



**VICTORIAN  
TAXI  
ASSOCIATION**

PO Box 5111, Garden City, Victoria 3207  
Suite 2, 85 Salmon Street, Port Melbourne  
Telephone (03) 9676 2635 Facsimile (03) 9676 2643  
[www.victaxi.com.au](http://www.victaxi.com.au)

Dr Richard Chadwick  
General Manager  
Adjudication Branch  
Australian Competition and Consumer Commission  
GPO Box 3131  
Canberra ACT 2601

14 July 2014

Dear Dr Chadwick,

We thank the Commission for its response to our request for interim authorisation within the short timeline from the date of our original application being submitted.

Please find enclosed a supplementary submission which responds to the interim decision of the Commission on our application for authorisation (A91428).

In addition to our own reflections of the questions raised in the interim decision documents, we have engaged the assistance of Stephen King to produce a short piece of work on the economic theory of two-sided markets and how the theory applies to taxi booking networks.

The VTA is available to provide further information to answer any questions which may arise for the Commission from this submission as necessary.

Yours faithfully

**DAVID SAMUEL**  
**Chief Executive Officer**

## **Introduction**

VTA is seeking authorisation so that networks that operate in rural and regional towns can continue to operate whilst the industry adjusts to a new environment which involves significant deregulation, substantially reduced barriers to entry and the prospect of competition between networks, some of which are likely to operate in multiple towns.

Networks are essential for the industry to operate efficiently in the dispatch or pre-booked market. The economic literature on the issue shows that networks provide an effective mechanism to match consumers to taxis in an efficient way. The attached paper from Professor Stephen King demonstrates that in such a two sided market, competition is more likely to be effective between a small number of networks rather than a large number of operators. The outcomes of similar reforms in other places around the world have also indicated that competition is unlikely to occur between operators.

Competition between operators is neither efficient nor practical. The benefits of networks are that they reduce costs in that they allow members of the network to share the common or fixed costs provided by the network which would otherwise have to be incurred by each operator. More importantly, they also enable taxis to be dispatched to consumers efficiently and minimize waiting time given the geographic dispersion of consumers and taxis. Operators must be able to divert work to other operators as there will be unreasonable waiting times if the work cannot be co-ordinated. Without authorisation these networks are likely to collapse. It is simply not practical to dispatch taxis on the basis of a difference in price. The results will be higher costs, disruption in the provision of taxi services with consequent increases in waiting times. Informal networks may try to develop but it is difficult to see how they could operate without some arrangement on prices charged and hence would run the risk of breaching the Competition and Consumer Act.

Alternatively operators do not co-operate. As well as higher costs, this would mean that operators would have to decline customers who will need to continue to ring different operators or they will try to service customers without the benefit of a network. This will inevitably lead to a blow out in waiting times. In addition, customers with large contracts will need to negotiate with individual operators, which is not practical.

The recent reforms are likely to lead to significant change to the taxi industry in Victorian regional and country towns. Entry barriers are being lowered and networks will be able to compete on price and quality of service. While it is difficult to estimate the transition time for this to occur it is likely to happen rapidly in some areas. The VTA believes that a period of three years is necessary to enable the changes that will result from the reforms to flow through. However, the starting point must be the existing networks. Without authorisation, networks are likely to break down, cause disruption to the industry and put the reform program at risk.

## **The problem**

A taxi network is an organisation which exists to receive and co-ordinate the dispatch of taxi bookings. The *Transport (Compliance and Miscellaneous) Act 1983* defines a network by the following fundamental characteristics:

1. The receipt and dispatch of work; and
2. A central communication system.

Network structures can vary – a network may be a co-operative group of operators (like the ones the subject of our application), a smart phone app, a large corporate entity that specialises in the receipt and dispatch of taxi work or a simple two way radio.

