

Unclassified

DAF/COMP/GF/WD(2015)24

Organisation de Coopération et de Développement Économiques
Organisation for Economic Co-operation and Development

16-Oct-2015

English - Or. English

**DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS
COMPETITION COMMITTEE**

Global Forum on Competition

THE IMPACT OF DISRUPTIVE INNOVATIONS ON COMPETITION LAW ENFORCEMENT

Contribution by Singapore

-- Session III --

This contribution is submitted by Singapore under Session III of the Global Forum on Competition to be held on 29-30 October 2015.

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JT03384253

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-- Singapore --

1. Introduction

1. The Competition Commission of Singapore (“CCS”) welcomes the opportunity to share its experience with the OECD Competition Committee at its hearing on “*Disruptive Innovation: Implications for the Enforcement of Competition Law*” at the OECD 2015 Global Forum.

2. This paper first discusses CCS’s experience with two cases, namely the online recruitment services market and the taxi booking services market, in the area of e-commerce and digital markets where many disruptive innovations have emerged.

3. The concluding section discusses the International Competition Network (“ICN”) 2016 special project on “*Disruptive Innovation and Government Advocacy*” and provides an update on the ICN 2016 Annual Conference in Singapore.

2. Digital Markets, Disruptive Innovation and Antitrust Considerations

2.1 Case Study 1: Online Recruitment Advertising Services in Singapore

4. The online recruitment advertising services market is an example of disruptive innovation that transformed the traditional recruitment and job search practices that are once dependent on print advertisements and recruitment agencies.

5. **Two-Sided Platform** – Essentially, these online recruitment platforms provide a matching service for employers and job seekers, and allow them to interact on two distinct but connected sides of the platform. Two-sided platforms are characterised by usage and network externalities between the two groups of user, and in this case, jobseekers and recruiters. A successful online recruitment advertising platform would need to have a sizeable pool of jobseekers to increase the probability of locating suitably qualified jobseekers in order to make it attractive to advertisers. In the same way, jobseekers would only want to use a platform with a high number of recruiters/advertisers to increase their chances of locating a suitable job.¹ This phenomenon is referred to as *indirect network effects* of a two-sided platform.

6. Many digital platforms display similar attributes to that of the online recruitment advertising market. For instance, e-commerce sites like Amazon and eBay perform a similar matching service for sellers and purchasers of a vast array of products; Airbnb is a two-sided platform for property owners seeking short-term rental income and people seeking short-term

¹ Paragraph 35 of CCS’s Decision

accommodation. The two-sided nature of these digital platforms potentially complicate the assessment of competition authorities in relation to enforcement cases, as seen through the assessment process CCS undertook in the case below.

7. In this regard, online recruitment advertising sites are two-sided platforms by which:²
- a. Recruiters and employers broadcast information on job openings to attract candidates and browse resumes of jobseekers posted on a recruitment advertising portal's website; and
 - b. Jobseekers browse available job openings and make their resumes available for selection by recruiters and employers.

8. On 20 February 2014, CCS was notified of a proposed acquisition of the online recruitment platform (via its portal www.jobstreet.com.sg) and related businesses of JobStreet Corporation Berhad ("Jobstreet") by SEEK Asia Investment Pte. Ltd. ("SEEK Asia") ("Transaction"). SEEK Asia similarly offers online recruitment services in Singapore through JobsDB Singapore Pte. Ltd. ("JobsDB Singapore") via its portal www.jobsDB.com.sg. In the course of the assessment, it was also received information that SEEK Limited, the parent company for SEEK Asia, owned an aggregator site (www.jobs.com.sg) that was operating in Singapore. The Transaction was, ultimately, cleared with both structural and behavioural commitments.

9. **Market Definition** – Key questions which CCS had to consider in defining the relevant market.

- (i) *Are these "disruptive" online recruitment advertising services in the same relevant market as print recruitment advertising and offline non-print recruitment advertising³ services?*

10. In this regard, the Parties submitted that recruiters and employers typically avail themselves of all viable advertising platforms to advertise their job openings. Further, jobseekers are able to peruse both online and offline recruitment platforms to browse for job opportunities.

