



COULD ONLINE GIG WORK DRIVE ECONOMIC GROWTH?

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Preview of Presentation

- ▶ What is Gig?
- ▶ The Gig Economy: Its Impact on Employment and Productivity
- ▶ The Gig Economy and Income Distribution
- ▶ Demand Management Policy in a Gig World
- ▶ Policy Interventions
- ▶ Hypothesis Testing
- ▶ Results
- ▶ Conclusions

Who are the Gig Workers?

- ▶ The gig economy is defined as digital, service-based, on-demand platforms which is characterized by prevalence of short-term contracts as oppose to permanent jobs (Greenwood et al., 2017).
- ▶ There are two types of works: web-based work platform such as Freelancers and Upwork, which can be done from anywhere; and location-based work platform, which is done in the physical world through market style apps such as Uber and Airbnb.

Gig Workers



Sehrish I.

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Email & Chat Support Representative | E-Commerce | Drop Shipping | VA

\$8/hr



96% JOB SUCCESS (17 jobs)

Pakistan

These days one of the reasons good businesses become great is because of the loyalty they command from their customers. To command such loyalty from customers, you need to give excellent customer service. Good customer service is directly related to client satisfaction. If your client is not satisfied, you haven't provided good services. In fact, customer service analysis during the last

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Customer Service

Email Handling

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Data Entry

Email Technical Support



Mae P.

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Virtual Executive Assistant with Customer Service Experience

\$7/hr



100% JOB SUCCESS (21 jobs)

Philippines

Executive Virtual Assistant. Strong Customer Service Background. Data Entry Expert. Internet Researcher. Calendar Management and Database Building. Set-up and Maintain Social Media Accounts. Email Marketing. Customer Service and Quality Assurance. LinkedIn Recruiter. 7 years+ work experience as an Online Freelancer. 6 years work experience in a BPO company. I work with

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Live Chat Operator

Customer Service

Customer Support

Email Handling

Data Entry

Virtual Assistant

Gig Market

Excel Writer Needed (\$5.00-\$10.00/ Per Article)

Fixed-price - Posted 26m ago

\$1,000

Fixed Price

\$\$\$

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Business Services

Education

Financial Services

Instruction Manual

Patent

6 more

Source: UPWORK

Type of Gig Works

- ▶ Information Technology (IT), which is a combination of communications and computer technology.
- ▶ IT enabled services such as ecommerce and e-wallet.
- ▶ Digital start-ups.
- ▶ Retail, hospitality and fast-moving consumer good (FMCG) sector.

The Gig Economy: Its impact on Employment and Productivity

- ▶ From an economic perspective, a rise of gig economy is likely to increase overall productivity.
- ▶ Increase in productivity arise from an increase in labour force participation and getting access to lower salaried workers from cross borders, leading to more *specialization* and *standardization* of work.
- ▶ In line with Adam Smith principle of economic specialization, rather than hiring one generalist to complete all tasks, companies can designate task to various freelancers who specialized in that area.

Implications

- ▶ Workers from developing regions are likely to gain. By creating a level playing field for workers worldwide, gig economy represents factor price equalization outcome in a Heckscher-Ohlin-Samuelson (HOS) model type set-up.
- ▶ In a gig-world, low salaried service workers from India and elsewhere can now earn more by engaging in similar job profiles in a developed country like USA and countries within the European Union.