The VTA application only applies to one network business structure - the country co-operative structure. Decision making in these networks is done by the operators, which by virtue of deregulation of taxi fare setting, are now perceived as potential competitors thus creating the high risk of breach should the network seek to set a consistent maximum price for booked and contracted services.

It is not possible to dispatch taxi work as a network, co-operative in nature or otherwise, without some understanding of the price that will be charged. It must be very clearly stated here that these businesses do not have an independent decision maker that can limit the potential risk and act independently on behalf of the network. Attachment 1 details different scenarios of how the issues may play out in these networks.

Put simply, the operators of the taxis *are* the network, and often even take turns answering the phone. To avoid a discussion about price is almost impossible. If an operator was working the phones for a particular shift they would need to ask their competitor about the price they intend to charge. Any resultant discussion about price could be a breach of the law and it is simply unworkable to have a taxi network unable to advise customers what the price of a trip might be.

### **The role of taxi networks**

In the past, most country towns had one network. The type of network structures which emerged were shaped both by the natural inclination of businesses to respond to customer demands and seek efficiencies, as well as by the regulatory context in which they were formed, namely the restrictive regulation of taxi zones and licensing (as detailed in our original application).

In order to illustrate the efficiencies of taxi booking networks, the VTA engaged Professor Stephen King to prepare a short paper on the application of the theory of two-sided markets to the taxi industry, which is provided at Attachment 2.

In the post-reform context, if the community does not appreciate their business structure and service, with or without ACCC authorisation, their business will fail due to the vastly increased potential for competition. **This application does not in any way stifle or limit the emergence of new and innovative business models to service the community.**

### **Competitive potential**

It is important to understand why competition between operators for booked work has not materialised. The simple answer is that it is not efficient.

Customers demand a central point through which to 'book' a taxi. As a result, networks of local taxi operators have developed this central point through which work is organised to ensure the customer gets the next available closest taxi. Competition for this work does not occur between individual taxis because of the practical and operational hurdles. These same barriers do not exist at the network level.

In our original application, the VTA advised that a 'consumer interest test' would be used by the TSC to control release of new licences in country and regional licence zones. Following consultation, this test has been removed. The TSC will have discretion to issue or refuse licence applications and describes how it will use this power on the website:

“In exercising its discretion to grant or refuse to grant a licence in a district within a zone, the TSC will have regard to any exceptional circumstances that arise which are demonstrative of widespread market failure resulting in significant detriment to consumers.”

It is only in ‘exceptional circumstances’ that a new licence application would be refused.

Since our last meeting, the VTA has asked the TSC Commission to make contact directly to discuss their approach to licensing. The TSC has indicated that it will do so.

Whilst there are 19 co-operative networks which are the subject of our application, there are approximately a further 60 networks in country and regional areas (as shown in the maps in our original submission) which, thanks to regulatory changes, will also apply competitive pressure to co-operative networks.

There are many taxi markets around the world that have experienced similar deregulation, including New Zealand, Ireland and several American state markets. Nowhere has competition for booked work emerged at an operator level. Whilst in some cases, affiliation with a taxi network has remained mandatory, this was retained as a result of considered decisions by regulators to maintain structures for efficient competition. Economic and regulatory reviews of the processes in these markets show that competition has vastly increased, many new and differentiated networks and services emerged, but that this competition operates at the level of the network, be they large or small, specialist or broad.

Schaller explains that:

*“The nature of the dispatch market creates the conditions necessary for meaningful competition and customer choice.*

*The nature of dispatch trips [or booked work] means that drivers and cab companies must work together for mutual benefit.”<sup>1</sup>*

The VTA believes the transition currently underway is to a context where there are potentially more participants in the market for the dispatch of booked taxi work in country areas, therefore increasing competition between networks and potentially reducing price. The thing that has inhibited this competition in the past has been the regulatory structures that have reduced the potential for new entry and the resultant inability of a network to offer to dispatch work in a location anywhere other than where their accreditation permits. Importantly, network accreditation has been granted on the basis of network size (small, medium and large) and contained geographical constraints on where a network may operate. These constraints have now been removed.

