

## SKILLING AND EMPLOYMENT POTENTIAL FOR GIG WORKERS THROUGH DESH-STACK

## Acknowledgements

#### Authors

This perspective has been written by Abhishek Modi and Pramiti Lonkar.

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Design: Cognitive Designs; cognitive.designs@gmail.com

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## **Executive Summary**

The rise of the gig economy in India has increased employment opportunities for bluecollar workers, as it facilitates in the discovery of jobs through gig work platforms. The Digital Ecosystem for Skilling and Livelihood (DESH) Stack eportal, announced in the Union Budget 2021-22, would provide a unified portal for such platforms to help match blue-collar gig workers with the right job opportunities. The DESH-Stack eportal has the capabilities to facilitate skilling and employment for blue-collar gig workers through digital credentialling, job discovery and upskilling opportunities. Digital credentialling would equip gig workers with proof of skill and proof of work done across gig work platforms, helping them to enhance their bargaining power in the labour market. Integration of gig work platforms, placement agencies and job seekers through DESH-Stack would help improve job discovery for gig workers. The DESH-Stack eportal would also act as a centralised portal for information on short-term courses offered by government and private training institutes, enabling upskilling through micro-credentials. The portal could be helpful not only for gig workers but also for job providers, aggregators and placement agencies, as demonstrated through use cases in this perspective. Philanthropic organisations also have a pivotal role to play as enablers in the ecosystem, by encouraging digital credentialling, and financing upskilling initiatives.

## The Emergence of Gig Economy

In 2017, Nidhi Prajapati gave up her job as a beautician at a salon in North Delhi, to work with a popular home services aggregator start-up. Flexibility, family time and independence were the main draws of this opportunity which made her leave a job that provided her with ₹20,000 monthly (Mehrotra 2022). Food delivery agents, drivers, security guards, beauticians and many other gig workers such as Nidhi, are part of the burgeoning gig economy in India, which is estimated to have employed 68 lakh workers in 2019-20 (National Institution for Transforming India [NITI] 2022).

Estimates indicate that the gig workforce would expand to 1.27 crores in the short term (2024-25) and to 2.35 crores in the long term (2029-30). Given this steady rise, the government is becoming increasingly cognisant of the role of gig work in job creation. The Union Budget 2021-22 extends social security benefits towards platform and gig workers, acknowledging them as a part of the blue-collar workforce.

Although the flexibility and higher earning potential of gig work make it lucrative for the blue-collar workforce, there are limited avenues for improving incomes based on skills and experience. There are two major reasons for the lack of opportunities for upward mobility within the gig economy. First, there are low entry barriers for most blue-collar gigs, due to which skill sets play a limited role in the selection process (Ravenelle et al. 2021; Morgan Stanley 2017). Second, employers generally do not provide training to gig workers to build or improve skills for career advancement.



#### Figure 1: Projection for the number of gig workers in India (in crores)

(NITI Aayog 2022)

Despite the gaps in upskilling and low entry barriers in the gig economy, it has provided an impetus to the formalisation of work. The standardisation and institutionalisation of hiring processes have opened up the labour market for workers who were earlier subjected to informal and subjective hiring practices (Heeks et al. 2020, p. 6). However, the shift towards formalisation of work has not translated into opportunities for skilling and upward mobility for gig workers.

## The Need for Formalisation of Gig Workers

#### Absence of a Database of Verifiable Credentials

There is a gap between the supply and demand of gig workers, especially for blue-collar jobs. This gap often arises due to the lack of verifiable credentials that may provide proof of work and proof of skills of potential employees. Due to the lack of a verified worker registry, platforms incur search costs in identifying a skilled and verified pool of eligible workers.

**Identification and Background Checks:** Background checks are considered an essential prerequisite across industries. Platforms generally ask the potential gig worker to submit necessary documents, which are verified through internal or external mechanisms. While background checks are typically time-consuming, platforms require a lower turnaround time for the verification of credentials.

**Verified Skill Credentials:** Given the low entry barriers for blue-collar gig workers, there exists a gap in verification of their skills. Despite there being a standardised framework for skills under the National Skill Quality Framework (NSQF), there is a lack of modalities through which gig workers can produce proof of skills acquired.

