ARTHA BEEKSHAN

Journal of the Bangiya Arthaniti Parishad
(Bengal Economic Association)
Reg. No. 53099/92

Artha Beekshan, Volume 33, No. 1&2 June and September 2024

Publication of Artha Beekshan, the quarterly referred journal of Bangiya Arthaniti Parishad, that is, the Bengal Economic Association, is one of the most important academic activities of the Association. The present volume, Volume 33, No.1&2 of the Journal, contains the papers contributed by scholars. We are thankful to the authors and members who have helped in one way or other in the preparation of this volume.

I would like to extend my whole-hearted thanks to the Editorial team, the Publisher, and all who have helped in the publication process, and especially the office bearers of Bangiya Arthaniti Parishad for their kind endeavors to make this issue of Artha Beekshan viable and Kolkata Mudran for bringing out the present issue.

Managing Editors

Certificate of Registration

The Emergence of Platform Capitalism and Its Consequences for Indian Society

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Abstract

In the twenty first century, capitalism has changed its face and has turned to data as one way to maintain economic growth and vitality of the economy in the face of a long declining tendency in manufacturing profitability. On the basis of changes in digital technologies, data have become increasingly central to firms and their relations with workers, customers, and other capitalists. The platform has emerged as a new business model, capable of extracting and controlling immense amounts of data, and with this shift we have witnessed meanwhile the rise of large monopolistic firms. Today the capitalism of the high- and middle-and low -income economies is increasingly dominated by these firms which are essentially multinationals or transnational companies.

In the above backdrop, the paper explores the rise of platform capitalism and its consequences for the Indian society.

Keywords: Amazon, Capitalism, Cloud Kitchen, Gig workers, Google, Platform capitalism,

Jel Code: D8, D85, F16, F66, K31 P1, P12, P13,

It's a hard thing to be poor. All the world's against the poor!

Irish writer Lady Gregory in her one-act play: *The Rising of the Moon*

Introduction

We are living in an age of massive transformation. Terms like the platform economy, its sub-set-- the sharing economy, the gig economy, and the fourth industrial revolution along with emerging technologies, big data, additive manufacturing, ad-

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vanced robotics, machine learning, and the internet of things, platform capitalism come to the fore and are tossed around. Most notably, capitalism demands that firms constantly seek out new avenues for profit, new commodities, and new means of exploitation. This focus on capital rather than labor boldly suggests a vulgar economism; but, in a world where the labor movement has been significantly weakened, giving capital a top priority seems only to reflect the reality.

The Emergence of Platform Capitalism

In the twenty first century, capitalism has changed its face and has turned to data as one way to maintain economic growth and vitality of the economy in the face of a long declining tendency in manufacturing profitability. On the basis of changes in digital technologies, data have become increasingly central to firms and their relations with workers, customers, and other capitalists. The platform has emerged as a new business model, capable of extracting and controlling immense amounts of data, and with this shift we have witnessed meanwhile the rise of large monopolistic firms. Today the capitalism of the high- and middle-and low -income economies is increasingly dominated by these firms which are essentially multinationals or transnational companies. It is important to mention that capitalism, uniquely among all modes of production to date, is immensely successful at raising productivity levels. This is the key dynamic that expresses capitalist economies' unprecedented capacity to grow at a rapid pace and to raise living standards. It demands constant technological change in whatever form. In the effort to cut costs, beat out competitors, control workers, reduce turnover time, and gain market share, capitalists are incentivized to continually transform the labor process. This was the source of capitalism's immense dynamism, as capitalists tend to increase labor productivity constantly and to outdo one another in generating profits efficiently. But one form of technology is also central to capitalism. It has often been used to deskill workers and undermine the power of skilled laborers. These deskilling technologies enable cheaper and more pliable workers to come in and replace the skilled ones (Srnicek, 2017).

Capitalism, when a crisis hits, be it 1997 East Asian Crisis, 2000 Dot-com Boom and Bust, or 2008 Financial crisis, tends to be restructured. Crisis affects hard the workers. And they have been highly vulnerable to exploitative working conditions. In this set up, new technologies, new organizational forms, new modes of exploitation, new types of jobs, and new markets --all emerge to create a new way of accumulating capital. And in this way platforms became an efficient way to monopolize, extract, analyze, and use the increasingly large amounts of data that were being

recorded. Now this model has come to expand across the economy to have digital dividends (World Bank, 2016), as numerous companies incorporate platforms: powerful technology companies (Google, Facebook, and Amazon), dynamic start-ups (Uber, Airbnb), industrial leaders (GE, Siemens), and agricultural powerhouses (John Deere, Monsanto), to name just a few.

What are Platforms? What are their Characteristics?

What are platforms? At the most general level, platforms are digital infrastructures that enable two or more groups to interact. Or to say, the platforms are essentially matchmakers that help producers diversify their buyers and provide consumers with variety of products. They therefore position themselves as intermediaries that bring together different users: customers, advertisers, service providers, producers, suppliers, and even physical objects. More often, these platforms also come with a series of tools that enable their users to build their own products, services, and market places. Value of the platform depends on the strength of network effects.

Platforms are far more than internet companies or tech companies, since they can operate anywhere, wherever digital interaction takes place.

The **second** essential characteristic is that digital platforms produce and are reliant on 'network effects': the more numerous the users who use a platform, the more valuable that platform becomes for everyone else. One reason for Uber's rapid growth, for instance, is that it does not need to build new factories – it just needs to rent more servers. Combined with network effects, this means that platforms can grow very big very quickly.

The **third characteristics** is that platforms often use cross subsidization: one arm of the firm reduces the price of a service or good (even providing it for free), but another arm raises prices in order to make up for these losses. The price structure of the platform matters significantly for how many users become involved and how often they use the platform. Google, for instance, provides service likes email for free in order to get users on board, but raises money through its advertising arm.

Finally, platforms are also designed in a way that makes them attractive to its varied users.

Variety of platforms and their interface with the Shared Economy

Microsoft's Windows operating system enables software developers to create applications for it and sell them to consumers; **Apple's App Store** and its associated ecosystem (XCode, for example) enable developers to build and sell new apps

to users; Google's search engine provides a platform for advertisers and content providers to target people searching for information; and **Uber**'s taxi app enables drivers and passengers to exchange rides for cash. Rather than having to build a marketplace from the ground up, a platform provides the basic infrastructure to mediate between different groups. This is the key to its advantage over traditional business models when it comes to data., Google and Facebook are the **advertising platforms**. Uber, as the platform for taxis, draws on traffic data and the activities of drivers and riders. Facebook, as the platform for social networking, brings in a variety of intimate social interactions that can then be recorded. And, as more and more industries move their interactions online (e.g. Uber shifting the taxi industry into a digital form), more and more businesses will be subject to platform development. These advertising platforms are currently the most successful of the new platform businesses, with high revenues, significant profits, and a vigorous dynamism.

Broadly, based on their technical nature, two kinds of Digital Labor Platforms have been identified: **Web based platforms** that give tasks to selected individuals (Freelance Market work, e.g., Upwork). Or tasks given to crowds (Micro-task crowd work, (Schmidt, 2017). And Location based platforms that involve workers carrying out tasks in specific locations. **Location based platforms** can be large international platforms (Uber, Airbnb) or small local location-based platforms that operate in various sectors like food platform—KAMAII— a location-based platform in the food industry acting as a shared economy in Ahmedabad city or **Cloud Kitchen**-- individuals selling Home cooked food on digital platform, Instagram, or Facebook (Unni, 2023). We can site Amazon as **Cloud Platform**. By 2022 Amazon has invested in vast data centers, robotic warehouse movers, and massive computer systems, had pioneered the use of drones for deliveries, and recently began leasing airplanes for its shipping section. It is also by far the largest employer in the digital economy, employing 1,541,000 workers as of 2022 out of which 52 per cent were male and 46 per cent were female and many of the most of seasonal workers, most of whom do low-wage and highly stressful jobs in warehouses.

As data collection, storage, and analysis have become increasingly cheaper, more and more companies have attempted to bring platforms into the field of traditional manufacturing. This is 'industrial internet.' In Germany it is heralded as '**Industry 4.0'** (Zaske, 2015**)**. The idea is that each component in the production process becomes able to communicate with assembly machines and other components, without the guidance of workers or managers. It can reduce labor costs by 25 per cent.

Importantly, the preceding developments – particularly **the internet of things and cloud computing** – have enabled a new type of on-demand platform. Take, for example, Uber has designed for consumers who wish to rent some asset for a time. This is **product Platform.**

Today's *lean platforms* have returned to the 'growth before profit' model of the 1990s.Companies like Uber and Airbnb have rapidly become household names and have come to epitomize this revived business model. These platforms range from specialized firms for a variety of services (cleaning, house calls from physicians, grocery shopping, plumbing, and so on). Why are they 'lean' platforms? Lean platforms operate through a hyper outsourced model, whereby workers are outsourced, fixed capital is outsourced, maintenance costs are outsourced, and training is outsourced. All that remains is a bare extractive minimum – control over the platform that enables a monopoly rent to be gained.

Key Elements of the Processes at Work with respect to Labor in the Platform Economy

The New form of work has come up in the digital platform. There are two views regarding platform. One view is that Platforms are regarded as a digital contract agency, outsourcing work, where the product and design remain with the platform. Another view is that, platform can be seen as an 'aggregator', where the product and design are with the micro-entrepreneur. Obviously, there are differences between the shared economy and the micro-task platform. The first one provides more flexible, easier and simpler way to start-up as an entrepreneur. The large micro-tasking platforms act as digital contract agencies.

A micro- entrepreneur in the shared economy can start from the home or current office, with only one the internet and an idea. Since banks are generally reluctant to extend credit to new entrepreneurs, startups can access crowd funding on platforms to connect to people who are willing to fund an idea and peer-to–peer exchange. The value of the shared economy for the producer lies in increased demand and expanding markets. Value of peer-to-peer sharing or exchange, where the consumer is the producer and vice-versa, is utilization of idle capacity, in both physical and human capital.

What is The Value Proposition of Shared Economy and Its Positive Economic Impacts?

1.   The sharing economy is only one segment of platform economy or a subset of the platform economy. For example, food platform acts as a shared

economic platform. Shared economy is a 'temporary access' to under-utilize physical and human capital (idle capacity). TFP (Total Factor Productivity) increases when on average, over time, more output is produced from the same inputs--Physical capital, financial capital and labor. Shared economy platforms thus increase the 'capital impact' of these factors of production.

2. Many of the shared economy platforms demonstrate scale economies of IT investment, advertising and distribution.

3. Increased variety-increased consumption, it brings to the doorstep. The sharing economy or crowd-based capitalism) creates new consumption experiences of higher quality and quantity. It enhances to enter-in variety of goods at the doorstep. The increase in variety increases consumption and hence increases economic activity.

4. New micro-entrepreneurship with access to digital technologies is democratizing opportunities for people once relegated to laboring for others, or for women, not participating in the labor force earlier. Thomas Piketty once argued that the reduction in inequality after World War II was an exception to the general rule of capitalism. But Piketty (2014) also argued that inequality is on the increase because the returns to capital(r) is greater than the growth of the economy(g), while rate of growth of wages is the same as g. Now experts argue that the shared economy is turning the table by expanding the population that enjoys 'r' rates of growth. In other words, one key reason for persistent accumulation at the top lies in the difference between economic growth rates (g) and net returns on capital investment (r). Seen in long-term perspective, returns on capital consistently outstrip economic growth rates, expressed in the pithy equation $r > g$. This means that those individuals and families which accumulated wealth and capital in the past will see their fortunes grow faster than those gaining their wealth purely from income. Piketty (2014: 1-2) expresses deep disquiet about the social consequences of extreme inequality. He argues that, 'When the rate of return on capital exceeds the rate of growth of output and income, as it did in the nineteenth century and seems quite likely to do again in the twenty-first, capitalism automatically generates arbitrary and unsustainable inequalities that radically undermine the meritocratic values on which democratic societies are based.' Contemporary capitalism, a system ostensibly rooted in creativity, entrepreneurship and hard work, actually rewards idleness and inherited wealth.

These four economic impacts sum up the value proposition of the shared economy and show how the positive can outweigh the negatives in this form of exchange.

Geissinger et al. (2020) suggest two issues that need to be studied in the shared economy: *the transformation of work and social equity*. The question remains then: Do the positive outweighs the negatives? Do the workers enjoy social equality and justice in digital and platform work? Can gig workers get social security as "gig workers" under the new Indian Labor Code on Social Security,2020? Does the shared economy help in transformation of work and social equity? The answer will come when we see the real picture. The answer to the last question is that women in the shared economy may transform work by increasing capacity and experimenting with limited resources, but it brings them not social equity. Yet the ability to reach markets through online platforms allows underutilized labor to be more fully employed but with a meager salary. These forms of engagement in the labor market allows workers, especially women, to set up a business while working from home, either through a platform aggregator or selling through other own social media, using this as media as market place. It allows women to gain financial independence (Dewan & Network, 2022).

The India Story

India's platform economy continues to expand in the face of such obstacles precisely because labor is incredibly cheap here. It is nearly always cheaper than any reliable form of automation. In India, platforms can rely on a labor surplus to 'absorb' infrastructure bottlenecks. This fact alone undermines a central rationale for platform economies in the industrialized world (Ford, 2016). Thus, in the Indian context, the major opportunities for platforms lie not in outsourcing labor costs, but in capturing large sectors of economic activity that previously operated in the informal economy. Guest houses, street food, rickshaws, drivers and guards—these are all largely disaggregated cash-based sectors. Their aggregation within platforms constitutes a private sector 'mechanism of legibility', intent upon simultaneously formalizing these markets and bringing them with the ambit of transactional records (Maurer 2012). In this respect, the rent capture of informal markets echoes the recession economics of 'the developed world, where the implicit reliance of platforms on a social surplus that absorbs production costs is euphemized by the utopian deceit of a 'sharing economy' (as per Sundararajan 2016). In India, however, this sector is far larger and constitutes central rather than surplus capacity (Rai, 2019). In a country where low prices and subsistence wages have always been

normative, the transactional costs of the digital must be borne by the petty traders that constitute the majority of the lower middle classes. For the platform operators, far smaller profit margins are offset by the sheer numbers involved. It is evident, then, that aggregation of population, not capital, is the guiding principle of platform economy. Despite making a significant contribution to the economy and to the employment share of the total labor force, gig workers are still considered unorganized workers and are not protected by labor laws. They are not as well protected as formal sector employees are. Gig economy has the potential to support up to 90 million employments in India's non-farm sector alone, transact over USD 250 bn in volume of labor, and contribute an additional 1.25% (approximately) to India's GDP over the long run, according to a recent analysis by Boston Consulting Group.

In a bid to become India's first state to guarantee social security to gig workers, Rajasthan on 21st July, Friday, tabled the Rajasthan Platform-based Gig Workers (Registration and Welfare) Bill, 2023. The Bill was passed in the Rajasthan Assembly and enacted as a law on 24th July, 2023. The Act talks about taxing internet platform aggregators operating in the state with up to 2% of their earnings from each transaction through the platform. The Act is definitely a step in the right direction with the same being discussed in Karnataka and Delhi.

Conclusion: What, then, Does the Future Hold?

In what follows platform capitalism is a significant issue that needs to be thoroughly researched. Due to its mass popularity as a subject of study in the present context, there is a great deal of misunderstanding about its definition and boundaries. I have tried to clear these issues in the address.

Platform capitalism camouflages the politics and power dynamics concealed beneath the terms "gig economy" and "sharing economy" by emphasizing more on concepts of innovation, transformation, and employment opportunity. The fundamental platform concepts of exchange and connectedness mask the neoliberalist ideology of exploitation at the core of platform capitalism. The same has been discussed in the previous section.

Summing up, twenty-first-century capitalism has indeed found a massive new raw material to appropriate, i.e., data. Through a series of developments, the platform has become an increasingly dominant way of organizing businesses to monopolize these data, then extract, analyze, use, and sell them. It appears that platforms continue to expand across the economy and competition drives them to endorse themselves increasingly. So the future of platform capitalism is not bleak. In the end, we can predict that the future of platform capitalism is not bleak. Platform

capitalism has inbuilt tendencies to move towards extracting rents by providing services (in the form of cloud platforms, infrastructural platforms, or product platforms etc.). Only time will tell how policymakers come up with antitrust policy regulations to counterattack.

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S. N. Sen Memorial Lecture

Economic Freedom, Competition and Corruption in India

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Abstract

The role of institutions, including market access, competition laws and public regulations covering labour and environmental mandates affect the business climate facing formal and informal firms in India. Greater freedom to operate economically may allow more firms to be part of a formal system in developing countries, unless free entry by new firms leaves existing firms in jeopardy. The institutions in their ideal condition shall not be influenced by such possibilities, unless the country in question also suffers from considerable corruption in the public sphere. This paper evaluates the cross-currents of many such conditions on the outcomes for formal and informal firms in India, which by virtue of the economic system remain closely linkedviaproductionandconsumption.

Keywords: informal firms; India; perceived corruption; economic freedom; matching models.

JEL Code: D73, E26, L10, O53

Introduction

For countries like India where a large number of small and medium sized entrepreneurs cannot access formal credit and are exposed to widespread bureaucratic corruption, long-run survival and consequent distributional implications are both considerably important. Interestingly, a recent study (Dutta et al., 2023) utilizes company-level unit information, and shows that obstacles as perceived by firm owners in the form of regulatory corruption and access to finance jointly reduce the firm's probability to innovate. If perceptions somewhat reflect the actual conditions observed, then with worsening perceptions about both obstacles, firms are less likely to innovate. For industries like automobile, where constant innovation

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is key to success and often survival, negative perceptions could lead to industrial slowdown. In recent decades, studies have not only shown that perceived obstacles matter for firms' probability to innovate but also the extent to which perceptions determine firm's engagement in innovation (Pellegrino and Savona, 2017; Mancusi and Vezzuli, 2014; Iammarinoet al., 2009; Savignac, 2008; Tiwari et al., 2008; Segarra-Blascoet al., 2008;Canepa and Stoneman, 2008; Galia and Legros, 2004; and Baldwin and Lin, 2002). Many of these studies employing Community Innovation Survey (CIS) data published by the European Union (EU) have empirically assessed the role of both financial and non-financial perceived barriers for firms in terms of their efforts to innovate (viz., Pellegrino and Savona, 2017; Mancusi and Vezzulli, 2014; Blanchard et al., 2013; D'Este et al., 2012; Iammarino et al., 2009; Mohnen and Röller, 2005; and Galia and Legros, 2004).To the best of our knowledge, such empirical studies looking at implications of perceived barriers by firms and employing data for countries outside the EU or ESS (European Social Survey) member countries are scarce.

It is well known that corruption remains a daunting problem in India's path towards growth and development. Based on Transparency International (TI) Corruption score rankings, India has always been around 80th rank amid 170-175 countries with its rank dropping in recent years (TI, 2021). Following TI, about 89% of surveyed individuals think that government corruption is a big problem (Asia, 10th edition, TI, 2021). Further, Trace Bribery Risk Matrix measuring bribery risk in 194 countries considers India's score to be a high risk (ranks 77 out of 194).Related studies have previously pointed out the associated challenges in terms of the corruption in India(viz. Dutta, Kar and Roy, 2013), but none discusses the implications for innovation by such firms.Given that the non-financial barriers as perceived by firms are deemed important for their innovation efforts (Pellegrino and Savona, 2017) and the complex corruption environment faced by Indian firms, we attempt to explore if perceived corruption dampens the probability to innovate.

In addition, we look into other perceived obstacles and if they interact with perceived corruption to affect the outcome. Specifically, since the literature has well documented the impact of financial obstacles to innovation (Mancusi and Vezzulli, 2014; Blanchard et al., 2013; Tiwari et al., 2008; Savignac, 2008; Tourigny and Le, 2004), we start by exploring the role of financial barriers as well. Indeed, only a few studies thus far explore a firms' perceptions about financing constraints in the context of innovation efforts (Hottenrott and Peters, 2011; Savignac, 2008; Canepa and Stoneman, 2008). Other than testing if perceived financial barriers matter on their

own, we are particularly interested in seeing if it indirectly affects the probability of innovation via perceived corruption.

However, the existing literature does not offer an unambiguous conclusion about corruption's impact on entrepreneurial endeavors. In particular, prevalence of high corruption can dissuade firms from innovations, since corruption in general hurts growth and lowers the returns from innovations for entrepreneurs (Dutta and Sobel, 2016; Anokhin and Schulze, 2009; Glaeser and Saks 2006, to mention a few). Yet, Holmstrom (1989) shows that innovative firms might be the ones that are more willing to bribe their way ahead of other firms. Later, Ayyagari, Demigurc-Kunt, and Maksimovic (2014) also offer similar findings. Since actual corruption's impact can be ambiguous, following similar reasoning, greater perceived corruption might help or hurt the probability to innovate for firms. Thus, the outcome for Indian firms is open to empirical analysis.

To this effect we choose and control for a range of variables at the firm level by using the World Bank Enterprise Survey (WBES) 2014 wave. The present contribution lies in observing the own impact of these variables and for some the joint impact if interacted with the corruption perception.

The General Outcomes

While the implications of actual obstacles like corruption have been studied extensively in view of the negative influence on a firm's prospect and growth, a recent concern is whether perceptions about obstacles are equally damaging for important aspects of business. Indeed, one such aspect receiving attention is about how perception of obstacles influence innovation activities for firms in India.

Since the scope of formal businesses in India is still limited by bureaucratic red-tapes and rent extraction by regulators, prevailing perceptions regarding obstacles could be treated as important signals. It is reasonable to consider that firms will perceive obstacles to accessing credit since even in recent times as low as 10% of the population has access to formal credit in the country. With a tightly controlled and risk-averse banking (overwhelmingly nationalized public sector undertakings and not too keen on extending loans to all sectors) practice in India, shallow stock markets (Bombay Stock Exchange and National Stock Exchange together has less than a fifth of the domestic market capitalization of NYSE), and negligible presence of corporate debt market (which could have offered cheaper sources of credit) firms in India, particularly medium to small firms, are usually credit rationed. In other words, not all firms would get loans, or get desired amount from the bank. A survey by the American Express finds that 42% of small and medium enterprises (SMEs)

consider access to finance to be a vexing problem. Coupled with this, corruption in India continues to pose a major challenge typically owing to the prevalence of poor institutions all around. Remember, Transparency International, an independent organization collecting and processing national level information on corrupt practices, principally based on perceptions of various economic actors in the society, ranks India at 78 along with countries like Kuwait, Turkey, Ghana, Burkina Faso, etc. Notably, this is a poorer rank compared to global rank of India according to indicators of Ease of Doing Business, implying that doing business could be a complex affair. Clearly, firms are likely to perceive of corruption as a contemporary obstacle.