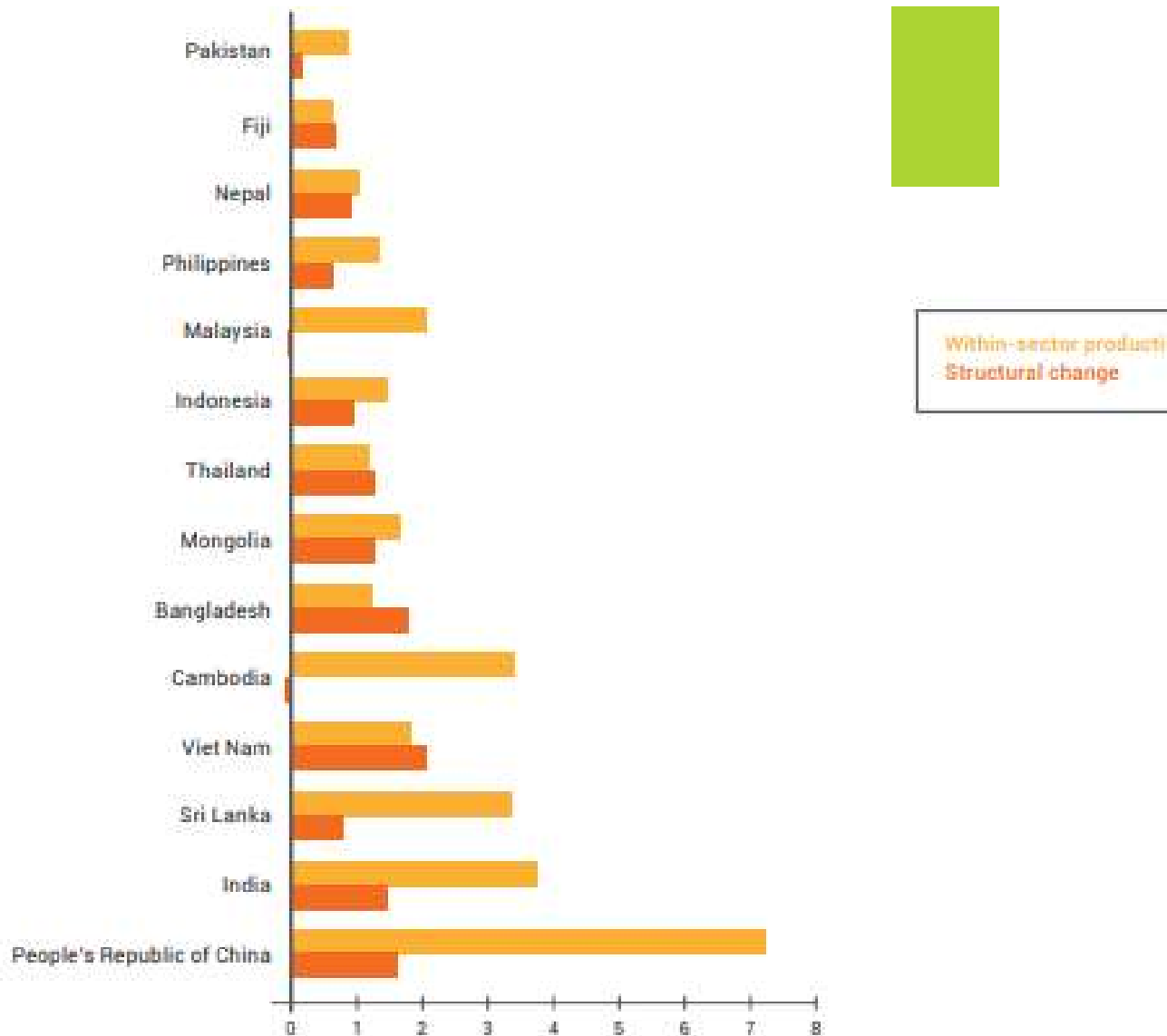
Implications



- ▶ For countries within Europe, faced with an ageing population and a restrictive immigration law, will now see an improvement in productivity thanks to participation from gig workers based in emerging economies.
- ▶ To maintain a stable population, 2.1 children should be born to each woman in an economy, assuming an average death rate applicable to the world's population. In contrast, the figures for some Euro-Zone economies are much lower: 1.38 for Greece, 1.39 for Spain, 1.41 for Italy and 1.94 for the UK. For Spain and Greece, the over-65-year population will increase from around 17% now to 25% by 2030 (Banik, 2012).

Components of Labour Productivity Growth (%).