There could in fact be a consolidation of networks but an increase in competition for booked work because previously taxi zoning prevented these businesses from competing. The evidence that this is likely to occur already exists - even in the restrictive regulatory environment we have seen competition at this level develop - as has been referenced in previous submissions.

### **Consequences for competition**

It is the VTA’s contention that without authorisation, the consequence for these businesses will be swift collapse. The result of this will threaten the intended effect of the Victorian Government’s industry reforms and put operators at risk of unwittingly breaching competition law.

---

<sup>1</sup> Schaller, B., ‘Entry controls in taxi regulation Implications of US and Canadian experience for taxi regulation and deregulation’, *Transport Policy*, 14 (2007), p. 492.

Without going into more detail about the detrimental impact on customers and communities (as previous VTA submissions and submissions from other bodies like DVA have done), without authorisation existing networks will collapse and re-form in an informal way. When a single operator cannot meet customer demand, they will refer work to other local operators. These informal arrangements pose a far greater risk to competition in relation to price. Competitors via discussion about the price they charge when sharing work, will be in breach of competition law and without any formal arrangements in place, will be less likely to face scrutiny from regulators.

### **The transition period**

Timelines to transition to the context that is described above are difficult to judge because there are a number of factors at play, from the regulatory to the cultural. In some areas it is easy to see greater competition occurring immediately or in the very short term, while in other areas it may take longer. In some cases it will take businesses time to understand and recognise opportunities. This is not surprising given that many of the regulatory structures that have been reduced have existed for many decades.

We should note that there could be some places where it is simply not sustainable for more than one booking service to operate, or not attractive enough, due to small market size for example, for new or existing booking services to enter. Importantly, authorisation would have no bearing on this.

The VTA argues that an authorisation period of three years is reasonable given the Victorian Government's commitment to review the implementation of price notification (de-regulation of fare setting) in country and regional licences zones after three years. The Victorian Government response to the recommendations of the Victorian Taxi Industry Inquiry states:

*"Following the first three years of the reform program, the Taxi Services Commission should assess the extent and effectiveness of fare competition to determine if it is suitable to also move from maximum to notified and monitored fares in the metropolitan and urban zones. In making this assessment, the Commission should consider if all or part of these services are sufficiently competitive, particularly the pre-booked segment of the market."*<sup>2</sup>

### **Conclusion**

In summary, the VTA would like to impress upon the ACCC that our application in no way seeks to, or will in practice, restrict the potential for competition stemming from the recent reform to the Victorian taxi industry. Putting aside whether networks subject to this application are important, regulation will no longer impose the same restrictive controls that have shaped their formation. Instead, the market will determine their future - if they are not the most efficient and well received model, they will dissolve because customers and industry participants will not see the utility in continuing them. Their value will be determined by the choices of consumers and new and existing industry participants. Critically, these choices will be made in a far less regulated environment.

