Self-Employment Dynamics amid High Unemployment: An Empirical Analysis of Transitional Labour Market in India

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Abstract

There is a high unemployment rate in India, and self-employment is considered a way to create more jobs and stimulate the economy. However, personal and family characteristics and occupational structure play a role in determining who is likely to pursue self-employment. We conducted a study to assess the probability of Indian youth choosing self-employment over regular-wage employment. Our findings show that females living in rural areas and married individuals are more likely to choose self-employment than their male, urban, and unmarried counterparts. Education is also a factor, as those with higher education tend to seek regular-wage employment. Certain occupations, such as technicians and clerical support workers, are less likely to pursue self-employment. To promote self-employment among youth, there should be a focus on enhancing entrepreneurial skills and capabilities.

INTRODUCTION

Labour market dynamics are indicators of changes in jobs caused by structural changes in the labour market. They are affected by employment, departures and the establishment and shutting down of self-employment activities. Labour market dynamics experience enters and deviations from economic activities leading to structural changes therein. The current high level of unemployment is not merely a result

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of the pandemic, as the economy has already been struggling with a high unemployment rate of 6.1 per cent even before the pandemic. A Periodic Labour Force Survey of July 2017–June 2018 reveals the bleak truth of leaving the labour force as nearly 20 per cent of unemployed individuals leave it due to their inability to find any job (Xia, 2021). This is one of the main reasons that the self-employed labour force in India constitutes 52.1 per cent of the total workforce. The troops to move up into self-employment, over regular wage workers, as a job option defines the transition rates between labour market states (Alaniz et al., 2019; Fiaschi and Tealdi, 2021). In India, the youth population accounts for almost 27 to 28 per cent of the total population, comprising individuals aged between 15 to 29 years. Unfortunately, the unemployment rate among male youth in rural areas is 17.4 per cent, while in urban areas, it stands at 18.7 per cent. Similarly, female youth in urban areas face an unemployment rate of 13.6 per cent, while in rural areas, it goes up to 27.2 per cent. These figures are based on the Periodic Labour Force Survey conducted from July 2017 to June 2018.

Despite economic and social uncertainty and the lack of decent employment opportunities, young people are considered an asset to society worldwide. They continuously explore innovative means to create employment opportunities and seek professional growth. They are highly productive workers and entrepreneurs who contribute significantly as agents of change and innovation. In today's era of technological advancement, they have the potential to make significant contributions to economic activities as productive workers and entrepreneurs.

The question of whether young people should pursue economic activities as self-employed is an important one. Studies by Alaniz et al. (2019), and Oleneva (2020) suggest that pursuing self-employment can be an effective means for young people to earn a livelihood and grow gradually. It can also allow them to apply their creativity and innovation to build successful businesses.

The issue of youth unemployment is currently receiving a lot of attention from policymakers and social activists in India due to its significant and lasting impact on employment and earning opportunities. Research conducted globally has demonstrated that self-employment is not only an efficient way to tackle the problem of unemployment but also a viable means of enabling young people to explore their abilities and interests as productive economic agents. By engaging in self-employment, unemployed youth may overcome the demands of the labour market and bring dynamism to the job market.

The role of education has also been changing from producing merely educated job seekers to trained self-sufficient professionals to act as self-employed or entrepreneurs and has significantly affected wage levels in the Indian labour market (Robinson and Sexton, 1994; Dawson et al., 2014). Mor et al. (2020) indicate that attaining higher education decreases the chances of long-term survival in the micro-business world, as it opens more livelihood options, leading to exploration and experimentation of other areas of work engagement. While considering similar studies globally, Van Stel and Van der Zwan (2020) used macro-level data for 32 European countries to reveal that the number of solo self-employed workers, especially highly educated, has increased considerably for females.

So far as India is concerned, a significant chunk, i.e. 41.49 per cent of the Indian labour force, is in the agriculture sector contributing only 19.9 per cent to GDP (Government of India, 2021), which provides a sufficient reason to believe that the majority of workers in the agriculture sector are disguised unemployed resulting in an oversupply of unskilled labourers therein. A similar situation can be tracked in other countries; for instance, there is a strong evidence of a segmented self-employed sector in Argentina that co-exists with disguised unemployment and traditional entrepreneurial activities (Mandelman and Gabriel, 2009). In European countries, self-employment is usually involuntary (Hyytinen and Rouvinen, 2008) and is considered a job option to meet necessities and growth requirements (Desai, 2009). Expanding self-employment opportunities beyond the agricultural sector is crucial for bolstering productivity. Furthermore, the need for more skills that meet market demands and rigid employment protection laws negatively impacts job creation and overall revenue (Bertola et al., 1999; Blanchard and Portugal, 2001; Vindigni et al.,

2015). Woldetensay (2012) also found that formal education, family background, access to funding, risk-taking ability, and gender significantly influence the self-employment in Ethiopia's labour market.