Source: Asian Development Bank (2018)



The Gig economy and Income Distribution



- ▶ Full time employment in gig type set up may lead to lower income and economic vulnerability of workers in developed countries (Bergman and Jean, 2016).
- ▶ There are also apprehensions that technological innovation may lead to machines replacing human in economic activity (Nica, 2016; Peters, 2017).
- ▶ Atkinson (2018) argues much part of the job loss will be mitigated through the spread of gig economy, although at the cost of growing income inequality between high-skilled and lower-skilled workers, worldwide.

The Gig economy and Income Distribution



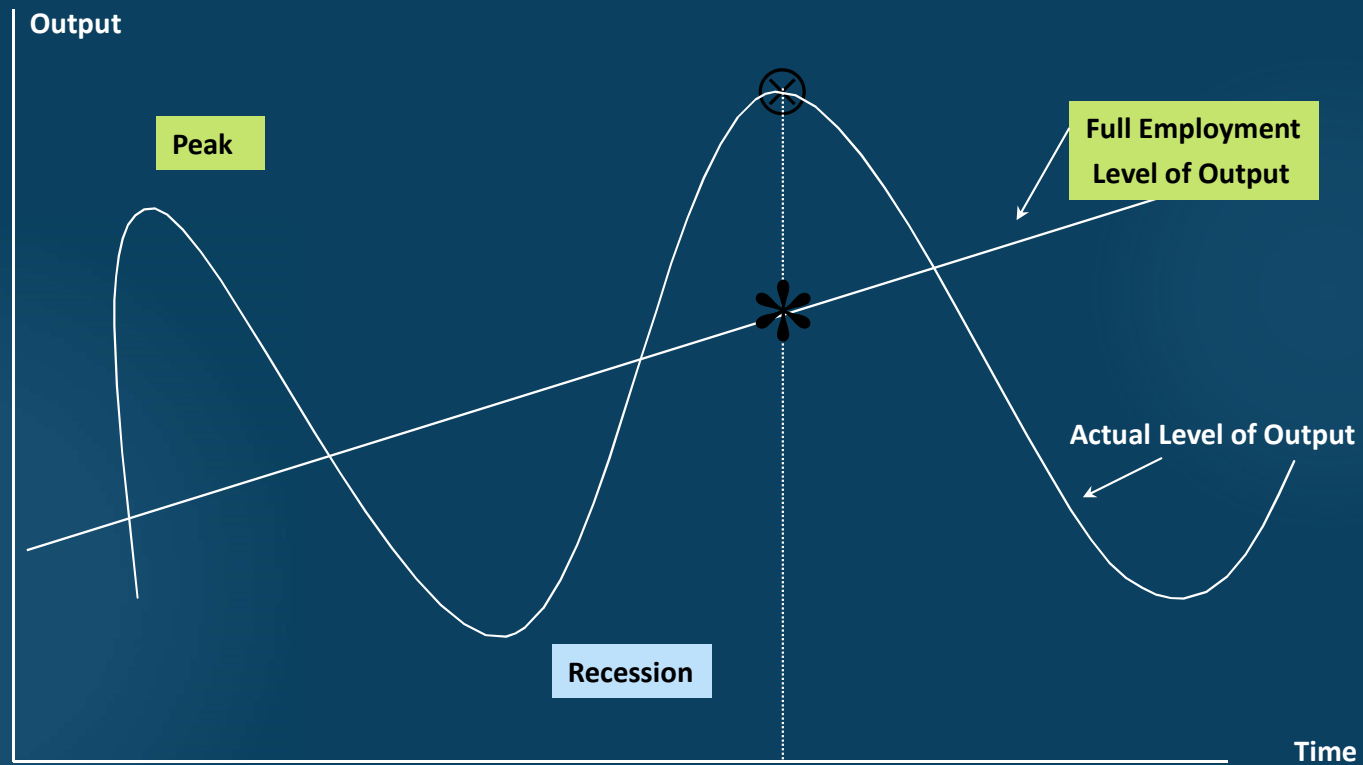
- ▶ An International Labour Organization report suggests gig workers in some developed countries are making less than the government mandated minimum wage rate. About two-thirds of the US workers working using Amazon platform (popularly known as *Turkers*) made less than the federal minimum wage rate of \$7.25 an hour and only 7% of Germans on the Clickworker platform made the statutory minimum wage of 8.84 Euros (\$10.40) an hour (Bershidsky, 2018).
- ▶ Polls from the US market show that the gig workers are happy. They are with jobs, and value the flexibility and freedom with which they can work in a gig type setup (Hall and Krueger, 2018).