11. Through inquiries to both providers and customers of these services to identify what they regarded as reasonably substitutable services, CCS found that:

- a. Offline non-print recruitment advertising service providers (e.g., recruitment agencies) compete in a separate market and, at best, would be complementary to online advertising services;⁴
- b. Print advertisements are more complementary to, rather than in competition with, online advertisement;⁵ and

² Paragraph 34 of CCS's Decision

³ Examples include recruitment agencies, referrals, customer direct channels etc.

⁴ Paragraphs 85 to 87 of CCS's Decision

⁵ Paragraph 88 of CCS's Decision

- c. Print media is unlikely to be a strong and effective competitive constraint on online recruitment advertising services given that online advertisements provide for more current and detailed information, lower costs of advertising (in fact free on some portals), shorter lead time of publication, amongst other factors.⁶

(ii) *Are different platforms of online recruitment services substitutable and therefore in the same market?*

12. There are generally four categories of online recruitment services: (a) *generalist* job portals; (b) *specialised* job portals; *social media platforms* (e.g. LinkedIn); and *aggregator* sites.⁷

13. CCS's market inquiries revealed that JobStreet and JobsDB Singapore were both considered to be generalist job portals, and the other generalist job portals would be the closest competitors to them. Specialised portals would too serve as competitive constraints, albeit to a smaller degree, given their focus on a specific industry or position. Social media platforms appeared to be exerting competitive pressure for recruitment advertising, but the totality of evidence suggested that, at the point of assessment, this would apply largely to senior positions. Aggregators serve primarily as a complement to job portals, but do exert some competitive pressure as well through independent listings.

14. Based on the results of CCS's market inquiries, CCS identified the relevant product market to be the provision of online recruitment advertising services by online job portals in Singapore, including all the different platforms, mentioned in paragraph 12, albeit that they can and do offer differentiated products. Further, CCS considered that the geographic market for online recruitment advertising services is national in scope (i.e. within Singapore), given that there was no evidence to suggest that online platforms based outside Singapore were listing advertisements targeted at job openings in Singapore for local job seekers.⁸

15. **Competition Assessment** – Similarly, in the assessment of market power, coordinated and non-coordinated effects, CCS used the framework set out in its existing merger guidelines while taking into account that the market conditions are dynamic. Dynamism is a key attribute of market characterised by disruptive innovations.

⁶ Paragraph 91 of CCS's Decision

⁷ Paragraphs 93 to 97 of CCS's Decision.

The definitions of the four categories of online recruitment services are as follows:

- a. generalist job portals, which would have job advertisements across all industries and positions;
- b. specialised job portals, which would have more narrow and targeted listings on specific industries or positions;
- c. social media platforms (e.g. LinkedIn), which provide for professional networking primarily but would have some online recruitment advertising as well; and
- d. aggregator sites, which do not enter into serve arrangements with employers or job seekers directly, but would aggregate the advertisements published across multiple sources into their website.

⁸ Paragraph 101 of CCS's Decision

16. CCS noted that Jobstreet and JobsDB Singapore were the two largest generalist portals with combined market share of marginally above 40% (by revenue). The CR3 based on revenue is about 65-70%.⁹ CCS observed that competitive constraints imposed by different online platforms would vary.¹⁰ The observance of fluctuating market shares over time suggested that market, at the time of assessment, was competitive and dynamic.¹¹

17. Further, there was a high degree of innovation and competition, with initiatives marketed by aggregators and social media platforms blurring the distinction between them and traditional job portals. However, CCS was not able to conclude if the dynamic nature of the market is likely to sufficiently constrain the merging parties in the near term.¹²

18. In addition, CCS ascertained that the merger parties were each other's closest competitor. Advertisers tended to use JobStreet and JobsDB Singapore significantly more because of the depth of their jobseeker databases, good brand recognition and large pool of candidates and service levels. Most customers suggested that other service providers are lagging behind on these factors.¹³ The merger would therefore remove Jobstreet, a vigorous and effective competitor, from the market.