This makes us investigate the motivation behind moving up of labour force into self-employed job option over wage employment for the analytical solution of problem of unemployment, under employment and disguised unemployment. Herein, personal, occupational, and family related factors need to be explored to investigate their strength for making the labour force for moving up into self-employed labour market state and to suggest a pathway ahead leading to solution.

1 REVIEW OF LITERATURE

1.1 Education and self-employment state of labour market

Investing in education can help individuals make informed choices when deciding between self-employment and regular-wage employment for their livelihood and well-being. Those with higher levels of schooling possess more skills, knowledge, and expertise, which can lead to better-paying job opportunities. Studies by Uusitalo (2001) and You (1995) have shown that individuals with higher levels of education typically earn more in regular-wage employment than in self-employment, which can be riskier due to the unstable nature of income. Kangasharju and Pekkala (2002) found that highly educated individuals are less likely to choose self-employment due to lower earning potential and less stable income stream. However, Robinson and Sexton (1994) argued that self-employment could be a form of entrepreneurship and that self-employed individuals have more formal education than those in regular wage employment. Recent studies by Mitze and Javakhishvili-Larsen (2020) and Stokke (2021) suggest that higher education can lead to better earning potential and job mobility.

A study conducted by Madan and Mor (2020) discovered that individuals who obtained an additional year of formal education experienced an average increase of 7 per cent in their wages. However, it is essential to note that this increase varies across different occupations. Specifically, managers can expect a 6 per cent increase, professionals can expect a 4.6 per cent increase, and technicians and associate professionals can expect a 4.3 per cent increase, compared to those in elementary occupations. While self-employment may offer higher pay for top earners, research conducted by Saridakis et al. (2019) and Pantea (2020) reveals that those who fall below the median of the earnings distribution in both Eastern and Western Europe tend to earn considerably less. This emphasizes the significance of exploring occupational diversity when considering the transition from wage employment to self-employment, particularly for young workers. In view of the above, we propose to test the undermentioned hypothesis:

H_0: *Moving up into self-employment labour market state is independent of formal education.*

1.2 Nativity of workforce and self-employment state of labour market

In today's fast-paced and globalized world, the opportunities available to young workers are vast and varied. The origin of these workers, whether from urban or rural areas, can significantly impact their career choices. It may shape their decision on whether to pursue self-employment or opt for wage employment. Research conducted by Faggio and Silva (2014) has uncovered that rural workers tend to choose self-employment over wage employment in areas where the labour market is limited. This research also found a strong correlation between self-employment, innovation, and business creation.

Conversely, Wang and Yang's (2013) study found no significant difference in the choice between self-employment and wage employment for non-agricultural activities in rural China among those who migrated back from urban areas. The nativity of workers plays a vital role in shaping their mindset and decision-making process and should be considered when evaluating their labour market preferences. To test this idea further, we propose the following hypothesis:

H_0: *The nativity of young workers does not significantly impact their decision to pursue self-employment as a labour market state.*

1.3 Marital status and self-employment state of labour market

When making advancements in one's career, there are many factors to consider. One of the most significant considerations is marital status. Marriage is deeply ingrained in society and can substantially impact various aspects of an individual's work life. This includes earning potential, skill development, immigration status, time horizon, investment opportunities, work motivation, and the willingness to accept well-paying but unpleasant job offers. Surprisingly, research has shown that the effect of marriage on wages can indirectly lead to an increased work commitment among male employees (Ahituv and Lerman, 2005). Meanwhile, for women, their marital status can significantly influence their behaviour and outcomes in the labour market. Studies in similar lines (Hamid, 1991; Muller and Posel, 2008; Ntuli, 2007; Yakubu, 2010) have revealed that married women are less likely to be employed than their unmarried counterparts, while married men are more likely to be used. To further explore this notion, we hypothesize that the *preference for self-employment in the labour market is unrelated to one's marital status.*

1.4 Occupational structure and self-employment state of labour market

As individuals contemplate advancing in the labour market, they are influenced by many factors that can impact their decision-making process. One significant consideration is the availability of opportunities in various occupational categories, including professional, technical, clerical, service and sales, agricultural, forestry and fishery work, craftsmanship, machine operating and assembling, and elementary work. Additionally, *gender, education, nativity*, and *marital status* of the labour force can all play a crucial role in deciding whether to pursue self-employment or wage employment (CEA et al., 2008).