Demand Management in a Gig World

Demand Management Policy is all about controlling for output gap.

Policymakers, representing government and central bank, would love to see a condition of a lower inflation and unemployment.

Full Emp. Level of Output Versus Actual Output



Policy Interventions



▶ Human Capital

▶ Ease of Doing Business

▶ Monetary Policy

▶ Fiscal Policy

Human Capital (Supply Side Intervention)

- ▶ From the supply-side perspective it is important government undertakes policy which will create additional number of skilled labour force.
- ▶ Much of the growth in South Korea has been attributed to the importance and investment in education.
- ▶ Daily, less than 2% of Indians who apply for jobs get them.
- ▶ The United Kingdom government is promoting robotics, 5G wireless internet and smart technologies while asking private sectors to sponsor 300 master students and 200 doctoral students in artificial intelligence every year.

Online shoppers who prefers to buy from Social Media (%)

Activity	High school degree or less	Some college	Bachelor's or more	Overall
Offline services	17	15	10	14
Offline sales	9	8	9	9
Online activities	13	16	19	16
Unspecified activities	3	4	5	4
Overall	30	31	31	31

Source: Federal Reserve Report (2018).

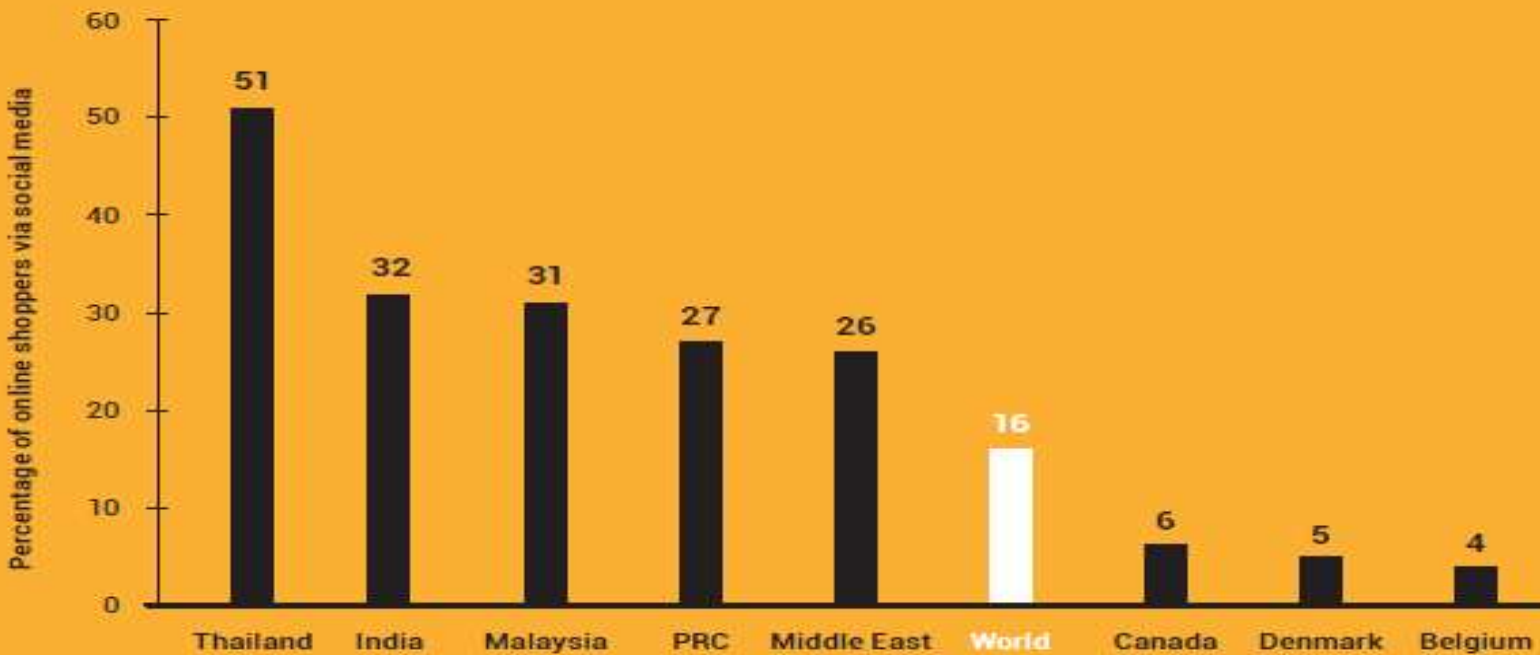
Ease of Doing Business

- ▶ The government should be an enabler, enabling policy and regulatory environment so that entrepreneurship and innovation associated with digital technology expand.
- ▶ As much of the growth is supported through the ICT, government should undertake investment in telecommunications, cybersecurity, internet, and ensure wide spread access. Investing in complementary infrastructure such as electricity connection, lowering logistic cost for setting up business, and enforcing contract will help.
- ▶ India's logistics sector is quite complex with more than 20 government agencies, 40 partnering government agencies, 37 export promotion councils, 200 shipping agencies, 36 logistics service, and 168 container freight stations. Further coordination between 81 authorities and 500 certifications are required to trade across borders.

Access to Capital (Monetary Policy)

- ▶ It is necessary that small and medium enterprises in a digital world get proper policy support in terms of access to credit and necessary demand creation wherein the government bodies commit to some amount of captive service generated in the digital start-up eco space.
- ▶ To facilitate growth of digital business there is a need for ensuring access to electronic payment systems.
- ▶ At the same time the central bank and other regulatory bodies should ensure that these payment systems are secure and in compliance to global standards.