As mentioned, this communication draws from a recent study on India where we statistically calculated as to how the perceptions about obstacles in accessing finance and losses incurred due to rent extraction by the authority affect a firm's chances of innovation. It is only psychological that perception of a particular obstacle on its own may both deter and enhance the innovation efforts of firms. Prevalence of high corruption can dissuade firms from innovations, since corruption in general hurts growth and lowers the returns from innovations for entrepreneurs. Conversely, however, innovative firms might be the ones that are more willing to bribe their way ahead of other firms. Therefore, perceptions about higher corruption (as compared to the difficulty associated with getting finance) might make a firm innovate more, or at least, not dampen the probability considerably. But what happens when firms perceive both obstacles? Do they continue to innovate? There is no prior about whether the situation worsens when both (negative) perceptions get stronger and lead to decay of firms. The many possible outcomes associated with consequent production re-organization and changes in factor demands typically constitute the overall impact assessment feeding into the policy designs at the nationallevel.

Sources of Information

The World Bank Enterprise Survey Database offers information for the year 2014 covering a large number of enterprises across India. The company level information for India was collected between June 2013 and December 2014. The information set consists of 9281 companies from 23 major states of India and these companies belong to 26 different industries like food, textiles, automobile, garments, leather, wood, paper, chemicals, etc. Among service industries, major services like hotels and restaurants are included. The target issue as chosen for the exercise was based on the question: 'In the last three years, has this establishment introduced new products or services?'. The responses were naturally *yes*, or *no*. Out of the 9281 obser-

vations, approximately 44% of responses were 'yes'. Looking across industries, we find that some of the most innovative industries are leather (56%), hotels and restaurants (54%), garments (52%), electronics (57%), etc.

One of the main responses to the above question is expected to come from an entry that reports perceived difficulties in accessing finance for firms. The category is constructed on the basis of the following question: 'how much of an obstacle is access to finance?'. As stated in the survey, difficulty in accessing finance by companies includes availability as well as cost, interest rates, fees and collateral requirements. The survey categorizes difficulty in accessing finance under 5 heads -- no obstacle, minor obstacle, moderate obstacle, major obstacle and very severe obstacle. On average the responses suggest that companies faced moderate obstacle. Obviously, like all averages, it means that some faced severe obstacle and some little or none.

As pointed out earlier, the other variable of interest is the perception about corruption among company owners. The specific question asked to the owners is: 'how much of an obstacle is corruption?'. For owners' of companies corruption typically pertains to issues about licensing, adherence to rules and regulations, maintenance of proper accounts, etc., and these individually or in combinations leads to periodic harassment by regulators, tax officials, auditors, and so. A large majority of firms (approximately 46%) reported that they perceive of corruption as a moderate to majorobstacle.

What did we observe?

After crunching and analysing a lot of information we observe that both the 'perceptions to obstacle' – access to finance or corruption – does affect the probability to innovate on its own. We also note that it can even benefit the process sometimes. However, the main highlight of our contribution is finding that the perceived obstacles jointly decrease a company's chances of innovating new processes or techniques. Let us elaborate the mechanism about how this operates. In the face of rising (harmful) perceptions about corruption, a company is less likely to innovate when it also senses a higher obstacle to accessing finance. The same is true about the combination of perceived obstacles to accessing finance, and the sense of corruption prevailing. To augment the policy debate, we do find that the results are stronger and more harmful for small and medium sized businesses as compared to large companies. Further, since export-oriented companies are more likely to innovate, we also account for such companies and report that poor perceptions on

these two fronts are equally dampening and this is true regardless of young and old businesses, or whether they are located in metro cities or outskirts.

Overall, we account for the fact that a company's chance of innovation is seriously damaged by perception to obstacles when firms face both obstacles at severe to very severe levels. It is well-known that financial institutions shy away from financing smaller businesses and at the same time often make complaints about lack of businesses. The businesses consequently resort to high-cost private sources of finance owing to what we observed as the perceived hurdles. In terms of policy question this might offer some directions for possible intervention which must begin with acknowledgement from the public authorities regarding the extent of hold-backs and inequality of access to finance. In addition, the bank and non-bank financial institutions should also take into cognizance that by relaxing the loan restrictions and easing out the procedure should help to change the class and network dimensions connected with entrepreneurship. The psychological barriers to businesses have never been given adequate emphasis, although in terms of regional disparities in business concentration or simply growth of start-ups, this poses reasonable chances of non-participation owing to behavioural traits. This is a step preceding more intriguing questions about company level best practices, innovations, etc. With an initial public intervention, the confidence in the institutions will have to be restored in order to spread entrepreneurial choices.

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8th Giribala Karmakar Memorial Lecture

Creditor Protection and Credit Market Development in Emerging Countries

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Abstract

The paper examines whether the creditor protection promotes credit market development in the emerging countries. It analyses the available data for a sample of 15 emerging countries over the timespan, 1995-2013 with the aid of three alternative dynamic panel data models: dynamic fixed effect model, mean group model and pooled mean group model. The findings of these models are not unambiguous. The more efficient PMG model, however, provides an unequivocal support to the proposition that credit market regulations promote credit market development in the long run. This beneficial effect may not be observable in the short run.

1. INTRODUCTION

Does law matter for a proper capitalist development? The essence of new institutional economics is: the quality of legal and other institutions makes a difference to economic development and growth (North, 1990). This idea can be traced back to the writings of one famous German social scientist, Max Weber. Comparing the experience of several industrialising European countries with other countries, he concluded that a rational legal system is a precondition for the emergence of capitalism. Some legal scholars call it 'endowment perspective' because it treats legal system as an endowment (created by fixed investment) which determines the path of development 'without itself being subject to change' (see Milhaupt and Pistor, 2008, pp.18-22).

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This endowment perspective of law received a major impetus in the late 1990s and in the first decade of the current millennium through the works of La Porta, Lopez-de-Silanes, Shleifer and Vishny (1997, 1998) and the subsequent works by them and their followers (see La Porta *et al.*, 1999, 2000; 2006, 2008; Djankov *et al*., 2003; Glaeser and Shleifer, 2002, 2003; Beck *et al*., 2003a, 2003b; Botero *et al*., 2004). The countries were classified according to their 'legal origin': English common law and civil law are two broad categories. The civil law systems were further sub-divided into those of French, German, and Scandinavian origin. La Porta and his collaborators and followers used (by and large) binary variables (0, 1) to quantify the quality of various types of law existing in many countries protecting the interests of their shareholders, creditors and labourers (these are what we call 'leximetric' data). Through various cross-section regression studies of these 'leximetric' data, it was argued that English common law systems are more market-friendly; they provide higher level of shareholder and creditor protection to promote financial development and create more employment opportunities by providing less protection of their labour.

The legal origins theory has been extremely influential among researchers and policymakers since the mid-1990s specially because of other contemporary works which show financial development promotes economic growth (see King and Levine, 1993; Levine, 1997, 2001, 2003; Levine and Zervos, 1998; Levine *et al.* 2000; Beck *et al*. 2000; Claessens and Laeven, 2003). Strengthening shareholder and creditor rights as a precondition for financial market development has become a mainstay of global policy initiatives and national law reform programmes.

In this perspective the present study examines the available data on laws relating to creditor protection and their impact on credit market development in some emerging countries. The empirical legal origins literature used mostly cross-sectional evidence on the state of the law as it stood in the late 1990s and early 2000s and tried to draw firm conclusions on the long-run relationship between legal change and economic development. This paper examines the relationship between legal and economic variables using dynamic panel-data technique which considers short-run relationship and the adjustment path leading to the long-term relationship. Section 2 presents econometric findings on the relationship between changes in law relating to creditor protection and outcomes in the area of credit market development. Section 3 concludes.

2. THE PRESENT STUDY

Research Questions

The broad research question in the whole gamut of literature in the field of new institutional economics is: Does Law Matter? The focus of the present study is more specific: does an emerging economy with higher creditor protection experience greater development of its credit market.

Data Source:

As indicators of banking and credit market development, the following three variables are collected from World Bank data on World Development Indicators available online:

(1) Domestic credit to private sector by banks (% of GDP), DCBY; it refers to financial resources provided to the private enterprises by banks (except central banks) through loans, purchases of non-equity securities, and trade credits etc. that establish a claim for repayment.

(2) Domestic credit to private sector (% of GDP), DCPVTY; it refers to financial resources provided to the private enterprises by financial corporations through loans, purchases of non-equity securities, and trade credits etc. that establish a claim for repayment. The financial corporations include monetary authorities and deposit money banks, as well as other financial corporations where data are available (including corporations that do not accept transferable deposits but do incur such liabilities as time and savings deposits). Examples of other financial corporations are finance and leasing companies, money lenders, insurance corporations, pension funds, and foreign exchange companies.

(3) Domestic credit provided by financial sector (% of GDP), DCFINY; it includes all credit to various sectors. The financial sector includes monetary authorities and deposit money banks, as well as other financial corporations where data are available (including corporations that do not accept transferable deposits but do incur such liabilities as time and savings deposits). Examples of other financial corporations are finance and leasing companies, money lenders, insurance corporations, pension funds, and foreign exchange companies.

From the online data repository of University of Cambridge ˙ the data on creditor protection index are collected. The creditor protection index ('CPI') is an aggregation of ten indicators, each of which varies between 0 and 1. There are three broad categories:

I.   Restrictions on Debtor Activity;

II.   Creditor Contract Rights (=Facilitation of Secured Credit);

III.   Creditor Rights in Corporate Bankruptcy Proceedings.

In category I, there are three indicators concerning with rules on minimum capital for establishment of a private company, dividend restrictions to protect creditors from the payment of the company's assets to shareholders and directors' duties to act in creditors' interest.

In category II, there are three others relating to the protection of the rights of secured creditors and cover the scope for creation of non-possessory security interests, the priority of creditor's rights, and the extent to which the law allows secured creditors to enforce their rights without a court order.

The final four indicators belong to category III; these code the core parts of insolvency (that is, corporate bankruptcy) law, and cover the extent of creditors' powers to initiate insolvency proceedings, rules on the stay of secured creditors, how far the law grants creditors (as opposed to a court or the company itself) to right to close the firm down, and how far the law determines the rank order of secured creditors in the event of bankruptcy.

The datasets used here differ from those of La Porta *et al*. (1998) not simply in providing a longitudinal measure of legal change, but in the approach, they take to the coding of legal rules (for details see Deakin, Sarkar, and Singh, 2012). There are major changes from their approach. First, the choice of variables in the datasets reflects the theory of 'functional equivalents' in comparative law. This holds that a rule which takes a certain legal form in one system may be expressed in other legal systems in a different way. To respond to this, the Cambridge team employed algorithms which describe the variables of interest in broad, functional terms, rather than using as a benchmark the laws in force in a particular important jurisdiction (e.g., the US). The team also considered rules which, while not part of the positive law, are found in codes and other self-regulatory instruments that could nevertheless be regarded as the functional equivalent of laws in many jurisdictions. This enables them to code several variables of key concern, such as rules contained in corporate

˙ https://www.repository.cam.ac.uk/handle/1810/256566

governance and takeover codes, which La Porta *et al.* (1998) omitted from their analyses, apparently on the grounds that they did not take the form of positive legal rules in the US system. Secondly, the Cambridge team used graduated variables, to capture more of the detail of legal variation. La Porta and his teamhad largely relied on binary variables, in their early studies (see e.g., La Porta *et al.,* 1998). Thirdly, they coded not just for mandatory rules of law as La Porta *et al*. (1998) mostly did, but also for default rules and other norms which could be modified by the parties directly affected by them, adjusting the scores given in each case to allow for the ease with which the rules could be modified.

As control variable the real GDP growth rate (GGDP) is used. This is expected to net out the country-specific effects of time-trend and cyclical fluctuations on credit market variables. In some other papers (e.g.,Sarkar, 2013), the log of real GDP was used; for international comparability these are converted into a common currency using purchasing power parity (PPP) exchange rates. Due to currency exchange market complications and the arbitrariness involved in finding a common basket of commodities the true picture of country-wise time-trend and cyclical fluctuations may be obscured.

Furthermore, for some countries these GDP data in PPP exchange rates are not available. So, I think GDP growth rate (GGDP) is a better control variable. The relevant data are easily available from the online source of World Bank (World Development Indicators) mentioned above.

Based on available data this paper considers the period of study as 1995-2013 and a sample of 15 emerging countries: Argentina, Brazil, Chile, China, Cyprus, Czech Republic, India, Malaysia, Mexico, Pakistan, Poland, Russia, Slovenia, South Africa, and Turkey.

Methodology

Causality Test

To examine whether changes in the law cause the development in the credit market or credit market development causes the changes in the law governing creditor protection, or whether there exists mutual causation, panel VAR (Vector-Autoregressive) and VEC (Vector Error Correction) Granger causality tests are used. A regression is fitted where X (alternative credit market variables taken one at a time) is a function of its own past values and of past values of the control variable Y (real GDP growth rate) and Z (the creditor protection index):

$$X_{it} = \alpha + \sum_{j=1}^{p} \lambda_j X_{i,t-j} + \sum_{k=1}^{p} \psi_k Y_{i,t-k} + \sum_{l=1}^{p} \pi_l Z_{i,t-l} + \varepsilon_{it} \tag{1}$$

In fitting the above equation, one must test whether the coefficients of the lags of Z are jointly significant (that is, different from zero) using the Wald-test statistic (having a chi-square distribution). The null hypothesis is that $\pi_1 = \pi_2 = \ldots = 0$. If the Wald test statistic (distributed as chi-square) calculated based on this null hypothesis is very high (higher than the relevant critical value of chi-square distribution), one can say that Z causes X (rejecting the null hypothesis of no causality) as the past values of Z influence the current value of X.

Similarly, to test whether X causes Z, a regression is fitted where Z is a function of its past values and the past values of X and Y, and one must test the joint significance of the coefficients of the lags of X. Instead of fitting the equation in level terms one can fit the equation in first-difference terms (ΔX, ΔY and ΔZ) and their various lags. Replicating the VAR test in terms of first difference a VEC causality test can be conducted.

For the choice of lag (that is, how many past years are to be included in the causality test), a number of criteria are used: the sequential modified LR test statistic (LRM), the final prediction error (FPE), the Akaike information criterion (AIC), the Schwarz information criterion (SC), and the Hannan-Quinn information criterion (HQ). Different criteria tend to suggest different lag lengths. I have taken the maximum of the alternative lag lengths chosen by these criteria as the order of the VAR causality tests. Subtracting one from the order of the VAR test the order of the VEC test is derived.

The estimates of causality tests are reported in Table 1. These show no statistically significant causal relationship between credit market variables and regulations providing creditor protection. The credit market regulations have no causal relationship with credit market variables. There exists no reverse causality – credit market developments do not causally influence regulations.

Table 1

Causal Relationships between Creditor Protection and Credit Market Development Indicators for the Panel of 15 Countries, 1995-2013: Panel VAR and VEC Granger Causality Tests

Table 1A: Influence of Creditor Protection on Credit Market Development

(i) Panel VAR Causality Tests

Independent variable	Dependent variable	Test statistic: Chi-square	Lag chosen	Probability
CPI	DCBY	4.356391	5	0.4993
CPI	DCPVTY	4.224486	5	0.5176
CPI	DCFINY	3.649822	5	0.6008

ii) Panel VEC Causality Tests

Independent variable	Dependent variable	Test statistic: Chi-square	Lag chosen	Probability
CPI	DCBY	3.761837	4	0.4392
CPI	DCPVTY	2.867220	4	0.5803
CPI	DCFINY	2.947086	4	0.5667

Table 1B: Influence of Credit Market Development on Creditor Protection

(i) Panel VAR Causality Test

Independent variable	Dependent variable	Test statistic: Chi-square	Lag chosen	Probability
DCBY	CPI	8.469189	5	0.1322
DCPVTY	CPI	4.179153	5	0.5239
DCFINY	CPI	3.649822	5	0.6008

ii) Panel VEC Causality Tests

Independent variable	Dependent variable	Test statistic: Chi-square	Lag chosen	Probability
DCBY	CPI	6.746946	4	0.1499
DCPVTY	CPI	6.910438	4	0.1407
DCFINY	CPI	5.373269	4	0.2511

Notes to Table 1

The null hypothesis of no causality is holds in all cases.

DCBY: Domestic credit to private sector by banks (% of GDP);

DCPVTY: Domestic credit to private sector (% of GDP);

DCFINY: Domestic credit provided by financial sector (% of GDP).

These credit market data are derived from the World Bank's *World Development Indicators* available online:

http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators

CPI: Creditor Protection Index derived from the online source:

https://www.repository.cam.ac.uk/handle/1810/256566

The panel causality tests are, however, too simplistic. These are based on short-term relationships; these do not model various type of country heterogeneity; nor do these consider long-term relationships that follow from a stable adjustment path (if any) between short-term and long-term relationships. These are done in dynamic panel data models.

Dynamic Panel Data Modelling

Following Pesaran *et al.* (1999), the present study considers alternative dynamic panel data models. Consider the long-run relationship involving X (credit market development indicators), Y (real GDP growth rate) and Z (creditor protection indexes, CPI):

(1) $X_{it} = y_i\,Y_{it} + p_i\,Z_{it} + h_{it}$

where i (=1,2, 3...) represents countries, t (=1,2, 3...) represents periods (years), y_i and p_i are the long-run parameters and h_{it} is the error term.

The static panel data analysis considers the long-run relationship as instantaneous and does not model the short-term relationship and the time path of adjustment leading to the long run relationship. Following Pesaran *et al.* (1999), the present study considers the following error correction representation:

(2) $\Delta X_{it} = \theta_i\,\eta_{it-1} + \sum_{j=1}^{p-1} \lambda_{ij}\Delta X_{i,t-j} + \sum_{k=0}^{q-1} \psi_{ik}\Delta Y_{i,t-k} + \sum_{l=0}^{r-1} \pi_{il}\Delta z_{i,t-l} + \mu_i + \phi_{it}$

where Δ is the difference operator, q_i is the country-specific error-correcting speed of adjustment term, l_{ij}, y_{ik} and p_{il} are the coefficients of the lagged

variables, m_i is the country fixed effect and f_{it} is the disturbances term. The existence of a meaningful long-run relationship with stable adjustment dynamics requires $q_i < 0$.

Under this general structure, one can have three alternative models. On one extreme, one can have dynamic fixed effect models (DFE) where intercepts are allowed to vary across the countries and all other parameters and error variances are constrained to be the same. At the other extreme, one can estimate separate equations for each country and calculate the mean of the estimates to get a glimpse of the over-all picture. This is called mean group (MG) model. Pesaran and Smith (1995) showed that the MG approach gives consistent estimates of the averages of parameters. The intermediate alternative is pooled mean group (PMG) estimator, suggested by Pesaran *et al.* (1999). It allows intercepts, short-run coefficients, and error variances to differ freely across the countries, but the long run coefficients are constrained to be the same; that means, $y_i = \psi$ and $p_i =$ for π all i while q_i may differ from group to group.

Using the STATA model developed by Blackburne and Frank (2007) all the three alternative models (MG, PMG and DFE) are estimated. The lag structure (p, q, r) is determined with the help of the Lag Exclusion Wald Test for each variable separately. A series of Hausman tests (MG vs. PMG, DFE vs. MG and DFE vs. PMG) are conducted to get the efficient model in each case. These tests support the PMG model in two cases and in the other case the test is inconclusive (Table 2).

Table 2. *Short-run and Long-run Relationships between Creditor Protection and Credit Market Development Indicators, 1995-2013: Alternative Dynamic Panel Models[1]*

	PMG	MG	DFE
Impact of Creditor Protection .1 Index, CPI (Z) on Bank Credit, (DCBY(X			
a) Long-term Relationship			
(Y (GDP Growth Rate, GGDP	**83.35004	-6.378536	3.971953
(Z (Creditor Protection, CPI	**2802.524	-2925.084	894.5973
b) Short-term Relationship			
q	-.0178162*	-.3008513**	-.0639604

ΔX_{t-4}	160417.	0915926.	***2208775.-
ΔY_t	-1.451927	-.0073341	3700503.-
ΔY_{t-1}	-1.490048	146957.-	1395444.-
ΔY_{t-2}	9073501.-	1584056.-	0574308.-
$\mathbf{\Delta Y_{t-3}}$	8690136.-	3049014.-	0337472.-
$\mathbf{\Delta Y_{t-4}}$	6146241.-	1640834.-	025446.-
ΔZ_t	-72.07118	-121.6863	-35.097
m	-20.08859	-112.1407	-27.15916 ***
Chosen Model[1]	PMG		
Impact of Creditor Protection.2 Index, CPI (Z) on Private Sector (Credit, DCPVTY(X			
a) Long-term Relationship			
(Y (GDP Growth Rate, GGDP	***12.40765	0338427.-	3.330559
(Z (Creditor Protection, CPI	***1121.224	-2297.918	*813.9497
b) Short-term Relationship			
q	**1475342.-	**2988601.-	*0706077.-
ΔX_{t-4}	1247077.	0617851.	***2279146.-
ΔY_t	**-1.71929	05684713.	3797667.-
ΔY_{t-1}	**-1.994168	7401256.-	1713567.-
$\mathbf{\Delta Y_{t-2}}$	-1.492318	7099397.-	0970262.-
ΔY_{t-3}	-1.124485	5348178.-	034609.-
ΔY_{t-4}	-1.0319	4865007.-	0117819.-
ΔZ_t	*-174.8668	*-133.4136	-37.78077
m	**-72.22039	-125.677	***-26.09699
Chosen Model[1]	PMG		

3. Impact of Creditor Protection Index, CPI (Z) on Financial Sector (Credit, DCFINY (X			
a) Long-term Relationship			
Y (GDP Growth Rate, GGDP)	***-19.88897	**-10.78171	-6.192616
Z (Creditor Protection, CPI)	***1080.884	-59.86664	**279.3083
b) Short-term Relationship			
q	*-.0707198	***-.238279	***-.1357818
ΔY_t	.8938627	.5357365	.0802538
ΔY_{t-1}	.4912849	.2400652	.1634834
ΔY_{t-2}	.4655026	.2647986	.1611428
ΔZ_t	-194.1798	-154.0185	-31.90769
m	-14.30003	1.826882	-4.042404
Chosen Model[1]	?	?	?

* Significant at 10 per cent level. **Significant at 5 per cent level. ***Significant at 1 per cent level.

1. Three alternative models are considered: PMG (Pooled Mean Group), MG (Mean Group) and DFE (Dynamic Fixed Effect) models. An appropriate model is chosen based on a series of Hausman tests

Observations

The PMG models support statistically significant positive long-run relationships between each of the alternative credit market development indicators and credit market regulations. No such statistically significant positive relationship can be found in the MG models. The DFE model supports these PMG model findings in all the cases excepting the credit market variable, bank credit (DCBY),where the observed positive relationship is not statistically significant.

What about short-term relationship? It is by and large non-existent (negative but not statistically significant). Only for the credit market variable, private sector cred-

it (DCPVTY), the short-term relationship is found to be negative and statistically significant in both PMG and MG models.

