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| DW 2022: A retail RevolutionInterview with Rio Tu |
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Based in our Shanghai investment office, Rio Tu reflects on the impact that new disruptive forms of online retail are having on now traditional e-commerce channels. These emerging new models, increasingly successful in China, are likely to have considerable implications for the pace of change and disruption elsewhere.

*All investment strategies have the potential for profit and loss, your or your clients’ capital may be at risk. Past performance is not a guide to future returns.*

MB Hello and welcome to Disruption Week. I'm Malcolm Borthwick, Managing Editor at Baillie Gifford, and today, we're talking about one of my favourite topics, which is e-commerce in China. For a century, we've looked to America for the world's latest consumer trends, but it's no longer the undisputed leader, and that's because China is doing things differently. How differently?

 Take Dong Mingzhu, for example, who’s President of Gree Electric, one of the world's largest makers of air conditioners. In a recent live streaming event, she sold $1 billion worth of air conditioners, rice cookers, and various other products in a single day. That's extraordinary. China's e-commerce sales are three times that of the US and it's also, in many respects, more innovative.

 Because of the way it blends entertainment, social media, and live celebrities, streaming is years ahead of the west, in this regard. My guest today is Rio Tu, who's an Investment Manager, based in Shanghai, researching the next generation of e-commerce companies. Rio, great to have you with us. Long-time resident in Edinburgh, now back in Shanghai, live from Shanghai, welcome to Disruption Week.

RT Hello, Malcom. Thanks for having me.

MB So, Rio and I will be talking about three broad areas, all about live streaming and social networks. And also, finally, the blurring of the grounds between physical and online retailing. And those of you who joined us yesterday will be familiar with the format. Rio and I will chat for 30 minutes, the webinar is 45 minutes. And then we'd like to dedicate the last quarter of an hour to hear from you, the audience, with your questions.

 We'd love to hear from you, so if you do have questions, please use the Q&A function, which you can find at the bottom of your screen. So, let's start with live streaming, and the best way to sum this up is probably it's just really selling products and services online in real time. So, we used to have TV shopping in the UK, we still have it in parts of the UK. It's a similar concept, but we do see live streaming in some areas.

 Amazon live have it and Meta has experimented with it, both with Instagram, and also, Facebook, but it's not nearly as successful as it is in China. So, that's the topic of today's poll, which you can see on your screen at the moment. And the question that we have for you is how many of you have shopped and used live streaming to purchase goods? So, a straight yes or no answer, and we'll come back to that a little bit later on.

 But, Rio, first, I wanted to get you to paint a picture. You lived in the UK for 17 years. You grew up in China spent about 17 years there as well. You're now back. How different was it when you went back in terms of e-commerce and the experience of e-commerce in China, compared to, say, the UK?

RT Sure. I relocated to Shanghai in late 2019, and in the first couple of months, I actually still kept the same shopping habits as I had in the UK. I went to my local supermarkets or department stores nearby to check things. If I couldn’t find anything I wanted, I would do a search online. So, that's quite a typical journey. Until one day when a schoolfriend of mine asked me, she always stayed in China, and she said to me check it out, Singles Day is coming.

 Singles Day, just to explain, is the largest online shopping festival invented by Alibaba. I'd heard about it in the UK and knew its amazing scale, but I’d never experienced it myself, so I just opened the Taobao app, which is owned by Alibaba. There were lots of new features, such as live streaming that you’ve talked about, and you can actually communicate with the live streamers in real time and ask questions, and other people can see what you have asked.

 There are pre-sale events and cash vouchers, discount vouchers, so lots of things flying around, it was difficult to get my head around. I had to ask my friend to show me, step-by-step, which was a bit embarrassing, really. If I use an offline experience to describe it, it's almost like a giant shopping fair. As you walk in, you have lots of store owners talking excitedly about their products at you, they hand you their discount vouchers and you just keep it in your basket to use later.

