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EU subsidies in public transportation: The Copenhagen case

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#### **Abstract**

The present study investigates the following problem: What are the regulatory structures of land based transportation in the greater Copenhagen area? In order to obtain a comprehensive understanding of this problem, three sub questions were designed to target the structures in detail. These are: How do European regulations on the area of the land based transportation influence the subsidy process within the Danish market? How does the quality measurement system meet the challenges of a changing market within subsidies? And where is the customer focus in the Danish market?

Such research was developed under the scope of legal pluralism, through a literature review on the EU regulatory process, the Danish market and subsidies, and with passenger surveys and key individual interviews. This research has identified the regulatory structure on the area, how the EU regulations set the framework for national subsidy process, and how the quality measurement system is having a more significant role in that process. This research also identified the customers from all actors on the Danish market, where the passengers are a direct product of the customer interest.

The study consists of 20.572 words without literature.

# Acknowledgements

This research was only possible due to the help of several key individuals with deep internal knowledge of the Danish bus market, including within the various operators.

My gratitude also goes to the professor of the department of Sociology of Law of Lund University, Mr. Reza Bankar, who has provided a considerable help and supervision of this research.

"Nullius in verba"

Royal Society of London

# List of acronyms

A15 – Contract within Movia number A15

A-bus – Bus route of high frequency in Copenhagen and the suburbs of Copenhagen

CSR – Corporate Social Responsibility

EU - European Union

HT – Hovedstadsområdets Trafikselskab (Capitol area traffic authority)

HUR – Hovedstadens Udviklingsråd (Capitol area development council)

Movia – Traffic authority for all Zealand, including the greater Copenhagen area, known as the 'traffic authority' in the research

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Figure 1. Illustration of survey results obtained from the first round.

Figure 2. Illustration of survey results obtained from the second round.

# **EU** subsidies in public transportation:

# The Copenhagen case

### **Chapter 1: Introduction**

European regulations have long been a part of the governmental and regulatory process of the member states, ever since the mid-nineties, but the public transportation in the greater Copenhagen area was already introduced to subsidies in 1989, with operational start in 1990 on nine services, as part of the privatization of all buses within HT (Hovedstadsområdets Trafikselskab red.).

The first material for the bidding process in 1989 consisted of fifty-five pages, where half of it was schedules and only little was mentioned about the quality of delivered service. Within the next twelve years, all services in the greater Copenhagen area were successfully subsided from the public owned HT, who now entered the role as a traffic authority and not an operator.

Many of the private operators throughout the bidding process have been public owned companies, such as the railways from Denmark, Sweden, Norway, Germany and France. The last two are still performing the majority of the service in the greater Copenhagen area in 2017.

Since the early nineties many services have been changed, diverted or cancelled - and the structure on public transportation was greatly modified in 2007, when the counties were replaced by regions. From 2007, it was no longer HT who was the sole planner, but the municipalities and regions as well, and therefore many services were changed due to the will of some municipalities, who saw them as an unnecessary expense and an easy way to cut in the budget.

The EU legislation on subsidies has also changed. Where it used to mostly focus on the lowest price, more parameters like carbon footprint, level of delivered quality and percentage of delivered service, it is now starting to play a more significant role alongside the lowest price. Some might argue that the larger companies are starting to have a greater advantage, since all law can be

interpreted for their own benefit. In the latest bidding process from 2016, the material consisted of two hundred and three pages, where only thirty-six pages are about the schedules. The rest of the material consisted of the qualification process and the expectations of the delivered quality in service, including IT, CSR and environmental footprint.<sup>1</sup>

In recent years, the operators have closed in on the price and are now competing more on the delivered quality of service, where many operators are putting in a bid with a very high level of service. At the same time, Movia (Traffic authority in the greater Copenhagen area red.) has recently lowered the expectations for "very satisfied customers" in the traffic plan of 2016.

The regulatory process is very extensive as it is regulated by the EU for the member states, where these are to perform within the regulations. It is therefore the member state government or governmental institutions that have the responsibility for the regulations to be complied with. The regulations are binding, but leave space in order for national governments and local traffic authorities to find their way of performing subsidies, as long as they are in compliance with the basic regulatory rules.

The traffic authority in Copenhagen is one of these actors, who is performing subsidies on behalf of the national government within the regulatory rules. On the Danish market, the traffic authorities in the greater Copenhagen area have always been standard setting actors, and it is thus relevant to examine the Copenhagen case within the Danish market.

