A Digital Employability Marketplace

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Abstract. The ecosystem of skilling & placement in India is faced with unique set of challenges. On one hand there are millions of unemployed youth looking for suitable opportunities in an apparently low demand market. While on the other, employers believe that there is a dearth of skilled talent. This problem persists despite numerous skill development programs being conducted by the government across the country. The prime reason for the lacuna is the absence of a scalable platform adopting a holistic approach towards solving these eco-system challenges, thereby unable to provide the right opportunity to all stakeholders. In order to address this employment paradox the social inclusion team at Mindtree, in collaboration with UNDP India, decided to develop a Digital Employability Marketplace based on the principle of platform economics. The idea was to develop a multi-sided cloud based platform leveraging information technology to enable meaningful interactions between stakeholders and processes.

Keywords: ICT in social development - Interaction design for developing regions, User experience based approaches, User Interfaces for web applications, e-Government.

1. Introduction

The problem of accessibility to employment in India is multifold. The International Labour Organization's (ILO) 2017 World Employment and Social Outlook report projects unemployment in India to increase in the coming years. While the numbers stood at 17.7 million in 2016, it is projected to increase to 17.8 million in 2017 and 18 million next year. There is an urgent need to foster the right innovations in the sector to boost both the economy by reducing the social inequality gap and meet the aspirations of millions of youth joining the working class each year.

The Department of Skill Development, Entrepreneurship & Livelihood in the state of Karnataka wanted to tackle the challenge of unemployment at scale. To begin with, the objective was to meaningfully engage with more than 6, 00,000 youth registered on its

official portal for employment and skilling. To analyze the situation on ground Mindtree's division for Social Inclusion collaborated with UNDP India to study the eco-system and understand the root cause. The team primarily identified 4 key issues:-

1. There is a mismatch between the skills that young people acquire and what the market needs
2. Currently there are multiple skill development programs but most of the interventions are on the supply side rather than demand driven
3. The employers today lack access to quantitative information on how to convert nearly-employable candidate to employable. Nor do they have the ability to influence training courses at micro-level / job-skill-gap level
4. There is no single eco-system where different stakeholders from the skilling and placement sector can co-create opportunities for the unemployed

2. Key Interventions

In the study, UNDP contributed with its experience and network of partners on field, and Mindtree through its experience in technology enabled grassroots livelihood interventions. And after several rounds of stakeholder discussion and field engagements the teams at Mindtree and UNDP proposed a series of intervention. The proposed solution was to set-up a digital marketplace for skilling & employment in Karnataka. The digital market place would enable intelligent match-making and codify the principals of skilling, apprenticeships and entrepreneurship on to a single platform, made accessible through various mediums.

2.1 System Level Interventions

From the skilling & placement perspective the solution calls for creating a digital platform which constitutes of multiple smaller systems freely interacting to find logical value through mutual interactions. This is a basic principal codified in Mindtree's technology platform. The platform enables interaction through "Phygital" interventions; i.e. interventions involving both physical as well as digital aspects. And all the different stakeholders in the eco-system are brought together onto a single platform. This provided with the seamless capability for different stakeholders to interact and find value makes platforms unique.

Keeping in mind the various challenges and opportunities, the team proposed a 4-Fold Approach:

1. Enable candidates and Micro-entrepreneurs to upskill, and teach/enable access to job/self-employment market on the basis of their exact skills, gaps and strengths.
2. Enable employer to reach-out to candidates with the exact and specific needs in real time

3. Connect candidates/Micro-entrepreneurs, employers and supporting agencies like trainers, content creators, local skilling talent, hyper- local businesses onto a common digital marketplace
4. Create multiple channels of access so that youth from different sections and demography are able to find access to relevant opportunities with minimum or no-barriers.

2.2 Service level interventions

There solution makes three service level interventions. These are namely;
1. Counselling & Personalized handholding with unemployed candidates in order to help them make informed decisions
2. Facilitate collaboration and interaction between key market demand side players (employers, vocational training centers, apprenticeship centers)
3. Establish a process of continued engagement for candidates to access employment opportunities
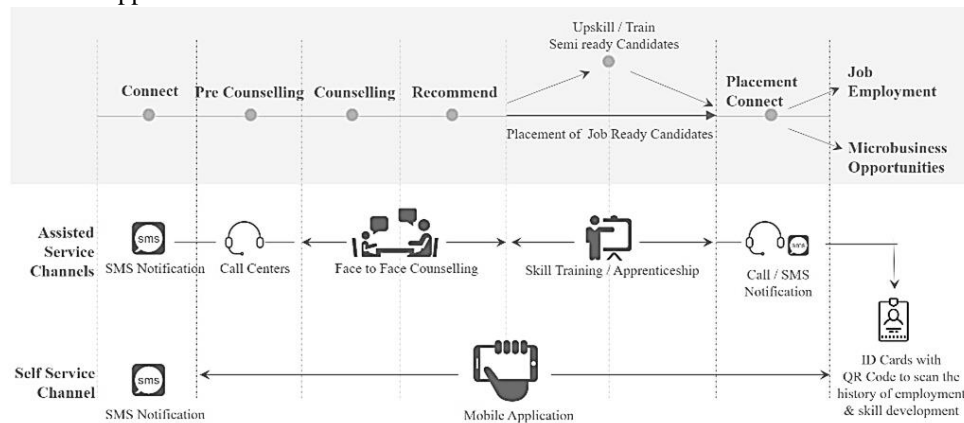