It is worth noting that many self-employed workers operate outside fixed establishments, with a substantial proportion involved in transportation, wholesale, and retail trades, compared to other private sector workers (Reham and Salemi, 2019). Furthermore, Madan and Mor (2020) discovered that managerial, professional, technical, and associate professionals' workers who lack specific operational skills are more easily replaceable, resulting in lower wages.

Given these findings, it may be worthwhile to explore the possibility that the preference for self-employment across different occupational groups is uniform. As such, we propose testing the following hypothesis:

H_0: *The tendency for self-employment in various occupational categories is consistent and not influenced by factors such as gender, education, nativity,* or *marital status.*

1.5 Gender and self-employment state of labour market

There is a gradual shift in the labour market where women who have traditionally worked in low-productivity sectors with low pay are transitioning towards higher-productivity, modern jobs. However, despite this transition, the representation of women in such positions still needs improvement. The gender-based segregation of professions remains a prominent socio-structural feature of the labour market, where women participation is relatively lower than men. Research conducted by Correll in 2001 has shown that men and women tend to have different job preferences. This is reflected in the fact that women are less inclined to pursue careers in finance and consulting and are more interested in general management positions, as suggested by Barbulescu and Bidwell in 2013. Furthermore, there is a persistent wage gap between male and female workers, with male workers earning more than their female counterparts, as supported by studies conducted by Madan and Mor in 2021, Reshid in 2019, Ara in 2016, and Manning & Swaffield in 2008. Studies show that only 20–26% of the gender wage gap in early-career private-sector jobs can be attributed to gender, education, employer qualities, and mobility. This means that a significant portion of the gap remains unexplained (Napari, 2008). Additionally, data indicate that older men predominantly choose self-employment compared to other demographics (Reham and Salemi, 2019). Given these insights, we aim to test the undermentioned hypothesis:

H_0: *Gender does not significantly impact the preference for self-employment.*

2 CONCEPTUAL FRAMEWORK AND HYPOTHESIS FORMULATION

In today's job market, there are numerous avenues for individuals seeking employment, from traditional salary-based jobs to the increasingly popular option of self-employment. With such a diverse range of opportunities, individuals can explore and discover the best fit for their unique skills and interests. Unfortunately, for some, limited job options can lead to the challenge of unemployment, which can result in significant economic struggles (Blackburn and Mann, 1979).

In today's economy, self-employment has emerged as a significant contributor to job creation and the promotion of entrepreneurship. According to Mazzarol (1999), it allows individuals to establish their businesses and become self-reliant, thereby promoting economic stability and growth. Additionally, Woldetensay (2012) has noted that self-employment can be an asset for profitable entrepreneurial ventures. The ability to work for oneself and pursue one's passions and interests can lead to greater personal fulfilment and financial success. Overall, self-employment is a valuable avenue for those seeking to impact the economy and their own lives positively (Pardo and Jaime, 2011).

A critical goal of any society should be to prepare young people with the skills and knowledge they need to become successful self-stand workers rather than just job seekers. By creating and promoting opportunities for self-employment, we can help to achieve this goal and empower the next generation of entrepreneurs and business leaders (Mor, Madan and Chikhara, 2020).

This investigation aims to delve into the likelihood of young individuals opting for self-employment as opposed to traditional salaried jobs. Through this study, we aim to analyze the impact of various personal, family, and occupational diversity factors on the decision to pursue self-employment. Our primary objective is to understand better the key drivers behind this career choice among young people and identify any potential barriers or challenges that may impact their decision-making process. This research aligns with earlier studies conducted by Filipovich (1997), Patton and Creed (2001), Hartung et al. (2005), Ahituv and Lerman (2005), Barbulescu and Bidwell (2013), Wang and Yang (2013), Vindigni et al. (2015), and Punia (2020).

3 MATERIAL AND METHODS

3.1 Database

Principal data source of this study is the unit-level data obtained from Periodic Labour Force Survey, 2017–18 (PLFS) launched by National Statistical Office (NSO) in 2019. The survey covered 102 113 household and the total of 433 339 workers. Among all, 19 220 workers are in the age group of 15–29 are years. After data cleaning, a sample of 19 038 youth workers are considered to capture the predictive power of relevant factors to while opting for self-employment over regular wage employment. Herein, keeping in view relevant related studies, personal characteristics i.e. education and gender of workers (Ferrara et al., 2018; Dibeh et al., 2019), family related characteristics i.e. marital status and nativity of workers, (Ferrara et al., 2018; Msigwa and Kipesha, 2013), and occupational structure related characteristics (Todd, 2005) have been considered as important influential factors. Occupational structure has been considered in accordance with the International Standard Classification of Occupations-08 (ILO, 2012).

