

# Automation is not hurting RMG employment... yet

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THE readymade garments (RMG) industry is vital to Bangladesh economy. It contributes 84 percent of the total exports—nearly 13 percent of the GDP—and employs some four million workers. The direct and indirect impacts of the RMG sector in the country are profound. Because it employs so much of unskilled labour, the sector looks particularly vulnerable to automation: will machines replace the workers and unleash mass unemployment? The fear is not totally unfounded since robots are already common in manufacturing. In textiles, smart sewing machines, jacquard machines, smart sensors, big data, 3D printing, etc. are already in place. The automation of cutting, drawing patterns, spreading, and relaxation of fabrics has quietly begun, while some administrative tasks like maintaining attendance or working hours, which were previously carried out manually, have now become digitised.

However, the widespread perception that industrial robots will take over and automate everything is questionable. Globally, the share of industrial robots used in textile and apparel is minuscule at best. For example, of the 1.63m industrial robots used in 2015, only 1,580 were in textiles and apparel. The hype generated by the prospect of sewbot as a potential disruption in the apparel industry is unwarranted. Much textile automation is about smoothing supply chains and reducing environmental strains rather than about replacing abundant cheap labour. As pointed out by *The Economist* in 2017, the unpredictable formations of fabric make it very difficult for a robot to keep track of what it is handling and where to apply itself. What is remarkable is that despite spinning being the first process to succumb to industrialisation in the early 19th century, textile and apparel activities still have to be guided by hand. The actual impact of automation is an empirical question.

In new research, we carried out a field survey to understand unemployment in the RMG sector by interviewing garment workers who have recently become jobless. The survey approached nearly 200 respondents

(including garment officials) across ten areas in Dhaka. Regrettably, the last portion of the survey overlapped with the Covid-19 outbreak, and prematurely ended our survey.

To date, the early adopters of automation were the large apparel factories. Typically, these factories employ a large number of workers, operate from their own premises, and receive steady export orders from the buyers. By boosting efficiency, new

of other garment exporting countries in Asia, international buyers now enjoy multiple sourcing options. Some predict that with the passage of time many small factories will be forced to close down or consolidate, while some medium factories will continue to operate manually.

To get an idea of how automation impacts garments manufacturing, consider the initial stage—“pattern design”. Before automation,



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SOURCE: STAR FILE PHOTO

technologies are permitting big factories to focus on greater product diversification. Despite automation, large factories have often kept displaced workers as more labourers are still needed to produce a much higher volume of output.

By comparison, medium and small units could not afford expensive automation. Today, they mostly survive on subcontracting and, with limited bargaining power over western retailers, they often take orders at depressed prices. With the improved productivity and product diversity

pattern design needed 10-12 workers to complete a task; but after automation, with computers and 3D printers, the same task now requires only 1-2 workers. Similarly, the “spreading” section formerly needed 10-12 workers, but after the automation it requires only 2-3 workers. The “cutting” section has been partly automated. Previously, cutting required 100-120 workers, but now 60-70 workers suffice. In making sweaters, an operator can supervise six jacquard machines at a time, greatly reducing the need for workers to perform repetitive manual

tasks. Hence, a good number of sweater factories were forced to terminate workers, whose jobs are being replaced by jacquard machines. Our analysis shows that it is certainly possible for automation to cause much unemployment, but has it actually done so?

Interestingly, garment workers displaced by automation were often not laid off but reallocated to other sections to boost production. Some factories are also providing on-the-job training so that employees become familiar with technology, yet others hoard labour with the expectation that they can be used on a just-in-time basis. The picture that emerges from our survey is that, if before the automation 50 workers were needed to produce 5,000 pieces a day, after automation a factory requires 30 workers to produce the same output while the remaining workers continue to work with the factory in a new line. As a consequence, with automated processes, 50 workers can now produce an estimated 8,000 pieces a day.

While automating an apparel factory can undeniably be expensive, several owners argued that it takes only 1-2 years to recover the purchase cost. In fact, factories that invested in high-tech manufacturing were able to secure new orders to fill up the extra capacity. Sadly, the small and medium factories could not exploit the scope of automation like their large counterparts. Automation is disrupting the entire sector on an ongoing basis. The small and medium factories are struggling to operate at break-even point by any means; the ghosts of Rana Plaza and the wave of automation weigh them down. Many have already shed redundant workers and kept only the skilled, multitasking, and experienced workers. Quite a lot of factories were closed down after encountering huge losses.

Another finding that came out of the survey was that the increase in the minimum wage has increased the unemployment of RMG workers. Factories that embraced automation and did not face difficulty in getting steady orders still laid off unskilled workers in the wake of a higher minimum wage. The combination of falling prices

and higher minimum wage led to worker layoffs in some factories as they restructured to meet intensified global competition. Factories that were unable to compete or adapt to new technology laid off unskilled workers foreseeing a decline in economic activity.

In Bangladesh's RMG industry, automation has hitherto been a secondary reason for job loss. Unemployment rose more due to factors such as squeezed profit margins, higher minimum wages, and a slowdown in export orders. Automation has affected both skilled and unskilled workers and both high- and low-paying occupations. However, low-paid workers disproportionately bear the brunt of automation's impact as they lack the basic knowledge to operate advanced machinery and also are not often chosen for training to operate such machines.

