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Consumer data rights and competition – Note by Egypt

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More documents related to this discussion can be found at
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1. Introduction

1. *"Data is the oil that fuels the digital economy"*.[1] This is especially true as the global digital economy has grown to unprecedented levels and continues to grow each day, fueled by data. On the other hand, this aspect of the digital economy has seen widespread criticism from users as well as governments, as digital economy companies are collecting and using enormous amounts of consumer data, to develop their commercial strategies and target consumers on digital platforms. This was faced with real concern from users who feared that their personal data might be exploited for causes other than those intended for.

2. There are three kinds of data generally used. Personal data, which could be defined as individual-level data that refers to a natural person[2]. Non-personal data which is anonymous individual-level data. Aggregated data which is usually anonymous and is hence considered non-personal data.

3. Personal data could be classified into three main categories: declared, inferred and observed.

4. Declared data is generally defined as personal or specific information that an individual willingly shares by filling out a form, completing an online sale or taking another purposeful action. It is often considered high-quality data because it is directly reported from the consumer. It also implies permission for future use of their information, such as for an email campaign. Generally, this data contains details about demographics, interests and purchase behavior. Declared data forms the foundation of content personalization and product recommendations popularized by Amazon and now used by most e-commerce sites.[3]

5. Inferred data could be defined as data and characteristics assigned to a person based on their activities and behaviors online, often based around content consumption. Companies can assign a classification, lifestyle or data to an individual depending on what they searched, read, watched or bought. This can be paired with declared data to build a richer customer profile. A brand could learn that a particular customer prefers to consume video content instead of text, or is interested in reading about particular topics, like fashion; this can help them tailor their messaging, advertisements or experience to fit the preferences of the individual.[4]

6. As for observed data, it is defined as Data based on a person's engagement with a very specific category of content or product. With observed data, companies receive

[1] https://www.wired.com/insights/2014/07/data-new-oil-digital-economy/

[2] European Parliament and Council, Regulation (EU) on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC, No. 2016/679, 27 April 2016 (GDPR), Article 4. The Draft Data Protection Law 2019 defines it as: "any data relating to an identified natural person, or one who can be identified, directly or indirectly, through the data". This includes any identifier such as name, voice, picture, identification number, an online identifier, or any data which determines the psychological, physical, economical or cultural identity of that person.

[3] https://www.hitwise.com/en/2016/01/25/inferred-declared-observed-demystifying-common-data-types/

[4] Ibid

information about a customer that is more specific—and often lower in the purchase funnel—than inferred data. Although the individual did not purchase or fill out a form, as with declared data, the person did spend time visiting pages about a specific product category or product(s). Observed data can serve as the basis for a retargeting ad campaign or email program that persuades a potential customer to return to the site with the promise of a desired product, content or deal.[5]

7. Hence, each of these collected data types poses a real problem for data privacy, as consumer data may be used in ways to which the latter did not agree.

8. In addition, there are two main consumer data rights associated with data; data privacy and protection and data portability. Thus, data associated matters could be seen as stemming from the violation of these two rights.

9. Whereas the protection of data privacy today is considered as the implementation of appropriate administrative, technical or physical measures that minimize the risk of or harm caused by unauthorized intentional or accidental disclosure[6], data portability allows users to transfer between online services in a similar way that users of telephone services may change providers but keep their telephone numbers.[7] In addition, data portability would allow users to give their data to third parties offering different value-added services. For example, if applied to smart metering it would enable customers to download data of their energy usage from their existing electricity supplier and then to hire a third party able to advise them whether an alternative supplier could offer a better price, based on their electricity consumption. Such transparency enables individuals to exercise their other data protection rights and may be seen to mirror the objective of rules on the provision of clear and accurate information to the consumer.[8]

10. In this regard, Egypt has recently enacted complimentary regulations on Cybercrimes in 2018 and personal data protection in 2020, drawing their main influence from the provisions of the European Union general data protection regulation ("GDPR"), as stated by members of the Egyptian Parliament during discussions on the draft law. Even though these laws are yet to enter into full implementation, they brought a significant overhaul to personal data protection and the fight against cybercrimes. This is why data privacy and data portability are considered two essential consumer rights that must be protected and accurately regulated in their use.