One of the main measurement systems within subsidies in the greater Copenhagen area is the quality measurement system, which has lately been one of the parameters where operators are increasingly competing. Therefore, it is interesting to examine if the system is in compliance with the European regulations, what difference the system makes for the subsidy process and how they connect.

<sup>&</sup>lt;sup>1</sup> Trafikselskabet Movia, *Prisudvikling (køreplantimer) siden 2008. Alle priser i oktober 2015 prisniveau. A5, A6, A8, A9, A10, A11, A12, A13 og A14*, 2016, Trafikselskabet Movia, Copenhagen

The central Copenhagen and suburban area are served by the A-bus system, which consists of eight high frequency lines with a significant amount of users. This system is highly linked to the quality measurement system, which is used to measure the performance of the operators within subsidies. This research will therefore focus on the A-bus system, in connection with the quality measurement system.

Finally, the researcher finds it relevant to examine the various customer focuses on the Danish market, in order to analyze the inter-governmental models for subsidies within the greater Copenhagen area.

This research provides an analysis of subsidies and the quality measurement system in the greater Copenhagen area, and how these relate with each other. This is obtained through a literature review of European regulations on the land based transportation area, the Danish market, the subsidy process in the greater Copenhagen area and the quality measurement system, followed by surveys with passengers and interviews with key individuals in the Danish market.

Thus, the author is exploring the following problem: What are the regulatory structures of land based transportation in the greater Copenhagen area? In order to obtain a comprehensive understanding of this problem, three sub questions were designed to target the structures in detail. These are: How do European regulations on the area of the land based transportation influence the subsidy process within the Danish market? How does the quality measurement system meet the challenges of a changing market within subsidies? And where is the customer focus in the Danish market?

#### **Chapter 2: Literature review**

## 2.1. European governance on the area of transport policy

Governance and policy making in the EU can be a very delicate and long processed matter, especially when it comes to a common policy on land based transport. The latest policy on European land based transport is from 2007, which will be described later in this chapter.

Kerwer and Teutsch mention that the Luxembourg compromise from 1966 was the first time the European transport policy was to be discussed, and at that time countries like Germany, France and Italy did not have any interest in opening their markets. The member states were opposed to the liberalization of services, so the liberalization did not occur before somewhat in the late 1980s.<sup>2</sup>

According to Sweet and Sandholtz, the theory of European member state integration is that supranational governance will make binding policies throughout the European Community, and that the function of the Rome treaty was to reason on a common market across national borders.<sup>3</sup> But Kerwer and Teutsch state that the European policy making on the transport area has not been the success it was suppose to be, and was difficult to get started in the late 1960s.

It gained momentum in the 80s, but has again lost momentum since.<sup>4</sup> The wish for common European politics on the area has not been reachable and the transport policy is still dealt with by the national states, although with a mutual agreement among the member states.

Supranational and intergovernmental elements are, according to Kerwer and Teutsch, fundamental characteristics of the cooperation between the EU member states – and can give some explanation to why it has been very difficult to

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<sup>&</sup>lt;sup>2</sup> Kerwer, Dieter and Teutsch, Michael, *The European Union impact on national Policymaking pp.* 26-27, 2001, Rowman & Littlefield Publishers, Cumnor Hill

<sup>&</sup>lt;sup>3</sup> Sandholtz, Wayne and Sweet, Alec Stone, *European integration and supranational governance pp. 8-9*, 1998, Oxford University Press, Oxford

<sup>&</sup>lt;sup>4</sup> Kerwer et al. 2001 pp. 24-25

integrate a common European transport policy.<sup>5</sup> Kohler-Koch describes that the single market has transformed Europe into a political unit on sector basis. The political units develop various intra-system negotiations, where the member states can no longer claim monopoly on representing the sole interest of their citizens.<sup>6</sup>

The difference between intergovernmental politics and supranational politics are, according to Sweet and Sandholtz, that the governance on EU level is operated by a functional international organization by the member states, whereas intergovernmental governance is bargaining between two member states.<sup>7</sup>

Previously, the transport area has been dominated with major state intervention and therefore, some of the key issues were in changing the mindset in the process of liberalizing the market and the decision making on the road transport area. According to Kerwer and Teutsch, it has always been a battle between opening the market and harmonizing the competitive conditions, especially when multinational companies were to enter these markets.<sup>8</sup>

Smith argues that some of the European regulation policies have been more intergovernmental than supranational, hence the different levels of involvement or the amount of national law on the area e.g. on the land based transport area, where it took almost twenty-five years to agree on the first proposal and then twenty more to the second.<sup>9</sup>

Kerwer and Teutsch argue that the EU made several strategic mistakes by trying to introduce a fully developed European establishment at first, when formulating a concept for the substitution of national politics.<sup>10</sup>