19. In terms of barriers to entry, CCS considered that while barriers to entry and expansion in the post-merger environment might be difficult to overcome in view of the high sunk costs in technology investment and marketing, indirect network effects did not present an absolute barrier for the following reasons.

20. CCS found that indirect network effects are likely to be dampened by the existence of multi-homing (i.e., use of multiple platforms by jobseekers and employers for job search and recruiting simultaneously). Evidence indicated that jobseekers would use or are aware of more than five web sites on average in searching for a job; and recruiters tend to advertise on more than one platform to increase exposure and reach of the job advertisement. At the point of assessment, recruiters were not subject to exclusivity or other restrictions that would prevent the use of multiple job portals.¹⁴

21. Aggregators also provided a means for smaller job portals to benefit from the indirect network effects as they aggregate postings from multiple job boards, which in turn provide greater visibility of the advertisements carried on the smaller job boards. Hence, the continued growth of aggregators was seen to possibly help alleviate issues arising from indirect network effects that may prevent smaller job portals from competing.¹⁵

⁹ Besides revenue, CCS considered the market shares computed based on other measures such as number of total visits, number of unique visitors and number of job listings.

¹⁰ Paragraphs 117 and 174 of CCS's Decision

¹¹ Paragraph 121 of CCS's Decision

¹² Paragraph 175 of CCS's Decision

¹³ Paragraphs 176 to 180 of CCS's Decision

¹⁴ Paragraph 200 of CCS's Decision

¹⁵ Paragraph 202 of CCS's Decision

22. With limited countervailing buyers' power, CCS was concerned that, post-merger, the merged entity would, unilaterally, have the incentive and ability to:¹⁶

- a. change the structure of the market by demanding exclusive "lock-in" contracts which prevent customers from switching away from the merged entity;
- b. bundle and tie products across its two brand which would have the effect or likely effect of preventing customers from switching away from the merged entity; and
- c. impose price increases post-merger.

23. **Voluntary Commitments** – SEEK offered behavioural and structural commitments to address CCS's concerns. In the behavioural commitments, SEEK and SEEK Asia committed to:¹⁷

- a. not enter into exclusive agreements with employer and recruiter customers;
- b. maintain current pricing of its services capped at present day rate cards or current day negotiated prices, subject to Consumer Price Index variations;
- c. appoint an Independent Auditor to monitor and report to CCS on compliance of the behavioural commitments on a six monthly basis.

The behavioural commitments were for a period of three years from the date of completion of the acquisition.

24. Further, SEEK committed to, within six months of CCS's decision or the completion of the sales and purchase agreement, divest all assets of jobs.com.sg, which include:¹⁸

- a. the domain name <http://www.jobs.com.sg> and the website operated from that domain; and
- b. all rights, title and interest to use the technology used to crawl websites with job opportunities, receive information on job opportunities via XML feeds, and make such job opportunities searchable on the website located at <http://www.jobs.com.sg> for the sole purpose of providing products and services towards the Singapore recruitment market on the domain <http://www.jobs.com.sg>.

25. **Decision** – CCS concluded that the commitments would sufficiently address CCS's concerns, after conducting market tests with customers and competitors of the merger parties. These commitments took into account the dynamism of the market:

- a. Preventing the Parties from entering into exclusive agreements with employers and recruiters would retain the current practice of multi-homing. This in turn helps to keep barriers to entry and expansion low to encourage new entry into the market for online recruitment advertising services;¹⁹

¹⁶ Paragraph 230 of CCS's Decision

¹⁷ Paragraph 254 of CCS's Decision

¹⁸ Paragraphs 262 to 266 of CCS's Decision

¹⁹ Paragraph 254 of CCS's Decision

- b. The period of the commitments (i.e. three years) took into account the dynamism of the market, including that of fluctuating market shares, high degree of innovation, evidence of shifting business models with the introduction of mixed recruitment advertising models and some aggregators.²⁰ CCS considered that, three years would be sufficient period, although some respondents to the market test suggested that a longer period might be more suitable;²¹ and
- c. The divestiture commitment would address SEEK's ownership of the aggregator site, which would give it incentive and ability to leverage off its strong position as a job portal to limit growth of other aggregators. Given the role of aggregators in the relevant market to limit the competitive significance of indirect network effects, the divestiture would retain the pre-merger competitive environment in enabling smaller job portals to compete more effectively with larger job portals with the aid of increased visibility of listings through aggregators.²²