11. Regarding the issue of data in relation to competition law; competition enforcers do not perceive the violation of data rights as the only concern stemming from data. In fact, there is also a concern that has a direct link with economic activity; it is the possession of personal data by firms and its integration in their anti-competitive practices. The conclusions firms can draw from assessing data give market players an arguably biased competitive advantage over their competitors. In addition, data became a commodity that has its own market with advertising firms competing over its procurement from digital players who have access to Big Data.

[5] https://www.hitwise.com/en/2016/01/25/inferred-declared-observed-demystifying-common-data-types/

[6] International Organisation for Standardisation/IEC 2382-1-1993 and its successors

[7] 'Number portability' is provided for by Article 30 of Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive).

[8] Preliminary Opinion of the European Data Protection Supervisor, Privacy and competitiveness in the age of big data: The interplay between data protection, competition law and consumer protection in the Digital Economy, March 2014, parag. 26

12. Accordingly, this contribution will discuss the policy of the Egyptian Competition Authority ("ECA") regarding the issues of Consumer data protection and commodification in the context of competition law, in light of ECA's recent cases in the digital economy sector, and that by first addressing Consumer data as a source of market power, then by discussing the exploitation of consumer data rights, and finally by suggesting some possible remedies.

2. Consumer data as a source of Market Power

13. ECA recognizes that one of the main competition concerns in digital markets is how companies use consumer data to enhance their market power, which could eventually lead to serious competition violations. This was evidenced by ECA's assessment of the Acquisition of Careem Inc. by Uber Technologies Inc., as well as ECA's assessment of non-controlling minority shareholdings under Article 6 of the Egyptian Competition Law ("ECL") between Glovoapp23 S.L. and Delivery Hero SE. In these assessments, ECA found that the firms' first-movers advantage, in addition to the scarcity of data in the Egyptian digital economy sector rendered the data collected and processed as the cornerstone of their market power. In addition to the advantageous market positions of these firms, the increased weight of data in their activities made the possession of data a crucial asset to any new entry to the digital economy market in general. Therefore, this section will discuss how consumer data could be used to enhance that market power, especially in light of the *Uber* and *Glovo* cases.

2.1. Data as an asset for companies

14. Companies operating in the digital markets use data to enhance their market position and become dominant in the relevant market, which could be at the expense of consumer data rights such as privacy and portability.

15. These consumer rights were addressed in ECA's Assessment of the Acquisition of Careem Inc. by Uber Technologies Inc. throughout 2019, where ECA was able to fully examine the digital economy's full involvement with consumer data and in regards to data rights and data as an asset for companies.

16. In its assessment of the acquisition, ECA found that Uber holds very high amounts of data and uses this data as a core asset. It analyzes this data and "relies heavily on making data-driven decisions at every level"[9]. The "user data [Uber's platform] uses, collects, or processes (…) is an integral part of [its] business model".[10]

17. While Uber may not have an added side of advertising such as Google, Facebook and Amazon, data is still important to its activities. In fact, "every interaction on Uber's

[9] Riza Shiftehfar, Uber's Big Data Platform: 100+ Petabytes with Minute Latency, Uber Engineering, 17 October 2018. Available at: https://eng.uber.com/uber-big-data-platform/ .

[10] Uber Technologies Inc., Amendment No.1 to Form S-1 Registration Statement, 26 April 2019, p. 182. Available at: https://www.sec.gov/Archives/edgar/data/1543151/000119312519120759/d647752ds1a.htm.

transportation platform is driven by data"[11]. Uber makes "significant investments in (…) data management and personalization technologies"[12].

18. Similar to many digital services like email or search engines, individuals using ride-hailing services are required to surrender valuable personal information to enjoy them. Consumers provide detailed information regarding their preferences through their online activities that permits individuals, not groups, to be targeted with far greater precision by third parties who purchase this data. Therefore, besides the service fees paid by consumers, personal information operates as a currency in the ride-hailing sector, feeding the algorithms of the mobile applications.