- ▶ Digital currency such as *Libra* will be beneficial for those who does not have a bank account and can act as a great way for financial inclusion. However, it can be a cause for worry for central bankers, as such a digital currency can be used for money-laundering activities and evading tax.

Online shoppers who prefers to buy from Social Media (%)



►Source: PricewaterhouseCoopers (2016).

Welfare State (Fiscal Policy)



- ▶ A concern with the gig workers is that they do not adhere to laws involving (i) fair labour standards governing the minimum wage and work hour overtime, (ii) occupational, health and safety hazard covering the work related insurance, (iii) medical and sick leave allowance, (iv) pensions and annual leave/holidays, and (v) job discrimination relating to gender, caste, and creed.
- ▶ The big companies such as Facebook, NETFLIX, Google, etc., and the so-called UNICORN, have no social obligation and continue to pour money for growth of their respective company, with the objective to please their shareholders.
- ▶ In a gig setup, government lose money because of lack in tax collection. There is a problem in tracking how much gig workers are earning (from abroad) as some of the money transfer platforms are not integrated with the income tax portal in respective specific countries.

Recommendations

- ▶ There is also a requirement that government address the challenges associated with some workers getting displaced from technological disruption.
- ▶ For understanding which one of the sectors these displaced workers' skill and experience are better suited, the policymakers can make use of big data and Artificial Intelligence.
- ▶ Governments can work closely with business and training centres to impart necessary additional skill for the displaced workers.
- ▶ One policy that government can undertake to offset rising income inequality and fears that jobs that are made redundant will not be replaced by new ones in other areas is to start giving universal basic income.

Hypothesis

- ▶ First, does the advance of gig-type work has any impact on employment. The popular perception is a gig-types employment opportunity will lower number of professionals in the organized labour market.
- ▶ Also, during the time of recession, rather than participating in the organized labour market, workers will prefer to work in a more flexible work environment (for instance, work from home or without any binding on work hours) rather than sitting idle.
- ▶ Gig economy provides cushion wherein a job looker can find alternative employment without government intervention. Therefore, we expect to see number of professional workers in the organized labour market will tend to fall during the time of recession, and with the spread of gig economy.