3. SUMMARY AND CONCLUSIONS

The paper uses recently created datasets measuring legal change over time in a sample of 15 emerging economies to test whether the credit market regulations during the 1990s and 2000s promoted financial development in those countries. It considers three alternative dynamic panel data models. One is dynamic fixed effect model (DFE) that assumes that the sample of countries is identical in all respects excepting the initial condition. The other extreme is mean group model (MG) that assumes that the sample of countries is different in all respects requiring estimate of separate equation for each country and calculation of the mean of the estimates to get the over-all picture. The intermediate alternative is pooled mean group model (PMG) that assumes that the countries differ in terms of initial conditions (time-invariant factors), short-term relationships and the short-term adjustment processes but there exists an identical long-run relationship among the variables under consideration.

Theoretically the PMG model seems to be more appealing. In a panel data model, it makes sense to derive a long-term fundamental relationship that comes out of the varieties of time-variant factors influencing short-term adjustment process and time-invariant history and initial conditions. A PMG model allows for country-wise difference in short-term adjustment process and the time-invariant country heterogeneity. So, the following conclusion can be drawn from the PMG estimates: credit market regulations promote long-term credit market development, although in the short run this favourable effect may not be observable.

It can be argued that the increased protection of creditors encourages the creditors to extend more credit leading to a credit market expansion (supply-side argument). But the counter argument comes from the demand side: more regulation discourages the potential debtors leading to an actual contraction of the credit market (demand-side argument). Perhaps the demand-side factors dominate in the short-run leading to a finding of negative relationship while the supply side factors dominate in the long-run to exhibit a positive impact.

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Covid-19 and Online Education--Searching the Ground-Level Reality in Higher Educational Institutions of Rural West Bengal: An Econometric Analysis

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Abstract

The prolonged pandemic of COVID-19 did hit each and every sector of the world very hard, main the education sector. The sector that used to follow the chalk and talk methodologies, suddenly had to shift its practices to online teaching. Although this was not an easy task for all communities associated with it but gradually but surely all the related communities have been adjusting themselves with the practices of online education. Maybe it is a forced change, one thing is certain, we cannot avoid it, at least, as long as COVID is in existence or it comes back in different waves every now and then. But there are certain advantages and disadvantages of such practices and certain influencing factors which have an impact over the willingness of students' in attending online classes. Such factors have been discussed here by the help of an econometric analysis based on primary data on students' views of degree colleges in rural parts of West Bengal. We have found students have been adjusting very well with the present situation but duration of classes, quality of teaching, internet connectivity, etc. are the few areas which need to be taken care of for further improvement in the online teaching practices.

Key Words: COVID-19, Online Education, Students Views, Colleges of Rural Areas

Jel Code: A11, A14,A20,D18

1. Introduction

A strange disease named Novel Coronavirus (COVID-19) started being heard of since the end of 2019. Although the disease first started in China's Wuhan province, the disease gradually spread to other European countries and eventually all over the world, and within 15 to 20 days of being transmitted with the virus, the final decision in a patient's life is made - which is even more frightening. Rates of mortality and infection continued to rise very fast, causing worry for the physicians

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and politicians around the world. Regardless of financial condition, caste, region, condition of weather, etc., this disease continued to spread all over the world and its dire consequences continued to increase our anxiety. News of the horrific deaths of many people in China, Italy, UK and USA had sent shockwaves around the world, spreading across the continent. Even the developed nations with best of the health infrastructures were suffering the most with very high death rates which was even more alarming for the rest of the world, especially for the developing poor economies of Asia, Africa and Latin America. It is unknown at this time whether there has been a pandemic of this horrible magnitude before in the history of mankind. History shows that in every 100 years, there have been epidemics and pandemics in the world. The Spanish flu of 1918–19 would have wiped out a large area in a matter of moments, but it is doubtful whether the disease had taken such a huge and terrible form. The coronavirus is therefore more dangerous than all previous epidemics because its prevalence has been all over the world and countless people have been dying from this disease every day. The inability to find the right medicine and the frequent changes in the character of this virus and its various waves seem to have brought the human civilisation into a state of uncertainty.

The first case of coronavirus was detected in India in late January 2020, and the disease gradually spread across India throughout the months of February and March. The first possible way to get rid of this disease was to shut down the entire economy. It was thought that the disease could be cured by enforcing lockdowns and preventing social interactions. The developed countries of the world, including the whole of Europe and America, were walking in that path and were able to prevent the spread of the disease to some extent. In India too, lockdowns were taking place in various states during February and early March 2020. Government of West Bengal also decided close educational institutions in West Bengal from March 16, 2020 and of course a few days later a nationwide lockdown was announced in India. The decision of closing of the educational institutions which started on March 16, 2020, is still going on today. In other words, the doors of educational institutions have not been opened for the students even today by the government order. However, the decision of the nationwide lockdown has been gradually unveiled by the unlock system. Although some states reopened educational institutions, they were forced to close down in the coming days, within few days, due to the increasing number of the disease.

The main question which began to be discussed when the nation-wide lockdown got implemented was - what is going to be the fate of the education system and its institutions now? And above all, how is teaching-learning going to take place in the

uncertain, gloomy future? At first, it was thought that this lockdown might go on for two or three weeks and everything would get back to normalcy. But as we all know, nothing like that happened. The number of coronavirus patients increased day by day and along with that increased the duration of lockdown as well. As the lockdown continued, the question of students' future also began gaining momentum – Are we going to see the loss of an academic year from the precious as well as vital academic lives of the students? Should the examinations be halted for an uncertain as well as indefinite period? As the lockdown continued along with the academic year, there was uncertainty about the completion of the remaining syllabus as there was a lockdown.[2] However, in this age of globalisation, we are not lagging behind rest of the world and we can get the news of other countries within a moment. On the background of these uncertainties online teaching-learning began to take the dominant medium of education and it is still being practiced, at present, for its various facilities. Online mode of learning, by the active help of various platforms, appeared to be appropriate during that period for the sake of the academic careers of the students. But everything looked very easy in developed economies which raised several issues for developing economies. These issues were regarding the success of online education in developing economies like India, in a dual economy from several respects – beginning from financial ability to the digital divide in the form of affordability as well as infrastructural availability. Few parts or cities are good enough for running online teaching – learning but not all parts – which is a hard reality. Categories of students also differ from one place to another. How much the different segments of students as well as teachers would be able to cope up with the changes – were the issues that caught attention. In the nation with such huge diversities in every respect, the possible modes of deliberation of lectures; continuation of such lectures on a regular basis and distribution of related study-notes, continuation of bonding between teachers and students, capability of the students to get habituated with the online mode, financial ability to continue the teaching-learning – all these issues became important. Which issues are going to have an impact over students' decision in joining online medium or have an impact over their willingness – these are the relevant aspects that this study wants to investigate. But for the sake of inclusiveness of development, this study focussed on the students of higher education institutions of Rural parts of West Bengal. The reason for choosing rural parts is not only filling up the existing lacuna in the literature but also studying how far the general belief that the rural parts did not do well in online medium during

2. Even the policy setting bodies, including the UGC, in every state as well as in the nation changed their proposed dates of examinations along with the mode of examination and its syllabus on several occasions.

pandemic, actually holds in reality. Which factors are regarded important by rural students and how far these are significant or not.

The online mode of teaching – learning began from the mid of April in 2020 and continued till mid of November in 2021 when higher educational institutions were opened but only for few days with several guidelines of social distancing and again a lockdown of educational institutions were put in place in January 2022 for Omicron variant Hence, overall one can see that online teaching – learning – examination continued for over 21 months in West Bengal and rural institutions did not stay behind. All the stakeholders also joined hand-in-hand in this process and performed very well. But the gloomy questions of the online mode – such as the one of success rate, quality of teaching – learning, regularity of attendance from students, availability of study notes on a regular basis, performance of libraries in providing the students with necessary e-books, biasness of students for preferring online open-book examinations even if not preferring online regular classes – all these relevant as well as highly important question kept hovering for these long periods. But one thing is correct – the teaching – learning – examination continued in spite of several problems and academic years were not lost.

As the process of lock down took charge worldwide, the first sector it had put to an uncertain future was the education sector. Apart from closing down of institutions, the prime questions that came up were regarding continuation of study, finishing of syllabi and conduct of examinations. Future of education sector, especially that of millions of students were at stake. But only a few weeks gap led the way to the beginning of online classes by the help of various electronic mediums. Various nations, various regions started to take help of multiple mediums to continue the activities of this sector. This could be telephonic classes, this could be video classes, this could be video or audio lectures uploaded to another medium and so on but the important thing is an alternative was found which was readily accepted by all (both teachers and students) despite of having several questions associated it. This pandemic indicated the fact that activities of education sector, as a whole, need a well framed plan for running its functions during this pandemic (Chatterjee, 2023). We need to save the students, their futures along with performing our social duties. So, it is a situation that asks for humanity mixed with unity.

Several arguments have been put forward in favour of and against of online mode of education. Most important are the ones that deal with flexibility, affordability, pedagogy of learning, etc. It is generally argued that online mode of teaching is very flexible and therefore serves as a remedy to the time constraint. Both teachers and

students can meet online as per their conveniences, going beyond the boundary of official college hours and list of holidays. Being cost-effective it can reach out to the remotest part of any region and can be accessible by even the poor ones. Such facilities have helped, to a great extent, in continuation of teaching-learning practices during lock down even in the distant parts of nations, especially in developing nations like India. As far teaching pedagogy goes, online mode introduces the concepts of e-learning, flipped classroom and blended learning, technology based educational platforms, etc. Audio-visual methodologies and e-study materials have brought in a great deal of flexibility to both the teachers as well as to the students. But, along with such facilitative dynamism, the online teaching has been accused of few problems as well that come up as a challenge to all of us. But, if such challenges can be overcome, it brings enormous opportunities to the teaching fraternity, as far as using the advantages of online methods are concerned.

The general perception is that the online teaching mode succeeded in urban areas for various facilities but did not do well in rural areas because of several factors – the view point and reality of such beliefs have to go under reality-check. How far such factors have been influential in the rural parts of West Bengal, in case of higher education institutes, has hardly been discussed by incorporating econometric analysis. This study looks to do that based on the ground-level survey of two under graduate degree colleges of rural parts of West Bengal. Rest of the paper is organised as follows. Section 2 will be used for discussing about existing works in this field of study. Section 3 will be focussing on data and methodology used in our study. Section 4 will analyse the econometric findings of our study and finally concluding remarks along with policy recommendations will be made in Section 5.

2. Literature Review

If we look in the field of literature, we would see that there are quite a few works regarding online education. Here, we shall mention few of them briefly. Dhawan (2020a) has explained how this ongoing pandemic has affected the education sector. This paper has explained the strengths, weaknesses, opportunities and challenges of online education and what prescribed about possible policies to overcome such challenges. This paper has also thrown a light on the new technology based online educational start-ups that have begun to become popular and have grown strongly due to this pandemic. A survey of 145 urban and 67 rural teachers from both government and private schools shows that there is a notable gap between urban and rural areas as well as government aided and private schools in the context of accessing basic E-learning tools like electricity, data and computer access

(Singh, Satyavada, Goel, Sarangapani, & Jayendran, 2020). Digital literacy for both teachers and students are the most important activity for government to improve the quality of online teaching (Dhawan, 2020b). If online education is not concerned about huge digital divide, then it will be excluded the socioeconomically backward students from learning opportunities (Bheemeshwar Reddy, Jose, & Vaidehi, 2020).

The students who can complete their work without close supervision are perfect for online education – reported by Picciano (2017) as well as by Wang, Pi, and Hu (2019). Around 84% teachers were facing problem in delivering online education because of internet connectivity and around 27 cr. students were affected by the school closure (Oxfam, 2020). A survey of 200 respondents from 45 countries conducted by the education think tank 'Times Higher Education' in 2018 shows that 63% forecast that by 2030 the most esteemed universities will be offering their course in full online mode. But only 24% state that online learning would be more popular than traditional offline learning (Ross, 2018).

From the survey of 358 students, 65.9% said that traditional education is better than online education. But 77.95% students felt that online education is more relevant in this situation. In the case of online teaching skill, 68.1% students said that the teachers have improved themselves compared to the beginning. And they have also acknowledged the online education teaching methods. This study indicates that the online education is affecting the health and social life (Chakraborty, Mittal, Gupta, Yadav, & Arora, 2020).

From a survey of 548 students, traditional learning (401) and online learning (147) students of environmental science revealed that there was no significance performance difference in between face-to-face learning and online learning as well as in gender and class rank aspects. The survey also implies that the students may allow to enrol in online courses rather than taking admission to degree programmes in the case of scientific learning (Paul & Jefferson, 2019).

A case study from the Peking University shows five important principles for effective online education: (1) there should be a link between teaching content and academic readiness; (2) teachers should control their teaching speed for effectively delivering the teaching information; (3) teachers should support the students time to time by video tutorial, email guidance, etc.; (4) it is important to take some effective measures for increasing online classroom participation; and (5) there must be some plan to overcome the problems of online platform traffic overload (Bao, 2020). A descriptive study for the students of Higher education for preference for higher

education was done by Chatterjee in 2023 along with the focus on guidance for the success of online mode of learning.

3. Data and Methodology

This study is based on the primary data that has been collected from 1000 undergraduate students of four higher education institutions in rural Bengal. As Google forms were used for the purpose of data collection, one can say that the randomness of survey was maintained. The survey was conducted in April 2022, when we got back to the normalcy of offline education but it was conducted on those students who had attended the online teaching-learning process during long 21-month period of pandemic. Our prime question of survey was if a student liked online classes? Or, was a student willing in joining the online classes during the pandemic period? We also asked several socio-economic questions for the purpose of analysis or the behaviour of students. But the prime question was binary in form – because its reply had only two answers – 'YES' or 'NO'. The focus question which is also the dependent variable (Y) was given the value of '1' for a 'YES' and the value of '0' for the reply of a 'NO' - this coding process enabled us to go for applying logistic regression analysis. Hence, the binary dependent variable is logit of Y – which implies that online classes have to have a positive effect on the utility levels of the students – only then a 'YES' is expected.

For the sake of estimating the willingness of the respondents or students, the logit model with following variables have been used.[3]

Dependent Variable:

Where P_i represents the probability of willingness to say "YES" to attend or like online classes. So, it represents the probability of Y=1. Hence, (1- Pi) is the non-willingness.

is the log-odds ratio.[4] (Chatterjee, 2014, Chatterjee 2019a, Chatterjee, 2019b, Chatterjee, 2022)

Following independent variables have been used in the the present study.

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3. Many of the variables, both quantitative as well as qualitative, have been used in the study have been chosen by following the existing set of literature on online classes, apart from the expectation of having an impact on online classes.
4. It is to be noted that as P_i increases the log-odds ratio increases.

Table-1 Independent Variables Used in the Study

Financial Condition	Monthly income of the student's family
Gender	*.Dummy Variable* .Males – 0, Females – 1
Caste	*.Dummy* Variable .General Caste – 0, OBC – 1, SC – 2, ST – 3
Regular Hours of online Classes	*.Dummy Variable* Less than 3 hours of regular class – 0 hours of regular class – 1 3-5 More than 5 hours of regular class – 2
Teaching standard	*.Dummy Variable* Excellent - 0 Good – 1 Medium - 2 Bad – 3
Internet	*.Dummy Variable* Not an Issue – 0 Is an issue - 1
Cost	*.Dummy Variable* Not cost-minimizing – 0 Yes / cost-minimizing - 1

The socio-economic aspects along with teaching – learning related variables have been included because they are expected to exert influence over the success or failure of the online teaching – learning mode (Chatterjee 2023a, Chatterjee 2023b).

4. Results & Discussion

Out of 1000 responses, 651students preferred online classes and 349 did not enjoy the mode. One can refer to these 349 students as "protest respondents". There may be several influencing factors behind one's choice of liking or disliking online system, although all of them attend online classes. We cannot omit the protesting ones because they were also part of the system, even if it was forceful because of surrounding conditions. The results of the estimated logit model are stated in the following table.

Table 2 Results of the Logit model for Online Classes

Variable	Coefficient	Marginal Effects (dY/dX)
Financial Condition	0.000033 (0.81)	0.0000221 (0.38)
Gender	0.000221 (0.41)	0.000801 (0.61)
Caste	0.227487 (0.54)	0.003214 (0.74)
Regular Hours of online Classes	−0.034225*** (3.01)	−0.062201*** (2.97)
Teaching standard	−0.220148*** (−7.12)	−0.410097*** (−4.15)
Internet	−0.221850*** (4.02)	−0.345878*** (4.27)
Cost	0.358970** (3.13)	0.000412** (3.02)
Constant	5.214807*** (5.27)	

Log-likelihood	181.2104	The values in the parentheses for both coefficient and marginal effects are the t-values.
LR chi-square	241.0123	
Prob > chi-square	0.000	
Pseudo R^2	0.6945	
Total no. of observations	1000	
*** denotes significant at 1 % levels		
** denotes significance at 5 % levels		

Source: Computed by the author

The Table 2 gives us meaningful outcomes. Not all our variables are significant but even the insignificant ones have meaningful outcomes – when considered in the respect of online classes.

Financial condition, caste, gender – these three variables are insignificant which implies the fact that online mode was a forceful imposition because of pandemic and its corresponding lock down and people across all parts of the society became habituated with it – going beyond financial ability, caste and gender. This was due to the fact that online was the only medium of continuation of academics during the period and no one had any alternative choice but to accept it if he or she wanted to continue education. Even the poor families could bear the cost of online mode for the well being of children.

The standard of teaching was a vital issue, as it has always been even in case of offline mode. Responses show that as the standard of delivery from the ends of the teachers fell, the willingness to attend online classes also decreased. This can be said about the duration of classes also on a regular basis. If a student had to attend online classes around 3-4 hours a day, then his or her willingness fell. So, number of hours on a regular basis was inversely related with willingness to attend. Students believed that the system of online classes was cost effective and had positive significant impact on willingness. As the daily cost of attending offline classes was saved and study notes were all supplied by teachers or acquired by students themselves by e-platforms, the online mode was indeed cost-saving from several grounds.

Hence, preferring online classes was a reality and beneficial for all sections of population. Internet connectivity, as expected, having a negative sign which implies the fact that internet connectivity was an issue which is expected because poor connectivity did result in the lack of willingness of joining. This was harmful for the success. In a developing economy like India, it is a common phenomenon but it is expected to improve over time. Our estimated logit model has the prediction power of over 69% and for a cross-section study such a high value of R- square is considered to be representative of a well fitted model. We have also estimated the marginal effects of all the variables which show the partial effect of each variable for the percentage change in that variable, on the dependent variable, when keeping rest of the variables unchanged.

Most of our variables are significant at either 1% level or 5% level. Mean variance inflationary factor (VIF) of our model is 1.01 which shows the problem of influence of one dependent variable on another, that is, multicollinearity is not causing any problem.

4. Conclusion

Online classes became the common practice in every parts of the world and it is very much possible that its facilities will make it a continuous as well as long-run phenomenon, for the sake of increasing enrolment in higher education in India in a cost saving way as well as during every possible pandemic or even recurrence of new variants of COVID. Even if the number of COVID cases have gone down in every parts of the world, even if all the educational institutions have opened up, online classes have not lost its importance, in fact, it has been newly accepted, popularised in the form of blended learning, virtual classrooms and so on for the sake of making teaching-learning more attractive and acceptable for all. The time flexibility coupled with cost-saving aspects of this form of education are so enjoyable as well as liked by one and all that it is going to be impossible for the society to come out of it any sooner. National Education Policy 2020 in India has given immense importance to online education and this phenomenon is only going to increase. But the study based on primary data of rural areas suggests that we need to look after few factors which may become crucial in increasing the attendance of such classes, from the students' point of view. Firstly, the standard of teaching should be good enough for bringing the students to the classroom – even if it is a virtual one. has to be good, secondly, there should be fixed routine where duration of regular classes has to be of short-spells both for keeping students interested in attending classes as well as for expenditure on internet. The infrastructure related with internet facilities

has to be sound and it should keep getting better for all round success of online education across the nation – in every part.

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Invited Lecture delivered at Kalimpong College, West Bengal

Women Empowerment as a Path to Future Development: The India Story

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Abstract

India Ahead, India Together and an Inclusive India' should be the motto of pres-' ent day with women-led development. An exciting vista is opening up in front of women and women are playing their role in building this great nation. Women- led development holds the potential to create positive outcomes across multiple sectors. In a sense, the achievement of the targets under Sustainable Development Goal 5: 'Gender Equality', also facilitates the realization of other SDGs and, thus, ensures .multi-pronged holistic development

In this context, the paper explores and answer the question: Why empowering ?women ought to be the sunlit path to future India development

Key words: BPL, West minister model, Women empowerment,

Jel Code: D63, F63, H55, I15, I25, I31

India has changed more in last six decades than in six previous centuries. This is neither accidental nor providential; history shifts its space when touched by vision.

--------*Pranab Mukherjee, the 13th President of India on25January* 2013.

'Brothers and Sisters, we are living in 21st century. Has it ever painted us that our mothers and sisters have to defecate in open? Whether dignity of women is not our collective responsibility? The poor womenfolk of the village wait for the night; until darkness descends, they can't go out to defecate. What bodily torture they must be feeling, how many diseases that act might endanger, Can't we just make arrangements for toilets for the dignity of our mothers and sisters?. . . The poor need

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respect and it begins with cleanliness. I, therefore, launched "clean India" campaign from 2nd October this year and carry it forward in 4 years.'

Honorable PM Narendra Modi in his speech to the nation on Independence Day 2014

INTRODUCTION

After Independence, India adopted the Westminster model of parliamentary democracy for the country and as well as its constituent provinces, called 'states'. In 1947, women were still deprived of universal and equal voting rights in many developed countries such as Belgium, Canada, Switzerland and the US. From the first general election in 1951-1952, India gave full voting rights to women and launched a new experiment in the world. Besides she has been able to sustain democratic governments in a continued way. This is not a small achievement. But that does not mean that India and the Indians have progressed tremendously.

The **happy but not so good mirror** is that India and the Indians have made progress in more than 75 years after Independence. Per capita income at constant prices has increased more than 7 –fold between 1950-61 and 2022-23. Electricity consumption is up more than 60 times from less than 20 kWh in 1255 to 1255kWh in 2021-22. The road network has gone up from about 0.4 million kms in 1950-51 to 6.33 million kms in as of 1st December,2022 India being the second-largest road network in the world. The number of literates has gone up. Indians' life expectancy at birth has gone up from 41.4 years in 1964 to 67.24 years in 2021. The proportion of people BPL has halved. TFR has dropped.

But this happy mirror will soon fade out when India is compared with that of the East Asian Tigers and China. It looks good but not good enough. India looks far from the glory it seeks. In terms of women empowerment, over the years, we have achieved so much to be justifiably proud of. However, it's also true that millions of women of our country are yet to reach the potential that they are capable of.

Table 1 shows a somewhat a good picture about women empowerment in the rural Indian context. Table also shows that women empowerment has also gained momentum, with visible progress in female participation in household decision-making, owning bank accounts, and use of mobile phones.