19. The prevalence of data as a currency is mainly due to the commodification of data that has created new sectors and ecosystems. It served to significantly increase the value of social networks and search engines, and has helped the establishment of the economic two sided-model where data is a currency on one side and a commodity on the other.

20. The personal data collected by these companies has been valued in total at over EUR300 billion and has been forecasted to treble by 2020.[13]

21. That being said, it exists four types of data used by firms operating in the ride-haling sector: transaction and marketplace data, non-context-specific data, context-specific data and mapping data.

22. Transaction data includes the data ride-hailing companies uses to train their pricing, surge and matching algorithms, as well as the data and statistics available regarding the market. Transaction and marketplace data includes trip data such as information pertaining to the date, timestamp, pick-up and drop-off locations, distances, prices and promotions of trips.[14]

23. Non-context-specific data is used for the purposes of creating algorithms and, therefore, non-context-specific data reaching as far back as possible is useful for new entrants.[15]

24. In order to gather context-specific data, competitors must actually operate on the Egyptian market. To attract consumers and build a local database, competitors, especially those without non-context-specific data, may need to lower price.[16]

25. As for mapping data, ECA finds that the most important source of data, and the most difficult to obtain on the Egyptian market, is mapping data.[17]

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[11] Luyao Li, Kaan Onuk, and Lauren Tindal, Databook: Turning Big Data into Knowledge with Metadata at Uber, Uber Engineering, 3 August 2018. Available at: https://eng.uber.com/databook/

[12] Uber Technologies Inc., Amendment No.1 to Form S-1 Registration Statement, 26 April 2019, p. 180. Available at: https://www.sec.gov/Archives/edgar/data/1543151/000119312519120759/d647752ds1a.htm .

[13] Preliminary Opinion of the European Data Protection Supervisor, Privacy and competitiveness in the age of big data: The interplay between data protection, competition law and consumer protection in the Digital Economy, March 2014, Section 2

[14] ECA's Assessment of the Acquisition of Careem Inc. by Uber Technologies Inc., parag 219

[15] Ibid, parag 220.

[16] Ibid, parag 222.

[17] Ibid, parag. 224-225.

26. Mapping data is the prime example of the commodification of data, as it needs to be obtained from Google Maps, which by itself is a data-heavy service, producing a map database for navigational purposes is very costly and resource intensive.[18]

27. This data allows algorithms to improve and to create new data sets, inferred and observed.

28. Eventually, through machine learning and data, algorithms improve to the extent that allowed them to adapt to and predict consumer needs, as well as to predict competitors' strategies and react accordingly. For instance, the new up-front pricing method employed by Uber makes use of data sets in a way that may lead to increased personalization of pricing. This adaptability and lack of transparency may be the result of the data collected and processed by apps algorithms.

29. Moreover, beside interference in the pricing of the service, applications algorithms are an essential driver in the quality of digital services.

30. In its assessment of the acquisition, ECA estimated that even in the assumption that competitors compete on price, most consumers of the ride-hailing market take into consideration and greatly value non-price factors. A majority of consumers will be attracted to applications which, as a result of well-trained algorithms, are superior in quality. Even if a new entrant offers better financial options but cannot attract the high percentage of non-price oriented consumers to their new platform due to its low quality, the new platform will not be able to attract enough consumers to maintain enough network density. Therefore, given ECA's findings that consumers are attracted to non-price factors, a new entrant that cannot build up an efficient application due to lack of data may find difficulties to remain on the market to the extent that may render entry unlikely.[19]

31. Furthermore, although data collection could undermine some consumer rights, it still has its benefits. ECA admits that when used in the interests of consumers, data collection could lead to consumer welfare.

32. Data collection and processing are used to train algorithms in order to decrease errors and ultimately become a more efficient competitor. This is achieved through the reduction of costs, which is crucial especially for new businesses looking to recover their investment costs. This provides firms with a new competitive advantage and helps them to optimize the resources that would have been wasted by following a simple "trial and error" method. For instance, firms when interviewed by ECA, firms and experts in the ride-hailing sector insisted that if new entrants to the sector had the large data sets that Uber has, losses in time and resources could have been avoided, resources which could have been employed to improve the service to the consumers' benefits.