The proposal was overambitious and complicated for the member states to agree. Additionally, the authors state that the fully developed European approach

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<sup>&</sup>lt;sup>5</sup> Kerwer et al. 2001 pp. 26-27

<sup>&</sup>lt;sup>6</sup> Kohler-Koch, Beate, *The evolution and transformation of European Governance pp. 19*, 1999, Routledge

<sup>&</sup>lt;sup>7</sup> Sandholtz et al. 1998 pp. 9-10

<sup>&</sup>lt;sup>8</sup> Kerwer et al. 2001 pp. 26 + 31

<sup>&</sup>lt;sup>9</sup> Smith, Michael E., Rules, *Transgovernmentalism, and the Expansion of the European Political Cooperation (part of European integration and supranational governance) pp. 307*, 1998, Oxford Press, Oxford

<sup>&</sup>lt;sup>10</sup> Kerwer et al. 2001 pp.27

switched to a more pragmatic one in the 1970s, where the focus was now on finding solutions in more specific areas, which led to member states continually liberalizing their markets, when other member states did not.<sup>11</sup>

This explains the momentum in the late 1980s, where the EU came to an agreement on a regulation for a common European transport policy on land based transport, effective from 1993, making the European market liberalized and open. However, the harmonization process did not follow. Technical and social regulation had to be abandoned in order to agree on a common politics. <sup>12</sup>

The essence of successful governance in European policies is, according to Kohler-Koch, to reach binding decisions. The timeframe is not always the most important factor. <sup>13</sup> And the European member states finally did agree on a larger liberalization.

From the view of Kerwer and Teutsch, the most difficult subject to agree on was the fiscal politics, but the member states managed to agree on minimum taxation of fuel and vehicle taxes. Nevertheless, all member states had already before or shortly after changed their taxation system above the minimum taxation limit agreed.<sup>14</sup>

However, Smith argues that domestic interest is very absent in policy making and the member states are less willing to expand their authority on this matter. <sup>15</sup> But this does not seem to be the case for the particular matter of the European transport policy. National interest has several times prolonged an agreement.

12 Kerwer et al. 2001 pp. 30

<sup>&</sup>lt;sup>11</sup> Kerwer et al. 2001 pp. 27-28

<sup>&</sup>lt;sup>13</sup> Kohler-Koch, Beate, *The evolution and transformation of European Governance pp. 14*, 1999, Routledge

<sup>&</sup>lt;sup>14</sup> Kerwer et al. 2001 pp.30

<sup>15</sup> Smith et al. 1998 pp. 331

# 2.2. EU regulation EC/1370/2007

Smith states that since the Maastricht tractate it is remarkable that when it comes to European policies, the member states are increasingly feeling obligated to adapt to common policies.<sup>16</sup>

It seems that the European member states have been able to find a common transportation policy, to which they can all agree, but the policy is very short and it does not include much regulation, besides some common rules of transparency and length of contracts.<sup>17</sup> It does not contain much about harmonization, but does have a strong sense of liberalization in it.

The EU regulation 1370/2007 does not state many demands to the member states in how to award tenders; but the most important passage is number thirty; directly awarded public service contracts should be subject to greater transparency.<sup>18</sup>

Kerwer and Teutsch state that the European road transport market is widely subject to EU legislation in present time; while it has been on its way since the Rome treaty; it was fully implemented in the mid 1990s. The European road transport market is now very market-oriented as wished by the EU.<sup>19</sup>

The liberalization process has been a success, but the harmonization process is limited and most attempts have been unsuccessful. Kohler-Koch argues that the EU policy making process has later changed with more actors, where now regions and municipalities are represented along with national states, and that European governance is not an embracing pattern which is stable, but varies across policy areas and over time.<sup>20</sup>

<sup>&</sup>lt;sup>16</sup> Smith et al. 1998 pp. 330

<sup>&</sup>lt;sup>17</sup> European Union, Regulation (EC) No 1370/2007 of the European Parliament and of the Council of 23 October 2007 on public passenger transport services by rail and by road and repealing Council Regulations (EEC) No. 1191/69 and 1107/70 pp. 6-11, 2007, Bruxelles

European Union et al. 2007 pp. 4

<sup>&</sup>lt;sup>19</sup> Kerwer et al. 2001 pp.30-31

<sup>&</sup>lt;sup>20</sup> Kohler-Koch et al. 1999 pp. 32

According to Van de Velde, the most important factor in the new regulation from 2007 is that there is now a possibility for the authority to run a public private partnership with an operator, where the authority is not completely in charge of service, but less dominant.<sup>21</sup>

It is still allowed to directly award a contract, if the annual pay is less than one million euro or 300.000 driven kilometers. However, the member state can by national law regulate against this practice.<sup>22</sup> But Van de Velde finds that the key in this European policy is that the authority has to publish an annual report on public service obligations, where they have to state on their compensation payments and exclusive granted rights.