Table 1: Quality of Rural Lives – Findings from the National Family Health Survey

	For Rural Areas	NFHS4 (2015-16)	NFHS5 (2019-21)
Women Empowerment	Currently married women who usually participate in three household decisions (per cent)	83.0	87.7
	Women who worked in the last 12 months and were paid in cash (per cent)	25.4	25.6
	Women owning a house and/or land (alone or jointly with others) (per cent)	40.1	25.6
	Women having a bank or savings account that they themselves use (per cent)	48.5	77.4
	Women having a mobile phone that they themselves use (per cent)	36.9	46.6
	Women who have ever used the internet (per cent)	NA	24.6
	Women age 20-24 years married before (age 18 years (per cent	31.5	27.0

Source: National Family Health Surveys (NFHS) 2015-16 and 2019-21, MoHFW

Historically, women have had to fight an uphill battle for their rights and recognition, across the globe, and especially so in our country. But now things are changing rapidly and generations of brave and talented women are forging ahead on the road to equality with vision, talent, courage and hard work. We need our women to be creators, entrepreneurs, achievers and leaders of the caravan, also moulders and builders of new India.

It is true that whenever woman gets an opportunity, they can make India proud and further strengthen it.' Take, for example, the Olympics held in Tokyo in 2021; P.V. Sindhu, Saikhom Mirabai Chanu and Lovlina Borgohain made India proud by winning medals at the Olympics. Though the Indian hockey team narrowly missed the bronze medal, they made a mark in world women's hockey with their gritty

performance. Nowadays, women work in coal mines, fly fighter planes and there is no area that is beyond their reach.

The Dark Mirror: The World Economic Forum's (WEF) 2017 Global Gender Gap Report confirms the growing precarious conditions facing Indian women, especially those employed by the country's women's workforce. The four elements are examined in the report: political empowerment, health status, educational attainment, and economic engagement. India is ranked in the lower part of the Table for three of the four indicators. For instance, India came in at number 139 out of 144 countries for the economic empowerment of women and number 141 out of 144 for health and survival. Even in terms of educational attainment, which the government has hailed as a significant accomplishment, the nation came in at number 112 out of 144. Political empowerment was the only metric in the top-20 where it was ranked high. Because of this, the overall position of India improved slightly, but the country still ranked a poor amongst 144 countries as far as gender was concerned (*World Economic Forum* 2017).

INDIA STORY IN MORE DETAIL

The Constitution of India guarantees equality of sexes and grants special power through different provisions. Apart from the Constitutional provisions there are plethora of laws to protect the interest of the women (p171). The Indian Penal Code deals with the crime against women under different heads, exhaustively, like Rape (Section 37,376,376A, 376B, 376C and 576D IPC), kidnapping and abduction for different purposes.

The government   does not stop its efforts to   alleviate the conditions of women only by making provisions under IPC, but some important special laws have been enacted like Protection of Women from Domestic Violence Act, 2005.

Some important international conventions were made for the protection of women against crime like CEDAW (Convention on Elimination of All FORMS of Discrimination against Women).

Despite all these earnest efforts at national and international level, there were hardly any change in the attitude of people and incidence of criminal offences against women. Indeed, of late, in India it has increased its dimensions and has attained new heights.

Despite all legislative efforts, the result is alarming. The latest National Crime Reports Bureau (NCRB)report vociferously articulates that a significant proportion of crimes against women under the IPC involved 'Cruelty by Husband or His

Relatives'. The NCRB report detailed a substantial escalation in reported crimes against women. The crime rate per lakh women population rose to 66.4 in 2022 from 64.5 in 2021.Uttar Pradesh registered the highest number of 65,743 cases of crimes against women under IPC and Special and Local Laws (SLL), Maharashtra recorded 45,331 cases, and Rajasthan reported 45,058 cases, each with varying charge sheet rates. In what follows there is an urgent need for comprehensive strategies to address the alarming increase in crimes against vulnerable demographics across the nation.

Employment Trend: A Paint of Depressing Picture of Employment Prospects for Women

There has been a declining trend in female labour force participation rates (FLFPR) since the 1980s due to changes in the overall macroeconomic policy regime from the dirigiste to the neo-liberalization. The structural changes brought about in the latter era have led to a significant decline in the female employment, and contributed to the already overwhelming informality which have impacted the world of women's work even more adversely. FLFPR had declined from 23.7% in 1993-94 to 18.1 % in 2011-12 for the rural areas and it had been stagnant at around 13-14% in the urban areas during the same period. The data suggests that women are highly concentrated and overrepresented in casual work and unpaid self-employment (Papola 2013). Thus, despite the recognition of gender equality in law, the progress towards gender equality as outcomes in the labour market remains quite insignificant. Besides, there exists a whole range of dense, diverse and often overlapping categories of exclusions of women, particularly from the marginalized groups, from just condition of work.

Need for Universal Social Protection

Public intervention and policies towards facilitating decent work, social security provisions, etc., have seen marked shifts, in general, in the neo-liberal era. In fact, apart from disparity between men and women's ability to bargain for their choice of work outside home, women, because of the intricate connections between patriarchy, caste, and class. , are usually found working in unfair conditions. For example, in India, about 93% of the women workers work under conditions of informality without any social protection. The ILO flagship report on World Social Protection (2017) illustrates that only 28% of the world's population receives social protection. The underfunding of social sectors, particularly in Asian, African, and Arab nations, is one of the causes of this under-protection.

Only Convention 118 has been ratified by India in order to provide maternity benefits, which are estimated to cover 41% of mothers. However, just 19% of the nation's population is generally covered by at least one social safety program. In addition, governmental spending on social security continued to represent a pitiful 0.53% of total spending and 0.07% of GDP (Center of Budget Governance and .(Accountability 2018

What the Experts Say about empowerment?

In 1994, for example, Srilatha Batliwala considered empowerment as 'the process of challenging existing power relations and of gaining greater control over the sources of power' (1994: 130). Thus, while acknowledging the need to improve the lives of grassroots women, Batliwala insists that women's empowerment requires transformative political action as well.

Like Batliwala, Naila Kabeer (1994) emphasizes collective, grass roots participatory action--- *power to work with others* 'to control resources, determine agendas and to make decisions.

Kabeer (1994: 229). More concerned with action than theory, she continues to explore practical, measurable way to empower women (Kabeer, 1999).

In 1994, for instance, Srilatha Batliwala defined empowerment as "the process of gaining greater control over the sources of power and of challenging existing power relations" (1994: 130). Therefore, Batliwala maintains that in addition to improving the lives of women at the grassroots level, women's empowerment necessitates revolutionary political activity.

Like Batliwala, Naila Kabeer (1994) places a strong emphasis on grassroots, collective participatory action—the ability to collaborate with others "to control resources, determine agendas, and to make decisions" (Kabeer (1994: 229). She continues to look for doable, practical ways to empower women because she is more interested in practice than in theory (Kabeer, 1999).

Applying a more comprehensive analytical framework to the study of gender and empowerment, Jo Rowlands (1997) contends that empowerment is personal, relational, as well as collective.

Bringing a broader analytical perspective to the analysis of gender and empowerment, Jo Rowlands (1997) argues that' empowerment is more than participation in decision-making; it is personal, relational and social process that goes beyond involvement in decision-making. She understands that empowerment is a develop-

ment issue that affects both men and women, not only a gender issue. She continues to believe that rallying marginalized people—especially women—are the route to empowerment. She does, however, provide a warning because empowerment is a process rather than a finished good that is difficult to quantify or describe. Additionally, she thinks that improvements in self-esteem and confidence are at the heart of the empowerment process (1997: 129-30).

WHY IS IT DESIRABLE THAT WOMEN SHOULD BE EMPOWERED?

There are several reasons, but the most compelling are moral, biological, economic and legal. Women have been discriminated against for thousands of years. Society now has the knowledge and the moral responsibility to reverse those historical wrongs. Women bring human life to our planet and nurture that life to become productive members of the society. This is a powerful reason by itself. On a fundamental level, women form almost half the world population and should, therefore, be contributing proportionally to the worlds' economic well-being.

INDIA'S NARI SHAKTI VOLLEYED AND THUNDERED

We should invoke the indomitable spirit of Nari Shakti by reaffirming how India fully endorsed the United Nations in its 'think equal, build smart, innovate for change' motto with regard to women empowerment.

India is now determined to provide equal opportunities for self-employment and employment to women. Today, women work in coal mines, fly fighter planes and there is no area that is beyond their reach.

In the present day, it is a matter of pride that Indian women have been granted permanent commission in all branches of the Armed Forces and have been inducted as fighter pilots in both the Navy and Air Force. In May 2021, the Army inducted the first batch of women into the Corps of Military Police, thus enabling women to serve in combat positions. On Independence Day 2021, the Prime Minister also said that girls would now be given entry into **Sainik schools** across the country.

It is a matter of great pride that our women are in the forefront of science and technology. The recent Chandrayaan-2 mission was a case of women-led development, as it was headed by two of our eminent space scientists, Muthyya Vanitha as project director and Ritu Karidhal as mission director. This marked a first for the Indian Space Research Organization (ISRO). 30 per cent of the Chandrayaan-2 team was constituted by women. On the morning of 31 August 2021, Justices Hima Kohli, B.V. Nagarathna and Bela Trivedi were sworn in as Supreme Court judges, marking a first in Indian history that three women judges were elevated to the Su-

preme Court together. Further, it improves the likelihood that we may get the first female Chief Justice of India in upcoming years—from among these three legal icons. The appointment of the trio provided a major boost to the number of women judges at the Supreme Court. It was a celebration of female representation at the highest judicial body and also the highest court of India.

EDUCATION FOR THE GIRL CHILD

Education lays the foundation for the economic development of a nation by empowering people and creating a strong, skilled workforce. This is especially true when it is about educating the girl child, since education gives them the knowledge to make informed decisions, boosts their confidence and independence by providing skills to change their lives, helps them earn a living and support themselves. Education of the girl child also leads to a reduction in gender violence and is a stepping stone to ending gender-based discrimination and inequality.

There are several governmental schemes like Beti Bachao Beti Padhao, Sukanya Samriddhi Yojana, Swachh Bharat Mission, 2014 Mission Indradhanus etc. which are given Table 2 in respect of education, health and legislative efforts.

Table 2: New or Revamped Schemes during the present BJP–led NDA Government- For Education of Girl Child , Health Aspects & Women's Uplift And Legislations

Schemes	Outcomes
2014 Swachh Bharat Abhiyan (SBA)	This is an empowerment program which primarily benefits women. Launched on October 2, 2014.It is different from Nirmal Bharat Abhiyan(NBA).Unlike NBA, SBA covered both rural and urban areas. Under Swachh Vidyalaya Initiative, 4.17 lakh toilets (2.26 lakh boys' and 1.91 lakh girls' toilets) were constructed or made functional in 2.61 lakh elementary and secondary government schools. The **Swachh Bharat Mission** has resulted in 1,467,679 schools now having a functioning girls' toilet giving an impetus to the enrolment of girls. The Ministry of Human Resource Development has also sanctioned 5,930 Kasturba Gandhi Balika Vidyalayas, or residential schools for girls that gives a larger number of girls access to quality education.

2014 Pradhan Mantri Jan Dhan Yojana (PMJDY)	Jan Dhan Yojana–led intervention and digital transformation have revolutionized financial inclusion in the country as more than 500 crore people(of which 240 crore are women) have been brought into the formal banking system with cumulative deposits surpassing Rs. 2 lakh crore (*The Economic Times,25th April,2024*). Under PMJDY launched in August 2014 the total number of Jan Dhan accounts have crossed 50 crore as on August 9, 2023, nine years since the scheme was launched in August 2014, Of which 24 crore bank accounts have been opened for women, giving them financial independence and enabling them to access formal credit and other services of the banking system. The success of JDY was also witnessed during the lockdown when the government was able to swiftly transfer money into women's accounts under the Direct Benefit Transfer (DBT) Mission.
2015 Beti Bachao, Beti Padhao	Education and attack on girl foeticide—came in the form of the *Beti Bachao, Beti badhao*(BBBP).With consistent efforts by the Govt through programmes like BBBP the GPI(Gender Parity Index) has improved substantially at the primary and secondary levels of enrolment. BBBP scheme has been introduced for promoting survival, protection and education of girl child. It aims to address the issue of declining Child Sex Ratio (CSR) through a mass campaign targeted at changing social mind set and creating awareness about the criticality of the issue. The scheme with multi-sectoral District Action Plans as well as innovative social media initiatives like 'Selfie with Daughter' has shown positive results, with much progress in ensuring a transformational shift in the way society looks at the girl child.

2014-15 Sukanya Samriddhi Yojana	Launched as part of Beti Bachao Beti Padhao initiative, to facilitate the education of the girl child, has already reached out to more than three crore (30 million) aspirational young women.There are some signs of India doing better in removing the problem of missing women.
Pradhan Mantri MUDRA Yojana(PM-MY)	The Government has initiated the PMMY for development and refinancing activities relating to micro industrial units. The purpose of Micro Units Development and Refinance Agency (MUDRA) is to provide funding to the non-corporate small business sector. The Government set up the MUDRA Bank. Loans extended under the Pradhan Mantri Mudra Yojana (PMMY) during 2016- 17 have crossed the target of Rs.1.8 lakh crore. Of this amount, Rs.1.23 lakh crore was lent by banks while non-banking institutions lent about Rs.57,000 crore. In December 2017 total number of borrowers were 10.1 crore, out of which 7.6 crore were women. Number of borrowers were 10.1 crore, out of which 7.6 crore were women. About 70% of the beneficiaries are women, especially those belonging to the marginalized sections of the society. The scheme has helped in generating sixty-nine lakh (6.9 million) additional employment positions for women from 2015 to 2018
2016 Stand -Up India	This was launched on 5th April 2016 to boost entrepreneurship among women and SC & ST communities and as of early March2021, 81% of its beneficiaries were women. Flagship schemes--let it be JanDhan (Financial Inclusion scheme) or MUDRA or the Awas Yojana— there is the overwhelming participation of women. This has secured socio-economic dignity, providing women with a strong foundation to make their own destiny.

2016 Mahila E-Haat	For economic empowerment of women through promoting the spirit of creating self-employment ventures, Mahila E-Haat, an initiative for meeting aspirations and needs of women entrepreneurs has been launched with the objective to provide an e-marketing platform by leveraging technology for showcasing product made/manufactured/sold by women entrepreneurs/SHGs/N The portal provides a direct marketing opportunity, leveraging technology to support the aspirations and needs of women. Women could register their mobile numbers, upload their products, and connect with buyers through various means
The Constitution (Eighty-sixth Amendment) Act, 2002,	This had resulted in the addition of Article 21A to the Constitution of India to provide free and compulsory education of all children in the age group of six to fourteen years as a Fundamental Right. It has been over a decade now since the Right to Education (RTE) Act came into being, and there has been significant progress. As per the Annual Status of Education Report (ASER) Survey, the percentage of girls out of school between the ages of eleven and fourteen years has shown a steady decline from 10.3 in 2006 to 4.1 in 2018 and falling further even in a pandemic year to 3.9 per cent in 2021. The same holds true for the girls of ages fifteen to sixteen years, with the out-of-school percentage falling from 20 per cent in 2008 to 13.5 per cent in 2018, and further to 7.1 per cent in 2021. The ASER Survey 2020 also shows a rise in girls' enrolment in government schools—with the percentage rising from 70 per cent in 2018 to 73 per cent in 2020[6]. The National Education Policy, 2020, now proposes to increase the ambit of the RTE Act for children from three to eighteen years of age.

For Health and Well Being of Women	
The 2013 Companies Act	The 2013 Companies Act made it compulsory for all publicly listed firms in India to have at least one female director. In the past five years, the median number of women on Indian boards doubled, and this increase in diversity has not been restricted only to corporate India. After the recent Cabinet reshuffle in the country, there are eleven women ministers in the present government.
2014 Mission Indradhanus	Launched in December 2014 to ensure full immunization for pregnant women and children upto 2 years of age with all available vaccines. and has set a new paradigm in preventive healthcare. All these decisive steps and investments in women's health are improving access to healthcare for Indian women.
Ayusman Mahila	Over 111 million sanitary pads delivered to poor women, from more than 8,578 Janaushadhi Kendras (as of mid-December 2021) at just Rs. 1 each. Besides, **Ayushman Mahila** was launched to encourage women, especially from rural areas, to come forward for screening of diseases such as cancer. This will help in early diagnosis and contribute to reducing morbidity and mortality from NCDs. With the creation of Health and Wellness Centres across the country, over 14.8 crore (148 million) women have benefitted from this initiative.
2016 Pradhan Mantri Ujjwala Yojana 2.0 **(Swachh Indhan Behtar Jeevan)**	Many decaded-ignored issues came into being. The **Ujjwala Yojana** has ensured clean fuel and clean air within homes, thereby, enabling women to work without the fear of developing respiratory and other illnesses.

2016 Pradhan Mantri Surakshit Abhiyan Matritva Yojana	To reach out to all Pregnant Women who are in the 2nd & 3rd Trimesters of pregnancy & making safe pregnancy a mass movement, the Pradhan Mantri Surakshit Matritva Abhiyan has ensured safe and healthy antenatal care with private doctor services for free check-ups each month. This allows early detection of issues and risks relating to pregnancy. Over 3.02 crore (30.2 million) antenatal check-ups have been conducted at healthcare facilities across the country with the identification and treatment of 25.46 lakh (2.546 million) high-risk pregnancies, as of early December 2021. These initiatives have resulted in the Maternal Mortality Rate (MMR) falling from 167 per 100,000 live births in 2011-2013 to 113 per 100,000 live births in 2016-18.
2017 **Pradhan Mantri Matru Vandana**	A direct benefit transfer (DBT) scheme for pregnant women and lactating mothers supported them in meeting their enhanced nutritional needs. In FY20, the scheme achieved a momentous milestone by benefiting one crore (10 million) women. Multiple supplementary nutrition programmes under the Poshan Abhiyan (Nutrition Campaign) were merged, and Poshan Abhiyaan 2.0 was launched to strengthen nutritional delivery.
Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA),2005	One of the important schemes which ensures participation by women in the economic activity by stipulating minimum 33 per cent participation by women. , the scheme has been converged with ICDS scheme for construction of AWCs.

Maternity Bene-fit(Amendment) Act, 2017	The newly-passed **labour laws** include provisions that enable female employees to work in various kinds of roles and also in night shifts with adequate protection. Equal wages to women have also been guaranteed under the La-bour Code on Wages. In a major step that enabled women to find a proper work-life balance, **the Maternity Benefits Act** was amended to raise fully paid maternity leave from twelve weeks to twenty-six weeks for women working in the organized sector, thus enabling them to recuperate fully before coining back to work
2018 Ayushman Bharat- Pradhan Man-tri Jan Arogya Yojana (AB-PMJAY	This flagship health protection scheme was launched in September 2018, AB-PMJAY is expected to help reduce expenditure on hospitalizations. The scheme has taken the country closer to Sustainable Development Goal 3.8, which envisions universal health coverage.
Medical Termina-tion of Pregnancy Act (Amendment) Bill, 2020	The rights of pregnant women have also been expand-ed with Medical Termination of Pregnancy Act (Amend-ment) Bill, 2020, raising the upper limit for abortion to twenty-four weeks for particular categories of women. By allowing abortion up to twenty-four weeks of gestational age for vulnerable categories of women and with no limit of gestational age in case of pregnancies with substantial foetal abnormalities, a medical solution that women in our country have long sought for decades has finally been pro-vided.

The results of the National Family Health Survey (NFHS) also show improve-ment in rural welfare indicators from FY2016 to FY2020, covering aspects like gender, fertility rate, household amenities, and women empowerment (*Economic Survey,2022-23*).But Obesity is rising for both men and women across all states .

HEALTH AND WELL-BEING OF WOMEN

Like education, health is another dimension where India lagged. Health, like education, is not only a critical component of human welfare but also an important determinant of economic growth. In 2004, the 1993 Nobel Laureate Robert Fogel argued that a healthier population, bigger and stronger, had the ability to create for

around half of the growth in national income… A healthy population needs adequate nutrition, good sanitation and health care, aspects which were neglected so far in India.

WAY FORWARD

In what follows is that **India Ahead, India Together and an Inclusive India'** should be the motto of present day with women-led development.

An exciting vista is opening up in front of women and women are playing their role in building this great nation. Women- led development holds the potential to create positive outcomes across multiple sectors. In a sense, the achievement of the targets under **Sustainable Development Goal 5**: 'Gender Equality', also facilitates the realization of other SDGs and, thus, ensures multi-pronged holistic development.

The UN SDGs 2030 are a collection of comprehensive, far-reaching, people-centric, universal, and transformative objectives and targets that India embraced in response to the current situation. The social well-being of individuals is a major focus of several of these seventeen aims, which resolve as follows:

"We resolve, between now and 2030, to end poverty and hunger everywhere; to combat inequalities within and among countries; to build peaceful, just, and inclusive societies; to protect human rights and promote gender equality and the empowerment of women and girls; and to ensure the lasting protection of the planet and its natural resources. We resolve also to create conditions for sustainable, inclusive and sustained economic growth, shared prosperity and decent work for all, taking into account different levels of national development and capacities" (*Transforming our world: the 2030 Agenda for Sustainable Development, Resolution adopted by the General Assembly on 25 September 2015).*

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Status of Public Sector Employees in the Hill Economy of West Bengal: A Case Study of Major ST Employees of Kalimpong

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Abstract

By reserving quota in public services, the Constitution of India aimed at up-bringing the tribes mainly economically and make them at par with the other sections of the society. Eventually this gives birth different types of inter-tribe inequalities. The present study is diagnostic and aimed at finding the status, proportionate share, inter-tribe, inter-sectoral, gender, and religious inequalities among the major hill tribes of Kalimpong in the white-collar public jobs.

Keywords: Hill economy, Constitution of India, Schedule Tribe, Reservation quota, White-collar job and inter-tribe inequalities

Jel Code: H11, J21, J38, J81K31, P26,

Section: I

Prologue:

The Constitution of India provides special attention to the Scheduled Tribes and aimed at their all-round development. A separate ministry for the tribal development has also been set up to look after the economic, social, political, and cultural upliftment of the tribes. The important facilities are: reservation of job in Central/State/Govt. undertakings, quota for admission in different academic and training institutions, scholarships/stipends, loan, reservation of seat in elected representatives etc.