Fig. 1. Flow representing a candidate's engagement for skilling and employment opportunities

Counselling and Personalized Engagement with Candidates: This would aim at providing a personalized handholding session for the candidate to help understand the various opportunities and future avenues she might have via counselling, skilling, upskilling (to cover a gap) and relevant job opportunities in the market. This would be carried out by the Candidate Engagement Unit which would be setup as a part of the program.

Engagement channels: The candidate engagement would carry personalized engagement with prospective job candidates and micro-entrepreneurs through various mediums.

- The primary one being face to face counselling via tablets in counselling centers where youth can walk in and discuss various avenues pertaining to their skilling and job opportunities.
- The counselling sessions will be sequenced after a pre-counselling phone call or self-service web/app connect with registered candidates.

Apart from Counselling at Taluka level, state sponsored employment exchange offices will be used to provide counselling to a larger set of candidate audience in order to increase the outreach leading to a wider solution adoption. The idea is to ensure inclusivity and greater coverage amongst those who might not have access to personal digital mediums.

These engagements will result in one of 4 specific recommendations for the candidate:

1. Upskilling
2. Apprenticeship
3. Candidate-Employer linking leading to employment
4. Micro-entrepreneurship

Employer Engagement: The primary role of this intervention team would be to gather skilling based insights from all stakeholders in the eco-system and incorporate these into the platform solution. The unit would look after job role curation, build assessment parameters based on the actual market requirements and develop insights for intelligent match making. These insights would be coded into the platform

The stakeholders on-boarded to the marketplace would include:

1) Job Candidates
2) Micro-Entrepreneurs
3) Employers (large industries, SMEs, Hyperlocal)
4) Field & Virtual Trainers
5) Training content creators

Employment, Apprenticeship, and Upskilling Marketplace: The "I Got Skills" Platform would enable intelligent match making between candidates, employers, trainers and other institutions to create employment, apprenticeship and upskilling opportunities. All of these would get integrated over the digital platform to become a market place of opportunities. The Market Linkage Unit would create avenues to promote Short-term Internship and Micro-Entrepreneurship. A four member team of career coaches, would be stationed at the Model Career Center supported by Gov. of India. These coaches will receive incoming calls for assistance from candidates who have gone past the counselling stage.
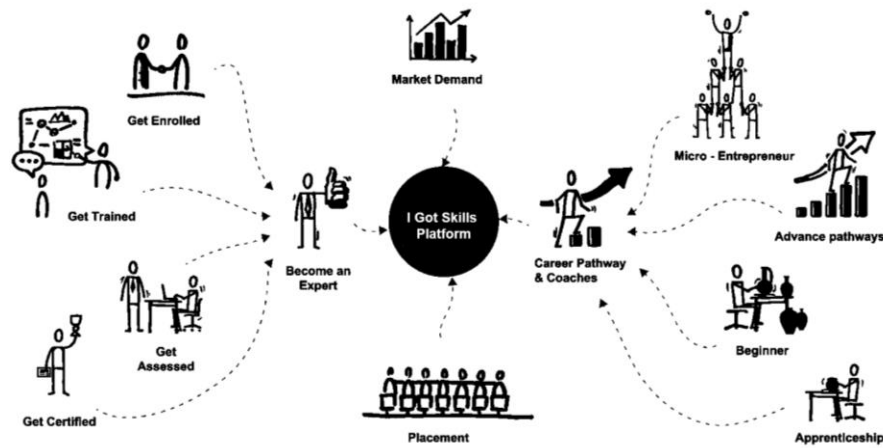

Fig. 2. Representation of a registered candidate's touch points with the platform

Conclusion

The proposed interventions aims to enable **"Acute Personalization"** for both the unemployed and the employer. The scope of the project is to cover more than 7, 00,000 unemployed in a structured manner over the course of the next 12 months. At the end of the program the following objectives would be achieved:

- Candidates connected to a market place
- Employers connected to a market place
- State level skill repository
- Demand data on a real time basis
- Demand-supply gap analysis by role & micro-skills

The platform approach has been adopted with the objective to build a digital eco-system which would be scalable with time. The objective in the long term is to make the platform accessible to a larger groups of stakeholders ensuring inclusivity. This would be achieved by reducing the barriers in technology adoption and making self-services option easily accessible.