2.2 Case Study 2: Third-party Taxi Booking Smartphone Applications

26. Third-party taxi booking smartphone applications ("third-party apps") came to CCS's attention in 2014 arising from industry feedback. CCS views third-party apps as a much needed innovation that can potentially resolve the mismatch between demand for and supply of taxis services as they bring taxis from different companies into a common pool to meet commuters' demand.

27. **Singapore's Taxi Market** – There are currently five taxi operators²³ that rent out vehicles to taxi drivers in Singapore. As of July 2015, Singapore has 28,557 taxis.²⁴ The largest taxi operator, ComfortDelGro ("Comfort"), accounts for about 60% of the total taxi fleet, the second largest makes up barely a fifth, and the rest are much smaller. Although Singapore has one of the highest taxis per capita in the world, taxi availability has been a bugbear of consumers and there have been media reports of the difficulty of getting a taxi in Singapore.²⁵

28. The taxi booking services market lends itself more readily to competition as compared to street hails as passengers makes a choice on which taxi operator's taxis to use, instead of hailing the first available taxi that comes their way. Among the taxi operators, Comfort takes up a large proportion of bookings. Interestingly, according to industry feedback, some smaller taxi companies may avoid bookings by charging higher booking fees so that they can meet the call booking service standards imposed by the transport regulator.²⁶

²⁰ Paragraphs 176 to 180 of CCS's Decision

²¹ Paragraph 256 of CCS's Decision

²² Paragraph 267 of CCS's Decision

²³ The taxi companies are ComfortDelGro (Comfort Taxi and CityCab), Trans-Cab, SMRT, Premier and Prime, in order of fleet size.

²⁴ <https://www.lta.gov.sg/content/dam/ltaweb/corp/PublicationsResearch/files/FactsandFigures/Statistics%20in%20Brief%202014.pdf>

²⁵ <http://sbr.com.sg/transport-logistics/commentary/singapore-has-world%E2%80%99s-worst-taxi-drivers>

²⁶ The Quality of Service ("QoS") standards regulate taxi companies' performances in three categories – safety, taxi drivers' conduct and availability of taxis through call booking. Companies that fail to meet the requisite standards

29. **Third Party Apps in Singapore** – Third-party apps first started appearing in Singapore in early 2013 in tandem with the growing usage of smartphones.

30. CCS's market enquiry in 2014 revealed that there were five third-party apps operating in the Singapore market²⁷ and they compete closely with the taxi operators' taxi booking services. Each taxi operator provides booking services exclusively to the drivers that rent their taxis, and not to drivers that rent their taxis from other taxi operators. The larger taxi operators accepting bookings not only through phone calls, but also through their smartphone apps.

31. Third-party apps can provide significant benefits to both passengers and drivers. For the taxi drivers, these third-party apps provide a wider source of bookings such that drivers, especially those from the smaller taxi operators, are able to get more passengers. This is because third-party apps, unlike the taxi operators' booking services, are not exclusive to any particular group of taxi drivers. In addition, they provide innovative features such as the case of the Hailo app overseas that provides access to information analytics, such as a dashboard that allows taxi drivers to record every trip and build a statistical profile of their uptime, downtime and earnings. It also enables drivers to set daily personal targets and identify regions with more potential for passenger pickups. For passengers, third-party apps that connect to many drivers enable them to be matched more quickly and easily to drivers, particularly those from the smaller taxi operators, who could now use a common platform. The third-party apps also provide other value-added services, such as allowing passengers to make payment with their credit cards using a smartphone.