It is no denying a fact that after independence, the tribes have developed economically, socially, and politically and the Constitutional provisions have accelerated the mode and speed of development. But the rate and level of development among all the tribal communities are not the same and there exist inter-tribe disparities in every state and UTs. In fact, the inter-tribe disparities for some tribes have widened while some tribes go on availing the facilities extended by the gov-

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ernment at the cost of other tribes. This is so because the facilities are extended on the basis of the total number of the tribes and not for any specific tribe. The government has accepted the existence and widening inter-tribe disparities and the resulted action was the establishment of Primitive Tribal Group within the existing Scheduled Tribes in 1979. In India there is more than 705 tribal groups spreading over different states and Union Territories. The states and UTs do not share equally in spreading the national 8.2%tribal population. Some states like Mizoram (94.5%), Nagaland (89.1%), Meghalaya (85.9%), Arunachal Pradesh (64.2%), Dadra Nagar Haveli (62.2%), Lakshadweep (94.5%) accommodate more tribes than other states and UTs. In some states like Mizoram, Meghalaya, and Nagaland where the tribes are in majority, the population under general, SC, OBC categoriesavail better facilities in the job market. In many cases competition is more among the tribes and less among the non-tribes.

Anyway, the important Constitutional provisions for ST are:

- The Constitution ensures equality of opportunity in matters of public sector employment through Article 15(4) and 16(4A), 16 (4B) and Article 46.

- The Constitution prohibits discrimination on grounds of i) religion, race, caste, etc (Article 15); ii) untouchability (Article 17); and iii) forced labour (Article 23).

- The Constitution provides reservation of seat for SC and ST in the Parliament (Article 330) and in the State Legislative Assemblies (Article 332),

- Constitution reservesjob in federal and state Govt departments (Articles 16 (4), 330 (4) and 335).

- The Constitution reserves job in public sector for SC, ST and OBC at the rate of**15%, 7.5% and 27%** respectively.

Section: II

Methodology, Source of Data and Objectives

2.1: Methodology

The study is based on both qualitative and quantitative data. Quantitative data regarding population, economic activity, educational level etc have been complemented by the qualitative data collected through close observation and participation in different activities.

Quantitative data have been collected from two sources: a) secondary source like census report, statistical handbook, government documents, reports, and b) primary source like local central, state, government undertakings, local bodies. A census technique has been used for collecting primary data.

Quantitative data have been compiled and presented in the simple tabular format with description of proportionate share of each tribe in the public sector job market.

2.2: Source of Data

Primary date have been collected from the offices of Central govt., State govt., State govt. sponsored Primary and Secondary Schools & Colleges, Banks and Insurance Companies which are located at Kalimpong Municipality and Kalimpong Block-I of Kalimpong district, West Bengal during the period April 2016 to May 2017. We have visited 162 institutions and offices covering 2801 employees. There are 1658 employees in 37 state government offices; 205 employees in 11 Central government offices; 322 teachers in 87 Primary schools; 387 teachers in 17 Secondary Schools; 82 employees in two Colleges and 147 employees in eight banks and insurance companies in the study area.

Secondary data have been collected from different census reports, statistical handbooks, government publications, documents, and reports.

2.3: Objectives

The basic objectives of the present study are:

(a).   to find out the proportionate share of the major ST employees in white-collar public sector job,

(b).   to observe inter-tribe inequalities in the public sector job market,

(c)   to address the basic question as to how the inequalities are compared across the tribes and

(d)   to examine the case of deprivation and discrimination, if any, of the tribes in public sector job.

2.4: Hypotheses

Followings are the basic hypotheses of the present study.

i)   We hypothesised that hill economy is the homeland of good number of tribes.

ii)   We hypothesised that the tribes avail locational advantage in getting public sector jobs.

iii)   We hypothesised that there exist inter-tribe disparities in public sector jobs.

iv)   We hypothesised that there is inter-sectoral inequality in the jobs among the tribes.

v)   We hypothesised that there exists both gender and religious inequalities among tribes in job market.

Section: III

Introducing the Major STs of the Study Area:

The Hill Economy of West Bengal is tactically different from the plain land economy on the grounds of its location, geographical spread, historical facts, demographic distribution, language used, culture, custom practiced and above all economic dependence. The area is located at the extreme northern part of the state and comprised of the Eastern Himalayan region of Darjeeling and Kalimpong districts. The hilly area has international boundary with Bhutan in the East, Nepal in the West; stone throw distance with Bangladesh in the South and Tibet in the North; national boundary with the states of Sikkim in the North and Bihar in the West; district boundary with Jalpaiguri in the South and north Dinajpur in the west. Most hilly terrain is uneven, rough, inaccessible, impenetrable, uninhabited, and covered under dense forest. Historically before merging with the state of West Bengal, the area was initially ruled by the indigenous tribes and then at different periods by Namgyel rulers of Sikkim, monarchical rulers of Nepal, Bhutan and British. In the old days the region was inhabited absolutely by the indigenous tribes but now their number has become negligible and the area becomes pluralistic with majority of Nepali population. Although different communities have their distinct languages but all have accepted Nepali as lingua-franca. Good number of educated people are multi-lingual and use English, Hindi, and Benali for communication with out-siders. Although all the communities have their distinct culture and follow their specific customs in day-to-day affairs but there is perfect cultural harmony and no evidence of any distress over culture in the region. The traditional dependence on three Ts – Tea, Timber and Tourism is the story of the past and at present the hill economy of Bengal is divided into trade with white-collar urban sector and agriculture and forest based rural sector.

At different stages of historical development and formation, different communities have entered and settled in the hill region of Bengal particularly in Kalimpong district. Before the Bhutanese invasion of 1700, Lepchas were the only settlers of

earlier Damsang, present day Kalimpong. During the long 165 years (1700 to 1865) of Bhutan rule, many Bhutanese have settled and remained along the road sides leading to Bhutan via Pedong, Lava, Garubathan. After annexation of Kalimpong with Darjeeling district in 1867, British encouraged different communities from the plains and from Nepal to settle for development and assistance. Inclusion of the hills successively under Bhagalpur, Rajshahi and Jalpaiguri divisions have encouraged and facilitated people from those areas to come and settle either as employees or as traders in the new area. Development of communication and initiation of trade with Tibet had attracted many communities including the trading classes to settle in Kalimpong. Takeover of Tibet by China not only expelled the Tibetans from Tibet but also compelled them first to take refuge and then to settle permanently at Kalimpong and Darjeeling. After independence the sovereign government of India has taken up different developmental measures which needed and attracted many communities to choose Kalimpong as their dwelling place. Kalimpong, thus, has taken a cosmopolitan shape where the demographic composition has become unique and diverse. The multi-ethnic character of Kalimpong is the essence and beauty of the district.

3.1: Scheduled Caste and Scheduled Tribe Population in Kalimpong District:

Kalimpong is rural based 21st district of West Bengal created w.e,f, 14th February, 2016. Table-1 shows the sex wise distribution of total population, Scheduled Caste and Scheduled Tribe population across the Municipality and different CD blocks of Kalimpong district in 2011:

Table-1: Scheduled Tribe population by sex in CD Block/MC/district of Kalimpong, 2011

CD Block/ Municipality/ District/State	Total Population			Scheduled Tribe		
	Person	Male	Female	Person	Male	Female
1	4	5	6	10	11	12
Kalimpong I	74746	37750	36996	25657	12861	12796
Dungra Khasmahal	6789	3276	3513	2003	980	1023

Kalimpong II	66830	34546	32284	24773	12679	12094
Garubathan	60663	31054	29609	14315	7256	7059
Kalimpong Municipality	49403	25100	24303	10230	4883	5347
Kalimpong District	**258431**	**131726**	**126705**	**76978**	**38659**	**38319**
West Bengal	**91276115**	**46809027**	**44467088**	**5296953**	**2649974**	**2646979**

A perusal of Table-1 reveals that Scheduled Tribes are 29.78% of total population of Kalimpong which is much higher than the state average of 5.8% and undivided Darjeeling district average of 21.52%. As a percentage to total population of the respective CD Block, the percentage of ST population in Kalimpong-I is 34.32; in Kalimpong-II 37.07; in Garubathan 23.59 and in Municipal area 20.71. The Scheduled Tribes are confined in the remote and hilly areas of the district. It is interesting to note that the sex ratio of ST population is more balanced than the total population in all the CD blocks both individually and in the district and the state. Compared to 950 females per thousand males for the total population in the state of West Bengal, the corresponding figure for the ST population is 998 females per thousand males. In Kalimpong district, the female per thousand male is 962 for the total population and 991 for the ST population. The same trend is being observed across each CD block and the municipal area. It is 995 compared to 980 in Kalimpong-I CD block; 954 compared to 935 in Kalimpong-II CD block; 973 compared to 954 in Garubathan CD block; 1095 compared to 968 in municipal area. Higher sex ratio is the indicator of higher status of females in tribal society.

3.2: Composition of Scheduled Tribes in the State and undivided Darjeeling District

Article 342 of Indian Constitution enlisted 705 Scheduled Tribes whose total ST population is 104.2 million (2011 census) and which is 8.6 % of total population of the country. Table-2 shows demographic pattern of 40 categories of ST inWest Bengal and undivided Darjeeling district which comprises the present Kalimpong and Darjeeling districts.

Table-2: Demographic pattern of STs in West Bengal and undivided Darjeeling, 2011.

Sl No	Name of the Tribe	WEST BENGAL				(DARJEELING (Undivided				
		Male	Female	Total	% of respective Total to State Total ST	Male	Female	Total	% of respective Total to District Total ST	% of District Total to respective State Total ST
1	Asur	1909	1955	3864	00.07	213	214	427	00.11	11.05
2	Baiga	6765	6658	13423	00.25	34	31	65	00.02	00.48
3	Bedia, Bediya	44989	43783	88772	01.68	37	36	73	00.02	00.08
4	Bhumji	190087	186209	376296	07.10	53	52	105	00.03	00.03
5	Bhutia, Sherpa, Toto, Dukpa, Kaga-tay, Tibetan, Yalmo	33278	33349	66627	01.26	24666	24788	49454	13.25	74.23
6	Birhor	1176	1065	2241	00.04	31	24	55	00.01	02.45
7	Birjia	573	550	1123	00.02	337	312	649	00.17	57.79
8	Chakma	237	229	466	00.00	08	03	11	00.01	02.36
9	Chero	2693	2784	5477	00.10	418	423	841	00.23	15.36
10	Chik Baraik	10615	10761	21376	00.40	1799	1879	3678	00.98	17.21
11	Garo	997	1042	2039	00.04	19	22	41	00.01	02.01
12	Gond	7122	6413	13535	00.26	469	460	929	00.25	06.86
13	Gorait	1255	1243	2498	00.05	19	23	42	00.01	01.68
14	Hajang	330	291	621	00.01	19	10	29	00.01	04.67

15	Ho	11786	11697	23483	00.44	442	413	855	00.23	36.41
16	Karmali	1249	1217	2466	00.05	49	54	103	00.03	04.18
17	Khar-war	10439	9831	20270	00.38	541	542	1083	00.29	05.34
18	Khond	338	322	660	00.00	29	23	52	00.01	07.88
19	Kisan	50897	47537	98434	01.86	1043	1063	2106	00.56	02.14
20	Kora	79707	79697	159404	03.01	52	51	103	00.03	00.06
21	Korwa	1447	1465	2912	00.05	326	333	659	00.18	22.63
22	Lepcha	17148	16814	33962	00.64	16602	16260	32862	08.81	96.76
23	Lodha, Kheria, Kharia	54692	54015	108707	02.05	1219	1297	2516	00.67	02.31
24	Lohara, Lohra	12413	12370	24783	00.47	338	332	670	00.18	02.73
25	Megh	4038	3994	8032	00.15	85	72	157	00.04	01.95
26	Mahali	40740	40854	81594	01.54	628	650	1278	00.34	01.57
27	Mahli	1329	1280	2609	00.05	78	66	144	00.04	05.52
28	Mal Pa-hariya	22364	22174	44538	00.84	1269	1281	2550	00.68	05.73
29	Mech	20851	20391	41242	00.78	1266	1242	2508	00.67	06.08
30	Mru	95	102	197	00.00	01	00	01	00.00	00.51
31	Munda	184098	182288	366386	06.92	9070	9237	18307	04.91	04.99
32	Nagesia	8241	8137	16378	00.31	1893	1921	3814	01.02	23.29
33	Oraon	322933	320577	643510	12.15	35543	36944	72487	19.42	11.26
34	Parhai-ya	451	470	921	00.02	07	07	14	00.00	01.52
35	Rabha	14255	13565	27820	00.53	29	15	44	00.01	00.16
36	Santal	1248370	1263961	2512331	47.43	9277	9452	18729	05.02	00.75
37	Sauria Paharia	1715	1765	3480	00.07	273	273	546	00.15	15.69
38	Savar	20064	20310	40374	00.76	307	305	612	00.15	01.52

39	Limboo ((Subba	23299	23548	46847	00.88	20527	20757	41284	11.06	88.13
40	Tamang	72594	73609	146203	02.76	56161	57157	113318	30.36	77.51
TOTAL		**2649974**	**2646979**	**5296953**	**100.00**	**185177**	**188024**	**373201**	**100.00**	**07.05**

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The share of undivided Darjeeling district to the total ST population of the state is only 07.05%. But the district is the homeland of few STs like the Lepchas, Limboos, Tamangs, Bhutias, Sherpas, Totos, Dukpas, Kagatays, Tibetans and Yalmos. As a percentage of their respective district population to the corresponding state ST population, the Lepchas rank highest (96.76%) followed by the Limboos (88.13%) and the Tamangs (77.51%). The Bhutia, Sherpa, Toto, Dukpa, Kagatay, Tibetan, Yalmo together consist of 74.23% of district population to their total state ST population. Similarly, the major plain land tribes of undivided Darjeeling district are: Birjia (57.79%), Nagesia (23.29%), Ho (36.41%), Korwa (22.63%), Chik Baraik (17.21%), Chero (15.36%), Sauria Paharia (15.69%) and Oraon (11.26%). These tribes are mainly concentrated in the Doars and Terai foothills of the district. The ST population of Kalimpong is only 20.63% of ST population of undivided Darjeeling district.

Although the proportion of undivided Darjeeling district tribes to the state total tribe is 07.05% but three tribes like Tamang, Limboo and Oraon constitute 30.36%, 19.42% and 11.06%. Tamang ranks highest among all tribes (30.36%). Bhutia, Sherpa, Toto, Dukpa, Kagatay, Tibetan, Yalmo jointly comprises 13.25% of total district population. Although 96.76% Lepchas of the state are residing in Darjeeling district but their proportion to the district ST population is only 8.81%. All the other plain land Tribes constitute very negligibly in the total population of the district and their proportionate share to the total ST population of the state is also very negligible.

The tribes who are in commendable position in undivided Darjeeling constitute very negligible proportionate share in the state ST population. Among the dominant tribes of Darjeeling, Tamangs constitute the highest but only 2.76% of state ST population,Limboos constitute 00.88%, Lepchas 00.64% and Bhutias etc 01.26% of state ST population. The highest proportion in the state ST population is for Santals (47.43%) followed by Oraon (12.15%), Munda (6.92%), Bhumji (07.10%) and Kora (03.01%) but none of these tribes has any dominant strength in Darjeeling district. Thus, the dominant tribes of the district do not have dominating role in the ST population of the state while the dominant tribes of the state do not have any

significant role in the district ST population.

3.3: The Scheduled Tribes in the Study Area

After inclusion of Tamangs and Limboos (as per the Constitutional (Scheduled Tribe) Order (Amendment) Act 2003 dated 19.9.2003), the major tribes in the hill districts of Kalimpong and Darjeeling are: (Bhutia, Sherpa, Toto, Dukpa, Kagatay, Tibetan, Yalmo), Lepcha, Limboo (Subba) and Tamang. Among the first seven tribes which are shown jointly in Sl. No 5, the dominating tribes are: Bhutia, Sherpa, Tibetan, and Yalmo. We thus get seven main tribes in the hill districts of Kalimpong and Darjeeling. Most of the Tibetans and Bhutias use the same surname 'Bhutia' and their naming style is also same and we clubbed them in one category and thus we have six major tribes: Lepcha, Limboo, (Subba), Tamang, Sherpa, Bhutia, and Yalmo.

3.3.1: Lepchas

The Lepchas are recognized as Scheduled Tribe in the states of West Bengal, Sikkim, and Tripura. Table-3 shows demographic details of the Lepchas in West Bengal and undivided Darjeeling.

Table-3: Lepcha Population in West Bengal and undivided Darjeeling: 1872 – 2011.

Census period	West Bengal		Undivided Darjeeling	
	Total	Ten years	Total	% of WB population
1872	3852	--	3952	100%
1881	26	--	--	--
1891	9717	+9691	9717	100%
1901	10052	+335	9972	99.20
1911	9842	-210	9706	98.62
1921	9669	-173	9669	100.00
1931	12719	+3050	12101	95.14
1941	12468	-251	12468	100.00
1951	13430	+962	13168	98.02

1961	15309	+1879	14510	94.78
1971	14568	-741	13536	92.92
1981	23409	+8841	22749	97.18
1991	27888	+4449	26920	96.53
2001	32377	+4489	31210	96.39
2011	33962	+1585	32862	96.76

In West Bengal, Lepchas are concentrated in the undivided district of Darjeeling since the bygone days but the percentage in their own homeland compared to the total population of the district is not at all notable and in percentage term their proportion has decreased over the decades. When British came, they found majority of population were the Lepchas but due to large number of immigrations, the Lepchas become negligible fraction of the total population of the district.

The Lepcha population in Sikkim has increased from 40586 to 42909 during the period 2001 to 2011 but their proportionate share in total population has decreased from 7.51% to 7.06%. In Tripura strength of the Lepchas has increased from 105 to 157 but their proportionate share in total population remained very negligible (00.00013%). Anyway, Kalimpong hill remained the homeland of the Lepchas.

3.3.2: Limboo

Limboos are includedas Scheduled Tribe through the Constitutional Amendment of Article 342 in 2003. In West Bengal out of total Limboo population of 46847, nearly 88.12% are residing in the Darjeeling-Kalimpong hills in 2011. Limboos are 10.39% of total ST population of Darjeeling and 00.79% of total ST population of the state. A.J.Dash mentioned that Limboo population of Darjeeling has varied from 14305 in 1901, to 13804 in 1911, to 14191 in 1921, to 16288 in 1931 and 17803 in 1941. The total Limboo population in Sikkim is 53703 in 2011 which is 08.78% of total population and 26.02% of total ST population of the state. In Nepal, the Limboo population has increased from 359379 in 2001 to 387300 in 2011 and which constitute 01.46% of total population of Nepal in 2011. As per Nepal Rajpatra (Nepal Gazette) 2002, the Limboos are categorized as Hill Indigenous Nationalities of Nepal and are living in the eastern Nepal between the Arun and the Mechi rivers to as far as southern Tibet.

Limboos are known differently as Limbus orTsong or Tshong or Chang or Chung or Subba. The endoethnonym i.e. the name by which they identify themselves is

Yukthung or *Yakthungbas* or *Yakthumba*. The Limboo males are called *Yakthumma* and the females are called *Yakthungma*. Limboos are the Kiratas and the early residents of Limbuwan region of eastern Nepal prior to Prithivi Narayan Shah's Gorkha invasion of 1774. There are several Limboo kings who used to rule their own land and people. They are one of the oldest tribes of Sikkim. In the famous *Lho-Mon-Tsong-Sun*, the tripartite agreement, all the three oldest inhabitants of Sikkim -- the Tibetans (*Lho*), Lepchas (*Mon*) and the Limboos (*Tsong*) took part and promised to live peacefully under the rule of the Tibetan Namgyal rulers. Limboosare the Mongolian descent. The word Limboo has been derived from three Limboo words*: Li* means bow, *Toong* means arrow and *Abu* means shooter. Thus *Li+Toong+Abu*mean the bow and arrow shooter.

3.3.3: Tamang:

After the inclusion of Tamangs as Scheduled Tribe through the amendment of Article 342 of the Constitution in 2003, the state ST population has increased from 4406794 in 2001 to 5296953 in 2011. One of the major causes of increase in ST population in the state from 05.5% in 2001 to 05.8% in 2011 may be due to the inclusion of Tamangs and Limboos in the Scheduled Tribe list of the state.

There is a controversy on the origin of the word Tamang. Some say that Tamang originates from two words 'Ta' means 'horse' and 'Mang' means 'salesman or trader.' Earlier Tamangs were engaged in horse trading. Others opine that Tamang has been derived from the Tibetan word '*Tamag*' where '*Ta'* means 'horse' and '*Mag'* means 'warrior or cavalry' or 'Mountain Army.' This is due to the engagement of large number of the Tamang community as soldier. Earlier they were called '*Bhot*' or '*Bhotey*' meaning Tibetans but due to their profession of horse trading they were separated from the Tibetans proper. They are believed to have been migrated from southern border of Tibet and settled in southern Nepal and later in lower Teesta and Rangit valleys of Sikkim and in Kalimpong-Darjeeling hills of West Bengal. Tamangs are believed to have settled in Nepal in the prehistoric periods. But their immigration in Sikkim and Darjeeling-Kalimpong hills from Nepal took place in two phases: first during the Gorkha incursion between 1770 and 1815 and secondly during British settlement in Darjeeling-Kalimpong from 1835 and 1665 and in Sikkim from 1861 onwards. Earlier the community was known as *Bhotey*or *Lama* or *Murmi* but since 1932 they are known as Tamangs by the official decree in Nepal. Tamangs are one of the oldest and distinct tribes of Nepal.

Tamangs are the fifth largest ethnic group of Nepal and consist of nearly 5.00% of total population. Their population in Sikkim has increased from 2867 in 1891 to 37696 in 2011 consisting of 06.17% of total and 18.27% of ST population of Sikkim. In West Bengal Tamangs are mainly found in Kalimpong-Darjeeling hills. In undivided Darjeeling, their population was 6557 in 1872; 24465 in 1901; 27226 in 1911; 30450 in 1921; 33841 in 1931; 43114 in 1941 and 113318 in 2011. Tamangs constitute 00.16% of total population and 00.27% of total ST population of West Bengal. In 2011, nearly 77.51%Tamangs of the state are found in undivided Darjeeling district. Tamangs constitute 06.14% of total population and 28.52% of ST population of the undivided Darjeeling district. The ST population of Darjeeling has increased from 204167 in 2001 to 397389 in 2011 with a record decadal growth rate of 94.6% which decreased from 18.6% to 14.00% in the last two decades.

3.3.4: Sherpa

Sherpas are one of the Scheduled Tribes of West Bengal since 1952 and of Sikkim since 1978. Due to their low population size, Sherpas are clubbed in the same serial number five along with the Bhutia, Yalmo, Toto, Dukpa, Kagatey and Tibetans in West Bengal and in serial number one with Bhutia, Chumbipa, Dopthapa, Dukpa, Kagatey, Tibetan, Tromopa and Yalmo in Sikkim. Sherpas are one of the 59 indigenous tribal groups of Nepal and categorised as Mountain Indigenous Nationalities of Nepal.

