one of the significant factors as it is very much handsome in its amount as disclosed in the above Figure 2. Some more findings from this disclosure can be:

1. Job security transforming into employment security
2. The individual should be able to earn out of his/her skills not with the affiliations to big business houses
3. The discretion of provision of Safety net for social security benefits should not be left to the organisations but created by the individuals according to the customized requirements and personal earning levels

**Objective 2:**

Job Challenges being faced by Indian IT Professionals:

Apart from the motivations of going solo like entrepreneurship, independent working, autonomy, flexibility in work life, pursuing one’s passions, supplemental income, due to layoffs, there are certain challenges being faced by freelancers in the IT/ITES industry in India. Some of the challenges have been quoted in the following report by International Freelance Academy which include:

1. Finding the right clients against the skills possessed by Freelancers
2. Feast or famine cycle of work
3. Managing time between different assignments and staying productive
4. Managing work-life balance
5. To do all administrative duties along with the assignment completion i.e. wearing all hats at the same time
6. Getting paid on time in full
7. Competing against the fellow low cost freelancers

Fig. 2

% of challenges faced by Freelancers

Source: Top Freelancing jobs found by freelancers online in 2011-12.


Apart from the challenges discussed in the Figure 3, there are certain other fronts where freelancers need to fight to make their assignments successful which are:

**Newer Skills in demand**

The skills are also outdating very rapidly just like the technologies in the IT industry and the solo workers need to keep themselves abreast to the latest developments in the skill sets they possess. For this, they need to continuously update their skill with the help of institutions providing professional services of conferencing, certifications and skill crediting etc.

**Portfolio Careerists**

There are people who are working with diversified domains rather than striving for the specialization in one domain. This helps freelancers enrich their profiles and market themselves as people good at multi-tasking who can handle freelancing assignments of different domains efficiently. They are raising another bar in front of freelancers working for field specific assignments.

**Block chain & Crypto currencies**

The virtual platforms facilitating the freelancers’ profiling, data storage and digital payments are also posing a challenge for the freelancers to compete for the deserving work they strive for in this competitive era.

**Objective 3:**

**Coping Strategies being practiced:**

IT/ITes professionals are adopting various approaches to cope up with their challenges to survive in their employments (as per their skills) and not jobs. These can be listed out as follows:

1. Skill Enrichment with the help of certifications, skill crediting and realizing it by working on live projects taken up as additional assignments from management
2. Double or Multi-jobbing i.e. Moonlighting for personal goals
3. Freelancing as a part of Moonlighting which can ultimately be converted into full time freelancing
4. Moonlighting for Entrepreneurship and launching the venture at the right time
5. Skill Diversification and making portfolio careers
6. Maintaining the networking or getting back to the Academia for enhancing intellectual capital

These are some of the strategies discovered from the available resources which are not limited to this discussion. This is how new opportunities are being created in the same industry where emerging computing technologies are compelling the evaporation of traditional jobs. Professionals have found their own ways to make a better living in the industry 4.0
V. CONCLUSION

It can be concluded that although the speed of workforce cut-down with big players in the market has been exponential but parallelly there has been a creation of new kind of jobs for whom special kind of knowledge, skills and competencies are required. Individuals working in this industry are looking for various coping strategies to remain abreast with the dynamics of rightsizing of the organizations. They prefer either of the alternatives from Skill Diversification, Skill Enrichment, Planning and working towards new ventures, freelancing for personal goals, networking with academia parallelly for knowledge enhancement etc. This has been found out that all this can only be possible if an individual is excellent at multitasking. This is giving rise to a new phenomenon of multi-jobbing which is also referred to as moonlighting in the context of emerging human resource development. Organisations are also trying to keep track of the moonlighting practices of their key knowledge workers for ensuring their retention because key knowledge workers are the primary assets of the firm which decide its growth and prosperity even when there are unpredictable dynamics in the industry. In India the freelance contribution to National GDP is $400 Billion which is a significant figure as compared to the US whose contribution is $715 Billion. This means this is just the beginning of Industry 4.0 and there is much more to be explored and experienced.

Fig . 3 Approx. Freelance Contribution to National GDP in USA & India


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