33. For instance, with large data sets, real-time data analytics companies make it possible to quickly detect anomalies like errors or fraud. It's a significant defense mechanism to ensure an organization can safeguard against the loss of crucial financial data or proprietary information.

34. As data possession is becoming a competitive advantage, ECA found that its concentration in one entity would cause significant harm to the ride-hailing market. In order to resolve such issue, ECA realized the necessity of data portability as a way for consumers to avoid a possible lock-in, and for other firms to enter the ride-hailing market and compete effectively with Uber.

[18] European Commission, TomTom/Tele Atlas, No. M.4854, 14 May 2008, §24.

[19] ECA's Assessment of the Acquisition of Careem Inc. by Uber Technologies Inc., parag. 212

35. In ECA's assessment of non-controlling minority shareholdings under Article 6 of ECL between Glovoapp23 S.L. and Delivery Hero SE, it was found that companies that possess strong data mining software are able to uncover hidden information about customers that other competitors are unable to reach. [20]

36. Better informed consumers will be able to choose between competing online services. They should be able to withdraw and transfer data which record their activities and are stored in the cloud, whether in the context of social networks, search engines, online banking, energy consumption, medical or fitness tracking applications. As a European Commission competition expert has noted, "*the harder it is for an individual to move their data, the stronger will be the position of the provider that controls that data, and the more difficult it will be for new entrants to succeed"*.[21]

37. Data portability could release synergies between competition law and data protection law in at least two ways.[22] First, it could prevent abuse of dominance, whether exclusionary or exploitative, and consumers being locked into certain services through the limitation of production, markets or technical development to the prejudice of consumers.[23] It would emulate the benefits of number portability provided for in telecommunications law.[24]

38. Secondly, data portability could empower consumers to take advantage of value-added services from third parties while facilitating greater access to the market by competitors, for example through the use of product comparison sites or of companies offering energy advice based on smart metering data.[25].

39. It is worth mentioning that Article 20 of the GDPR also states that the right to data portability cannot adversely affect the rights and freedoms of others, which has consequences on the level of the types of personal data the data subject can receive when exercising his or her right to data portability.

40. ECA concluded that Uber uses the above-mentioned types of data to entrench its dominant position as well as to extend its power to other markets, like the high-capacity vehicles market.

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[20] Data mining is defined as a process used to extract usable data from a larger set of any raw data. Available at https://economictimes.indiatimes.com/definition/data-mining.

[21] Coates, K., Competition Law and Regulation of Technology Markets, 2011.

[22] Article 18 of the proposed General Data Protection Regulation; COM (2012) 11 final. There are already public-private initiatives in several Member States which enable individuals to access directly their own data which are held by companies and to choose to transfer them to competing providers.

[23] Article 102(2)(b) of TFEU. See also Mantelero, A., 'Competitive value of data protection: the impact of data protection regulation on online behaviour', International Data Privacy Law, 2013, Vol. 3, No. 4, pp. 229-238

[24] European Parliament and European Council, Directive 2002/22/EC of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive), OJ L 108, 24.04.2002, Article 30.

[25] 'Allowing data subjects/customers to have direct access to their data in a portable, user-friendly and machine-readable format may help empower them, and redress the economic imbalance between large corporations on the one hand and data subjects/consumers on the other. It would also let individuals "share the wealth" created by big data and incentivise developers to offer additional features and applications to their users;' Article 29 Working Party, Opinion 03/2013 on purpose limitation.

41. Additionally, the existence of these viable assets in the possession of dominant entities such as Uber, renders entry to the ride-hailing market improbable, absent remedies.[26]

2.2. Data as a barrier to entry

42. ECA recognizes that in sectors where data is essential to the activity of firms, data can be considered as a barrier to entry and, consequently, it confers those who possess it a significant market power. Data allows a firm to predict consumer's behavior as well as its rival's behavior, hence allowing it to stay ahead of them in terms of quantity or price reactions.

43. A major problem in Egypt is the scarcity of data, as investors and digital markets operators as well as public entities struggle to find appropriate relevant data necessary for their activities.