 So, it's a lot more fun than simply search based e-commerce. And then soon after the Singles Day event, I went to Shenzhen to visit my parents. My Mum has actually been shopping on Singles Day for almost ten years, so she was already very used to that. But what surprised me a little bit was one day, I saw a parcel at my door and I asked my Mum what the parcel was. And she said I’ve just bought some clothes on Douyin, which is the domestic version of TikTok.

 At that moment, I was really struggling to link Douyin with buying something, because I use Instagram or Snapchat in the UK, but only for entertainment. I've never known that you can actually link to a purchase. So, I asked her to do a demo and it was really a mind opening for me. As you can see, it's from my Mum, it’s also quite embarrassing. So, she now uses TikTok or Douyin to buy most of her things, not only clothes, fruits, and lots of other things.

 So, because of these two experiences, I realised that e-commerce in China is very different from my perception. I always thought that you have something in mind and you search on Amazon, and then you buy it with one click and you get it in a couple of days. Obviously, these are the foundations of e-commerce, but in China, there’s much more than that. So, now after almost three years, I feel like I live like a local. I shop for my fruits with my friends together on Pinduoduo.

 For example, I also watch a lot of live streaming sessions on Douyin, and also, I check my department stores on WeChat actually. So, I think I've got a lot to share in today's session. I'm looking forward to that.

MB We’ll come back to talk about some of that group buying later on, Rio. Your Mum’s way more advanced than me. I'm talking about TV shopping. So, let's have a look at the poll results, which have come in. That's interesting, so over 80% of people haven't used live streaming platforms to purchase goods and services. So, I suspect that's very different to what we'd find in China. Tell me a little bit about the scale of live streaming in China and how significant it is.

RT Sure. The live streaming e-commerce, actually it took three years to achieve what a traditional e-commerce has achieved in ten years. So, it has taken off really fast and it's almost a RMB 2 trillion market as of today. So, what you have talked about is one form of live streaming, you put an analogy to TV sales. So, that's actually a supplementary feature to, for example, traditional e-commerce.

 So, when you do a search on Amazon or Taobao, there'll be a function saying there's a product explained by someone with the knowledge, whether it's showing how it feels to use the product or, for example, if it’s a sofa, you see someone jumping on it, just to give you some new dimension of information than simply words or pictures cannot easily deliver. So, that's like an additional feature of that, and you can talk to the host, unlike TV, you cannot really interact, right?

 And you can even send virtual gifts to this person to encourage his or her selling effort. And the questions you ask will be seen by others as well, so that's nice. But what's even more interesting than this is another form of also live streaming, but that's from a different angle, and that's how Douyin and Kuaishou, together, two shortform video platforms, have taken 70% of market share from nowhere. So, that's really exciting.

 Because if you if you think about your traditional shopping path, you’ve heard about something, you find out more about it, understand the function. And the third stage is to trust it can do what it says. And then the last stage is to buy it. The four stages. Typically the first stage is separate from the other three. So, when you heard about this from a friend or you saw it on the TV, or even outdoor ads.

 But with short video platforms, the secret is that they combine these four together in one app, it’s shortened your decision path. So, as you consume your digital contents, like watching shortform videos on your Douyin or Kuaishou app, suddenly, you will there's someone selling something I'm interested in. Actually, what’s happened is that the algorithm behind the app has learnt your interest as you watch shortform videos.

 And then it will push something interesting to you. So, the decision part really comes in one app, and that's how they really took off, and they’ve now taken 70% of market share.

MB Wow. So, we talked about Dong Mingzh, in the introduction, from Gree Electric. But it's not just CEOs, founders, and celebrities who are using live streaming, is it?

RT No. It actually started with some famous people, for example, some CEOs, like you mentioned, or some celebrities, or even someone who had come from nowhere, who is really good at selling and willing to put in a lot of effort and who has a deep knowledge of the product. And then it becomes more prevalent to brands.