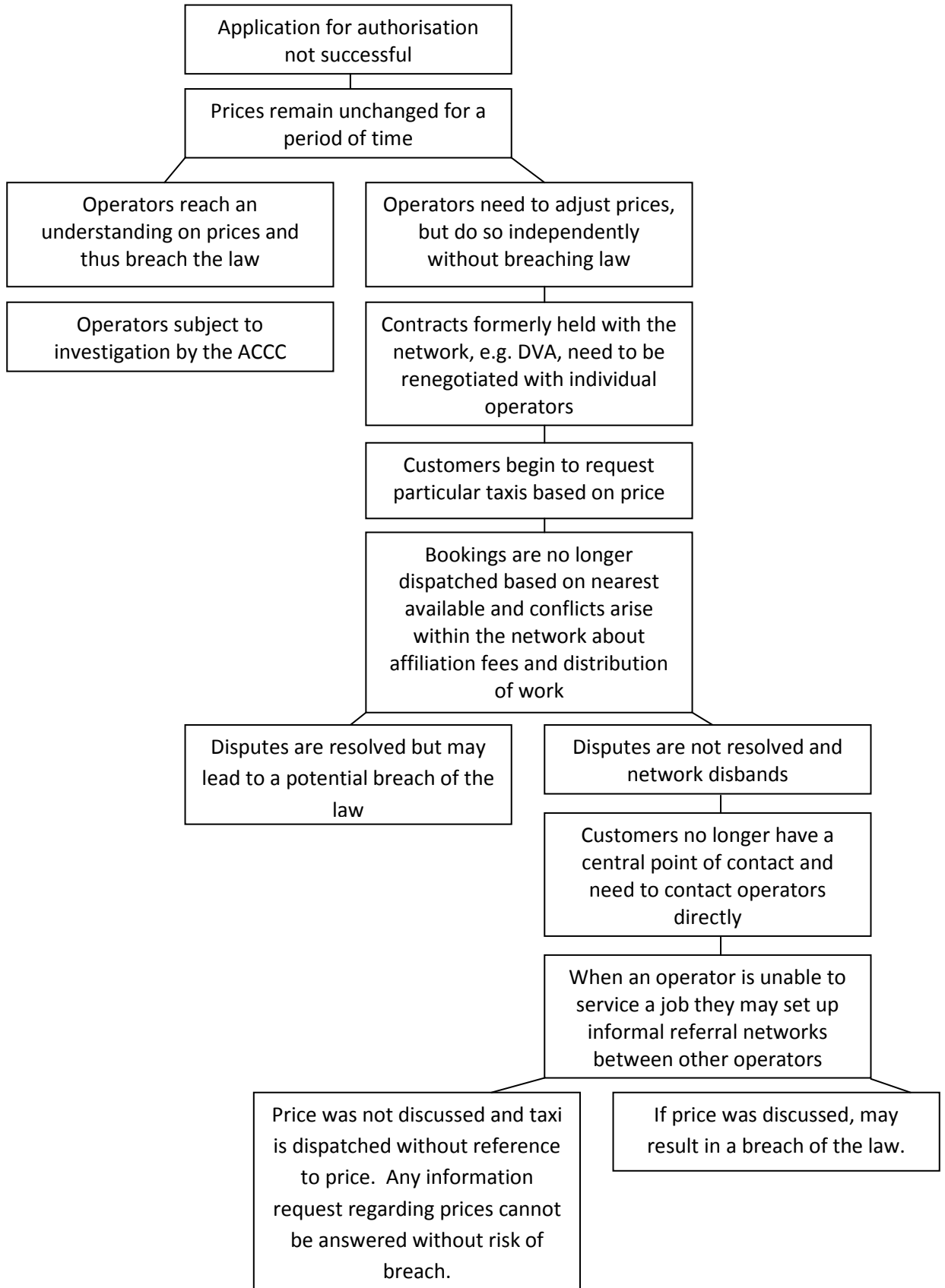
We also need to again emphasise that the application only seeks authorisation to set an effective maximum retail price; operators are still free to offer a price below this for booked work. An operator is also free to leave the network (due to regulatory changes) and set their own price for booked work.

---

<sup>2</sup> 'Government Response: Victorian Taxi Industry Inquiry Final Recommendations', May 2013, available online at [www.taxi.vic.gov.au](http://www.taxi.vic.gov.au), page 33.

## Attachment 1

Based on conversations with affected networks, the following diagram documents what the VTA anticipates could happen within multi-operator co-operative networks in country and regional licence zones without authorisation.



# Two sided markets and taxi networks.

A report for the Victorian Taxi Association

Professor Stephen P. King.<sup>1</sup>

July 14, 2014.

## 1 What is a two-sided platform?

Whenever agents to a transaction (e.g. consumers and suppliers) interact through intermediaries or a 'platform', they are operating through a two-sided platform. For example, a business that matches buyers and sellers and reduces the search costs for both parties is a two-sided platform.