44. For instance in its assessment of the acquisition of Careem Inc. by Uber Technologies Inc., this scarcity of data was an evident contributor to barriers to entry to this market. That being said, in the early days of the ride-hailing market, access to data was not considered a significant barrier to entry, due to the fact that no other competitor had a robust data set as Uber currently does. ECA recognized that Careem was previously able to enter and operate on the Egyptian market despite the presence of Uber at the time. However, ECA envisioned that if the transaction was to be consummated without its intervention, new entrants may not be as successful as Careem; the post-transaction entity will combine the assets and databases of the current incumbents, accumulating more market power than what Uber enjoyed in 2015. Potential entrants are likely to face stronger constraints than those Careem faced previously.[27]

45. In ECA's assessment of non-controlling minority shareholdings under Article 6 of ECL between Glovoapp23 S.L. and Delivery Hero SE, it was found that Otlob has been operating in the market for 20 years and had already established a strong database for customers. Thus, Otlob had a competitive edge that new entrants lacked. Since Otlob and Carriage were two subsidiaries under Delivery Hero, Otlob would most likely provide its customers' database to Carriage strengthening its market position as well as Delivery Hero's market power in Egypt. The abundance of data would enable Otlob and Carriage to connect restaurants with a wider pool of customers. Consequently, restaurants would prefer using Otlob and Carriage rather than any other platform.

46. New entrants or existing market players do not have access to a comparable database to attract customers or restaurants. Establishing a database that covers a significant segment of the market requires time and expensive software. Therefore, potential or current market players will have a competitive disadvantage that will render them unable to compete with Otlob/Carriage due to their significant market power.

47. The amount of time and money new entrants would need to be able to accumulate an adequate amount of data, given the significance of the barriers to entry, in particular those related to investment costs and access to capital, may deter potential competition. They had to spend two years to collect the adequate amount of data needed to compete on an adjacent market. In the absence of competition, the concentration of data in the hands of the post-transaction entity, in addition to other barriers, may significantly raise the cost of

[26] Competition Law and Data, Joint report by the French and German competition authorities, 10th May 2016

[27] ECA's Assessment of the Acquisition of Careem Inc. by Uber Technologies Inc., parag. 213

entry as new entrants may not be able to sustain low profit margins for a sufficient period of time in order to gather enough data.[28]

48. Moreover, the combination of data and network effects allows a firm, which possesses the largest amount of data in the market, to act independently from its competitors by lowering privacy standards; thus harming consumer welfare and competitors who invest in quality and privacy innovations.

3. The exploitation of consumer data rights and consumer behavior

49. Consumer data is big in quantity as well as in variety. Firms collect personal data, behavioural data, economic data, cultural data and so forth, while consumers are not fully aware of how their data is being collected and used. Most importantly, consumers do not realize the extent to which their data is analyzed and the scope of the conclusions that can be drawn from such an analysis. By utilizing data mining and other kinds of analytics, non-obvious and sometimes private information can be derived from data that, at the time of their collection, seemed to raise no, or only manageable privacy issues. However, this series of new information raises a few competition and consumer welfare issues.[29] The predictive nature of these conclusions is not only exclusive to competitor's behaviour. The conclusions that firms draw from data allow them to predict what consumers are willing to accept in terms of price and quality. This is, usually, without the knowledge of the consumers.

50. This asymmetry of information leaves consumers in a vulnerable position against the firms in the market. Aside from having their data collected and sold to third parties, consumers can be subject to price discrimination and other anti-competitive practices because of their behavior on a certain platform. Through personal and behavioral data, the algorithms of digital platforms assess how much the consumer values a certain product or service and the highest price he is willing to pay for such a product or a service. Accordingly, the platform has the ability to set a personalized price for each consumer.

3.1. Price discrimination

51. Discrimination may *"be the inadvertent outcome of the way big data technologies are structured and used."*[30] This statement represents a justified concern of competition authorities and consumers who are worried about the ability of firms to make a well-informed decision on the prices to set for each consumer. This ability to personalize the price of a good or a service for each consumer is due to the analysis and the processing of the collected use-data. The analysis allows firms to determine each consumer's "willingness to pay" with unprecedented precision and price accordingly. This is a strategy employed by Amazon, Booking.com and other digital economy incumbents.[31]

[28] Ibid, parag. 211

[29] Executive Office of the President. President's Council of Advisors on Science and Technology. "Report to the President: Big Data and Privacy: A Technological Perspective." May 2014. Available at:

https://www.whitehouse.gov/sites/default/files/microsites/ostp/PCAST/pcast_big_data_and_privacy_may_2014.pdf

[30] The White House. "Big Data: Seizing Opportunities, Preserving Values." May 2014.