The most worrying development is the prejudice that female workers are either physically or mentally incapable of handling machines and equipment. This prevents top management from encouraging female workers to receive the necessary training to upgrade their current skills. When the shortage of skilled workers is holding back RMG potential, the tendency to deprive female workers of upper-end work is short-sighted and wrong. While new technologies are creating new job opportunities, they should be geared towards females, since a plethora of research show that compared to men, women workers are less mobile and therefore less likely to switch jobs. Prejudice may be depriving Bangladesh of the profit-maximising option.

The clear conclusion that emerged from our survey is that it is not automation but rather falling export orders, rising wages and decreasing global prices that are behind the rising unemployment in the RMG sector. If these trends continue, textile manufacturers will have no option but to embrace automation and cut jobs in order to revive the business.

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## Telecom—the next golden goose?



SABIR AHMAD

ON a sunny November afternoon in 1997, a ringtone buzzed while I was riding a rickshaw together with a friend. I watched him in awe as he received the call from his handset. It was the first time I got so close to a mobile

phone; once my friend ended the call, I asked him if I could have a look at it. Mobile phone was still a rarity those days. Fast forward to 2020, the scenario has completely changed. As you walk down the streets today, you often notice even young children armed with a phone in their hands.

In Bangladesh, telecom was out of reach for the common people until the early last decade. The state-owned BITB had a complete monopoly over mobile phone services. Besides the mismanagement by the operator, the high cost of wired infrastructure, coupled with the lower purchasing power of consumers, caused the masses to remain grossly underserved. But as GSM operators debuted in the mid 90's and competition emerged, the scenario changed in the next decade, leading to the vast majority of citizens having a mobile phone of their own.

Although mobile tariff dropped from CDMA operator to GSM, the technology remained beyond the reach of common people until 2005. Over time, price affordability came through, attaining an equilibrium between the demand and supply sides. Mobile penetration then began to eclipse that of the landline. Nowadays, people refer to the mobile telecom industry as the telecom, almost ignoring the existence of landlines.

Experts suggest that there is a causal connection between the continuous development of telecom and economic growth. In modern days, telecom not only has a significant impact over an economy in terms of GDP but also serves the people by creating employments, empowering women and the underprivileged groups. In Bangladesh, the story is no different. Mobile communication has a significant economic impact considering the aggregation of the supply side, demand side and intangible benefits. The direct GDP contribution from this industry was USD 3.8 billion at the end of 2019 which was expected to grow to USD 5.08 billion within the next five years, according to a USAID study. Besides, it employs over 760,000 people today with job growth estimated at a rate of 9 percent during 2016-2020.

However, the recent proposed budget of the country called for hiking supplementary duty on mobile services by another 5 percent, followed by last year's 5 percent jump. This

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duty was 3 percent when introduced in FY 2015-16 and increased to 5 percent in FY 2016-17. The users also have to pay 15 percent VAT, 1.0 percent surcharge on voice and messaging, and 5 percent VAT on internet services.

It is not surprising that the government



would find sources for additional revenue to realise its lofty goal of 8.2 percent GDP growth in the next fiscal year. The telecom and tobacco industries seemingly became the easy targets to meet the shortfalls. It is understandable that smokers would be a prime target but why target mobile phone users? It is a dilemma for a sector offering a lifeline to the homebound people during the pandemic, besides serving as a backbone of the country's digitalisation and progress. Telecom is already being forced to pay corporate taxes as high as that of the “health hazardous” tobacco industry. As of now, the government claws back Tk 51-56 from each Tk 100 revenue generated from this sector. Beside the extremely high taxes, the average

revenue per user for a mobile operator is only about Tk 140, which is the lowest among our neighbouring countries, with a year-on-year decline of 6.9 percent.

According to a local newspaper, the chairman of the nation's revenue authority suggested that the additional rate wouldn't impact the users as the call tariffs are very low. The fact is, affordability is still a barrier afflicting mobile services in Bangladesh as correctly identified by GSMA, an organisation representing the interests of the mobile network operators (MNOs) worldwide. At a time when the nation is rapidly moving to become a data-driven economy, a medium consumption basket (1GB of data) costs an individual in the bottom 20 percent of the income distribution around 11.4 percent of their monthly income, which is significantly above the long-term affordability target set by the UN. This somewhat explains the relatively slow adoption of 3G or 4G technology in Bangladesh.

According to the nation's regulatory body, BTRC, Bangladesh at present has over 165 million mobile subscribers, of whom 93.5 million are mobile internet users. The questions that come to mind are if the volumes of data and calls are enough for the MNOs to meet their revenue targets, and whether the mass population can afford the mobile services to perform their social and business activities without significantly burdening their cost of living.