Two-sided platforms are common. For example, a shopping centre can be considered to be a two-sided platform: it provides 'space' that is leased by sellers, and buyers travel to the shopping centre knowing that they can access a range of sellers at the same location.

By themselves, two-sided platforms do not raise any 'new' issues for competition analysis compared to the vertically integrated provision of goods and services. Rather, a two-sided platform is simply an alternative way of organizing business transactions in order to minimize costs and maximize value to customers.

Indeed, the ability of parties to create a two-sided platform generally will be pro-competitive. It may assist parties, on one side of the platform, to access parties on the other side of the platform, in circumstances where, absent the platform, such interaction would not be feasible due to economies of scale. In this sense, two-sided platforms increase competition by enabling buyers and sellers to interact through an alternative organizational structure compared to a traditional vertical production chain.

To see this, note that standard retail sales may be mediated in a variety of ways. A retail store may vertically integrate, buying the goods from wholesalers and reselling to customers (a vertical chain of production). Such a model places significant risk and credit requirements on the retailer. The integrated seller may exploit economies of scale by bringing a range of goods together to increase convenience for customers. However, to the degree that

---

<sup>1</sup> Professor of Economics, Monash University, Melbourne. The analysis presented in this report represent the views of Professor King and should not be construed as those of the VTA.

warehousing, logistics, purchasing and other retail activities involve economies of scale, such integrated retailing may tend to allow only a few large-scale businesses to actively participate in the market. Arguably, this is the situation in dry grocery retailing in Australia and other countries.

Alternatively, a retailer may operate under an agency relationship with wholesalers, so that each 'retailer' does not 'own' the products that he or she sells. In this situation, the upstream supplier may be able to exploit the economies of scale associated with logistics and marketing. The retail agents may be relatively small. Again, however, the economies of scale may limit the number of upstream suppliers.

Finally, a retailer may simply lease store space to different (and often competing) suppliers who provide their own displays and staff and sell directly to consumers. The retailer is providing a two-sided platform that allows interaction between sellers and consumers. This platform approach to retailing has long been common in 'markets'. More recently it has been used for internet platforms (e.g. eBay) and by more traditional stores (e.g. sales of cosmetics and clothing in department stores).

An advantage of a two-sided platform is that it allows a range of relatively small sellers to interact with (small) buyers. In this sense it is pro-competitive. To the degree that there are economies of scale, the platform provider can exploit them. Thus, the competitive concern with two-sided platforms is at the level of competition between alternative platforms and between platforms and integrated modes of production and distribution.

The existence of alternative supply models immediately leads to two conclusions:

1. If there are a variety of small agents on both sides of a set of relevant transactions, and there are economies of scale in terms of logistics, marketing, coordination of supply or other relevant factors that decrease costs or improve the value from the relevant transactions, then two-sided platforms can provide a mode of organizing transactions. The alternative to a two-sided platform is not direct interaction between individual small agents because of the relevant economies of scale. Rather, the alternative that will emerge will often involve integration and large-scale provision.
2. It immediately follows that when considering the competitive impacts of two-sided platforms, the relevant counterfactual is integrated supply at some point in the chain of production. The focus of competitive analysis must be on the structure of the platform, its ownership, and the degree to which alternative platforms are able to compete. The comparison for competitive analysis is some form of integration.



## 2 What is a two-sided market?

Interactions using a two-sided platform may also involve positive or negative externalities between the agents who use the platform. If the size of the externalities depends on the number of participants on one or other side of the market, then they are called network externalities or network effects.<sup>2</sup>

A two-sided platform that has network effects is called a two-sided market. More formally:

“[A] two-sided market is a market in which a firm sells two distinct products or services to two different groups of consumers (the two “sides”) and knows that selling more to one group affects the demand from the other group, and possible *vice versa*. ... A firm in a two-sided market is then said to act as a platform”.<sup>3</sup>

As an example, consider a credit card network. A credit card is a two-sided platform for payments between buyers and sellers of products. When choosing a credit card, a consumer cares about the number of merchants who will accept the card. Similarly, merchants will only accept a card if it is carried by enough consumers. These network effects mean that payment cards are a two-sided market.