[31] OECD, Personalised pricing in the digital era, 2018.

52. In addition, one of the most prominent players in the digital economy, Uber, a ride-hailing giant, has stated their algorithms *"become smarter with every trip"*.[32] While a smarter algorithm implies that the algorithm enables the application to provide consumers with a superior service, more adapted to their needs and in the case of ride-hailing service choosing the optimal route. A smarter algorithm also implies its capacity to reduce costs and maximize profits, possibly, by optimizing the use of human resources, without their knowledge, and altering prices in order to set the highest price a consumer is willing to pay depending on their demand curve and the circumstances they are in.

53. The "smarter algorithm" is the technology that enables a pricing method that Uber calls "dynamic pricing". It is a data-heavy model, which works through algorithmic pricing, taking into account the traffic, the general usage of the application, the weather and the time of day but also a person's location, user history and most interestingly their "life battery". The combination of the aforementioned variables allows the algorithm to determine the highest price that the consumer is willing to pay, i.e. the highest point in its demand curve. Thus, by collecting data on consumers and their circumstances, the company exploits their need to get a ride in order to maximize its profits.[33]

54. This company behavior would not have been possible without the amount of data it collects and processes; this data is generated by users using the application. This stresses on the importance of network effects as all data-heavy economic activities gain value by building a large network of users who, in turn, generate significant amounts of data, allowing firms to use this data to improve their services or improve their ability to attract consumers and ultimately expand their network.

55. ECA finds personalized pricing to be one of the most prominent competition concerns as it is the purest form of price discrimination. This price discrimination damages consumer welfare and remains very difficult to mitigate through competition law tools as it necessitates a very delicate technical intervention in order to alter the algorithm.

3.2. How consumers value privacy

56. Despite the claims that consumers greatly value non-price factors of a digital service, a non-price factor proves to be controversial when assessing its value to consumers. This factor is privacy. Privacy is a parameter of competition, how consumers claim to value privacy and their behavior towards their personal data create a situation of paradox, "the privacy paradox".

57. In the context of using search engines and social networks such as Google and Facebook, consumers agree to share vast amounts of data. This is one of the main characteristics of "zero-price" services but it is also their main source of income. "Zero-price" firms such as the above collect, process and sell consumer data to third parties. In addition, these service providers, namely Facebook collects data from consumer's activity on third parties' platforms resulting in a collection of significant amounts of data unproportional to what consumers think they consented to.

[32] Uber's prospectus, Amendment No.1 to form S-1 registration statement, 26 April 2019, p. 92.

[33] "Uber Charges More If They Think You're Willing To Pay More", Forbes,https://www.forbes.com/sites/nicolemartin1/2019/03/30/uber-charges-more-if-they-think-youre-willing-to-pay-more/#7e96d7fa7365

58. Privacy can be defined as the ability to share information selectively but not publicly.[34] However, the default settings are usually set to minimum privacy, making the availability of data seem to be the norm while privacy settings seem like an alternative. In that case, ECA will intervene in order to protect consumer data rights through competition law tools.

4. Competition law data remedies

59. ECA recognizes remedies as one of the competition tools that can achieve a restoration of data rights and neutralize the unfair competitive advantage that some incumbents possess through data. Those remedies take market dynamics into account. ECA has recently imposed data portability and access to data remedies in order to restore data rights and competition to the ride-hailing market.

4.1. ECA's general policy on remedies in the framework of digital markets

60. ECA sees remedies in the framework of digital economy mergers as a tool to the restoration of consumer data rights. In some cases, ECA may find remedies proposed by parties to a transaction sufficient to alleviate the potential harm on competition. Much like most other authorities around the world, ECA will assess, depending on the transaction in question, structural and/or behavioral remedies.