The report should also contain record of performance, quality and network financing. All financing and quality within the network should be assessed.<sup>23</sup>

#### 2.3. Policies on the Danish bus market

The Danish transport market has a long story of liberalization when it comes to road based transport, with more specific public transportation provided by buses. The market in Copenhagen was first privatized in the late 1980s and has later gone into full liberalization of both Copenhagen and the country through regulations.

Ünay describes regulations as rules issued with the purpose of ensuring that private and public operators conduct their operations in a certain manner. However, this has lately been described as a sustained and focused control, where the public part has a legitimate mandate on the activities, which are often regarded as advantageous to society.<sup>24</sup>

According to Van de Velde, the tendering in Copenhagen started with very simple total cost contracts where quality management features where gradually added.

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<sup>&</sup>lt;sup>21</sup> Van de Velde, Didier, *A new regulation for the European public transport pp.* 82, 2008, Elsevier, Delft

<sup>&</sup>lt;sup>22</sup> Van de Velde, Didier, *A new regulation for the European public transport pp.* 82, 2008, Elsevier, Delft

<sup>&</sup>lt;sup>23</sup> Van de Velde, Didier, *A new regulation for the European public transport pp. 83*, 2008, Elsevier, Delft

<sup>&</sup>lt;sup>24</sup> Ünay, Sadik, *The rise of the Regulatory State in Europe pp. 25-27*, 2011, Turkish Journal of politics

The "Copenhagen way" has been an example to subsidies around Denmark, and many of the authorities adapted, in particular, the color scheme of all the buses in their region. Only very few authorities let their operators choose their own color scheme, which all ended in 2007, where only local school services can operate in colors that stands out from the scheme.<sup>25</sup>

Ünay states that, since the deregulation and liberalization of the markets in the EU from the late 1980s, there has been a clear need of separation of regulatory and operational responsibilities, meaning that the government would serve as the regulatory part and privately owned business would engage in tenders in order to provide the operational services.<sup>26</sup>

He adds that the State had to change from a producer of public goods and services to power of regulations, which had to ensure their operators would act properly in their economical role.<sup>27</sup> This is supported by Van de Velde, who states that there is a growing involvement of the private sector into the public service production through subsidies.<sup>28</sup>

The involvement of especially British and French companies is one of the highlighted statements, where British Arriva group and French Keolis and Connex (now merged with Transdev) have been very active around Europe – also in Denmark. Furthermore, Connex has been active all around the globe and is represented in almost every continent.

Van de Velde describes how Scottish Stagecoach group withdrew from the Scandinavian market rather quickly after starting up, selling their Danish part to the Danish railways company at the time: Combus.<sup>29</sup> This is supported by

<sup>&</sup>lt;sup>25</sup> Van de Velde, Didier, *The evolution of organizational forms in European public transport pp. 3*, 2001, Erasmus University, Rotterdam

<sup>&</sup>lt;sup>26</sup> Unay et al. 2011 pp. 22-23

<sup>&</sup>lt;sup>27</sup> Ünay et al. 2011 pp. 24

Van de Velde, Regulations and competition in the European land transport industry: Some recent evolutions pp. 1, 2003, Erasmus University, Rotterdam

<sup>&</sup>lt;sup>29</sup> Van de Velde, *Regulations and competition in the European land transport industry: Some recent evolutions pp. 4*, 2003, Erasmus University, Rotterdam

DeLaine, who claims in his article that the Danish liberalized market has killed many operators.<sup>30</sup>

Van de Velde describes how almost two thirds of the Danish market for bus transport in 2003 was controlled by British Arriva group and French Connex group. The price for delivered service is still well under 10% of the prices prior to subsidies and according to the same author, the quality of performance has increased.<sup>31</sup>

In 2003 there were many smaller Danish operators, but since 2003 these have increased in size, and companies like Herning Turist in Herning, De Blaa Busser in Skive, Dito Bus in Holbæk, De Blaa Omnibusser in Holte and Anchersen in Copenhagen have rapidly increased their share in the market.