Sherpas are found mainly in Nepal, Darjeeling-Kalimpong hills and in the state of Sikkim. In Nepal, the Sherpa population has increased from 154622 in 2001 to 112946 in 2011. They are only 00.43% of total population of Nepal in 2011. Due to their merger with other ST groups, the population of Sherpa is not available separately either in West Bengal or in Sikkim. In West Bengal the total population in the group of seven communities including Sherpa is 66627 of which 49454 are in undivided Darjeeling district in 2011. They are 16.77% of ST population of Darjeeling and 01.26% of total ST population of the state. Nearly 74.23% of the state population in this category is residing in Darjeeling-Kalimpong hill areas. In 1941 the total Sherpa population in Darjeeling-Kalimpong was 6929. In Sikkim, the Sherpas and other seven communities have a total of 69598 heads in 2011 and which is 33.73% of total ST population and 11.39% of total population of Sikkim. In 2001, the Sherpa population in Sikkim was 13922.

The endoethnynm of the community is *Shar-Wa* where *Shar* means west and *Wa* means people. It refers to their geographical concentration in the north eastern part of Nepal. The Sherpas are of Tibetan origin. The genetic study shows that the

Sherpas have strong affinity of allele frequency with the Tibetan population. Some believe that they have migrated to Nepal from Tibet and that may be about 600 years ago through Nangpa La mountain pass. The people of eastern Tibet are known as *ShyarKhamba* and the place where they have settled is known as *Shyar Khumbu*. In course of time these two words *ShyarKhamba*and *Shyar Khumbu* haveconverted and given birth to a new wordSherpa. It is also believed that in the pre-historic days these people used to move along the Himalayan region in search of food and fodder for grazing their herd. The community use 'Sherpa' as their surname and it is a marker of their ethnic identity. Sherpas are divided in two endogamous groups: the Sherpas and the Yukpas. There is no caste among the Sherpas but the community is divided in different clans which they call *Ru*. Heimendorf (1968) has listed 21 clans of Salukhumbu Sherpas. Some of the Sherpa clans or *Ru* are: *Shalakha, Phinasha, Lama, Chayaba, Goperma* etc.

3.3.5: Bhutia

The Constitution of India has included Bhutia as one of the Scheduled Tribes in seven different states: West Bengal, Sikkim, Tripura, Uttaranchal, Uttar Pradesh, Himachal Pradesh, and Jammu-Kashmir.

In West Bengal, the Bhutias appear as ST alongwith other six races of Tibe-to-Burman family i.e. Bhutia, Sherpa, Toto, Dukpa, Kagatay, Tibetan, Yalmo. In Sikkim, the Bhutiasare clubbed withChumbipa, Dopthapa, Dukpa, Kagatey, Sherpa, Tibetan, Tromopa, and Yalmo. In Tripura, Bhutias are second in the list of ST of the state. Both in the states of Uttaranchal and Uttar Pradesh, they appear first in the list but the race is spelt as 'Bhotia' while in Himachal Pradesh they are known as 'Bhot'. In Jammu and Kashmir the race is identified in the ST list by the name 'Bot,' 'Brokpa' and 'Drokpa'.

Bhutia tribes have their origin from Tibet. The word Bhutia has been derived from the Sanskrit word *Bhot* or *Bod*which means Tibet. The migration of Bhutias from Tibet seems to have started since the sixteenth century along different routes. Migrants in different groups have settled down along the south eastern regions to Sikkim, Darjeeling, Kalimpong, Arunachal Pradesh, Nepal, and Bhutan. Another group has settled along western Himalayas of Jammu-Kashmir, Uttar Pradesh, and Uttaranchal. According to Sir George Abraham Grierson's *Linguistic Survey of India* (LSI) the language-group classified and attested as 'Bhotia' comprises the distinguished sub-dialects namely Bhotia of Tibet or Tibetan; Bhotia of Sikkim or Danjong-ka; Bhotia of Sherpa or SharpaBhotia; Bhotia of Bhutan or Drukpa (Lhoke); Bhotia of Ladakh or Ladakhi, Murmi or Tamang; Bhotia of Lahul or La-

huli; Bhotia of Baltistan or Balti; Bhotia of Spiti; Bhotia of Purik; Bhotia of Tibet; Bhotia of Sikkim or Danjongka; Bhotia of Bhutan or Lhoke; Bhotia of Sherpa or SharpaBhotia. Bhutias fall under Tibetan group of Tibeto-Burman family (Grierson 1909: P: 14, 15 & 1927: P: 54, 55). In Census of India 1931, (J.H.Hutton, Vol II, P: 476-477) Bhutias are classified as Bhotia of Tibet or Tibetan; Bhotia of Baltistan or Balti; Bhotia of Ladakh or Ladaki; Bhotia of Sharpa; Bhotia of Bhutan or Lhoke; Bhotia of Sikkim; Bhotia (others).

In the eastern Himalayan range of Sikkim and Darjeeling-Kalimpong hills, there are four categories of Bhutias: i) Sikkimese Bhutia, a mixed race who are descendent of migrant Tibetans and aboriginal Lepchas, ii) Sherpa Bhutia, a race of Tibetan migrants who have settled along east of Nepal, iii) Dukpa Bhutia, a race of Tibetan migrants who have settled in Bhutan and iv) Tibetan Bhutia, who came directly from Tibet.

Bhutias are one of the early settlers of Sikkim-Darjeeling-Kalimpong hills. Table-4 shows some idea about the Bhutia population in Darjeeling:

Table-4: Bhutia population in Darjeeling in 1901 and 1930.

	Types of Bhutia	1901 (LSS O'Malley)*	1930 (A.J.Dash)**
1	Sikkimese Bhutia	1550	896
2	Sherpa Bhutia	3450	5295
3	Dukpa Bhutia	2350	2124
4	Tibetan Bhutia	1700	2314
T o t a l		9050	10629

:The growth of Bhutia population in Darjeeling is shown in Table-5

Table-5: Bhutia population in Darjeeling.

Census Period	Darjeeling	
	Population	Language speaker
1840	--	--
1891	--	5866*

1901	9315*	--
1911 10768*		10775*
1921	10710*	--
1931	10629*	11761*
1941	14541*	--
1951	18959**	7402$$
1961	22086**	--
1971	30442**	--
1981	--	--
1991	--	--
2001	60091	5636
2011	49454***	4293

3.3.6: Yalmo:

Yalmos are one of the Scheduled Tribes of West Bengal since 1952 and of Sikkim since 1978. Due to their low population size and other similarities,Yalmos are clubbed with Bhutia, Sherpa, Toto, Dukpa, Kagatey and Tibetans in West Bengal and with Chumbipa, Dopthapa, Dukpa, Kagatey, Sherpa, Tibetan, and Tromopa in Sikkim. Yalmosare one of the 59 indigenous tribal groups of Nepal and recognised as Hill Indigenous Nationalities of Nepal.

The term Yalmo originates from *Hyolmo*which consists of two words – *Hyul*means 'a high place or areas surrounded by high mountain' and *Mo* means 'goddess. Yalmos believe that they are the original inhabitants of high Himalayan mountains and their goddess protects them and their land.

Yalmos are believed to be the original inhabitants of Kyriong areas of southern Tibet and have migrated in Nepal over 300 years ago and then to Darjeeling-Kalimpong hills after 1835 and in Sikkim after 1861. Yalmos are the original people of the Eastern Himalayan region and are the native residents of Helambu and Melanchi valleys in northern Nuwakot and Sindhupalchowk districts of Nepal.

Yalmos call themselves *Yalmopa, Hyolmo*or*Helambu* Sherpa. Although *Helam-*

*bu*of Nepal is their traditional homeland but now they are found in Darjeeling-Kalimpong hills of West Bengal and in Sikkim. In Nepal,Yalmo population has increased from 4577 in 2001 to 10752 in 2011 and which is only 00.04% of total population of Nepal. Due to their merger with other ST groups, the population of Yalmo is not available separately either in West Bengal or in Sikkim. In West Bengal the total population in the group of seven communities including Yalmo stands 66627 of which 49454 is in undivided Darjeeling hills in 2011 and which is 16.77% of ST population of undivided Darjeeling and 01.26% of total ST population of the state. Nearly 74.23% of the state population in this category is residing in Darjeeling-Kalimpong hills. In Sikkim the Yalmo and other seven communities have a total of 69598 heads in 2011 and which is 33.73% of total ST population and 11.39% of total population of Sikkim.

Section: IV

Major Findings

4.1: Inter-tribe distribution of Employees in different sectors:

We have divided the government employees in six sectors: State government employees, Central government employees, State government sponsored Primary School employees, State government sponsored Secondary and Higher Secondary School employees, State government sponsored College employees and Bank and Insurance employees. We have chosen six ST communities: Lepcha, Limboo, Tamang, Sherpa, Bhutia, Yalmo and others. It has been seen that as high as 95.60% employees belong to these six types of ST population and the rest 4.4%by other 36 STs of the state. Out of surveyed 2801 employees, the proportion of ST employees to the total employees is 30.85% which is four times more than the Constitutional reservation of vacancies for the ST. Table-6 shows Inter-tribe distribution of employees in Kalimpong Municipality and Kalimpong block-I.

Table-6: Inter-Tribe Distribution of Employees in Kalimpong Municipality and Kalimpong-I.

Category/ sector	.State Govt			.Central Govt			Pry. School		
	M	F	Total	M	F	Total	M	F	Total
1	2	3	4	5	6	7	8	9	10
Lepcha	75 (19.00)	24 (22.02)	99 (19.49)	16 (36.36)	3 (25.00)	19 (33.93)	17 (25.76)	17 (41.46)	34 (31.78)

Lim-boo	55	8	63	4	1	5	9	6	15
	(13.78)	(7.34)	(12.40)	(9.09)	(8.33)	(8.93)	(13.64)	(14.63)	(14.02)
Ta-mang	144	44	188	12	1	13	28	11	39
	(36.09)	(40.37)	(37.01)	(27.27)	(8.33)	(23.21)	(42.42)	(26.83)	(36.45)
Sherpa	57	13	70	6	1	7	3	--	3
	(14.29)	(11.93)	(13.78)	(13.64)	(8.33)	(12.50)	(4.55)		(2.80)
Bhutia	45	17	62	4	4	8	8	5	13
	(11.28)	(15.60)	(12.20)	(9.09)	(33.33)	(14.29)	(12.12)	(12.20)	(12.15)
Yalmo	5	--	5	1	1	2	--	--	--
	(1.25)		(00.98)	(2.27)	(8.33)	(3.57)			
Other Tribes	18	3	21	1	1	2	1	2	3
	(4.51)	(2.75)	(4.13)	(2.27)	(8.33)	(3.57)	(1.52)	(4.88)	(2.80)
Total	**399**	**109**	**508**	**44**	**12**	**56**	**66**	**41**	**107**
	(100.00)	**(100.00)**	**(100.00)**	**(100.00)**	**(100.00)**	**(100.00)**	**(100.00)**	**(100.00)**	**(100.00)**

Contd/-

	Secondary, H/S School			College			Bank, Insurance			Total		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
	11	12	13	14	15	16	17	18	19	20	21	22
	23 (42.53)	20 (31.25)	43 (36.44)	1 (16.67)	3 (30.00)	4 (25.00)	3 (11.11)	6 (18.75)	9 (15.25)	135 (22.65)	73 (27.24)	208 (24.07)
	4 (7.41)	6 (9.38)	10 (8.47)	2 (33.33)	2 (26.00)	4 (25.00)	2 (7.41)	3 (9.38)	5 (8.47)	78 (12.75)	26 (9.70)	102 (11.81)
	15 (27.78)	23 (35.94)	38 (32.20)	2 (33.33)	3 (30.00)	5 (31.25)	8 (29.63)	6 (18.75)	14 (23.73)	209 (35.51)	88 (32.84)	297 (34.38)
	1 (1.85)	--	1 (0.85)	--	--	--	3 (11.11)	7 (21.880)	10 (16.95)	70 (11.74)	21 (7.84)	91 (10.53)
	5 (9.26)	9 (14.06)	14 (11.86)	1 (16.67)	1 (10.00)	2 (12.50)	11 (40.74)	10 (31.25)	21 (35.59)	74 (12.42)	46 (17.16)	120 (13.89)
	1 (1.85)	--	1 (0.85)	--	--	--	--	--	--	7 (1.17)	1 (0.37)	8 (0.93)
	5 (9.26)	6 (9.38)	11 (9.32)	--	1 (10.00)	1 (6.25)	--	--	--	25 (4.19)	13 (4.15)	38 (4.40)
	54 (100.00)	**64** (100.00)	**118** (100.00)	**6** (100.00)	**10** (100.00)	**16** (100.00)	**27** (100.00)	**32** (100.00)	**59** (100.00)	**596** (100.00)	**268** (100.00)	**864** (100.00)

Source: Collected and compiled by the author.Figures in the parenthesis are the percentage of their respective totals along the column.

A perusal of Table-6 shows that the percentage of employees is the highest among the Tamangs (34.38%) followed by the Lepchas (24.07%), Bhutia (13.89%), Limboo (11.81%), Sherpa (10.53%) and Yalmo (0.93%). The proportion of employees corresponding to the total employees of the study area is also not uniform. The share of STs to the total employees is the highest for the Tamangs (10.60%) followed by the Lepchas (7.43%), Bhutias (4.28%), Limboos (3.64%), Sherpas (3.25%) and Yalmo (0.29%). It is interesting to note that ST acquires 30.85% of total employees of the study area but individually only Tamangscould fulfil the required quota of 7.5%. The condition of the Yalmo tribe is pathetic and fails to acquire even one percent of total employment in the study area. Tamangscan be considered as the most advanced tribe of the study area but it may be noted that most Tamangs got the job much before they were included in the ST list in 2003. Lepchas marginally touches their quota of job reservation while all the Other tribes remain far behind the limit of the quota. The proportion of population, level of education and training, economic base, living condition, educational standard of the parents, proximity to the educational institution etc may be considered the main reasons behind the uneven distribution of employees among the different ST population in the study area.

The distribution of employees is also not equal across the different sectors in the study area. Tamangs become the most advanced tribe and get maximum share among the employees in the State government job (37.01%), State government sponsored Primary (36.45%) and State government sponsored Colleges (31.25%). The Lepchas got maximum proportion of employees in Central government (33.33%) and State government sponsored High and H/S School (36.44%). The Bank and Insurance service is in the hands of the Bhutias (35.59). In all the sectors the proportion of the Yalmo tribe is very negligible and their proportion moves around one percent only. Beside the maximum proportion of the Tamangs (37.01%), the State government employees are distributed unevenly among the Lepchas (19.49%), Sherpa (13.78%), Limboo (12.40%), Bhutia (12.20%), Other tribes (4.13%) and Yalmo (0.98%). The pattern of distribution of Central government employees are: Lepcha (33.93%) > Tamang (23.21%) > Bhutia (14.29%) > Sherpa (12.50%) >Limboo (8.93%) and Other tribes (3.57%) = Yalmo (3.57%). In case of employees in State government sponsored Primary School, the service pattern among the different tribes is: Tamang (36.45%) > Lepcha (31.78%) >Limboo (14.02%) > Bhutia (12.15%) > Sherpa (2.80%) = Other tribes (2.80%). There is no representation of Yalmo tribe in the primary school service, College and Bank and Insurance sectors. In the State government sponsored High and H/S Schools, the distribution of employees is: Lepcha (36.44%) > Tamang (32.20%) > Bhutia (11.86%) > Other tribes

(9.32%) >Limboo (8.47%) >Yalmo (0.85%). Employees in State government sponsored Colleges are limited within Tamang (31.25%) > Lepcha (25.00%) = Limboo (25.00%) Bhutia (12.50%) and Other tribes (6.25%). The distribution pattern of employees in the Bank and Insurance sector is: Bhutia (35.59%) > Tamang (23.73%) > Sherpa (12.95%)> Lepcha (15.25%) >Limboo (8.47). Both the Yalmo and Other tribes remain unrepresented in the category of banks and insurance. The uneven distribution of employees shows inequality among the tribes of the study area and shows inter tribe disparities among the tribes. There are at least 20 categories where there is absolutely no entry in the table-6 which shows gross inequality among the tribes in the study area.

There is gender biasness of government employees among the ST population in the study area and the male dominates over the female in each case. The male-female ratio is the highest among the Yalmo (1000:142) followed by Sherpa (1000:300), Limboo (10000:333), Tamang (1000:421), Other tribes (1000:520), Lepcha (1000:540) and Bhutia (1000:622). There is also inter-tribe gender disparity among the employees. The proportionate distribution of male among the total male employees in the study area is more among the Tamangs. The distribution goes like this: Tamang (35.07%) > Lepcha (22.65%) >Limboo (12.75%) > Bhutia (12.42%) > Sherpa (11.74%) > Other tribes (4.19%) >Yalmo (1.17%). Almost similar trend is found among the female employees: Tamang (32.84%) > Lepcha (27.24%) > Bhutia (17.16%) >Limboo (9.70%) > Sherpa (7.84%) > Other tribes (4.85%) >Yalmo (0.37%).

Among the State government employees, maximum percentage of female is found among the Tamang (40.37%) followed by Lepcha (22.02), Bhutia (15.60%), Sherpa (11.93%), Limboo (7.43%) and Other tribes (2.75%). But the picture is different in case of Central government employees where the percentage of female Bhutia employee (33.33%) is the highest followed by the Lepchas (25.00%) and all Other tribes share equally. Lepcha females (41.46%) dominate in Primary School service followed by Tamangs (26.83%), Limboo (14.63%), Bhutia (12.12%) and Othertribes (4.88%). In case of job in the High School, the Tamang females are the highest in number (35.94%) followed by the Lepchas (31.25%), Bhutia (14.06%), Limboo (9.38%) and Other tribes ((.38%). The male-female proportion of employees in the College is equal for the Lepchas and Tamang (both 30.00%) followed by Limboo (20.00%), Bhutia and Other tribes (10.00% each). In Bank and Insurance, the females dominate among the Bhutias (31.25%) followed by Sherpa (21.88%), Lepcha and Tamang (both 18.75%), Limboo (9.38%). It is seen that Lepcha females prefer School job while the Bhutia females prefer Bank and Insurance job.

Non-entry of females in at least nine categories shows that the distribution of job is not at all equal among the females of different communities and it is a matter of great concern.

Distribution of major six ST of Kalimpong district is not at all equal across the different sectors of job in the study area. Table-7 has been prepared to show the percentage of different ST employees (i) in respective sector in proportion to the total employees of the respective community, (ii) in the respective employees in proportion to the ST employees in the corresponding sector and (iii) in the respective sector in proportion to the total employees in the corresponding sector.

Table-7: Sector-wise distribution of ST employees to their respective total employees, ST employees and Total employees.

Sector/ ST Category	Lepcha			Limboo			Tamang		
	to % total Lepcha employ-ees	to % total ST em-ployees	to % total em-ployees	to% total Lim-boo em-ploy-ees	to % total ST em-ploy-ees	to % total em-ployees	to % total Tamang employ-ees	to % total ST employ-ees	to % total employ-ees
	2	3	4	5	6	7	8	9	10
State .Govt	47.60	19.49	5.97	61.76	12.40	3.80	63.30	37.01	11.34
Central .Govt	9.13	33.93	9.27	4.90	8.93	2.44	4.38	23.21	6.34
Pry/Jr High School	16.35	31.78	10.56	14.71	14.02	4.66	13.13	36.45	12.11
High/ HS School	20.67	36.44	11.11	9.80	8.47	2.58	12.79	32.20	9.82
College	1.92	25.00	4.88	3.92	25.00	4.88	1.68	31.25	6.10
Bank, In-surance	4.33	15.25	6.12	4.90	8.47	3.40	4.71	23.73	9.52
Total	**100.00**	**24.07**	**7.43**	**100.00**	**11.81**	**3.64**	**100.00**	**34.38**	**10.60**

-/Contd

	Sherpa			Bhutia			Yalmo			Other Tribes				Total	
	to % total Sherpa em-ployee	to % total ST em-ployee	to % total em-ploy-ees	to% total Bhutia em-ployee	to % total ST em-ployee	to % total em-ploy-ee	to% total Yalmo em-ployee	to % total ST em-ploy-ee	to % total em-ploy-ee	to % total other em-ployee	to % total ST em-ploy-ee	to % total em-ploy-ee	to % total ST em-ployee	to % total em-ploy-ee
	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	76.92	13.78	4.22	51.67	12.20	3.74	62.50	0.98	0.30	55.26	4.13	1.27	58.80	30.64
	7.69	12.50	3.41	6.67	14.29	3.90	25.00	3.57	0.98	5.26	3.57	0.98	6.48	27.32
	3.30	2.80	0.93	10.83	12.15	4.04	--	--	--	7.89	2.80	0.93	12.38	33.23
	1.10	0.85	0.26	11.76	11.86	3.62	12.50	0.85	0.26	28.95	9.32	2.84	13.66	30.49
	--	--	--	1.67	12.50	2.44	--	--	--	2.63	6.25	1.22	1.85	19.51
	10.99	16.95	6.80	17.50	35.59	14.29	--	--	--	--	--	--	6.83	40.14
	100.00	**10.53**	**3.25**	**100.00**	**13.89**	**4.28**	**100.00**	**0.93**	**0.29**	**100.00**	**4.40**	**1.36**	**100.00**	**30.85**

.Source: Collected and compiled by the author

Note:

Col 2 is the percentage of Lepcha employees in respective sector in proportion to the total Lepcha employees.

Col 3 is the percentage of Lepcha employees in respective sector in proportion to the ST employees in the corresponding sector.

Col 4 is the percentage of Lepcha employees in respective sector in proportion to the total employees in the corresponding sector.

The same procedure is followed for all other columns in corresponds to the respective ST employees.

A perusal of Table-7 reveals that in all entries the distribution pattern of different tribes is not equal. The ST employees are 30.85% of total employees in the study area which is nearly four times more than the constitutional reservation quota for the ST. The proportionate share remains around the mean value in case of State government (30.69%), Central government (27.32%) and High School (30.47%) but it is much less in case of College (19.51%) and much more in case of Bank and Insurance (40.14%). Column 23 of table-7 shows that more than half (58.86%) of total ST employees belongs to the state government job followed by High School (13.66%), Primary School (12.38%), Bank and Insurance (6.83%), Central government (6.48%) and College service (1.85%). Clubbing all the state government sponsored Primary, Secondary and College services with the pure state government services, the total proportion of employees under the State government becomes as high as (86.69%) of total ST employees in Kalimpong. The contribution of both Central government (6.48%) and Bank and Insurance (6.83%) is very negligible in providing job among the ST of the study area.

Last row of columns 3, 6, 9, 12, 15, 18, 21 of the Table show the percentage of each tribe to total ST employees. It is seen that among the ST employees, Tamangs (34.38%) get maximum job followed by the Lepchas (24.07%), Bhutia (13.89%), Limboo (11.81%), Sherpa (10.53%), Other tribes (4.40%) and Yalmo (0.93%). Last row of columns 4, 7, 10, 13, 16, 19, 22 show the share of each tribe as proportion to total employees of the block. It is seen that except Tamang (10.60%) none of the Other tribes could fulfil the required 7.5 quota in the government job. The Lepchas (7.43%) are marginally touching the limit of the quota while the condition for Other tribes like Bhutia (4.28%), Limboo (3.64%), Sherpa (3.25%), Other tribes and Yalmo (0.29%). These two entries (proportion to the total ST and proportion to total employees) show uneven distribution of job among the different ST in the

study area. Tamangs are in better position among all the tribes while the pathetic condition is for the Yalmos. The Lepchas could marginally satisfy the reservation quota for the ST.