 So, the brands will own the live streaming studio, and you follow the brands, rather than follow this person. So, now a lot of new brands like L'Oréal and even western brands, they are fully embracing this new form of selling.

MB I did try it yesterday briefly with Amazon Live, they had a back to school shopping guide, but I suspect it's probably not as major as what you're having in China at the moment. Compare that to Singles Day, because Singles Day, you mentioned that earlier, that's a massive event, isn't it? It’s probably the world's largest online shopping event.

RT Singles Day, actually, I think last year, they set out an even higher record. So, the total amount almost reached RMB 1 trillion just for the single event, and that's really more than Cyber Monday or Black Friday together. So, live streaming is actually one feature of that. As I just explained, it’s supplementary to your typical search based e-commerce. It basically tells you more product information.

 But what Douyin and Kuaishou are doing differently is that it starts from you having an interest in exploring anything, like you want to kill your time. You're not thinking about shopping at that moment, you just want to spend some time to look at something. And just to give you a number, that there are over 900 million short video platform users, but only about half of them have been converted into the live streaming commerce. So, there's still a gap, right?

 That's why you see the conversion was actually rising. So, in three years’ time or five years’ time, if we are still having this conversation, I believe the market will be much bigger than today's. You will probably exceed Singles Day.

MB And we are seeing some scrutiny from regulators in this area as well, aren't we at the moment, Rio?

RT Yes. They're mostly trying to limit the amount you can tip the streamers, because they're just trying to make sure that people are spending sensibly. Sometimes, you see virtual gifts can go up enormous amounts. And another is really to limit the amount of products, and it's trying to control the quality of the products, because this is a very new way of selling. So, there is lots of regulation, trying to make it more healthy. So, I believe that these are quite sensible regulations.

MB And that's often the case, I guess, when you see rapid innovation, like you were saying, Rio.

RT Yes.

MB Let's move on to social networks, our second area. Which companies are you seeing there that you're excited about in this space?

RT I have to mention Pinduoduo. This is really quite an amazing, it started from zero users to 800 million active buyers in just six years, so it was truly amazing. Just to tell you more about it, when you opened the app, when you have something that you want to buy, you typically have two options. You can either buy it now or you can initiate a team purchase request. So, that is not actually completed. But the prices are different. Typically, there is 20% to 40% difference.

 So, it's a bit like offline, you sometimes see an offer saying buy three for the price of two, it's quite a similar idea that you have some someone to buy with, and then you get a discount together. And then you can send this request to your friends on WeChat, which is an app owned by Tencent. It’s a social network app that, basically, you can send to lots of your friends. And if you reach the minimum amount of people, typically two to five set by merchants, then the order will complete. So, that's that will happen within 24 hours.

 If no one accepts your request, then the order will just expire and you just initiate a new one. So, that's quite interesting, you always have someone to buy with. And also, I often receive other people’s requests. And sometimes, they are things I don't need right now, but I know I will, sooner or later. If I need it and the discount was quite attractive, I will join the request to help my friend, and also, help myself. So, it's quite a fun way of shopping.

MB That's the genius of marketing. You didn't know that you needed to buy it, Rio, but you're still buying it. I’m really interested in this idea of the designated buyers that you have within the group chats. Discounts of 20% to 40%, that seems extraordinary.

RT Yes. It's actually very interesting. I’ve just talked about the users, but actually, the merchants are also getting some benefits. Because it encourages them to sell in bulk, so that their inventory turnover will be much better than before. So, instead of selling one cooking oil, they can sell five bottles of cooking oil in one batch. So, merchants have actually welcomed this idea.

 And the company, we have actually met the funder a few times already, and his vision is always to try to create a customised purchase for small group of people with common interests, and then send these mini bulks to lots of merchants, who are also better off, because they are selling bulk. So, his vision is very interesting. This is actually disruptive to that mass production, which forces the same products on everyone. He's talking about creating customised pushes for small groups of people, so I found that fascinating.