3.2 Description of variables

3.2.1 Dependent variable

State of labour market is considered as dependent variable with two broad work options, *self-employed* and *wage workers*, and is used as a proxy to estimate the probability of youth to opt for *self-employed* work option over *wage employment* in the labour market. A binomial variable is assigned value 1, if *self-employment work* option is opted over wage employment for which 0 value is assigned. Herein, wage employment is considered as a reference category to estimate the probability of opting *self-employment*, which is considered as a response/outcome state of labour market.

3.2.2 Independent variable(s)

Opting for any of the two broad states of labour market, is affected by several factors such as *education, structure of occupation, nativity, marital status,* and *gender* of a work aspirant in the labour market. To estimate the predictive power of these, education is considered as a continuous variable, and rest of the factors are considered as categorical variables with the assignment of value 1 to the category whose effect is to be estimated over the other category, which is assigned the 0 value (Table A1; Figure A1).

3.3 Estimation technique and model specification

The study employs binary logistic regression model to estimate the probability of opting self-employment in tune with research in the similar line (Msigwa and Kipesha, 2013; Ferrara et al., 2018; Dibeh et al., 2019). Purposefully, two broad states of labour market, i.e., *self-employment* and *regular wage employment* are considered keeping *self-employment* state of labour market as response/outcome category and *regular wage employment* as reference category. Influential factors such as demographic characteristics of work aspirants in labour market and occupational structure have been considered as predictors. The probability to opt for self-employment over paid worker is expressed as odds, which are transformed into log odds, logits, and the natural log of the odds. These transformations solve the problems that OLS regression faces when applied to data where the dependent variable is binary or categorical. Formally, the model follows as:

$$P(WS_{SE}) = \frac{1}{1+e^{-(\alpha+\beta 1 X 1 + \beta 2 X 2 + ... + \beta n X n)}} = \frac{1}{1+e^{-Zi}} , \qquad (1)$$

here: $P(WS_{SE})$ = the probability of working as *self-employed*; and X_is = predictors used in the model; e is the natural logarithm. For ease of explanation:

$$P(WS_{SE}) = \frac{1}{1+e^{-Zi}} = \frac{e^{Zi}}{1+e^{Zi}} , \qquad (2)$$

$P(WS_{SE})$ lies in between 0 to 1 and is non-linearly related to z_i which ranges from $-\alpha$ to α. From Formula (2), odds ratio of *self-employment* over *regular wage employment* can be estimated and defined as in Formula (3):

$$P(WS_{SE}) = \frac{1}{1+e^{Zi}} . \qquad (3)$$

From Formulas (2) and (3), odds ratio of emerging as self-employed youth can be estimated and can be defined as in Formula (4). Specifically, odds of emerging as self-employed can be defined as the probability of opting *self-employment* over probability of opting for *wage employment*.

$$\frac{P(WSSE)}{1-P(WSSE)} = \text{Exp} (\beta) = \frac{1+e^{Zi}}{1+e^{-Zi}} = e^{Zi}, \qquad (4)$$

$$\text{Logit (Log Odds)} = \text{Ln}\left(\frac{P(WSSE)}{1-P(WSSE)}\right) = a_m + \Sigma_{k-1}^k \beta_{m_k} x_{ik} = Z_{mi} . \qquad (5)$$

Formula (5) explains the probability of moving up into *self- employment* labour market state over *regular wage employment*.

Model Assessment: The binary logistic regression employs a likelihood ratio test to provide a basis to find the optimal coefficient values and to assess the fit of the model. It is based on -2 log likelihood (-2LL) ratio. More precisely, it indicates the unexplained variation in the model and in this concern, larger value of log-likelihood indicates poorly fitted model.

Nagelkerke measure of R² (R²$_N$) has been applied to ensure statistical significance of coefficient's (β's) associated with predictors to analyse significant contribution towards the prediction of the outcome. This measure can be interpreted in the same way as r² in the linear regression to analyse the significance of the model and is based on the log-likelihood of the new model with inclusion of predictors and the log-likelihood (LL) of the baseline/original model and the sample size (n).

$$R^2N = \frac{R_{cS}^2}{1 - e^{\left[\frac{2\left(LL(baseline)\right)}{n}\right]}}, \qquad (6)$$

$$\text{here: } R_{cS}^2 = 1 - e^{\left[\frac{-2\left(LL(new) - (LL(baseline))\right)}{n}\right]}. \qquad (7)$$

Cox and Snell's measure of R² (R²$_{CS}$), statistically never reaches its theoretical maximum value and Nagelkerke measure of R² amended it to overcome the limitation of R²$_{CS}$. The parameters of logistic regression are estimated using the computer program SPSS (version 16.0).