Hypothesis



- ▶ The second hypothesis is number of professional workers are typically likely to benefit from the spread of service led economy and mobile subscription. As the new-age world is increasingly generating value addition from services (platform based economic activities) we anticipate there will be larger number of professional workers with the spread of mobile/internet connectivity and advancement of service led gig world.

Data

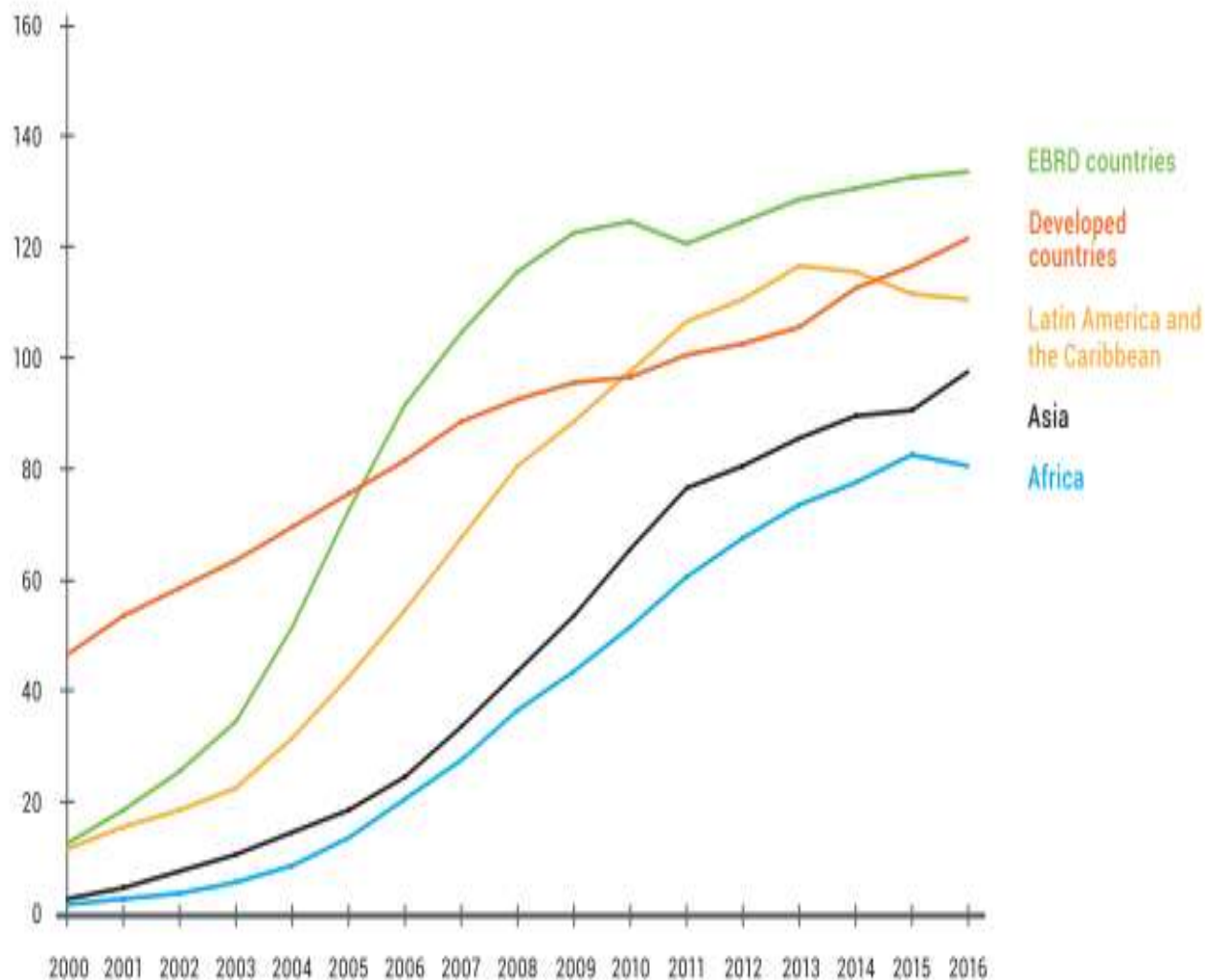


- ▶ For estimation, we have data for 6 countries in the Asian region covering the period between 2000 and 2018. Three of these countries, namely, Japan, Republic of Korea, and Singapore are categorized as high-income countries. And the other three countries are Bangladesh, India, and Philippines, which fall under middle-income category countries.
- ▶ Data on number of professionals in each country is collected from International Labour Organization (ILO), from their publication ILOSTAT.
- ▶ The data on number of mobile subscriptions per 100 people, and services as percentage of GDP are sourced from World Development Indicators, World Bank.