**Work History and References:** The nature of gig work implies that workers often shift from one platform to another for better remuneration. The work history and references reflect the reputation and standing of the gig workers, which they lose once they shift to another platform. Digitally verifiable credentials are thus needed to help retain their work history and facilitate better mobility for gig workers across platforms.

#### High Turnaround Time for Verification of Gig Workers

The average time taken for verification in India currently varies from fifteen to twenty-one days. Automated processes can bring this down to nine days (Millow 2020). However, the fast-paced nature of gig work in India means there are limited opportunities for verification. Job aggregators that facilitate onboarding for platforms in the gig economy typically use a combination of public databases and human intervention for verification of gig workers (Thomas 2019). Unfortunately, they rely on ostensibly fake credentials (such as fake educational degrees and inconsistencies in work references) which leaves room for error (Soni 2020). There is thus a market gap of verified profiles of gig workers, which increases the turnaround time for verification.

#### Lack of Incentives to Invest in Upskilling

Gig work platforms in India have been developed on the model of connecting skilled professionals with customers. The narrative generally veers towards gig workers being made into 'micro-entrepreneurs' with increased discoverability through digital platforms. Platforms rarely offer upskilling or aid in recognition of high-skill trades, as in the case of carpenters and electricians (Sharma 2022). Although some platforms provide basic training during onboarding, there are limited incentives for platforms to aid further upskilling of gig workers.

#### Lack of Social Security Provisions

Presently, gig workers are classified as independent contractors by platforms and hence do not receive any social security benefits. The Code on Social Security 2020 recognises the need for social security for gig workers through a 'social security fund' (Sinha 2021). Once implemented, the fund would collect contributions from aggregators to provide social security benefits to gig workers. Although the Code provides some recognition of gig workers' social security needs, they are not represented adequately in other labour codes. This excludes them from provisions on occupational safety, basic minimum wages and the provision of basic working conditions (EPW 2022).

Gig work platforms address the issue of discoverability and information asymmetry in the job market for blue-collar workers while providing flexibility in employment opportunities. The limitations in the current ecosystem, such as ensuring verifiable credentials and providing avenues for upskilling, still need to be addressed. First, ease of discoverability through gig work platforms needs to be facilitated with better modalities for verification of gig workers. This will help to build trust and reduce hassles in onboarding new workers. Second, there is limited access to skills and technical know-how to advance in gig work, which requires building alternate avenues within the skilling ecosystem to facilitate upskilling of gig workers.

## Addressing Gaps in Gig Work with DESH-Stack

The Union Budget 2022-23 announced the launch of the Digital Ecosystem for Skilling and Livelihood (DESH) portal, which aims to provide opportunities for skilling and employment based on the tenets of trust, finance and discovery. While gig work platforms address the issue of discoverability to a certain extent, DESH-Stack would help in building trust through verified credentials and provide opportunities for financing, upskilling and reskilling for gig workers. Some key components of DESH-Stack which would address limitations in the gig economy include:

#### **Electronic Registries and Verifiable Credentials**

Building trust of the employers is a key tenet of DESH-Stack, which will be operationalised through the verified skill and employment credentials of workers. The DESH-Stack portal would provide a platform for private sector job aggregators and placement agencies to

develop a repository of trusted and verified credentials of gig workers. Digitally verifiable credentials would help in reducing the costs of validating gig workers' work history, training and background (Betterplace 2021).

Training certificates based on Recognition of Prior Learning (RPL) have been effective in improving employment opportunities for skilled and semi-skilled workers (Ministry of Skill Development and Entrepreneurship [MSDE] 2022). RPL recognises existing skills and provides orientation and certification to candidates with prior learning experience or skills. Integration of RPL within the DESH-Stack would help establish authenticity of work history and skills, thereby improving employability for skilled and semi-skilled workers.