4 RESULTS AND DISCUSSION

Opting to become *self-employed* rather than pursuing conventional employment can significantly impact the labour market. This decision can influence the number of entrepreneurial ventures, the rate of unemployment, and the advancement of novel and innovative business practices. In the upcoming sections, we will delve into the estimated parameters of a binary logistic regression model that scrutinizes how young people decide between self-employment and traditional employment by meticulously considering the pros and cons of both options.

4.1 Model fitting evaluation

Table 1 displays the log-likelihood value for the baseline model, which is denoted by 24 732.525. This model was able to accurately predict 64.7% of workers as regular wage employees by including only the constant. However, after the inclusion of all predictors and an intervention, the –2LL value decreased significantly to 17 763.752, which confirms that the model is an excellent fit. The Omnibus Tests of Model Coefficients and Chi-square statistics at 12 DOF ($\chi^2$12 = 6 968.773; p < .01) indicate that there is a noteworthy difference between the model with predictors and the model with only the constant. The Nagelkerke R2 value is 42%, which shows that the predictive power of the model is substantial.

4.2 Education and self-employment state of labour market

To estimate the parameters in Table 1, the wage employment has been considered as the reference category while providing estimates for opting self-employment state of the labour market by youth workers in the labour market. The results uncovered that *educational achievements* play a significant role in the decision-making process of whether to opt for self-employment (β = −.094, Wald $\chi^2(1)$ = 301.184, p < .01). The statistics presented in Table 1 indicate that for every additional year of formal education, the odds of selecting *wage employment* over *self-employment* increase by a factor of 1.09 (1/0.911).

This suggests that education is a critical factor in developing crucial cognitive, managerial, and technical skills necessary for skilled, growth-oriented, and innovative jobs. Additionally, higher levels of education not only increase the chances of finding wage employment and offer more significant promotional opportunities. Our results align with previous studies (Storey, 1994; You, 1995; Uusitalo, 2001; Kangasharju and Pekkala, 2002), which propose that higher education reduces the probability of exploring *self-employment* opportunities and encourages youth to seek *wage employment*. This seems

to correspond with current realities as wage employment for majority of work positions requires educational attainments which are defined in accordance with job profile of work aspirants. Contrarily, own account workers need enthusiasm and zeal to begin and continue with their work. As a result, we reject our initial null hypothesis and conclude that education is a significant motivating factor for transitioning into the self-employment state of the labour market.

4.3 Nativity and self-employment state of labour market

Nativity is also a significant predictor of a move of youth into *self-employment* job option rather than *wage employment*, β = .670, Wald χ2(1) = 312.029, p < .01. It indicates that rural workers are more likely to become *self-employed* than urban workers. The odds of choosing *self-employment* compared to salaried employment is 1.95, showing rural youth are likelier to choose self-employment than wage employment. The reason is obvious to understand. The rural economy cannot provide enough paid work opportunities. At the same time, it has many work opportunities, especially in agriculture and allied activities, to opt for their livelihood. The indulgence in these activities make them to maintain their livelihoods at their native place. Put differently, sizable self-employment opportunities in divergent areas, such as farming, dairy, poultry, animal husbandry etc., are available in the rural economy of India. With this, self-employment is a convenient livelihood source for rural youth. In the light of the estimated impact of nativity on the choice of work status by youth, our maintained null hypothesis of the insignificant role of nativity in explaining the move up of youth into a self-employment labour market state is refuted.

4.4 Marital status and self-employment state of labour market

The *marital status* of young people affects their decision to work as self-employed individuals instead of regular-wage employees. This is supported by a beta value of –.543 and a Wald χ2(1) value of 208.899, with a significance level of p < .01. As a young person's marital status changes from being never married to currently married, their odds of choosing self-employment over salaried employment decreases by .540. This means that currently married individuals are 1.72 times more likely to choose self-employment than wage employment.

Thes finding suggests that when contemplating the prospect of self-employment, it is essential to note that unmarried individuals may encounter certain demographic and financial limitations that could pose a challenge. These limitations may include needing more necessary resources, limited access to business networks, and reduced social support systems. On the other hand, married individuals may view self-employment as a desirable option due to the unique demands of their family and child-care responsibilities, as well as the flexibility they can afford during the early stages of marriage. Previous research conducted by esteemed researchers such as Presser (1995), Casper and O'Connell (1998), and Bianchi (2000) has consistently demonstrated this trend.

Despite the potential advantages of self-employment for married individuals, the decision to pursue this path should be made carefully considering one's personal and professional goals and potential risks and challenges. Ultimately, everyone's circumstances and priorities will play a significant role in determining whether self-employment is viable. Hereby, we reject the hypothesis, which argues that marital status does not impact the preference for self-employment in the labour market.