Data

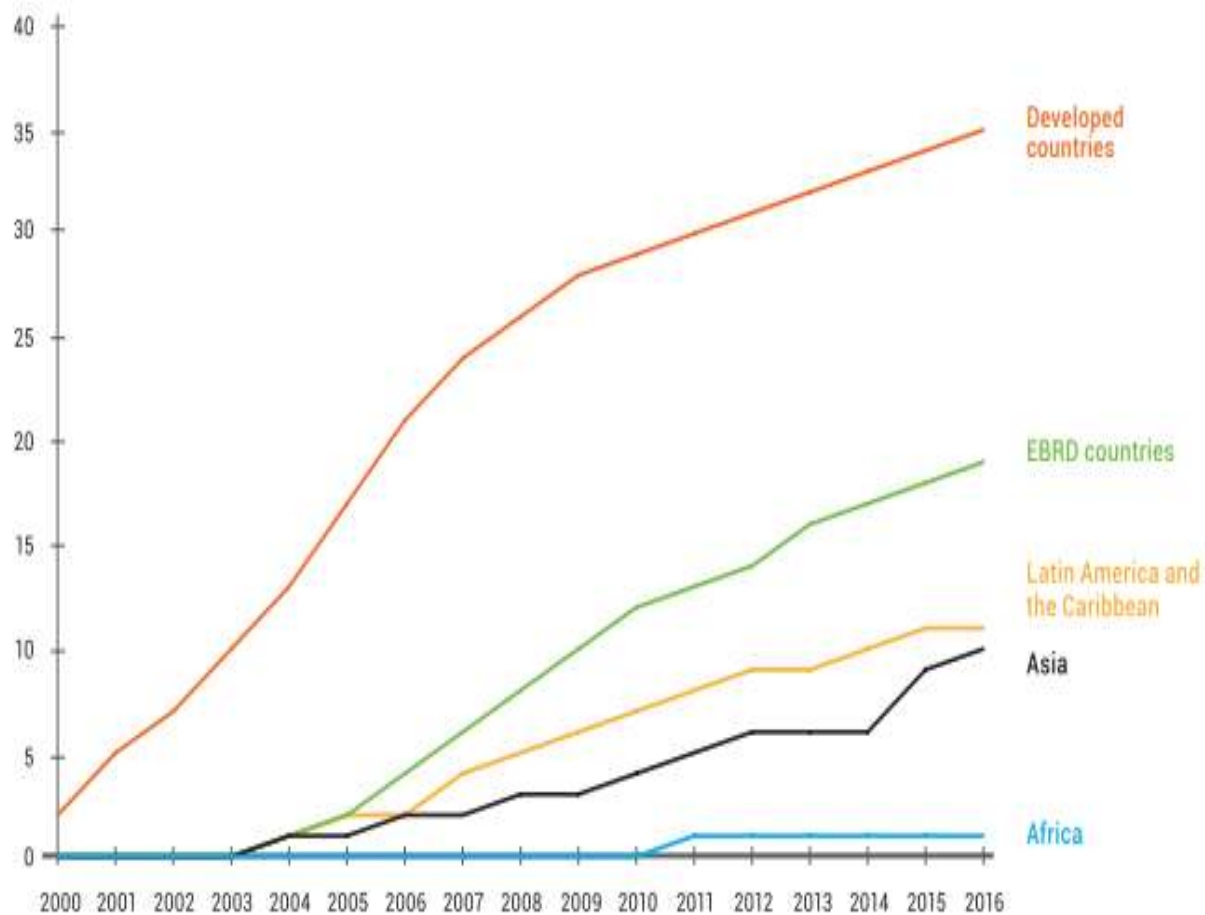


- ▶ Three types of dummy variables.
- ▶ First is the country dummy captured through variable D_i .
- ▶ Second is the recession dummy which takes value 1 between 2008 and 2013, and zero otherwise.
- ▶ The third dummy is the gig dummy. Going by the literature we take the year 2011 as the advent of gig economy. Accordingly, the gig dummy takes value 1 between 2011 and 2018, and zero, otherwise.



Mobile Cellular Subscriptions (per 100 people)

Source: World Development Indicators



Fixed broadband subscriptions (per 100 people)

Source: World Development Indicators

Model

$$P_i^t = \alpha_1 + \alpha_2 S_i^t + \alpha_3 M_i^t + \alpha_4 D_i + \alpha_5 RecD + \alpha_6 GigD + e_i^t$$

P_i^t is the number of professionals in country i for the time period t . P_i^t is measured as a percentage of total organized labour force. S_i^t captures contribution of service sector to national income (read, GDP) for country i during time period t . M_i^t relates to mobile subscription per 100 population in country i during time period t . $RecD$ stands for recession dummy and $GigD$ stands for gig dummy. Subscript i stands for countries whereas the superscript t stands for time-period.

100

Variables	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	14.27	3.79	3.77	0.00	6.67	21.87
Service as %GDP	0.04	0.08	0.50	0.62	-0.12	0.20
Mobile per 100 Popn.	0.06	0.01	8.92	0.00	0.05	0.07
D1	-2.48	0.39	-6.43	0.00	-3.25	-1.70
D2	-5.35	1.23	-4.37	0.00	-7.82	-2.89
Gig Dummy	-1.18	0.43	-2.74	0.01	-2.04	-0.31
Recession Dummy	0.18	0.24	0.76	0.45	-0.30	0.67
Number of observations: 57						
Adjusted R-Square: 0.90						
Time Period: 2001 – 2018						

Panel Results from Middle-Income Countries - Bangladesh, India, and Philippines



Variables	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-1.32	0.57	-2.31	0.02	-2.46	-0.17
Service as %GDP	0.09	0.01	8.08	0.00	0.07	0.12