Also, the basis of taxation is found in the reciprocal duties of protection and support between the state and its citizens. In exchange for their contribution, the taxpayers receive general advantages and protection from the government. This implies that the government should collect taxes from those who are supposed to pay, while all citizens enjoy the privileges and protection

irrespective of their ability to pay taxes. The never-ending hike in taxes and duties on telecom is not only challenging these fundamental tenets but also acting against public interests. In a country of over 160 million people with continued GDP growth, the number of taxpayers (around 2.2 million) is extremely low. This demands an urgent attention to growing the tax base instead of milking the telecom sector repeatedly.

So far, the quality of services of the telecom industry is not up to international standards. The sector's combined investment fell 19 percent year-on-year in 2019. The projected surge in demand and a reluctance to invest are contributing to consumers becoming the victims of substandard services. Given the situation, it is imperative that public policies should be focused on driving investments to improve telecom infrastructure in terms of quality of services and network coverage. We cannot expect the MNOs to continue investing when their return on investment is significantly low, mostly due to the overall market condition, unfavourable taxation or regulatory policies. High taxation or spectrum pricing may continue to be impediments against the dream of establishing a Digital Bangladesh, including the rolling out of 5G services as per the vision of our government.

Instead of hiking taxes and duties on telecom should be rather lowered to boost mobile connectivity to lead higher productivity across the economy, and consequently higher GDP growth. This would help in meeting the nation's growth forecast, not the other way around. A sector contributing to the betterment of people's lives must be supported to sustain and thrive. It shouldn't be the next golden goose in the making.

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### ON THIS DAY IN HISTORY



#### KOREAN WAR BEGINS

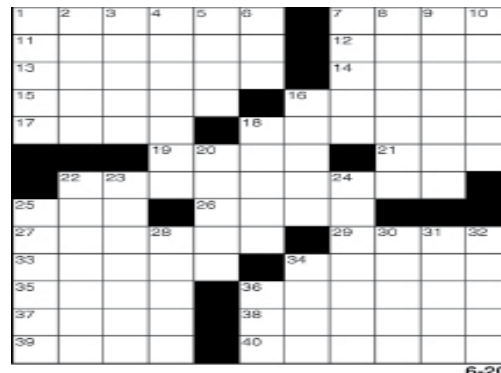
June 25, 1950

On this day in 1950, North Korea unleashed an attack southward across the 38th parallel, after which the UN Security Council (minus the Soviet delegate) passed a resolution calling on UN members to assist South Korea.

### CROSSWORD BY THOMAS JOSEPH

- |                            |                      |                      |
|----------------------------|----------------------|----------------------|
| <b>ACROSS</b>              | 27 In agreement      | 6 Primary color      |
| 1 Winery worker            | 29 Sweeping          | 7 Espresso order     |
| 7 Deficiency               | 33 Indy entrant      | 8 Corroded           |
| 11 Musical range           | 34 Choir member      | 9 Pipe material      |
| 12 Heaps                   | 35 School near       | 10 Dragon fighter    |
| 13 Put on, as a play       | Windsor              | 16 Squall            |
| 14 Garr of "Tootsie"       | 36 In abundance      | 18 Place             |
| 15 Baseball's              | 37 Blunders          | 20 Brown shade       |
| Schilling and Flood        | 38 Rust and the like | 22 "My Way" singer   |
| 16 Police trap             | 39 Copenhagen        | 23 Mythical creature |
| 17 Vaulted area            | native               | 24 Sporting spear    |
| 18 Awful smell             | 40 Casual eateries   | 25 Made into mush    |
| 19 Lot buy                 | <b>DOWN</b>          | 28 Keyed up          |
| 21 Young one               | 1 Puccini opera      | 30 Battery end       |
| 22 Student's income source | 2 Carry on           | 31 More tender       |
| 25 Sewing aid              | 3 Night lights       | 32 Lock of hair      |
| 26 Crimson Tide, for short | 4 Ring pair          | 34 Fare carrier      |
|                            | 5 Preceding times    | 36 Zeus or Apollo    |

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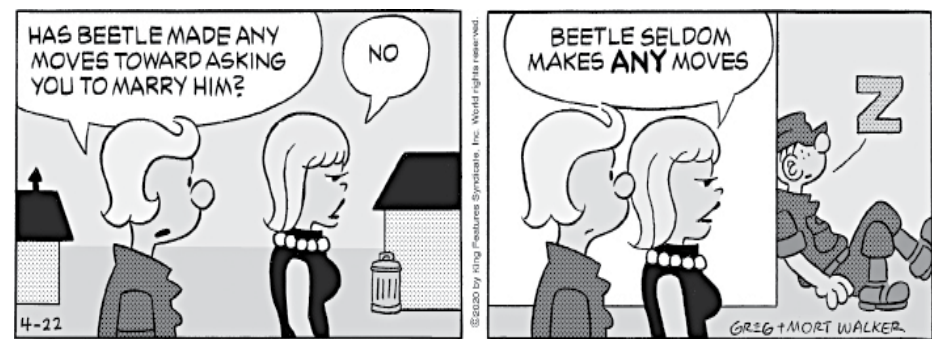


### YESTERDAY'S ANSWERS



### BEETLE BAILEY

BY MORT WALKER



### BABY BLUES

BY KIRKMAN & SCOTT