4.5 Occupational structure and self-employment state of labour market

When young individuals embark on the journey of selecting a career path, they often lean towards a particular occupational category that aligns with their interests and skills. Upon exploring the various options available, self-employment emerges as a popular choice among youth in several occupational groups. These groups include managers, professionals, service, and sales workers, skilled agricultural, forestry

and fishery workers, craft and related trade workers, plant and machine operators, and assemblers. However, it is worth noting that elementary workers are less inclined to choose self-employment as a career path.

Present study has shed light on the fact that individuals who hold managerial or related positions and those who work in skilled agricultural, forestry, and fishery jobs tend to have a greater inclination towards self-employment rather than wage employment. The probability of choosing self-employment is significantly higher for those in management or related roles (with a β value of 2.658, Wald $\chi2(1)$ = 903.938, p < .01). At the same time, it is even more pronounced for those in skilled agricultural, forestry, and fishery jobs (with a β value of 4.097, Wald $\chi2(1)$ = 1 010.884, p < .01). This points towards a clear attraction towards self-employment opportunities in these fields among young people, as compared to those in elementary jobs.

These findings imply that self-employment within these occupational categories holds promising prospects, providing young people a distinct advantage over traditional wage employment. In addition, these occupations are often associated with greater autonomy and control over one's work, which may further increase the appeal of self-employment in these fields. These results have significant implications for policymakers and educators responsible for shaping the future workforce and highlight the importance of promoting self-employment opportunities in agriculture, forestry, and fisheries.

Similarly, the odds of choosing self-employment as professionals, service & sales workers, craft & related trade work and plant & machine operators and assemblers are 1.503 (β = .408, Wald $\chi2(1)$ = 19.422, p < .01), 1.696 (β = .529, Wald $\chi2(1)$ = 58.086, p < .01), 2.674 (β = .983, Wald $\chi2(1)$ = 204.537, p < .01) & 1.526 (β = .423, Wald $\chi2(1)$ = 32.857, p < .01), indicate that the youth is more likely to choose self-employment in these occupational categories in comparison to wage employment.

Some occupations, such as technicians, associate professionals, and clerical support workers, prefer regular wage work over self-employment. The odds of choosing self-employment for these occupations are .483 (β = −.524, Wald $\chi2(1)$ = 25.198, p < .01) & 0.034 (β = −2.788, Wald $\chi2(1)$ = 80.829, p < .01) respectively. This means that Indian youths are 2.07 times and 29.41 times more likely to choose regular wage employment over self-employment in these occupations than elementary workers (Table 1). Thus, our findings suggest that self-employment is not equally preferred across all occupational groups. This contradicts the 4th upheld hypothesis of uniformity of preference for self-employment labour market states across divergent occupational groups.

4.6 Gender of youth and self-employment state of labour market

The findings in Table 1 indicate that an individual's gender plays a significant role in predicting their preference for self-employment versus regular wage/salary employment. The regression coefficient (β) of −0.103 and Wald $\chi2(1)$ value of 3.885, with a significance level of p < .001, demonstrate that gender is a statistically significant predictor of self-employment preference.

Further analysis using odds ratios reveals that males are 0.902 times less likely than females to choose self-employment over salaried employment. It has been observed that women are more inclined towards self-employment as compared to men. The underlying reason for this preference difference could be attributed to various social barriers women face, such as household and childcare responsibilities. Research have shown that such duties often act as constraints that limit women's participation in the workforce or restrict their ability to seek full-time employment outside their homes (Presser, 1995; Casper and O'Connell, 1998; Bianchi, 2000; Yee, 2007; ILO, 2015).

Moreover, disparities in education and training and limited access to financial resources and networks can negatively impact female employment and earning potential, further pushing them towards considering self-employment as a viable alternative, as per Gangel and Ziefle's (2009) findings. It is worth noting that women who become self-employed often face unique challenges not encountered by their male

counterparts. These challenges include access to capital, market opportunities, and business networks, which can adversely impact their chances of success in entrepreneurship. Hence, addressing these challenges and providing women with the necessary support to achieve their entrepreneurial goals is essential. In view of this, *the fifth hypothesis that gender is unrelated to preferences for self-employment is not supported by the findings of this study.* This makes clear that social constraints and different levels of human capital endowments are major factors that lead women to choose self-employment over men. Policymakers and practitioners need to keep these findings in mind when creating strategies to support women's entrepreneurship and promote gender equality. By reducing these disparities, we can create a more equitable environment for entrepreneurs and encourage a more diverse and inclusive business community.