Table-7 shows mixed representation of employees across the tribes in different types of job in the study area. The first column of each tribe (Col. 2, 5, 8, 11, 14, 17, 20) shows the percentage share of the respective tribe in different types of job. For each tribe, the highest proportion of employees is absorbed in state government job. The distribution patterns of employment among the Lepchas are: State government (47.60%) > High and HS School (20.67%) > Primary School (16.35%) > Central Government (9.23%) > Bank and Insurance (4.33%) > College (1.92%). Among the Limboos the distribution patterns of employees are: State government (61.76%) > Primary School (14.71%) > High School (9.80%) > Bank and Insurance (4.90%) = Central government (4.90%) > College (3.92%). Tamangs are absorbed mostly in the state government job (63.30%) followed by Primary School (13.13%), High and HS School (12.79%), Bank and Insurance (4.71%), Central government (4.38%) and College (1.68%). State government job (76.92%) is most preferred by the Sherpas followed by the Bank and Insurance (10.99 %) Central Government ((7.69%), Primary School (3.30%), High and HS School (1.10%). The Sherpas remain unrepresented in College services. The distribution pattern of employees among the Bhutias is: State government (51.67%) > Bank and Insurance (17.50%) > High and SH School (11.76%) > Primary School (10.03%) > Central government (6.67%) > College (1.67%). Proportions of Yalmos are: State government (62.50%) > Central government (25.00%) > High and HS School (12.50%). Other tribes get most jobs in state government (55.26%)followed by High and HS School (28.95%), Primary School (7.89%), Central government (5.26%) and College (2.63%).

Representation of each tribe to the total ST employees across the different types of job is shown in columns 3, 6, 9, 12, 15, 18 and 21 respectively for the Lepchas, Limboo, Tamang, Sherpa, Bhutia, Yalmo and Other tribes. In all categories of job, Lepcha, Limboo, Tamang and Bhutia not only fulfil their respective reservation quota but in some case, it is three to four times more than the quota which is at the cost of required quota for Sherpa, Yalmo and Other tribes. Distribution of Lepcha employees to the total ST employees is highest in case of High and HS Schools (36.44%) followed by Central government (33.33%), Primary School (31.78%), College (25.00%), State government (19.99%) and Bank and Insurance (15.25%). For Limboos, the distribution pattern of employees to the total ST employees is: College (25.00%) > Primary School (14.02%) > State government (12.40%) > Central government (8.99%) > High and HS School (8.47%) = Bank and Insur-

ance (8.47%). Tamangs are the most advantageous tribe of the study area and their distribution pattern in proportion to the total ST employees is: State government (37.01%) > Primary School (36.45%) > High and HS School (32.20%) > College (31.25%) > Bank and Insurance (23.73%) > Central government (23.31%). Sherpas fulfil their reservation quota in bank (16.90%), State government (13.78%), Central government (12.50%) but they fail to fulfil their quota in Primary School (2.80%) and High and HS School (0.85%). Most Bhutia employees are absorbed in Bank and Insurance (35.59%) followed by Central government (14.29%), College (12.50%), State government (12.20%), Primary School (12.15%), High and HS School (11.86%). Yalmo fails to fulfil their reservation quota in all types of job and remains unrepresented in Primary School, College and Bank- Insurance. Except High and HS School (9.32%), all the Other tribes fail to fulfil their reservation quota in all any types of job.

The reservation quota for each tribe is better represented by Columns 4, 7, 10, 13, 16, 19 and 22 of the table-7. A perusal of table shows that Lepchas in two sectors [Primary School (10.56%) and High and HS School (11.11%)],Tamangs in four sectors [State government (11.34%), Primary School (12.11%), High and HS School (9.82%) and Bank and Insurance (9.52%)],Bhutias in one sector [Bank and Insurance (14.29%)] fulfil the reservation quota and in rest of the sectors each tribe remain less than the assigned quota of job. Out of 42 entries only in seven sectors (16.68%) the reservation quota has been fulfilled by the individual tribe across the different types of job. Tribes not only fail to fulfil the reservation quota but remain unrepresented in five sectors in their own homeland. This is a sign of marked inequality and uneven distribution of ST employees among the employees across the sectors in the study area. Individually the Tribes are not getting justice and they fail to get the constitutional right in getting job indifferent sectors.

Section: V

5: Epilogue:

Kalimpong hill is inhabited by the Tibeto-Burman linguistic group of tribes. The dominant tribes in this area are: Lepcha, Limboo, Sherpa, Tamang, Bhutia and Yalmo. It has been seen that in Kalimpong Municipality and Kalimpong-I as high as 95.60% employees belong to these six types of ST population and only as low as 4.4 % are by the rest 36 ST of the state of West Bengal. Out of 2801 employees in the study area, the proportion of ST employee to the total employees is 30.85% which is four times more than the Constitutional reservation of 7.5% job for the ST. The six major tribes occupy as high as 29.49 % of total employees and 95.61% of .ST employees in the study area

There is inter-tribe inequality in the job sector. The proportion of employees corresponding to the total employees is not uniform. The share of STs to the total employees is the highest for the Tamangs (10.60%) followed by the Lepchas (7.43%), Bhutias (4.28%), Limboos (3.64%), Sherpas (3.25%) and Yalmo (0.29%). Except Tamangs and Lepchas, no Other tribes could fulfil the reservation quota for the tribes. Similarly, among the tribal employees, Tamangs (34.38%) get largest percentage of employees followed by the Lepchas (24.07%), Bhutias (13.89%), Limboos (11.81%), Sherpas (10.53%) and Yalmos (0.93%). There is inter-sectoral inequality of job among the tribes as well. Tamangs (37.01%) are dominant in State govt sector; Lepchas (33.33%) in Central govt sector; Bhutias (35.59%) in Bank and Insurance sector. The position of the Yalmo tribe is pathetic and they obtained least job among the six tribes and in all the six sectors under consideration. They remain un-representatives in three sectors: Primary School, College and Bank and Insurance and their representation in the other three sectors is also very negligible.

Inequalities have also been noted in cases of gender and religious position of employees in the study areas. Sector-wise Tamang females are dominant in state govt, College and High School; Lepcha females in Primary schools; Bhutia females in Central govt, and Bank and Insurance sector. Non-entry of the females in at least nine cases is really a matter of great concern. Religion-wise the Buddhists are more dominant in State govt and Central govt jobs, Primary School and College employees; Christians in High and Higher Secondary Schools. Inter-tribe inequalities have also been noted across the sectors and tribes.

The present study may be considered as pioneering one in identifying the present status and associated situations of inter-tribe inequalities in the public sector jobs in the hill economy of Kalimpong. The quantum and magnitude of inequalities may be different in different situations and among different tribes but their presence may be the cause of existing economic inequalities and may generate various social tensions in the region. Time and financial constraints restrict the present study to have rigorous and in-dept study of the problem. Anyway, the present study may be considered as diagnostic one and expects more research to unveil many dimensions of inequalities of public sector jobs particularly among the tribes of the hill economy.

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Underage Marriage of Girls in West Bengal:
The Determining Factors

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Abstract

Underage marriage is practiced globally and is the main hindrance to women empowerment. Though the intensity of the problem has decreased, it is still an area of concern in developing countries like India. Being a country of variation in caste, creed, and lifestyle, different states of India are performing differently. West Bengal topped the chart in the recent National Family Health Survey data for the period 2019-2021, with child marriage among women of 20-24 years remaining stagnant at 41.6% from 2015-16(NFHS 4) to 2019-2020(NFHS 5), which is also much higher than the national level 23.3%. Thus, West Bengal is found to be the worst performer in this matter according to the latest data of the National Family Health Survey 5.

This paper is an attempt to identify probable factors behind the underage marriage in West Bengal which will further help in articulating the policy prescription as well.

Keywords: Underage marriage, National Family Health Survey-5, Logistic regression, Sectoral difference, West Bengal

Jel Code: B55, D10, J12, R10, R20, Z13

Introduction

The prevalence of early marriage has decreased over time globally and also in India. The 2030 Agenda for Sustainable Development started in 2015, the fifth goal was to reach gender equality by 2030 with 9 specific targets, of which the abolition of child marriage was one (Deere, 2018). To meet the target, many programs were introduced to address the problem of child marriage and gender equality, but still, some states perform below the national average. According to NFHS-5 (2019-21), West Bengal experiences the highest rate of child marriage. McCleary-Sills et al.,

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(2015) highlight that the girls from poor households are twice much likelier to get married before 18 years than those from richer families. According to E.P &Poonia (2015) the less educated people in Rajasthan prefer brides below 18 years of age.

A study by Binu et.al, (2022), using NFHS 4 data, found that a mother's education directly and also indirectly affects child marriage. Besides, girls' education, caste, and wealth index are found to directly affect child marriage, while religion indirectly affects child marriage. In another study in West Bengal by Chakraborty (2018) using NFHS 4 data, 10 years of schooling has been pointed out as an important factor that can reduce child marriage with the help of government initiatives.

According to Paul (2020) STs experience the highest child marriage rates followed by SCs and OBCs. Of all religious groups, Hindus have the highest incidence of child marriage compared to Muslims and other religions. However, a study by Modak (2019) reveals that the probability of child marriage is higher among Muslims than Hindus.

. In yet another literature by Dey & Ghosal (2021), apart from education, urban /rural indicators, wealth of household, religion, number of years lived in the place of residence, sex of household head, relation to household head, and exposure to domestic violence are also taken as indicators of child marriage.

Desai & Andrist (2010), found that wage employability, age at menarche, type of residence, consumer durables in dowry, cash in hand, and name in home papers are also looked up as determinants of child marriage.

A study by Modak (2019) reveals that wealth quantile is insignificant in the case of West Bengal and Andhra Pradesh. A study by Sumon (2014), found that husbands engaged in farming and business go for more child marriage than those engaged in service.

In this paper, we will try to identify the probable factors behind underage marriage in West Bengal using data from NFHS 2019-20. For this purpose, the chapter is written under the following heads: Section 2 outlines the objective of the study, Section 3 mentions the methodology, Section 4 explains the results and lastly Section5 provides the conclusion.

2. Objectives

West Bengal comes first with the highest rate (41.6%) of underage marriage according to NFHS-5 (2019-20). The objective of the paper is to study the important determinants of child marriage in West Bengal from NFHS 5 (2019-20) data.

The explanatory variables taken for the study are divided into two groups: household-specific factors and women-specific factors as given below.

Categorical explanatory variables:

Household-specific Factors: It is worth mentioning that 7.34% of the girls married below 18 years are Schedule Tribe whereas the percentage is 32.07 for Schedule Caste. In terms of social groups, it is visible that underage marriage is less prevalent in Scheduled Tribes as compared to Scheduled Castes. Mandal & Roy (2013) highlight the existence of matriarchal social structure in tribal communities in West Bengal. The smaller percentage of underage marriage among tribal communities highlights the same fact as well. 71% of underage marriages are from rural areas, while only 21% are recorded from urban areas implying much higher observance of underage marriage in rural areas.Interestingly, 85.31% of girls married at an early age in West Bengal belong to families where the household head is a male member. Only 2.65% of household heads from where early marriages of girls have taken place have received higher education. 49.06% of those girls getting married underage have a BPL card i.e., 49.06% of girls marrying before reaching 18 years live below the poverty line.

Women-specific factors: 29.71% of women completing 10 years of education have undergone underage marriage.1.29% of the girls married underage are engaged in the agricultural sector. 94.73 % of girls married at an early age experienced first-time periods, starting after a mean age of 13.32 years, implying a tendency to marry off the girls immediately after menarche. It is pertinent to mention here that mean age of underage marriage in West Bengal is 15.08%. 22.87 % girls from the sample were married off after the implementation of the West Bengal Government's Kanyashree project, i.e. after 2013. 15.11% of the girls were married underage after 2013.

The quantitative explanatory variables are also divided into two categories as follows:

Household-specific factors: The mean normalised wealth score is -0.422. For girls married underage, it is -0.652. The mean number of family members is about 5 among women in West Bengal. It is about the same for girls undergoing underage

marriage. The mean age of household heads in the female sample of West Bengal is about 47.6 years whereas for the girls married before reaching 18 years is 45.6 years.

Women-specific factor: The mean years of education for girls in West Bengal is about 7 years. For girls married before 18 years, it is about 5 years.

1.1. The urban-rural difference:

From the descriptive statistics of NFHS 5 a few points on rural-urban differences are noteworthy:

1. Household heads of 5.54% of those urban girls getting married before reaching 18 years have got higher education while the figure is as low as 1.88% for rural areas

2. The mean years of education of urban girls is about 9 years compared to 6 years for girls in rural areas.

3. The mean years of education for urban and rural girls undergoing underage marriage is only about 6 and 5 years respectively.

4. 4.The mean normalised wealth score is negative for rural areas. Again, those getting married before 18 years have a poorer mean wealth score in both urban and rural areas.

5. The percentage of underage marriage after 2013 has decreased in both urban and rural areas.

3. Methodology:

In this study, we have used data from NFHS 5, which was conducted in the year 2019-21. However, the data for West Bengal was obtained in 2019-20. This sample survey is a cross-sectional survey of 636,699 households, 724,115 women, and 101,839 men of age groups 15-49 years among women and 15-54 years among men. Besides providing data on health, the objective of the survey is also to look into the effectiveness of different programmes and to identify the scope of introducing new programs for addressing different sections of people.

For our purpose, a dichotomous variable Y is defined as

$d_{marriage}$ = 1,if the girl child is married off before the age of 18 years

= 0, otherwise

The Logistic regression equation is the following

Where F follows a logistic distribution. Xis a vector of explanatory variables, which contain household-specific information that forces a girl child to get marriedbefore the age of 18 years and β is the vector of coefficients for the explanatory variables. β is estimated using the maximum likelihood method.

The problem in the standard error of the regression coefficients has been addressed in two ways. First, we have used the survey weight as the probability weight which is the inverse of the probability of the sample point to be chosen from the population. Second, the household might have more than one girl of different ages eligible for marriage. As a result, the response of the household in determining the marriage age for each might be correlated with the marriage age of other siblings in the household. Hence, we have used the clustered standard error where the variable used for the clustering is considered to be the household itself.

Table 1: Marginal effects of the explanatory variables on the probability of a girl getting married before reaching 18 years.

Variables	Marginal effects
Household specific factors	
Normalised Wealth Score	-0.021**
	(0.008)
Scheduled tribe	-0.075**
	(0.031)
Scheduled caste	0.005
	(0.015)
Hindu	0.147***
	(0.047)
Muslim	0.161***
	(0.050)
Husband in agriculture	-0.095***
	(0.024)
Husband in skilled and unskilled manual job	-0.069***
	(0.024)

Husband in other professional or clerical job	-0.074**
	(0.030)
Urban area	-0.079***
	(0.015)
Age of household head	-0.003***
	(0.000)
Household head male	-0.018
	(0.011)
Household head got higher education	-0.106***
	(0.025)
Daughter to household head	-0.016
	(0.013)
Granddaughter to household head	-0.207
	(0.136)
Sister to household head	-0.166***
	(0.063)
Number of family members	0.012***
	(0.001)
BPL card holder	0.022**
	(0.008)
Parents alive	0.405***
	(0.042)
Women specific factors	
Education in single years	-0.024***
	(0.002)
Owns a house alone	0.113**
	(0.044)

Girl is not working anywhere	0.089***
	(0.022)
Girl engaged in agriculture	0 .019
	(0.053)
First period lately started	-0.340***
	(0.025)
Married after 2013	-0.302***
	(0.023)
Pseudo R^2	0.1683***

Figures in parentheses represent standard error of the coefficient.

*** represents significance at 99% C.I (P<0.01)

** represents significance at 95% C.I (P<0.05)

* represents significance at 90% C.I (P<0.10)

4.1 The Rural-Urban difference:

Table 2:Marginal effect of the explanatory variables in urban and rural areas on the probability of underage marriage

Variables	Marginal effects	
	Urban	Rural
Household specific factors		
Normalised Wealth Score	-0.042***	-0.012
	(0.015)	(0.010)
Scheduled tribe	0.042	-0.074**
	(0.063)	(0.032)
Scheduled caste	0.007	0.001
	(0.022)	(0.021)

Hindu	0.174** (0.087)	0.149*** (0.057)
Muslim	0.153* (0.080)	0.173*** (0.063)
Husband in agriculture	-0.148** (0.062)	-0.081 ** (0.032)
Husband in skilled and unskilled manual job	-0.102*** (0.031)	-0.054 (0.39)
Husband in other professional or clerical job	-0.113** (0.047)	-0.039 (0.043)
Age of household head	-0.003*** (0.001)	-0.003*** (0.000)
Household head male	-0.009 (0.013)	-0.022** (0.012)
Household head got higher education	-0.083*** (0.024)	-0.108*** (0.029)
Daughter to household head	0.008 (0.021)	-0.030** (0.013)
Granddaughter to household head	-0.140 (0.236)	-0.281* (0.155)
Sister to household head	-0.042 (0.108)	-0.227*** (0.048)
Number of family members	0.013*** (0.004)	0.011*** (0.002)
BPL card holder	0.025*** (0.009)	0.020 ** (0.011)

Parents alive	0.353*** (0.119)	0.422*** (0.053)
Women specific factors		
Education in single years	-0.025*** (0.002)	-0.022*** (0.002)
Owns a house alone	0.155* (0.080)	0.085 (0.052)
Girl is not working anywhere	0.106*** (0.034)	0.081*** (0.030)
Girl engaged in agriculture	0.390 (0.254)	0.004 (0.054)
First period lately started	-0.384*** (0.021)	-0.326 *** (0.031)
Married after 2013	-0.353*** (0.028)	-0.286*** (0.024)
No. of observations	4579	10989
Pseudo R^2	0.1941***	0.1211***

Figures in parentheses represent standard errors of the coefficient.

   *** represents significance at 99% C.I (P<0.01)

   ** represents significance at 95% C.I (P<0.05)

   * represents significance at 90% C.I (P<0.10)

4. Results:

   Table.1 shows the marginal effects of results obtained by the running logistic regression for West Bengal.

   Firstly, we observe that whether the girl is from a scheduled caste, the sex of the household head, all relations to the household head, except being a sister to the household head, and whether the girl works in agriculture are not significant factors

in explaining underage marriage in West Bengal in general.The significant factors are discussed below.

Household-specific factors:

The negative sign of the marginal effect of the wealth index shows that an increase in wealth lowers the probability of early marriage. Belonging to a Scheduled Tribe negatively contributes to early marriage. In terms of social groups, it is visible that underage marriage is less prevalent in Scheduled Tribes which is highlighted in Mandal & Roy (2013). The existence of a matriarchal social structure in tribal communities in West Bengal might be the probable reason. The positive signs of the marginal effects of the households belonging to Hinduism and Islam indicate that those households are more likely to practice underage marriage. The occupation of the husband is also found to be a significant determining factor in lessening the probability of early marriage, where the husband working in the agricultural sector is found to reduce the probability of early marriage more than other professions. Residing in urban areas is anotherfactor that significantly affects the probability of underage marriage.

The effect of the age of the household head on the probability of early marriage is of high significance. The negative sign of the marginal effect depicts the lower probability of early marriage in families with older household heads. Younger household heads are found to engage themselves more in early marriages. Thus, they are more prone to conduct underage marriage of their family members too (Marshan et.al, 2013).

The higher education of the household head is significant in explaining the lessening of the probability of underage marriage. In the Indian family structure, the household head is expected to be the ultimate decision-maker. Hence, an educated household head is expected to be more aware of the menace of early marriage and as a result, the probability of a girl getting married off early reduces when the household head's years of education increase(Marshan et.al, 2013).

In terms of family dynamics, the relation to the household head also plays an important role in determining the age of marriage of the girl child. But in our study, only sister to the household head is a highly significant explanatory variable,

Another explanatory variable taken is 'parent alive'. It is also found to be statistically significant. Though the literature says that if parents are alive, then it will lead to lesser child marriage (Bhan et.al, 2019), our findings indicate a higher probability of underage marriage of a girl if her parents are alive. We can state the secu-

rity reasons (Jensen & Thornton, 2003), or the lack of bonding of the child with her parents (Bhan et.al, 2019).

Number of family members has a significant effect on the probability of underage marriage. The positivity of the marginal effect implies more the number of family members, a girl will have a higher probability of getting married before the legal age. Further, a larger family size reduces the per capita income and it has been found that girls get victimised more in poverty-stricken families(Zegeye et. al, 2021).

In this study, we have used BPL card holding as an indicator of poverty. The variable 'BPL card holding' is significant in explaining the probability of a girl undergoing underage marriage. It depicts that an increase in poverty will lead to an increase in the probability of a girl getting married before reaching 18 years of age. (Jensen & Thornton, 2003; McCleary-Sills et. al, 2015).

Women-specific factors:

Education of the girl (in single years) is significant in explaining the probability of marriage of the girl before reaching 18 years. The negative sign of the marginal effect reflects the inverse relation between the education of the girl and the probability of her underage marriage.

In a study Desai & Andrist (2010), it was observed that the names of females in house papers imply empowerment and decrease the probability of underage marriage. In our study, we found that owning a house alone by a woman is a significant determinant of underage marriage, but ownership of a house alone by a girl leads to an increase in the probability of her underage marriage. It can be attributed to the absence of a family head when an unmarried girl gets single ownership of a house. In that case, the relatives may take the initiative to get the girl married at an early age for security reasons.

Our model shows that anon-working girl faces a higher probability of child marriage but the type of the occupation is not showing any direction. Being not engaged in any job is thus found to be an important determining factor. It has been established in the literature that wage-earning women are expected to have higher bargaining power as compared to non-wage earners. As a result, we can infer that non-working girls having less bargaining power are expected to be victimised to underage marriage.

The time of starting of the first menarche is inversely related to the probability of early marriage, i.e. higher age of menarche significantly lowers the probability

of early marriage. In many cases, parents marry off their daughters at the onset of menarche (Desai & Andrist, 2010 and Roest, 2016).The age of menarche is also found to be inversely related to the socioeconomic status of the girl(Deardorf et.al, 2014).

The novelty in the model is that we have used a variable 'married after 2013'. 2013 is the year when the Kanyashree project was launched in West Bengal by the hon'ble Chief minister, with the primary aim of controlling underage marriage. Through this variable, we want to check the effect of the project. The variable is found to be highly statistically significant. The negative sign of the marginal effect states that married after the year 2013 implies a lesser probability of a girl getting married before reaching 18 years of age.