MB I think especially with something like groceries, you need that scale to develop the infrastructure, so it's all important. Pinduoduo has been pretty advanced in this area, but initially, I think a lot of the demand was in the larger cities in China. But now we're seeing a lot of companies moving into maybe some of the smaller cities, and also, rural areas.

 And this is relative, considering that, I think, in China, you have over 100 cities with a population of over a million. So, the scale is different. But are we seeing more companies move out of the large metropolitan areas into the smaller cities and rural areas?

RT Yes. This has happened in two phases. The first phase was around 2015, that was when Pinduoduo started the company. At that time, there were about 500 million people using Taobao, but there are more than one billion people using WeChat, so there’s a huge gap. And actually, the whole thing started with Tencent payments. At Chinese New Year, people send each other red packets, then when you receive a small amount of money, you tend to store in your WeChat wallet.

 At that time, WeChat Pay was not linked with the bank account yet. But people still wanted to spend this a very small amount of money, and they started buying really low-cost food or fast moving consumer goods on Pinduoduo, and the whole thing quickly took off. Then when these people learnt how to use, this was actually their first experience of online shopping, and they were on Pinduoduo.

 So, when they learnt how to do that, they started also using Taobao and JD.com. So, I would say that every major player has benefited from this trend of lower tier cities starting to see a higher online penetration. But the biggest winner is still Pinduoduo, because the reason, if you look at the numbers, the active buyers keeps going up and the revenue spent per user also goes up on Pinduoduo.

 So, because their first experience was on Pinduoduo, they haven't actually moved away, they just keep buying more, but they're also looking at things on Singles Day in JD or Taobao. So, I would say that all three big platforms have benefited, but Pinduoduo has benefited the most. And then the second phase happened recently, I think you mentioned it just now, it's about the community group buying. So, these are really trying to solve the last mile problem in the lower tier cities when the traditional companies cannot deliver their goods on time.

 So, what happens is that each community will appoint a leader who is quite an entrepreneur, or can be an owner of a corner shop, so he or she will initiate an order, and will then manage this within his WeChat group. It can be as high as 500 people together, and then people will just click I want this, and then they collect the next day at the leader’s place.

 So, this is also a very interesting model, because it's actually much lower fulfilment cost. And again, Pinduoduo is among the leading players in that, because it already has a larger amount of users in lower tier cities. So, it's happened in two phases.

MB And we've talked about a few of the larger companies there, the JDs, the Alibaba, and others. We are seeing quite a concentration here, and a lot of it's about owning the user, isn't it, and the development of super apps and people operating within those super apps?

RT Yes. There's actually quite a different feature in China. If you look at the US, on the big platforms, actually, they serve a specific feature or function, for example, they just use social network on one and then buy things or another. I think that part of the reason is actually the domestic… There are two reasons. The first one is getting the user to spend the time on your platform is quite costly, and it becomes increasingly costly.

 So, if he or she is here already, you might as well get him or her to do more things with you, to buy things or to generate, incrementally, more revenue. And the other thing is that the Chinese companies don't have a large overseas opportunity they can easily address. This is very different from the US companies, they can just do this one thing really well, and they can serve everyone on the globe.

 In China, I think the competition is quite intense and you just have to own the user. Try to really play some invisible selling placement in their head, so you get ahead of their buying decision. So, that's how you really own the user, to become a super app.

MB And just to move on to the final area that we're discussing, Rio, before moving on to maybe some more general questions. What I find interesting is the blurring of the boundaries that we're seeing more of in China between physical and online retailing or for phygital retailing, they call it

RT Yes. I really liked this word, phygital is physical and digital combined. So, there are actually a lot of digital tools that the offline merchants can use to sell better to understand their customers. But I want to mention WeChat, which sits at the heart of it. So, it plays in two parts. The first one, it’s hard to describe this, I use it in the UK, I communicate with my friends in China. But when I use it in China, it’s much more of a social networking tool.