61. When applying to transactions taking place on dynamic markets, ECA is cautious not to manipulate or slow down the natural dynamics of such markets and that it does not accept remedies that regulate a monopoly rather than promote competition. Proposed commitments must be verifiable, transaction-specific and passed on to consumers.[35] Moreover, given the dynamic nature of the markets in question, any commitments must be assessed and updated periodically.

62. In merger cases, upon receiving remedies from parties to a transaction, ECA will carry out the thorough analysis of static and dynamic aspects explained above. In doing so, ECA will notably carry out market testing, which entails engaging with stakeholders and providing them with a non-confidential version of the proposed commitments, in order to allow them to express their opinions and expertise. This ensures that any decisions taken by ECA are based on the opinions of actual players and experts in the market. In addition, ECA also relies on best practices from other jurisdictions that have studied similar transactions when imposing and studying the remedies provided by the parties.

63. Additionally, any remedies must be reviewed periodically in order to remain accurate and effective but also in order to comply with other provisions and rights. Empowering potential entrants through compulsory licensing or data sharing must be within the confines of data rights. Given the technical nature of data remedies, competition authorities must ensure that the remedies are technically feasible and can be monitored. It is recommended to designate a body that has the technical prowess to monitor there implementation

[34] Executive Office of the US President. President's Council of Advisors on Science and Technology. "Report to the President: Big Data and Privacy: A Technological Perspective." May 2014.

[35] European Commission, Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, C031, 5 February 2004, para 86.

64. In order to appropriately address issues on dynamic markets, any remedies accepted by competition authorities must be a result of a static and dynamic study that pictures and predicts the future of the market. As the market evolves, these remedies must be verified and updated to not result in disruption of the market.

65. In Careem acquisition case, ECA sought to mitigate two harms. First, the harm related to consumer's data portability right. Second, the harm linked to the strengthening of the market power of the post-transaction entity due to the concentration of significant amount of data essential for ride-hailing. ECA imposed the adequate remedies on the parties in order to mitigate the harms that would have resulted from the transaction absent ECA's interference. Due to those remedies, consumers reclaimed their right to portability of data and entry to the market has been facilitated through the guarantee of access to data, which would restore competition to pre-transaction levels and incentivize new entrants to compete on non-price factors, including privacy.

4.2. Data Portability remedy

66. The importance of a data portability remedy in digital economy mergers between the most significant and closest rival is crucial. The amount of data combined by both firms could be utilized to allow them to benefit from monopoly gains or at least supra-normal profits. The quasi-monopolization, or monopolization, of user data, could perceive competition in such markets stray from a "competition on the merits" model; as consumers essentially own the data and the content they create on digital platforms. Thus, firms can gain a competitive advantage using resources and "goods" that they do not own. This approach is supported by the GDPR, as under the EU GDPR, user data and user-generated content is the propriety of the user of a platform.[36] A data portability remedy would therefore enforce consumer's data portability right in that it allows him to transfer his property, his usage patterns and history from a certain platform to another competing platform.

67. In the case of ride-hailing, trip history and trip-related data in general are user-generated content as they concern rides that they provided (drivers) and rides they have taken (riders). Hence, users have the right to transport this data to other applications.

68. In the case of Uber's acquisition of Careem, its biggest competitor in the MENA region, ECA compelled Uber to continue granting its riders access to their data by enabling them to download this data. Uber also committed to employ its best efforts to facilitate the interoperability of this data with other platforms in order to facilitate riders to port their data to alternative ridesharing suppliers.

4.3. Interoperability

69. One of the main hurdles that competition authorities face when attempting to impose and implement a data portability commitment is interoperability between platforms. A consumer can extract his data from a certain platform but in order to insert this data into another platform, this data has to be in a format that can be "read" by the interface of that latter. The absence of interoperability can offset the objectives that ECA sought to achieve by imposing a data portability commitment in the case of Uber's acquisition of Careem. Such absence would keep consumer data "locked-in" in one application and would

[36] European Parliament and European Council, Regulation (EU) on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), No 2016/679, 27 April 2016.

significantly raise barriers to switch which would, in turn, create high barriers to entry, as potential entrants would find it difficult to attract consumers. This is due to network effects where a platform's value increases as more consumers adhere to it, providing the platform with their data and allowing it to evolve and to create a bigger network feeding on their data. Thus creating a network that is difficult to replicate, causing the market to tip in their favor.