The competitive implications of a two-sided market depend on two key factors: the nature and direction of any externalities between parties who use the network; and the ability of one or other set of parties to use more than one network (to ‘multi-home’).

There are no simple rules for the competitive consequences of two-sided markets. Rather, the specific interactions between the relevant externalities and the potential for multi- or single-homing, need to be carefully considered.

## 3 Taxi networks as two-sided platforms

The application for authorisation by the Victorian Taxi Association (VTA) that is before the ACCC is on behalf of “taxi operators who form part of a multi-

---

<sup>2</sup> For a discussion on network effects and bandwagon effects, see, for example, Rohlfs, J. (2001) *Bandwagon effects in high technology industries*, MIT Press, Cambridge, MA; or Evans, D. and R. Schmalensee (1999) *Paying with plastic: the digital revolution in buying and borrowing*, MIT Press, Cambridge, MA. Faulhaber, G. (2005) ‘Bottlenecks and bandwagons: Access policy in the new telecommunications’, in *Handbook of Telecommunications Economics*, vol. 2, eds S. Majumdar, I. Vogelsang and M. Cave, North Holland, at p.489 notes, the terms ‘network effects’, ‘bandwagon effects’ and ‘network externalities’, are largely used interchangeably.

<sup>3</sup> Filistrucchi, L., Gerandin, D. and van Damme, E. (2012), ‘Identifying two-sided markets’, TILEC Discussion Paper no. 2012-008, Tilburg University, p.2.

operator cooperative booking networks (sic) in country or regional taxi license zones".<sup>4</sup>

The application relates to recent changes to taxi regulations in these zones. These changes are summarised at pages 3 to 6 of the VTA submission in support of the application.<sup>5</sup> In particular, the changes remove the requirement that "every taxi be affiliated with an accredited network Service Provider".<sup>6</sup> It also involves "deregulating taxi fare setting in country and regional zones".<sup>7</sup>

The application seeks authorisation to allow taxi operators who form part of a cooperatively structured multi-operator network in country and regional areas to set a common maximum schedule of fares for their booked and contracted services.<sup>8</sup>

The cooperative taxi networks are a two-sided platform. In particular, each network provides a service of 'bringing together' customers seeking taxi services and taxi operators. It matches customers with conveniently located operators.

An initial question is whether these networks are 'true' two-sided platforms, in the sense that they exist to exploit relevant economies that exist in the provision of taxi services, or whether they simply arise due to the previous regulations.

The VTA submission states, "network efficiencies arise from a NSP (Network Service Provider) having more available vehicles to match to customers." As a result a NSP "can offer shorter waiting times for booked services on average than a single taxi operator can".<sup>9</sup>

This claimed benefit from taxi networks is consistent with observed behaviour in related markets. In particular, the benefits of forming a two-sided platform appear to be significant enough so that in similar industries where no platform exists, either existing providers create a platform or a third-party entrepreneur creates a platform.

For example, hire cars do not have a requirement to belong to a network. However, individual hire car operators regularly form either formal networks or informal networks to improve the service that they offer to customers. A formal network may involve operators taking bookings through a single point

---

<sup>4</sup> Letter to Dr Richard Chadwick, 8 May 2014, p.1.

<sup>5</sup> Formally, Victorian Taxi Association, "Submission in support of application for authorization under Section 88(1) of the *Competition and Consumer Act 2010*."

<sup>6</sup> *Id.* p.5.

<sup>7</sup> *Id.* p.5.

<sup>8</sup> See Form B attached to Letter to Dr Richard Chadwick, 8 May 2014.