 The best way to put it is probably an operating system of your daily life. I have to mention one feature called a mini programme. This is like an app within WeChat, it’s an app within an app, and anything can be turned into a mini programme. For example, I use my mini programme to shop and to calculate my tax return, to pay my phone bill. There are so many things, it’s lots of microservices and you can save this mini programme for later use.

 And what's even more amazing, you can send this mini programme as easy as a message to your friend. So, right now there are more than 500 million users using mini programmes on a daily basis. That's quite amazing. And that's only on the user side. So, the stores can also be turned into a mini programme, like an online shop front. So, you don't have to leave your WeChat to buy things in a shop. So, that's on the user side.

 On the merchant side, you can also do a lot of functions that you’d do offline. For example, if you want to get new customers, you will typically hand out flyers to attract new customers. And when they get into your store, you can you persuade them to buy, and then when they leave, you try to keep their email address or contact details, so that everything can be done on WeChat.

 So, what you put on the flyers, you can write things on a public account or video account on WeChat to say what you do to get people in. And then WeChat will help you to send to those who might have an interest or who live nearby in the area. And also, when they visit your store, you can decorate your live streaming studio. You can do the live session within WeChat, you can put the most exciting products in obvious places for them to see.

 And you can give them a discount on the live streaming so that’s the conversion stage. And then in the end, when they leave, you can ask them to join your group. Because the store has a WeChat account for business, that's called WeCom. So, WeCom connects with the users of WeChat. So, that means that when they come in, they have become your fans or your customer base, and later on, you can keep presenting promotions to them.

 So, everything within a single WeChat and operating system, that's really amazing. This is how the physical retail stores are actually fighting back, they are offering a lot of better customer experience than before. And the most impressive example I've seen, I've used, is a whole department store put a mirror, like a digital twin, onto WeChat. So, every floor, it’s the same mirror image of the offline, and you can go to different floors or you can click the store, so you can check.

 You can speak to the store owners directly, asking questions. And the delivery is also amazing. You can buy everything in lots of stores, for example, you can combine your clothes and coffee together in one parcel to deliver to you in two or three hours. So, this is really to mimic the experience that you're in the actual shopping mall. I found it this truly amazing.

MB Firstly, I'm very impressed that you do your tax returns through an app. It is all about the personalised shopping experience, and it's something that Tencent seem to have mastered very well. What else do you like about this company, apart from the fact that it is staying very focused on the customer experience and building it up from there? What about its culture or other things?

RT I'm really impressed that it keeps innovating, because if you look at their recent results, that's the first time the FinTech and business service revenue has exceeded their gaming revenue. That's quite a big milestone. And right now, they are actually moving towards the back end, because I haven't talked about the back end of stores, like managing their inventory and managing their supply chain.

 And also, they can connect with their, for example, electronic scale. It’s what people use to measure how heavy a vegetable is, and then the data will be sent to WeChat and WeChat will tell the merchants what's selling and what's not selling. So, it's really digitising the whole back end of the stores. And the amazing thing is, and this is another leapfrog, in China, these people don't have lots of experience using enterprise software, but they know how to use WeChat.

 So, it's almost having zero experience in software and jumping to managing their stores and supply chains on WeChat. That's quite a big jump and I'm quite by that. Just a few weeks ago, we actually spoke to the president of Tencent and the message was very clear, that they will keep on digitising different industries and trying to help brands to own their customers. And we were told that LVMH has decided to increase their efforts on a mini programme, because that's where the customers are and they can actually own the customers, because the customers will see…

 It’s not like a platform, it’s an individual LVMH store where they can buy things. So, you can see lots of different innovations that Tencent is doing, trying to help the physical industries to digitise themselves.