32. The entry of third-party apps is welcomed by the National Taxi Association²⁸ in Singapore that represents taxi drivers. The Executive Advisor of the National Taxi Association told the press that *"You cannot ignore the fact that the apps have been a very effective way of matching demand and supply. We should welcome the fact that there are such tools, and therefore you don't have to use a very crude measure of availability indicators as it is today. We should welcome and be happy with the apps that are helping us meet the requirements."* Since the entry of the apps, the matching of taxi supply and passenger demand has improved. The National Taxi Association attributed the increase in taxi utilisation in Singapore (from 65% in 2012 to 68% in the first nine months of 2014 to the growth in use of the apps.²⁹

33. **Potential Competition Concerns** - Due to the success of third-party apps, several companies entered the Singapore market in 2014 to provide similar services. CCS subsequently

face financial penalties. For call booking standards, they are made up of (i) call answer rate (percentage of calls answered by the taxi despatch system); (ii) waiting time for despatch system to answer incoming telephone calls, (iii) cater rate (percentage of calls despatched that are successfully matched with taxis), (iv) waiting time for despatch centre to confirm taxi from the time the call is answered; and (v) passenger waiting time for taxi to arrive.

²⁷ The five companies are GrabTaxi, Easy Taxi, Uber, Hailo and Moobi Taxi.

²⁸ The National Taxi Association (NTA) is an association for all taxi drivers in Singapore. It was formed in June 2010 when the six company-based taxi operators' associations namely Comfort Taxi Operators' Association (CTOA), CityCab Operators' Association (CCOA), Premier Taxi Operators' Association (PTOA), SmartCab Operators' Association (SCOA), SMRT Taxi Operators' Association (STOA) and TransCab Operators' Association (TCOA) came together. NTA currently has more than 18,300 members. NTA's objectives are to be the collective voice for taxi drivers in Singapore to further their interests and enhance their social and economic well-being.

²⁹ <http://tablet.todayonline.com/singapore/stricter-taxi-availability-standards-next-year>

received feedback suggesting that one of the third party apps was offering loyalty discounts targeted at the most active taxi drivers (i.e., those that make a high number of trips per day). There was concern that these discounts were offered on the condition that these drivers would not use any other third-party apps.

34. CCS was concerned whether such loyalty discounts would foreclose a significant proportion of taxi drivers from competing third-party apps. With fewer taxi drivers accessible to the other third-party apps, fewer passengers would use these apps (given the success rate of booking a taxi is lower) and this in turn would discourage more taxi drivers from using these apps. In the most extreme case of this “downward spiral”, competing third-party apps could be pushed out of the market due to network effects, leaving a single third-party app that would be able to increase its prices to drivers or passengers, reduce the quality of its service, have little incentive to innovate, or act in other ways to harm consumers and the taxi industry.

35. **Market Definition** – In determining the relevant market for CCS’s competition concerns, CCS assessed if the taxi operators’ booking services to drivers and passengers were in the same market as the third-party apps.

36. Considering the popularity of Comfort’s booking service with drivers and passengers, CCS assessed that, for Comfort taxi drivers, Comfort’s booking service may be able to serve as a competitive constraint on third-party apps. However, for non-Comfort drivers, their respective taxi operators’ booking services would unlikely serve as a competitive constraint on third-party apps due to their lack of popularity and small passenger base. Further, based on information gathered from the industry, CCS assessed that non-Comfort drivers would unlikely switch to hiring taxis from Comfort in order to access Comfort’s booking services, should third-party apps exercise market power. Hence, CCS considered that the potential competition concerns of the alleged conduct would likely arise for non-Comfort drivers, should the third-party app behind the conduct be able to price discriminate between Comfort and non-Comfort drivers.

37. **Dominance** – In assessing whether the third-party app behind the conduct was dominant, CCS considered the market share of the third-party app in the relevant market, the changes to market shares in response to promotions by the third-party app or its competitors, pricing behaviour, and entry barriers, including network effects, the need for sufficient financial capital to compete in the market.

38. **Abuse** – CCS found that while the loyalty discounts did not explicitly state the restriction on the use of competing third-party apps, information obtained suggested that this restriction had been informally conveyed to participating taxi drivers and that their compliance was being monitored. Further, the loyal discounts’ structure was such that participating taxi drivers were effectively required to use the company’s app exclusively, in order to continue enjoying the discounts. However, the number of drivers under the loyalty discount schemes was estimated to be a small proportion of the base of active taxi drivers, and the number of bookings captured by the schemes made up a small proportion of the total number of booking jobs taken up by active taxi drivers per month. Hence, CCS considered that the impact of the loyalty discount schemes was unlikely to harm competition.