Mobile per 100 Popn.	0.02	0.00	23.72	0.00	0.02	0.03
D1	-0.48	0.07	-6.78	0.00	-0.62	-0.33
D2	-0.24	0.09	-2.54	0.01	-0.43	-0.05
Gig Dummy	-0.20	0.09	-2.28	0.03	-0.37	-0.02
Recession Dummy	-0.09	0.04	-2.18	0.03	-0.17	-0.01
Number of observations:	57					
Adjusted R-Square:	0.98					
Time Period:	2001 – 2018					

Results

- ▶ The results also point out a strong positive relationship between the number of professional workers with the spread of service economy, and mobile subscription. Spread of services sector are likely to generate demand for high skilled professional workers. Likewise, to sustain and facilitate growth of services economy and aid professional workers involved in gig type works it is necessary for the government to invest in infrastructure related to ICT such as mobile and data connection.
- ▶ One limitation of this statistical analysis we have treated professional workers as a proxy of gig workers. Although a considerable number of professional workers perform gig-type works, however, there are considerable number of them like university professors, doctors, engineers, and all other high-paid workers who are part of organized labour market do not perform in the gig market.

Conclusions



- ▶ From an economic perspective, rise of gig economy is likely to increase overall productivity.
- ▶ In a gig-world, low salaried service workers from India and elsewhere can now earn more by engaging in similar job profiles in a developed country like USA and countries in European Union.
- ▶ Government should also address the challenges associated with some workers getting displaced from technological disruption. There is a need to find ways to absorb these labourers for alternative employment.
- ▶ At the same time, for the spread of gig works there is a need to invest in ICT related infrastructure such as telecommunication, electricity, and internet connection.