6 SHOUT



ECHOES BY

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AUCTIONS

Another Nobel Prize in Game Theory

I

My first encounter with game theory was in January 2011 at Economics, North South University. I knew nothing and still jumped into the water. However, I was blessed by a wonderful class that challenged not only themselves, but made me want to challenge myself. Game theory became "love at first sight".

This year Paul Milgrom and Robert Wilson won the Nobel Memorial Prize in Economic Sciences for "improvements to auction theory and inventions of new auction formats". Milgrom (2020) follows Alvin Roth (2012) and Bengt Holmström (2016) as Wilson's PhD students to win the prize.

Today we talk about auctions, but with no jargon.

П

You're very thirsty. You want to buy a bottle of water. A standard bottle sells at Tk 15. Would you ever tell the seller you're willing to pay more than Tk 15? You wouldn't. That's private information to you only.

What happens if you were selling the bottle? Would you ever tell the buyer the minimum price you were willing to sell at, when you know the bottle will sell at Tk 15? You wouldn't. That's *private information* to you only.

Now let's introduce auctions.

There's only one seller who will sell one bottle of water where you compete with several other buyers. All the buyers want the bottle. Will the bottle sell for Tk 15? No. Each buyer will slowly reveal their highest



private information as far as possible to win the bottle. This format is the *English auction*.

What if you go to sell the bottle and there are others competing to sell, and only one buyer? Will the bottle sell for Tk 15? No. Each seller will slowly reveal their lowest *private information* as far as possible to sell their bottle. This format is the *Dutch auction*.

III

Auctions make bidders reveal *private* information they would normally never do. Auctions are interesting also because of the winner's curse.

A mango orchard will be sold on auction for five years. No bidder knows how many mangoes will grow over the five years. They can only "estimate". If I want the orchard the most, I will tend to "overestimate" its actual value.

I may go on to win the auction, and end up paying more than its value. Other buyers may get together to make me over-bid, while they pull out of the race. These and other situations make auctions interesting in theory and also in practice. This is where Paul Milgrom and Robert Wilson stand out.

IV

Borrowing tools from game theory, Milgrom and Wilson pioneered the theoretical development of auctions during the 1960s and the 1970s. They came into prominence during the US radio spectrum auction in 1994. Their model generated large revenue, but importantly showed the public sector how to use auctions to sell goods.

The practical challenge then, and still now, is to devise an auction to find a balance between bidders revealing their private information, not fearing the winner's curse, and how they would cooperate (or not) during an auction. Milgrom and Wilson influenced theoreticians, and benefitted societies in devising ways to transact goods that was unthinkable even thirty years ago.

To add some icing on the cake, Milgrom is the only Nobel Laureate in Economics to accept a prize twice. He accepted on behalf of William Vickrey in 1996 who also won for auction theory, but died very soon after the prize was declared.

V

The "beauty and the beast" of Echoes is its word limit. We're approaching those limits. If this Echoes has echoed, you're ready for a personal journey to learn more about the wonderful world of auctions. A personal journey is always more rewarding.

Asrar Chowdhury teaches Economics in classrooms. Outside, he watches Test cricket, plays the flute and listens to music and radio podcasts. Email: asrarul@juniv.edu or asrarul@gmail.com

The Incredible Journey Starts Now

Team from IBA, DU become champions of Unilever BizMaestros 2020

A CORRESPONDENT

After a challenging battle and surpassing 145 teams from 25 universities across Bangladesh, Team "The Incredibles" has won Unilever BizMaestros 2020. Sadia Hasan, Marzina Akhter Prottasha and Sajid Asbat Khandaker from Institute of Business Administration, University of Dhaka (IBA, DU) will now represent Bangladesh at the global platform of Unilever Future Leaders' League (FLL) 2021 in London, where they will contend against the brightest talents of the world. They will also be forwarded in the recruitment process of Unilever's Management Trainee Programme, Unilever Future Leaders' Programme (UFLP). In addition, they will also be getting an opportunity to work on a short-term project at Unilever Consum-

The first runners-up title went to Team Mudblood from Bangladesh University of



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Professionals. Team Bus-Hawks from IBA, DU are the second runners-up.

The gala was hosted virtually on November 12, 2020, where the six finalists were evaluated by a panel that included Asif Saleh, Executive Director of BRAC Bangladesh; Robert Simpson, FAO Representative in Bangladesh; KSM Minhaj, Managing Director of Unilever Consumer Care Limited; and Kedar Lele, Chairman and Managing Director of Unilever Bangladesh. Unilever, staying true to its commitment of giving back to the community, this year, hosted the first ever virtual BizMaestros, ensuring safety of all involved, while helping the students experience the thrill of real business and grooming them for the future.

The theme for this year, "Power the Future" enabled the participants to work on business challenges to steer the business towards growth by leveraging futuristic opportunities. Registered teams submitted ideas in video format to improve health and wellbeing of Bangladesh. After thorough assessment, the top 30 teams move to the semi-finals.

The theme for the semi-final round,

"Channels of the Future", challenged the teams to come up with solutions to leverage emerging channels to grow the business and serve our shoppers better.

For the grand finale, the finalists were given the challenge to improve the health and nutrition with Unilever's nutrition portfolio.

Throughout the rounds, several learning sessions were arranged for the teams to have a proper understanding of the challenges and various business concepts that would help them craft their solutions. Each finalist team was mentored by experienced senior managers of Unilever Bangladesh who guided them to hone their solutions.

The BizMaestros gala ended on a congratulatory note for the winners who will be representing Bangladesh at the global platform of Unilever Future Leaders' League in London and fight against the brightest minds of the world!