4.1. Sectoral Differences

In Table.2. we have also computed the marginal effects of the same variables in rural and urban areas separately. It is evident from the table that there exist sectoral differences in terms of explaining underage marriage. We can see that the normalised wealth score has a differential effect in two sectors on the probability of a girl getting married before attaining 18 years of age (significant in urban areas, but not in rural areas). However, the normalised wealth score is negatively associated with the probability of underage marriage. Since the percentage of the population belonging to the Scheduled Tribe is larger in the rural areas, it is negatively associated with the probability of underage marriage only in rural areas but has no significant effect in urban areas. The effect of religion is neutralised to some extent in urban areas due to the better scope of education in this area. In the context of the occupation of the husband, the occupation status of the husband (for agriculture, and skilled and unskilled jobs) is negatively associated with the probability of underage marriage in overall marginal effects, but marginal effects under sectoral differences highlight that the husband working in the agricultural sector explains underage marriage in both rural and urban areas. Again, a husband working in a clerical job or other profession explains the same better in urban areas, with no significant effect in rural areas. From overall marginal effects, we know that girls belonging to households with BPL cards are more susceptible to underage marriage. However, sectoral differences highlight that BPL card holding is only significant in rural areas. Similarly, single ownership of a house by a woman is significant in explaining underage marriage in urban areas only.

5. Conclusion:

To conclude, the main determinants of the underage marriage of girls in West Bengal can be attributed to the caste, religion, education level of the girl or her family head, the wealth of the family, number of family members, presence of parents, and whether the girl is working or not. There is also a difference in determinants or their importance in explaining underage marriage in girls of West Bengal in urban and rural areas. As we have already seen in our study the normalised wealth score is a significant factor inthe increase in the probability of a child getting married before reaching the legal age of 18 years only in urban areas. Thus, any measure to control early marriage by influencing wealth acquired will be effective only in urban areas. It is also very important to note that the education of the girls and also the decision-maker (household head) is significant for both urban and rural areas. Besides, whether the girl is earning or not is also important in both urban and rural sectors. Thus, programmes for the expansion of education, of not only girls but also boys are required, along with employment opportunities for girls. There should be separate and regional solution programs based on the difference of determinants. The Kanyashree Prakalpa was adopted in 2013, after which child marriage was primarily reduced due to an increase in family wealth and also an incentive to remain in education till the legal age of marriage. The real effect of the program is still to be reviewed.

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ICSSR-ERC Sponsored Two Day 44th National Annual Conference of
Bangiya Arthaniti Parishad
(Bengal Economic Association (BEA) on
Evolution of the Indian Economy Since Independence and
"Viksit Bharat' @ 2047:
Whether Dreams Will Meet Delivery, **organized by BEA in collaboration**
Kalimpong College 3rd-4th May, 2024: A Report

The Bengal Economic Association (BEA) in collaboration of Kalimpong College, West Bengal had organized for the first time at Kalimpong College an ICSSR-ERC Sponsored Two Day 44th National Annual Conference of Bangiya Arthaniti Parishad (Bengal Economic Association (BEA) on *Evolution of the Indian Economy Since Independence and "Viksit Bharat' @ 2047: Whether Dreams Will Meet Delivery,* during 3rd and 4th May, 2024.This is the first time for BEA in its history to hold a national conference at a Hill area of West Bengal.

The first day session started at 10 a.m under the Chairmanship of Shri Sanatan Mondal, Advocate, Calcutta High Court. After National Anthem, Lighting of Lamp, felicitation of guests, welcome address was delivered by Mrs. Devi Chettri, Associate Prof, Kalimpong and Teacher-in- Charge. Inaugural speech was given by Prof. Saibal Kar, Hony –Director. ERC- ICSSR, RBI Chair Professor. There after Mr. Subhramanian T, IAS, District Magistrate, Kalimpong, WB. delivered a speech about importance of economics and the activities of Kalimpong College. Thereafter at 10.50 a.m, 2024 Conference President Dr. Asim K. Karmakar (also the Association President 2024-27) delivered his Presidential Address on *The Emergence of Platform Capitalism & Its Consequences for Indian Society.* Before that, Dr. Karmakar spoke on the activities of BEA as well as its future venture. Thereafter, the Keynote address on *Agricultural Finance, Change in Cropping Pattern and Agricultural Growth in India: A State Level Analysis* was delivered by Dr. Subrata Kumar Ray, Secretary, BEA & Principal, Prabhu Jagatbandhu College, Andul, Howrah.

After Tea-Break, at 12 p. m, **S.N. Sen Memorial Lecture** was delivered by Prof. Saibal Kar, director, ICSSR ERC, Kolkata. The theme of his lecture was on *Perceived Corruption, Economic Freedom and Firms in India.* The session was conducted by Dr. Gopal Chandra Mondal of Prabhu Jagatbandhu College. Thereafter **8th Giribala Karmakar Memorial Lecture** on *Creditor Protection and Credit Market Development in emerging Countries* was to be delivered by Prof. Prabirjit Sarkar, Former Professor, Department of Economics, Jadavpur University. In his

absence, Prof Sarkar's Lecture was read by Dr. Krishna Singh, Assistant Professor, University of Gour Banga, Malda with power point. The session was chaired and co-chaired by Dr. Tushar Das, Headmaster, Sadananda Mission High School and Nabanita De, SACT, Dept. of Economics, Charuchandra College, Kolkata respectively.

Two special Lectures were arranged during this time. One Special Lecture on **Transport Policy of India** was delivered by Prof Sudakshina Gupta, Department of Economics, Calcutta University with the Chair and Co-chair respectively by Dr. Subrata Kumar Ray and Sarad Gurung of Kalimpong College.

The 2nd Special Lecture was delivered by Dr. Budhen Kumar Saikia with the Chair and Co-chair respectively by Dr. Debasis Mukhopadyay, Principal, Sreegopal Banerjee College, Mogra, Hoogly, West Bengal and Sakhi Roy, Assistant Prof. Dept of Economics, Amity University, West Bengal.

After launch break, Prof. Mahalaya Chatterjee, University of Calcutta delivered a lecture presided by Dr. Sushma Roy of Kalimpong College. After that, Two Special Lectures on West Bengal Hill Economy were arranged. The 1st speaker on this session was Dr. Gopal Chandra Mandal, Associate Prof., Dept. of Economics, Prabhu Jagatbandhu College, with Chair, Co-chair and rapporteur were respectively Dr. Kalpana Prasad of Department of Political Science, Yojna Kharga, Dept of Economics., Kalimpong College and Jennifer Lama, Department of Geography, Kalimpong College. Thereafter there were two special Lectures. One Special lecture on *Women Empowerment as a Path to Future Development: The India Story* was delivered by Tapan Purkait, SACT, Netaji Nagar Day College, Kolkata. The other special lecture was delivered by Dr. Sanghamitra Brahma, HoD, School of Economics, Amity University, Kolkata on " *Redefining Viksit Bharat@2047: Happiness Induced Development Mode*l". The session was Chaired and Co-chaired respectively by Dr. Dulal Chandra Roy, Associate Professor, Dept of Economics, Kalimpong College (Rtd.) and Ajay Lama of Kalimpong College. Thereafter a lively and colourful cultural function by the girl students of Kalimpong College was held. Thus ends the first day.

The 2nd day of the Conference (4th May,224) started at 10 a.m. with a special Lecture by Dr. Dipanshu Debchowdary, Associate Professor, Department of Economics, ICFAI University, Tripura, with the Chair and the Co-chair Subhajoyti Majumder, Former DGM, Dena Bank and Tapan Pukait respectively..

Thereafter, started technical sessions. Abstract of the contributed papers (more than 40) were published by BEA in the book on abstracts. There were **four** Technical

sessions on separate sub-themes. **Technical Session-1** was chaired and co-chaired respectively by Sakhi Roy and Dr. Aditya Subba, Department of Geography. 9 papers were presented in this technical session. ***The 2ⁿᵈ technical session*** was chaired and co-chaired respectively by Mrs. Yojna Kharga and Mrs. Debjani Pathak, Assistant Professor of Sonarpur Mahavidyalaya, West Bengal. 9 papers were presented in this technical session. **The 3ʳᵈ Technical Session** was chaired and co-chaired respectively by Dr. Sanghamitra Brahma of Amity University and Anupampa Subba, Department of English & IQAC Co-ordina.11 papers were presented in this technical session. **The 4ᵗʰ Technical Session** was chaired and co-chaired respectively by Dr Gopal Ch. Mondal & Dr. Sudip Jana (Joint Secretary, BEA) respectively. 12 papers were presented in this technical session.

After Launch Break, at 2p.m. two special lectures were arranged. One on Hill Education and the other on *Hill Tourism from the Economic and Social Perspectives*. The first lecture on *A Brief History of the Educational Journey of Kalimpong (1865- till date)* was delivered by Devi Chettri, Associate Professor and Teacher–in–Charge, Kalimpong College. The 2ⁿᵈ one was delivered by Yojna Kharga. The session was chaired by Dr. Asim K. Karmakar. At 3.30, p.m Sakhi Roy of Amity University delivered a lecture on **"***Digital Banking among SHG Women: A Pilot Study on Adoption, Ability and Attitude***".** The Session was chaired and co-chaired respectively by Dr. Subrata Kumar Roy and Mrs. Somnath Karmakar.

In addition to that, Best Paper Award was announced meanwhile by the President of Parishad from among the students' paper presentations. This was the first initiation by the BEA in its history. Every Chairperson of the 4 technical sessions was requested to announce the best paper from his session. In these way four students were awarded the best paper award each with worth INR 1000.

The Valedictory Address was delivered by Dr. Shyamalendu Chatterjee, Former Principal, Chittaranjan College, Kolkata & Vice-President, BEA under the chairmanship Dr Debasis Mukhopadyay.

He made an exhaustive coverage on the topic throughout the two-days with so many participants throughout India. The chairman of the session appreciated the lecture due to its extensive discussion over the topic. Finally Yojna Kharga concluded the two-day conference by giving vote of thanks and appreciating the presence and deliberations which made the conference a great success.

President

Bangiya Arthaniti Parishad (BEA)

1. Book Review

Robotization and Economic Development (September 9,2022),
Siddhartha Mitra, Routledge India.

pp vii+150, Price INR 995. ISBN : 9780367356095

This book critically examines the impacts of robotization on various socio-economic variables: employment, per capita income, quality of life and poverty in developing and developed economies. The book does not seek to generate numerical predictions for these variables as the author recognizes that outcomes would be a function of the policies that nations of the world implement. However, it seeks to uncover tendencies in the mentioned relationships and comes up with suggestions for policies that can leverage the benefits of artificial intelligence (AI) and contain its adverse impacts. The book speculates about the future in an AI driven world but also points out how this future would be a function of how policy makers react to this world.

Mitra starts by pointing out that the mechanization of the 18th and 19th century did not result in a decline in employment, the reason being the widening of the consumption base and increase in product variety that accompanied industrialization. This, he stresses, however does not mean that employment will remain unhurt by robotization: robots can function without human interference for long periods of time and therefore robot-human relationships are not marked by the same complementarity that have historically marked the relationship between man and machine.

The book introduces the reader to the key concepts that are needed to comprehend discussions on AI, thereby widening the readership of the book. It starts with a rudimentary sketch of the various channels through which robotization affects the economy in general and employment in particular: for instance, a fall in labour
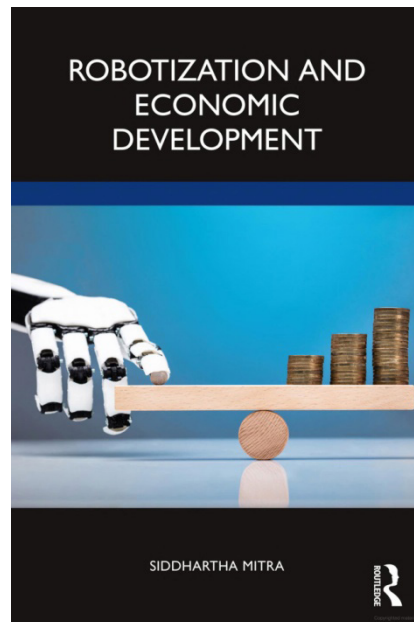
intensity counteracted by cost reductions and fall in prices. It goes on to look at case studies of how production processes in agriculture, manufacturing and services have been impacted by robotization, thus providing an input for the speculation mentioned above. An important development which has been taken cognizance of is machine learning through which a robot uses data on human actions to learn to perform these actions at a lower cost.

From case studies the author switches his focus to the academic literature in economics and what it has to say about the impact of artificial intelligence. As mentioned, there are positive as well as negative influences flowing from robotization to employment and much of the literature seems to point to the negatives outweighing the positives. In regard to per capita income, the author points out that AI has played a positive role by reducing transaction costs but has driven certain sectors to extinction. He however points out that free services have proliferated in the AI age, thus making income a biased measure of welfare.

The strongest section in the book is that related to policy recommendations. An elaboration is not possible in this review. Very briefly, the author emphasizes the need to provide a basic income to those rendered unemployed by robotization sourced from taxes on robotized production processes which would also serve to temper the instability created by robotization.

The book is marked by lucidity and is accessible not only to scholars and researchers in economics but also those in technology studies, digital humanities, labour studies, public policy, development studies, political studies and sociology.

Dr. Asim K. Karmakar

President, BEA

2. Book Review

Leading Issues in India's Economy: Giribala Karmakar Lecture Series in Economics-1,

edited by Asim K. Karmakar,

This is a collection of 7 papers written by eminent economists of world repute in memory of Giribala Karmakar, a great lady of the undivided Bengal. The series of lecture have been organizing by Bangiya Arthaniti Parishad every year at its Annual Conference held at different places.

First Giribala Karmakar lecture was delivered at Prabhu Jagatbandhu College, Howrah in the 37th Annual conference of the Bangiya Arthaniti Parishad in the year 2017 by Prof. Sebak Jana on the title *Higher Education in West Bengal: An Overview* (Ch .1). Jana stresses that higher education plays a pivotal role in the social, economic and scientific development of a nation. He notes that the State of West Bengal has had a great legacy of higher education in the country. In this backdrop, his paper is on the lookout for the present status of higher education in the state by delving deep into some important parameters in higher education and attempts to find the major areas of concern in the higher education sector in the state.
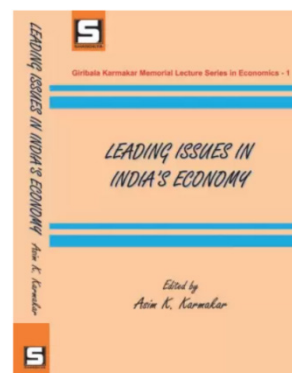
Siddhartha Mitra in the 2nd lecture *Contradictions and Complementarities between Neoclassical and Behavioural Economics: An Exploration* (Ch.2) held at Bijoy Krishna Girls' College, Howrah, has shown that the behavioural mission of modeling a human being as an agent driven by economic as well as psychological impulses can be accommodated to a large extent within the neoclassical framework (which consists of optimizing agents arriving at equilibrium).

The 3rd lecture *Risk Management: An Evolving Discipline* (Ch.3 delivered at Jadavpur University, Kolkata by Basabi Bhattacharya gives an overview of the pro-

cess of risk management which comes to the forefront of business practices. It discusses some risk disaster scenarios of the past, classifies major types of risks (those include credit, interest rate, foreign exchange, liquidity and operational risks, among others), summarizes the Basel issues, provides an insight into the features of financial risks, and briefly explains various risk measurement methods. It is proposed that a holistic approach following a system analytical framework is to be undertaken in order to deal with the risk complexities in the contemporary macro financial domain.

The 4th lecture was delivered at Bethune College, Kolkata in 2020 on *Trade and Transport Services in Indian Economic Growth* (Ch.4) by Madhusudan Datta. His lecture analyzes the dynamics of the most prominent intermediate service – distributive trade and related transport, clubbed together as TT-service. His model highlights that the share of TT service in GDP is driven by its two components: the intermediate trade ratio (TI/Y), which is the dynamic part and the final trade ratio (TF/Y), which is expected to be rather stable. The intermediate trade is influenced by the growing spread and rising depth of basically manufacturing. This derived nature of TT service, and more generally demand for service-I, makes it imperative that the phenomenal growth of value added in service-I of the Indian economy, leaving the goods sector (primary and secondary) way behind (discussed below), needs to be viewed with caution. As a related curiosity, we have examined the movement of relative weights of different sectors in aggregate final use. His finding is that manufacturing is the most dominant sector and service-I, being closely interrelated, has expanded roughly in tune with it.

The 5th lecture *Impact of Covid-19 Pandemic on the Indian Economy and Strategies for its Revival* was delivered (on line) at Prabhu Jagatbandhu College by Biswajit Chatterjee. He *argues* that the effects of the Covid-19 pandemic have many dimensions and they cover the entire globe and the entire humanity. This lecture attempts to review the adverse economic consequences of the pandemic on the Indian Economy, and critically reviews the different policy initiates taken by the government from time to time since March 2020 to restore normalcy and mitigate the hardships faced by the people .He suggests also an alternative path for recovery.

In the 6th lecture *Does Job Prospect Influence School Enrolment for Women in South Asia?* delivered (on-line) at Chittaranjan College, Kolkata Saibal Kar endeavours to link school enrolment to prospects in industry and service sectors in South Asian countries. He finds that rise in industrial jobs for women invariably attract female students to secondary school enrolment, which is not similar to rise

in job prospects in services. Female school enrolment is also strongly influenced by peer-effects. He eventually explores male industrial jobs and related interaction effects in establishing the proposed relation for eight south Asian countries between 1994 and 2018 via use of dynamic panel estimations.

The last lecture *Cashless Transaction in the Age of COVID-19 Pandemic* (Ch.7) was delivered by Malabika Roy at AJC Bose College, Kolaka attempt to fill a gap by adopting the multi-dimensional index of cashless transactions to analyze the impact of the Covid-19 pandemic on promotion of overall value and volume of the cashless transactions. She has shown that demonetization and post-demonetization policies had a prominent positive impact on the overall cashless transaction compared to the effect of the Covid-19 pandemic. She has also found, on the contrary, that in case of individual types of cashless transactions, the effect of Covid-19 is also very prominent.

The present edited volume addresses useful clues towards a critical understanding of the contemporary India including recent trends in behavioural economics, risk management, facts on Women in South Asia and Job prospects etc. Every chapter conveys very important lessons and the readers, especially students and research- scholars who want to get a feel for what is happening in the economy will gain a lot after going through these papers. I do hope that they will be provoked to go deeper into these issues. Hopefully this collection will prove useful to general readers and policy-makers.

Sovik Mukherjee

Managing Editor, Artha Beekshan

3. Book Review

India in Search of Glory: Political Calculus and Economy **(2022),**

Ashok K. Lahiri. Penguin, Gurugram,

pp. xxx + 790, INR 1499. ISBN : 978-0670092079.

The central theme of this work is the unfulfilled economic potential of India. The development of every economy, especially a democracy involves the political as well as social dimensions. In the 75 years of India's independence, we have come a long way. Notable commentaries on post-independence India have been written, but the story has rarely been seen through the lens of both economics and politics, with commentaries limited to one of these approaches. Ashok Lahiri, the author of *India in Search of Glory: Political Calculus and Economy*, beautifully narrates India's story, drawing on the collective wisdom of the mentioned disciplines.. This scholarly work is an engaging read because of its outstanding and painstaking research, deep insights, objective analysis that is rich in detail, and comprehensive conclusions and critique.
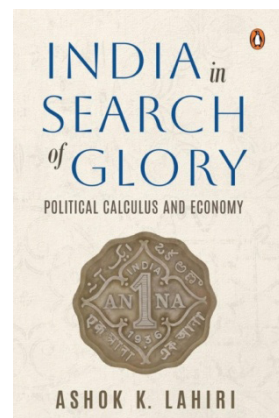
Shri Lahiri's narrative is divided into three parts. After providing the basic background information, Part I discusses the issues that a newly established nation faced and how these were resolved under the Nehruvian administration (1947 – 1964). Part II concentrates on the 27 years after Nehru (1964–1991), when popular engagement increased due to the Nehruvian period's social revolution and society began to lead the State instead of the other way around. The third and last section discusses the years 1991 –2019, when the society and the State were once again in balance. The recurring subject in all three sections of the book is how the political climate at the time affected the scope, character, and speed of economic reforms and policies.

The book has covered more ground than simply talking about India's economic growth and development; it also discussed the electoral logic of the country's policies and how it is evolving along with the country's dynamic transformation along

the lines of caste, ethnicity, religion, polarization. He writes:

"*Evidently, political fortunes of incumbent governments continued to be determined not by their economic performance alone; the interplay of politics and economic policy was a variegated one, with multiple layers. Democratic politics in India was, and still is, constrained by its social cleavages in terms of ascriptive group identities such as language, caste and tribe.*"

Shri Lahiri is, however, confident Indian democracy will start delivering better outcomes as ethnic identities lose their relevance in the near future. Dealing with diverse religious groups will continue to be a challenge for the Indian democracy, he adds. Another area where he has been clinically critical in his analysis is India's tryst with corruption; while acknowledging the difficulty faced in establishing the claims he has been censorious of the failures to prosecute the offenders. One of the major findings is that, like in many other large countries, separatist tendencies have emerged in India. It is possible that the only viable solution to address these tendencies was an assimilative democracy. The book also highlights the amount of work that has to be done on several fronts, but the roadmap for the same has not been covered in this book. This is what seems to be missing.

As we commemorate 75 years of independence, Ashok Lahiri's book is very relevant today. It discusses both the successes and the shortcomings of this quest for glory. It is clear that there is still more work to be done in the socio-economic arena, and that governments with strong leadership and resolve are needed.

Prof. Dr. Siddhartha Mitra,

Managing Editor, Artha Beekshan & Vice-President,
BEA

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1.Emerging Issues in Indian Banking: Performance, Challenges and Reforms (2019)

    Editors: **Asim K. Karmakar, Mou Roy and Samarjit Das**

    *Forword***: Biswajit Chatterjee**

    pp xv+236; Price INR1150; ISBN:978-93-88147-11-8

    Shandilya Publications: New Delhi.

2.Indian Economy: Liberalization, Finance and Education:

    Essays in Honour of Professor Dhires Chandra Bhattachayya (2021)

    Editors: **Biswajit Chatterjee & Asim K. Karmakar**

    pp xix +256; Price: INR 1250; ISBN:978-81-953868-7-1

3.Agriculture, Macroeconomy and Development in India (2023)

    Editors: **Biswajit Chatterjee & Asim K. Karmakar**

    pp xvi+327; Price INR 1900; ISBN:978-93-93934-06-2 (Royal Size)

    Shandilya Publications: New Delhi.

4. Leading Issues in India's Economy: Giribala Karmakar Memorial Lecture Series in Economics-1(2024)

    Editor: **Asim K. Karmakar,**

    ppxxvii+160; price INR 700, ISBN978-93934-73-4 (Royal Size)

    Shandilya Publications: New Delhi.

    Journal: Artha Beekshan (Quarterly Referred Journal)

    Current Issue: Volume 33 No. 1 & 2, June & September2024