70. Eventually, this will lead to consumers being locked-in in the platforms where their data was collected. Consumers may prefer familiarity with a platform to "starting all over again" with a new platform even if the latter provides a better service. This might be especially true in data-heavy services, which adapt to better meet consumer needs and provide a personalized service through machine learning.

71. In order to resolve this interoperability issue, ECA had Uber commit to allow users to download their data in a common format and to use its best efforts to cooperate with a ridesharing service provider, in case the latter creates a portal to facilitate data portability.

4.4. Data sharing remedy

72. As well as being an object of competition, data is also a tool of competition. Firms compete on data but they also compete through data. Data is a crucial element of the decision-making process of firms in general, and firms in the digital economy in specific. For instance, Uber "relies heavily on making data-driven decisions at every level".[37] This is evident by observing Uber's strategy to monitor its competitors, and taxi's fares in order to undercut them.[38]

73. In the Careem acquisition case, the parties of the transaction were holding the two biggest datasets in the app-hailed passenger vehicles market. This data consists of personal and non-personal data. Non-personal data include trip data and mapping data. The majority of this data is hard to replicate due to the scarcity of data in the Egyptian market. Firms working in other verticals of ride-hailing have communicated to ECA the fact that collecting data in Egypt is a challenging task as databases are not available and upon starting there were no third parties that could sell them the data they needed in order to compete efficiently in the market. These firms had to collect data through trial and error, which was costly in terms of time and money. Uber and Careem had to go through the same process but they had the time advantage as they were the first movers in the sector and there was no competitive pressure on them from other technology-based firms in the process of data collection.

74. Therefore, ECA had to intervene in order to mitigate the harm that could have been caused by the combination of the two most significant datasets in the market and multiplied by network effects. This accumulation of data in addition to other barriers to entry could have significantly deterred entry. Therefore, ECA examined the types of data that are essential to ride-hailing activities and had Uber commit to license them with new entrants under specific conditions that shall be agreed upon with the monitoring trustee. In ECA's view, this licensing incentivizes entry to the market as it mitigates the superior access to drivers and riders' data that the post-transaction entity has.

[37] Riza Shiftehfar, Uber's Big Data Platform: 100+ Petabytes with Minute Latency, Uber Engineering, 17 October 2018.

[38] Forbes, "Uber Charges More If They Think You're Willing To Pay More". Available at:https://www.forbes.com/sites/nicolemartin1/2019/03/30/uber-charges-more-if-they-think-youre-willing-to-pay-more/#7e96d7fa7365

75. In order to preserve a competitive landscape in the ride-hailing market, ECA had Uber commit to grant one-time access to a Ridesharing Services Provider upon the latter's request to Rider Information and driver information, subject to the General Data Protection Regulation and opt-in consent. This license would date from the 12 months preceding such a request for the purpose of training algorithms for matching riders and drivers, dispatching drivers and pricing trips in Egypt.

76. ECA was adamant to take into account consumer data rights when agreeing on those commitments. The licensing of users' data should not endanger the preservation of consumer data rights. In fact, the purpose of the commitments was to incentivize entry, which would in turn provide a better competition on consumer privacy and data fundamental rights.

77. Moreover, by aiding new entrants training their algorithms, they could improve the quality of their service and compete on offering innovative privacy options to consumers thus improving the standards of privacy in the nascent sector.

5. Conclusion

78. While ECA will not argue whether data is an essential facility, as it is a qualification that should be determined on a case-by-case basis and the authority is still relatively young in this area of practice. ECA believes that the scarcity of data in Egypt makes it significantly more valuable and essential than in other economies where databases are widely available.

79. ECA trusts in the role of competition authorities to cooperate with data protection authorities in order to protect consumer data rights and eventually consumer welfare. However, ECA considers the optimal method to limit violation of privacy rights is to increase digital awareness and to foster competition on the market where every market player competes on the merits to offer better privacy standards to consumers.