39. **Conclusion** – Based on the information available to CCS at the point of assessment, CCS decided that it was premature to conclude that the third party app behind the conduct was dominant or that it had abused a dominant position through the loyalty discounts for taxi drivers. CCS is instead closely monitoring market developments to safeguard the healthy growth of this market. Since the time of assessment, Easy Taxi, a third-party app, had wound up operations in Singapore citing “highly funded competition and market dynamics” to focus its efforts on core markets in Latin America, Middle East and Africa. Uber, on the other hand, appears to be gaining traction by offering both taxi as well as private car hires.

3. International Competition Network Special Project 2016: Government Advocacy and Disruptive Innovations

40. Singapore is hosting the ICN 2016 Annual Conference. CCS, with the assistance of the ICN Advocacy Working Group (“AWG”) and other ICN member volunteers, is undertaking a special project on “*Disruptive Innovation and Government Advocacy*”.

41. **Motivation** – Disruptive innovations bring unique challenges to competition authorities as they create tensions between regulation and competition policy. It can be argued that competition authorities have an important role in advocating for regulations that strike a balance between promoting public policy objectives (such as consumer protection) and promoting a regulatory environment that enables the entry and expansion of disruptive firms so as to improve competitive outcomes in markets.

42. In some jurisdictions, government advocacy³⁰ may be the competition authorities’ only viable choice as regulations are immune from competition law, even if they limit or restrict competition in the affected market.³¹

43. In the case of Singapore, CCS’s experience with assisting the Land Transport Authority to derive a set of regulations for third-party taxi booking services³² that struck a good balance between providing space for these third-party apps to grow to improve market outcome, while ensuring sufficient safeguards for consumers convinced us of the importance and benefits of timely and effective advocacy to government counterparts.

44. **Survey** – The special project will survey ICN members on how they have advocated competition considerations relating to disruptive innovation to governmental and legislative entities³³ (“GLEs”) in their respective jurisdictions. The questionnaire surveys ICN members on

³⁰ Government advocacy refers to activities conducted by the competition authority related to the promotion of a competitive environment for economic activities by means of non-enforcement mechanisms, mainly through its relationships with GLEs and by increasing awareness of the benefits of competition with GLEs

³¹ See paragraphs 24 and 42 of the OECD report on Hearing On Disruptive Innovation – Issues Paper By The OECD Secretariat. 28 May 2015.

³² <http://www.lta.gov.sg/content/ltaweb/en/public-transport/taxis/industry-matters-for-taxi-operators/applying-for-a-certificate-of-registration-for-third-party-taxi.html>

³³ Governmental and legislative entities refer to agencies that design, review, or implement regulation(s) within the same country/jurisdiction as the competition authority. Examples of GLEs include legislative bodies such as parliaments, judicial authorities, government departments, local authorities and sector regulators.

their experience related to disruptive innovations, namely, government advocacy objectives; advocacy and engagement processes with GLEs; and advocacy outcomes and lessons. The survey will also collect case studies that identify examples of:

- a. GLE's regulatory responses to disruptive innovations that could potentially restrict competition and how ICN members advocated for GLEs to consider competition issues; and
- b. how GLE's regulatory responses to disruptive innovations successfully facilitated competition in affected market(s) and how ICN members advocated for GLEs to implement these regulations.

45. The questionnaire will be circulated to ICN members on 9 October 2015.

46. **Final Report** – The survey findings will be documented in a report which covers the following broad themes:

- a. how ICN members have successfully advocated competition considerations to GLEs;
- b. a study on the similarities and differences in the approaches taken by ICN members when advocating competition considerations to GLEs; and
- c. recommendations for advocating competition considerations to GLEs;

with regard to disruptive innovations.

47. The draft report will be tabled for discussion at the 2016 ICN Annual Conference.