MB It's interesting, and that theme of owning the customer is a reoccurring one. It's something actually the Robert and I talked about quite a lot earlier this week, when we were talking about entertainment and how companies, like Microsoft, are bundling a lot of services, whether it's software, Cloud, gaming, and all sorts of other things. So, I can see a comparison between a lot of the topics that we're discussing this week, Rio.

 But let's move on to questions from the audience for the last quarter of an hour, because I want to get through as many of these as we can. The first question is who do you think will be the winner, Rio, in the high tier cities online grocery shopping battle? Is it JD, Meituan, Alibaba, some start-ups fighting for the market? We haven't even talked about the little giants that I know you wanted to get to. So, who do you think will win through there?

RT Just to be clear, is it in the higher tier cities that you mentioned?

MB Higher tier cities, yes, correct.

RT I would say I believe that Douyin, the domestic version of TikTok, has a very big chance. Because right now, it's coming from a very low base. They did a single digit market share of the whole online right now, and there is huge potential. Like we have just discussed, the secret is actually really binding the four stages of your shopping decision into one, and it gets ahead of you, before you do any search.

 And the user is spending increasingly more time on Douyin, and this is how you get ahead of those search based e-commerce platforms, like JD or Alibaba. So, I think that the in terms of the growth potential, I would give TikTok and Douyin the highest score.

MB And that's related to another question that we've got those come in, just a point of clarification with Douyin and Kuaishou. They've taken 70% market share, but could you explain which market they've taken that share of? Maybe define that market, Rio.

RT That's the live streaming e-commerce market, and the rest is Taobao, very specifically.

MB Great. And this is a great question, the game of gamification of shopping, what is it doing to the traditional high saving rate in China? Are people being tricked into saving money or spending more, or being tricked into savings and promotions?

RT That's a quite a difficult question to answer. The gamification certainly encourages you to spend, as China is trying to rebalance its economy from investment-led to more consumption-led. This is definitely helping to generate more impulsive or even non-planned shopping. So, in this sense, it’s actually helping China to rebalance its economy.

 So, it's actually a lot more fun than a typical shopping experience that's happened well before you search. Like Pinduoduo, in the app, you can plant trees, you can play games with friends, and you can earn points. That also adds… Because if you keep accumulating lots of points, you want to spend the… So, that's actually quite linked together.

MB I think that's really interesting. I wonder whether or not, the difference in consumer behaviour in China and why live streaming has taken off, and the gamification element has taken off. I do wonder if that's partly the way the internet has developed very differently. Here, in the UK, the US, Europe, in terms of it's quite an information platform, whereas in China, it's developed quite differently.

 It's much more immersive, communicative, there's more of a gamification element there. Has that difference helped a lot of companies be a lot more interactive in this area, Rio?

RT Yes. The key differences are twofold. There are leapfrogs that I see. The first one is the leapfrog from, for example, corner shop directly to online. In China, there's no well-established and offline shopping place. The one with the highest market share is probably in the low single digit. This is very different from what you see in Tesco, Walmart. Elsewhere, they develop in sequence. You have your very well established offline, and then you move on to online.

 But in China, everything happens in parallel. So, the offline and online are developing together. And many people just jump straight from corner shop, or even wet markets, directly to online. That's one leapfrog I'm seeing. The second one is payment. Again it’s another leapfrog from cash directly to mobile payment. So, there are now more than one billion mobile payment users in China. I’d say that the number for credit card is much, much lower.

 Again, this is happening in parallel. It's not like in other countries in development, you have credit cards and you have lots of loyalty programmes to bind you to spend in some specific place. In China, there are no formed habits for credit cards, or even loyalty programme. So, given the payments, actually, the most important activity of your day, if you use your mobile, you carry it around everywhere to pay. And you also use your mobile to check your social network or spend time in entertainment.