Table 1 Binary regression analysis of work status and demographic factors

Predictors	β	S.E.	Wald	Exp(β)
Gender (male)	−.103**	.052	3.88	.902
Nativity (rural)	.670*	.038	312.03	1.954
Marital status (never married)	−.543*	.038	208.90	.581
Educational attainments (in years)	−.094*	.005	301.18	.911
Occupation[a]			2 471.28	
Managers (i)	2.66*	.088	903.94	14.274
Professionals (ii)	.408*	.093	19.42	1.503
Technicians and associate professionals (iii)	−.524*	.104	25.20	.592
Clerical support workers (iv)	−2.79*	.310	80.83	.062
Service and sales workers (v)	.529*	.069	58.09	1.696
Skilled agricultural, forestry and fishery workers (vi)	4.10*	.129	1 010.88	60.154
Craft and related trade workers (vii)	.983*	.069	204.54	2.674
Plant & machine operators and assemblers (viii)	.423*	.074	32.86	1.526
Constant	−.389*	.085	20.66	.678
Correctly predicted cases (at step 0)	64.7 percent			
Correctly predicted cases (at step 1)	77.8 percent			
Model fitting criteria: −2 log likelihood	–			
Intercept only (initial −2 log likelihood)	24 732.525 (estimated at iteration number 3 because parameter estimates changed by less than .001)			
Final model	17 763.752 (estimated at iteration number 7 because parameter estimates changed by less than .001)			
Omnibus tests of model coefficients (χ2 12)	6 968.773*			
Nagelkerke R²	.422			

Notes: * indicates significant at 1 percent level of significance, ** indicates significant at 5 percent level of significance, a detailed description about occupational groups is given in endnotes.
Source: Authors

CONCLUSIONS

This research delves into the multifaceted factors that influence the decision of young adults to pursue self-employment as opposed to traditional wage employment in India. The study identifies personal, family, and occupational factors as key influencers in this decision-making process. Specifically, the research finds that higher levels of education, a non-agricultural upbringing, non-traditional gender roles, and a more gender-equal labour market make individuals more inclined to opt for wage employment. Conversely, a lack of access to education and skills training, a reliance on the agricultural economy, family and childcare responsibilities, and a need for flexible work hours are drivers of self-employment. Furthermore, the study highlights those certain professions, such as sales, service, crafts, and machine operation, are more likely to attract young people to self-employment due to their alignment with personal preferences. These findings underscore the importance of addressing the systemic barriers that limit individuals' access to education and skills training, as well as the need for more flexible and inclusive labour market policies that better accommodate the needs of workers.

Policy Implications and suggestions for future research

To effectively promote entrepreneurship in India, a multifaceted approach is essential. The first prong of this approach involves fostering an entrepreneurial culture, especially in urban areas. This can be achieved through mentorship programs, networking events, and educational campaigns to promote an entrepreneurial mindset. The second prong of this approach involves providing incentives to encourage young people to pursue entrepreneurship as a viable career option rather than simply out of necessity. These incentives could be tax breaks, subsidies, and grants for start-ups. Moreover, it is important to educate individuals about the various self-employment opportunities available, including the financial and training requirements and the long-term profitability of these ventures. This could be accomplished through workshops, seminars, and online resources that guide starting and managing a successful business.

In addition, future research should focus on longitudinal data and other social and economic factors that may impact the labour market in India. This could include factors such as access to capital, government policies, and cultural attitudes towards entrepreneurship. By better understanding these factors, policymakers can design more effective programs and initiatives to promote entrepreneurship and support the growth of small businesses in India.

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ANNEX

Table A1 Description of variables used in the study

Name of variable	Nature of variable*/categories	Label for variables/treatment	Number of observations
State of labour market (response variable)	Nominal: self-employment (i) and regular wage/salaried employment (ii)	1 for self-employment	6 729
		0 for regular wage/salaried employment (reference category)	12 309
Education	Randomized continuous variable	Treated as continuous variable (measured in years of formal education)	19 038
*Structure of occupation**	Categorical nine broad occupational groups: managers[1] (i); professionals[2] (ii); technicians & associate professionals[3] (iii); clerical support workers[4] (iv); service and sales workers[5] (v); skilled agricultural, forestry & fishery workers[6] (vi); craft and related trade workers[7] (vii); plant & machine operators and assemblers[8] (viii); elementary workers[9] (ix)	1 for managers and 0 for any other profession	1 378
		1 for professionals and 0 for any other profession	1 798
		1 for technicians and associate professionals and 0 for any other profession	1 863
		1 for clerical support workers and 0 for any other profession	1 089
		1 for service and sales workers and 0 for any other profession	3 668
		1 for skilled agricultural, forestry and fishery workers and 0 for any other profession	1 900
		1 for craft and related trade workers and 0 for any other profession	3 085
		1 for plant & machine operators and assemblers and 0 for any other profession	2 404
		1 for elementary workers and 0 for any other profession	1 853
Nativity	Nominal: rural (a) and urban (b)	1 for rural workers and	8 510
		0 for urban workers	10 528
Marital status	Nominal: never married (a) and currently married (b)	1 for never married workers and	10 949
		0 currently married workers	8 089
Gender	Nominal: male (a) and female (b)	1 for male workers and	15 536
		0 for female workers	3 502