<sup>9</sup> *Op. Cit.* note 4 at p.20.

of contact. An informal network may involve a group of operators who 'swap' work when there is a mismatch at the individual operator level.

The efficiencies from such network configurations are clear. Consider hire car operators with only a single license. Individual operators receive requests for services from customers on a random basis. If it were not possible to form a network, then an individual operator who has a pre-existing job that overlaps with a new request from a customer, would be unable to assist the customer. The customer would then have to shop around, contacting operators until one operator is able to accommodate the customer's request.

In contrast, a network substitutes this customer search with operator coordination. For an informal network this may be as simple as the operator who is unable to directly accommodate the customer, accepting the customer's work and then 'ringing around' to find an operator who can service the customer's request. For more sophisticated networks, the coordination will allow the network to determine the operator best placed to meet the customer's request allowing for more reliable service for the customer, and decreased 'down time' for each operator.

Put simply, for hire cars, search within a multi-operator network can provide a more efficient substitute for customer search.

More recently sophisticated 'ride sharing' services have emerged through a variety of third-party electronic platforms. Ride sharing is not new and simple platforms to coordinate ride sharing have long existed (the most obvious being a bulletin board, for example, at a university!). However, the development of smartphone applications has allowed developers to create two-sided platforms to significantly improve the coordination of ride-sharing. While some of these platforms (e.g. Uber and Lyft) face legal challenges, the benefits of improved coordination provided by these platforms are undeniable.

In summary, there appear to be significant economies of scale that are available by coordinating taxi services (and other similar services) through a two-sided platform.

Of course, a cooperative two-sided platform in regional and country taxi services is not the only way to exploit the relevant economies of scale. As in the retail examples provided above, an alternative is to have a single multi-license operator coordinating services across his or her vehicles. In other words, a taxi operator can integrate a number of licenses and coordinate the delivery of services to customers within the operator's business.

Alternatively, particularly for contract customers, an alternative would be for a large customer to integrate backwards by purchasing and maintaining a fleet of vehicles. These vehicles may be for the customer's sole use (and hence, not licensed taxis) or the integrated customer may also seek taxi licenses in order to provide taxi services in periods of time when the fleet is underused.

Thus, there are likely to be three different ways that taxi operators can organise operations to exploit the relevant economies of scale:

- A multi-operator cooperative network that is a two-sided platform;
- A multi-license integrated single operator; or
- A customer who integrates backwards and becomes a multi-license operator.

Only the multi-operator cooperative network is likely to enable single-license operators or operators with only a small number of taxi licenses to efficiently compete in regional and country areas for booked or contract taxi services. Without such cooperative networks, it is likely that only integrated operators will be able to effectively compete for booked or contract services.

## 4 Taxi networks and maximum fares

The VTA authorisation application seeks to allow operators who are members of a cooperative network to set a common maximum set of fares for booked and contract work through the cooperative network. This raises the issue as to whether such maximum fare setting is required by a network or if, in the absence of authorisation, a network could operate and compete effectively without a common set of maximum fares.

Customers are seeking a range of attributes when they search for taxi services. In particular, customers seek reliable and safe transport with relatively short waiting times for booked services, preferably at a low price.

With authorisation, taxi networks (both cooperative and single-operator integrated networks) will compete on all of these variables including price. When a customer is choosing which network to use to book a taxi, he or she will trade off convenience (such as waiting time), quality (possibly based on word-of-mouth or past experience) and price. An integrated single-operator network can clearly set and advertise its specific prices. As there is only a single business, no issue of breach of cartel laws arises when that network sets a specific fare structure. Having clear and transparent prices will be a benefit to the customers when determining which network to utilise.

Authorisation allows the cooperative networks compete on a 'level playing field' with the single-operator networks. It allows the cooperative network to inform customers about the clear maximum prices for taxis booked through the network. If customers find these prices, or other aspects of the network's services, unsatisfactory, then the customers will simply choose an alternative network for taxi services.