 That actually binds you together into this one screen that you're more likely to do everything together in one single app. So, these are the two leapfrogging developments that are very different. But having those are not enough. You still need companies to innovate. For example, Tencent started experimenting with e-commerce as early as the mid-2000s, or even earlier. It was only until 2015 that Pinduoduo fully leveraged its social network and the whole thing took off. But Tencent has never given up, really.

 And also, Douyin and Kuaishou, they started as purely shortform video entertainment platforms, and they make money from advertising. It’s through their continuous innovation that they will keep thinking the customers might not want another Taobao or JD. They want something different. Now, how can I give them something different? So, you have a combination of leapfrogging developments and companies innovating that come to...

 So, that's why we have reached a point that is a very different development. Everything seems to be blending together, and it's also centred around you, as a user, rather than a specific function. So, that's the different development. But I do see that US platforms are heading the same way, because basically, you spend the same amount of acquiring or to attract the user, you might as well want to monetise a bit more from this user. So, that makes economic sense.

MB As you're explaining, it's developed in quite a siloed way in America, and China has been able to leapfrog that model. Going back to those comparisons, another question coming in here is are any western retail platforms making inroads into China?

RT No, I haven't heard anything major in in terms of retail platforms. But I want to mention some brands like L'Oréal, they actually fully embrace the e-commerce development in China and they embrace the idea of digital. And they have actually invited the brand heads to do live streaming themselves, to allow the executives to understand how it works. And it also brings more credibility to the products. And also, they bring their live streaming studio into the stores as well, so that people can use it.

 We have spoken to several domestic listed Asian companies doing cosmetics, and when they talk about L'Oréal, they all look up to it. They say oh, L'Oréal really gets e-commerce. And as you can hear the admiration of them. And if they really mastered how to do e-commerce in China, then going into other countries, they are at a very big advantage, compared to other western brands. So, L'Oréal is really at the on top of my mind, if I want to name any foreign players in this market.

MB We've got a slight flipside to that question in terms of whether or not we're seeing more Chinese companies or models expanding to other parts of the world.

RT There is actually. There's one company called Shein. From our side, it looks just like an online clothes retailer, but it's far more than that. So, there are two things that are very special. The first is that it has a shopping mall-like user experience. Clearly, they have learnt what has worked in China, that it’s a lot more fun. You’re scrolling down the page and you have either got discount vouchers or they’re hitting at random, they surprise you, so it's a lot more fun.

 And they quickly gained attraction of Generation Z, especially in the US, and it has become the number one most downloaded app in many countries. The second thing very special is that it used data to aggregate the data in social network websites or search engines in the local countries. So, it doesn't assume that what has worked in China must work in other countries, it lets the data tell them what's selling and what's not selling.

 And they quickly combine this different data into loads of clothes items, because remember, China has a very large apparel supply chain. And Shein has thousands of factories connected on the back end through Cloud. So, when Shein sees someone selling, they can quickly pass the order to the factory. And because it's a direct model, there's no retailers in between, and Shein actually pays the factories on time, the factories are also quite willing to make small order batches, for example, as low as 100 pieces per batch.

 So, again, it has actually gained almost one third of the fast fashion market in the US. That's truly amazing and sales are reported to be exceeding $10 billion. So, this is the example that you basically combine a different model to search based e-commerce that worked in China, you combine that with the Chinese supply chain, and you sell towards other countries.

 I think this is the trend going forward. There'll be more goods that will come in small parcels flying to other countries from China, rather than bigger containers of goods. So, that’s the disruption I'm seeing.

MB That's a great positive note to end on, Rio. And I hope you, the audience, have enjoyed the conversation as much as Rick and I have. If you'd like to find out more about the topics we're discussing in Disruption Week, such as entertainment and green tech, please check out bailliegifford.com/disruptionweek. Tomorrow, we'll be talking about how we, at Baillie Gifford, are disrupting our own investment research process. And the philosophers of change at the Santa Fe Institute in New Mexico, who are they and what can we learn from them? Find out tomorrow. In the meantime, thanks for investing your time in Disruption Week.

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