Digital signatures from previous employers validating prior work are particularly relevant for gig workers engaged in domestic work, as they generally have limited means to demonstrate their work history. Further, it would improve mobility across jobs for gig workers without losing out on the references and reputation built while working on one platform and shifting to another. Integration of DESH-Stack with DigiLocker would improve efficiency in verification of workers' credentials. DigiLocker was created by the Ministry of Electronics and Information Technology in 2015 to help people digitise and store digital copies of their documents, including income certificates and Aadhar card. However, DigiLocker lacks the mechanism to ensure that the documents uploaded have been verified and authenticated. Digitally verifiable credentials (VCs) on the proposed DESH-Stack eportal provide a medium to verify workers' credentials in a machine-readable format. This would help reduce the hassle of carrying physical documents, and increase visibility for gig workers with VCs. Additionally, the VCs would provide a repository of trusted profiles on DESH-Stack which can be accessed by potential employers.

#### **Financing Avenues for Upskilling**

The DESH-Stack portal also seeks to resolve the financing needs of citizens who require support for skilling, reskilling and upskilling. This includes the introduction of payment technology protocols and specifications to facilitate government funding for training MSDE 2022. Additionally, the DESH-Stack also provides discoverability of the upskilling and reskilling programmes provided by the government, private agencies and employers. The platform can also be expanded to improve the discoverability of financiers for skill courses. This could include not only government scholarships as in the current form of DESH-Stack, but also philanthropic foundations seeking to finance the upskilling of blue-collar gig workers.

#### **Integration of Private and Public Sector Databases**

The hiring ecosystem for blue-collar gig workers comprises several private sector platforms, which have a comprehensive database of potential employees. These platforms, however, currently work in silos. Job aggregators, placement agencies, worker verification agencies and skilling institutes are working independently to resolve issues faced by blue-collar gig workers searching for jobs. This ecosystem also provides a rich repository of data on the types of employment with high demand for blue-collar workers and a verified database of

employers. On the other hand, the government faces challenges in developing technologybased hiring platforms, given the fast-paced nature of hiring. Often, employment listings are already outdated when the blue-collar worker applies for the job, so there is a need for timely interventions. These should leverage the government's advantage of data access with the private sector databases of verified employers and employment opportunities.

#### Integrating Portals of Social Security Schemes with DESH-Stack

The Standing Committee Report on DESH-Stack lays out plans to integrate portals of social security schemes, including Employees' Provident Fund Organisation (EPFO) and Employees' State Insurance Corporation (ESIC). This would help in implementation of social security schemes for gig workers, including the social security fund under the Code on Social Security 2020. The Code mandates registration of gig workers and aggregators to avail benefits of the social security fund. To facilitate this ecosystem and gauge the number of gig workers lacking social security benefits, the government recently initiated the registration of gig workers through the e-SHRAM portal created by the Ministry of Labour and Employment (Sinha and Palavajjhala 2022). According to the national database on unorganised workers, there are over 7 lakh gig workers registered on the e-SHRAM portal seeking social security provisions. Integration of social security scheme portals within DESH-Stack, along with enumeration of gig workers through the e-SHRAM portal would help in improving welfare delivery.

### Use Cases for DESH-Stack

The DESH-Stack eportal addresses the issue of verification by providing a database of credentials of potential employers in a digitally presentable format called 'verifiable credentials' (VC). Each VC includes three actors in the ecosystem: *issuer, holder* and *verifier*. The *issuer* is an entity authorised to issue credentials on skills or past work experience. In the context of gig work, this includes past employers validating work history for gig workers, or training institutes providing skill certificates. The *holder* is the owner of the credential (job seeker) who needs a VC issued in a standard format which is machine-readable. Once the issuer provides the VC to a gig worker for their past work, it helps improve their prospects of employment using the authenticated VC. A *verifier* is the potential employer who seeks a VC to ensure that the certificates are from a competent issuer and have not been tampered with.

#### Use Case for Employer. Using Digital Credentialling for Hiring

Security Smart, an on-demand security services provider, is looking for security guards with work experience. The provider generally faces issues in verifying experience certificates while hiring new employees. Typically, a third-party service is used by the provider to verify workers, which increases the turnaround time in hiring and search costs, while lacking a foolproof mechanism to check false claims. The provider thus needs an alternative mechanism to verify work experience claims by the gig workers.