In the absence of authorisation, however, the ability of a cooperative network to provide benefits to taxi users will be severely constrained. Essentially, the network will have to operate as a 'listing service'. It will be able to provide options to customers about the likely alternative combinations of waiting

times and prices but it will not be able to do more than that. Customers will have to attempt to make a (relatively difficult) trade off between expected waiting time and price in real time during a telephone call.

In the absence of authorisation, it is likely that this reduction in consumer benefit from using a cooperative network will undermine the ability of these networks to compete. From the customer's perspective, the network will be difficult to use and will lack clarity. It is likely that many, if not most, customers would prefer to use a network with fixed, transparent prices and a guarantee that they will receive a taxi with minimal waiting time. In such a situation, it is likely that cooperative networks will shrink and close over time. As individual license operators cannot offer the benefits of a network, it is likely that, in the absence of authorisation, there will be an aggregation of taxi licenses into integrated single-operator networks that do not need authorisation to set, advertise and compete on price with other networks.

## 5 Taxi networks as two-sided markets

A taxi network does involve cross-platform externalities between customers and operators. In particular, all else being equal, customers will prefer to deal with a larger network of operators, as this will reduce the waiting time for a taxi. Taxi operators will prefer to be affiliated with networks that attract many customers, as this will reduce down-time for each taxi.

The positive externalities that flow between the participants on either side of a taxi network might suggest that large networks will always dominate small networks. However, this is unlikely to be true for two reasons.

First, taxi networks have offsetting negative externalities between parties on the same side of the network. While each customer prefers to use a network with more operators, they also prefer to use a network that has less customers. Similarly, a taxi operator will prefer a network that has many customers but fewer rival operators.

The positive cross-platform externalities together with the negative same-side externalities imply that there is unlikely to be any 'bias' with competition between taxi networks for either larger or smaller networks once a network has reached sufficient scale to efficiently operate a centralised dispatch service.

Further, in regional and country areas, there will be a degree of geographic differentiation between networks. Networks are likely to be 'based' in slightly different locations.<sup>10</sup> Historically, this differentiation has been driven by

---

<sup>10</sup> It should be noted that the location relates to the 'base' for each taxi operator affiliated to a network, not to the physical location of the call centre for a network. As the VTA

regulations. In the future, it is likely to reflect competitive pressures for networks to differentiate themselves on the basis of convenience to particular customer groups.

In summary, as a matter of economics, authorisation will not lead to increased network concentration and authorisation is likely to enhance competition.

## 6 Summary

Overall, authorisation is likely to lead to increased network-level competition in taxis. Competition will occur between both single-operator and cooperative networks. This competition will occur across a range of product dimensions including price, expected waiting times and service.

Either with or without authorisation, it is unlikely that single-license taxi operators will provide viable competition in the provision of booked or contracted taxi services. Such operators require customers to invest in significant search activity in order to determine the best mix of price, waiting time and service. In contrast, customers can economise on this costly search activity by simply using a taxi network. At best, single license taxi operators are likely to compete in rank and hail activities, but not to effectively compete in other services except at the margin.

In the absence of authorisation, it is unlikely that cooperative taxi networks will be able to effectively compete with integrated networks. Integrated networks will be able to simplify and streamline the process of a customer ordering a taxi. In particular, customers will be able to quickly order a taxi with a known price from an integrated network. In contrast, in the absence of authorisation, a cooperative network can either provide a list of options for the customer and require the customer to determine the best option, or dispatch a taxi to the customer where the customer faces significant price uncertainty. In either case, the platform benefits provided by the cooperative network are unlikely to be competitive with an integrated network.

In this sense the authorisation is pro-competitive. It will enable more networks to effectively compete for booked and contract taxi services. In contrast, without authorisation, competition for booked and contract taxi services in country and regional Victoria will be limited to single operator, integrated networks.

---

submission notes, call centre services need not be physically located near the main area of operations for the taxi network.