Notes: * Occupations are classified in accordance with International Standard Classification of Occupations-08 (ILO, 2012).

[1] Chief executives, senior officials, legislators, administrative & commercial managers, production & specialized services managers, hospitality, retail and other services managers.

[2] Science & engineering professionals, health professionals, Teaching professionals, business & administration professionals, Information & communications technology professionals, legal, social & cultural professionals.

[3] Science & engineering associate professionals; health associate professionals; business and administration associate professionals; legal, social, cultural, and related associate professionals; Information and communications technicians.

[4] Occupation as general & keyboard clerks; customer services clerks; numerical & material recording clerks and other clerical support workers.

[5] Personal service workers; sales workers; personal care workers and protective services workers.

[6] Market-oriented skilled agricultural workers; market-oriented skilled forestry, fishery, and hunting workers; subsistence farmers, fishers, hunters & gatherers.
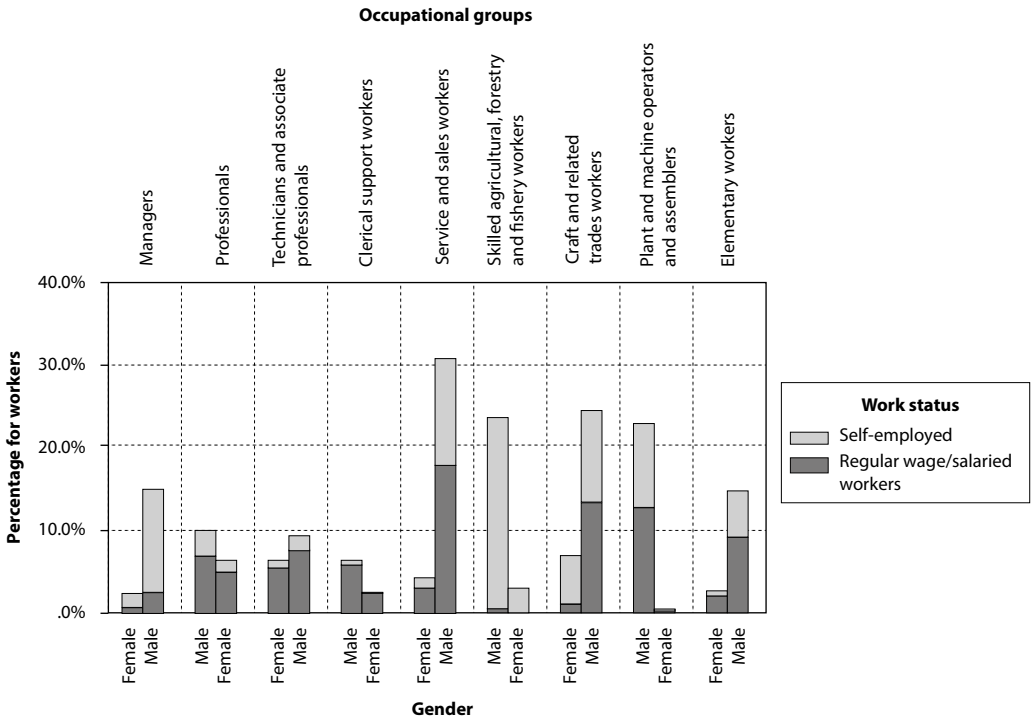
[7] Building and related trades workers, excluding electricians; metal, machinery and related trades workers; handicraft & printing workers; electrical & electronic trades workers; electronics and telecommunications installers and repairers; food processing, wood working, garment and other craft and related trades workers.

[8] Stationary plant & machine operators; Assemblers; drivers and mobile plant operators.

[9] Cleaners & helpers; agricultural, forestry and fishery labourers; labourers in mining, construction, manufacturing, and transport; food preparation assistants; preparation assistants; street and related sales and service workers; refuse workers and other elementary workers.

Source: Periodic Labour Force Survey (July 2017–June 2018)

Figure A1 Distribution of workers as per work status, occupation, nativity and gender

Source: Authors