#### Figure 2: Using digital credentialling while hiring security guard

(Sattva Insights)

Through the DESH-Stack portal, Security Smart can access a repository of verified worker profiles with relevant work experience in personal security. Job seekers with verified digital credentials registered on DESH-Stack would provide the basis for this repository. As a verifier, the firm can request access to credentials through DESH-Stack and verify the proof of work provided by the job seeker. The credentials on DESH-Stack would have a higher degree of trust, as the experience certificate would have the digital signature of the previous employer. Given the high attrition rate on gig work platforms, the DESH-Stack portal would help in reducing search costs for verified gig workers. Additionally, the eportal is useful for the job seeker who gains access to a repository of employers engaged in security services. The repository can be used by training institutes to identify emerging sectors in gig work to design training modules for blue-collar gig workers looking to upskill or reskill.

#### Use Case for Employee: Using Digital Credentialling to Give Proof of Work

Swapna, a beautician, has completed her cosmetology course from a privately run training institute. She has been sourcing work opportunities through gig work platforms, but lacks a digitally verifiable credential from the training institute to use as proof of the skills acquired through the course. While credentials from government-run training institutes can be digitally verified, there is a lack of digital interventions to aid verification of skill certificates issued by private institutes (Neroorkar & Gopinath 2020).

Verified skill credentials on the DESH-Stack can facilitate standardised skill certificates issued by verified training institutes, thus providing Swapna with credentials in a presentable format to potential gig work platforms. This would help in building trust and enable



#### Figure 3: Using digital credentialling while seeking work as a beautician

(Sattva Insights)

discovery of gig workers with verifiable skill credentials. Digitally verified credentials also reduce the onus on the gig worker to ensure provision of reliable proof of skill. The DESH-Stack database would also help job seekers such as Swapna to access the repository of other employers seeking beauticians and cosmetologists on the portal.



#### Figure 4: Job aggregators using DESH-Stack repository of verified gig workers

(Sattva Insights)

#### **Use Case for Job Aggregators and Placement Agencies using DESH-Stack**

Micro Jobs, a job aggregator hiring semi-skilled and low-skilled workers for a gig work platform, uses a combination of public databases, human resources and unreliable credentials, to verify the claims of potential gig workers. This increases the verification cost, with a physical verification of address and follow-up calls with previous employers to verify proof of work among other processes. Given the fast-paced nature of hiring for gig workers, the verification process has room for error and often leads to some false negatives (Thomas 2019).

Through DESH-Stack, the job aggregator can find a repository of verified profiles relevant to the requirements of the gig work, while reducing the possibility of false claims. Proof of skills and work history through standardised formats and digital signatures would help reduce errors in verification. With reduced verification costs, the job aggregator can improve the pool of gig workers.

## Philanthropy Can Help in Developing Ecosystem

While private sector platforms facilitating white-collar workers have been quite successful in India, similar platforms for blue-collar workers have had limited success in resolving the issue of matching skills and employment. DESH-Stack provides the capabilities to facilitate skilling and employment for these workers through digital credentialling, job discovery and upskilling opportunities. Philanthropy can play a pivotal role in enabling the gig work ecosystem for blue-collar workers using various components within the DESH-Stack.

The two key areas where philanthropists can contribute are digital credentialling, and financing upskilling initiatives. First, verification of blue-collar gig workers is often challenging and involves high search costs for gig work platforms. Funders can encourage digital credentialling platforms to develop solutions for blue-collar gig workers so that they can improve employability by demonstrating proof of previous gig work. Verifiable digital credentials can help the worker build trust on gig platforms and improve mobility across gig platforms. Second, the gig economy provides limited opportunities for upskilling. Funders can finance upskilling initiatives through micro-credentials and soft skills relevant to blue-collar work. This would reduce the cost of upskilling for blue-collar workers and connect them with suitable employment opportunities through the DESH-Stack.

## Conclusion

The skilling and employment challenges of blue-collar gig workers can be addressed at scale through the DESH-Stack eportal through engagement of all stakeholders within the gig economy. This includes integration of private sector databases (digital credentialling platforms, placement agencies and job aggregators), government databases (including e-SHRAM portal), philanthropic foundations and civil society organisations. Initiating demand-side reforms to encourage usage of digital credentialling in the hiring process would help in creating value for job seekers and providers. Once employers and placement agencies integrate digital credentials in their verification process, blue-collar gig workers would be motivated to acquire digital credentials for proof of skills and experience.

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