During the HUR (Hovedstadens udviklingsråd red.) period of Copenhagen in the early 00s, the local railways and bus services were all put under the same umbrella, which has continued after 2007 to Movia, now covering all of Zeeland. Also, this process has spread to other traffic authorities around Denmark.<sup>32</sup>

Van de Velde states that lately, the Danish tenders have been more open to incentive contracts, where operators are to make the route(s) more attractive to customers.<sup>33</sup> The Danish market – not only for buses – has been affected through the last thirty years by New Public Management, which in accordance with Sørensen has resulted in a fragmented policy towards planning and production of public transportation.<sup>34</sup>

Sørensen describes the Danish bus market as a market where the authority determines the level of service and quality, and where the operators have to focus

<sup>31</sup> Van de Velde, *Regulations and competition in the European land transport industry: Some recent evolutions pp. 4*, 2003, Erasmus University, Rotterdam

<sup>30</sup> DeLaine, Thomas, Fakta om Combus, 2001, Myldretid, Copenhagen

Van de Velde, Didier, *The evolution of organizational forms in European public transport pp. 3*, 2001, Erasmus University, Rotterdam

Van de Velde, *Regulations and competition in the European land transport industry: Some recent evolutions pp. 4*, 2003, Erasmus University, Rotterdam

Sørensen, Claus Hedegaard, Increased coordination in public transport – which mechanisms are available? pp. 117, 2010, Elsevier, Kongens Lyngby

on minimizing the costs. However, in Halland (Sweden) there has been a larger success with a joint working group on how to operate the local buses; this has resulted in more decisions being based on the need of both parts.<sup>35</sup>

As of 2003, the traffic authority in Copenhagen introduced tenders based on prequalifications with longer contracts (6+2+2 years).<sup>36</sup> Sørensen states that with the different European markets there has been very little focus on the coordination in public transportation, but themes like trusting partnerships are now starting to emerge.<sup>37</sup>

This is also something that Pallavicini has mentioned; stating that the introduced service partnerships in public transportation in Copenhagen represent progress, although the legal situation in the contracts undermines the trust relationship between the partners.<sup>38</sup>

Furthermore, the author states that in order to obtain a fully trusted partnership between the authority and the operator, there has to be a fully operational partnership, where the traffic authority should let go more of the paternalistic role and give more responsibility to the operator.<sup>39</sup>

Sørensen has an example to this kind of partnership, where Merseyrail in the United Kingdom got the full responsibility over both rail and trains, as operator. <sup>40</sup> Furthermore, he mentions the joint spirit of Rail Net Denmark and the Danish State Railways, where there is common understanding of the problems, and where the solutions are found in a close collaboration. <sup>41</sup>

Partnerships, understood as an equal partnership between two parts where there is no penalty if the obligations are not met, is not common within the bus industry in

<sup>&</sup>lt;sup>35</sup> Sørensen et al. 2010 pp. 121

<sup>&</sup>lt;sup>36</sup> Van de Velde, *Regulations and competition in the European land transport industry: Some recent evolutions pp. 4*, 2003, Erasmus University, Rotterdam

<sup>&</sup>lt;sup>37</sup> Sørensen et al. 2010 pp. 118

<sup>&</sup>lt;sup>38</sup> Pallavicini, Jef, *Public-private partnerships in public transportation pp. 15*, 2015, Metropol, Copenhagen

<sup>&</sup>lt;sup>39</sup> Pallavicini et al. 2015 pp. 19

<sup>&</sup>lt;sup>40</sup> Sørensen et al. 2010 pp. 120

<sup>&</sup>lt;sup>41</sup> Sørensen et al. 2010 pp. 121

Scandinavia, but has been introduced to more than 380 contracts European wide. These partnerships tend to focus on delivering solutions, rather than penalize.<sup>42</sup>

# 2.4. Comparing with German transport policies

Since the Danish market according to Van de Velde is exclusive compared to other European markets functioning under the EU regulation on the land based transportation area, it is worth investigating a neighboring market which functions under the same regulation.

According to Buehler and Pucher, sustainability is very important to authorities around Europe, but many of them tend to forget the financial sustainability, because the environmental part is dominant. This results in many markets of low productivity and high cost, and therefore there is a larger need for governmental support.43

The importance in public transport is, as report by Buehler and Pucher, to reduce costs and increase productivity, especially because mass public transportation offers benefits to city traffic solutions and the environment. 44 The authors examined the German system, where the user share increased by twenty-two percent from 1992 to 2007, and the operating cost has decreased where as of 2007 it was covered seventy-seven percent by passenger fares. 45

The reason for the success with public transportation in Germany is, according to Buehler and Pucher, that Germany adapted tenders in the early 1990s, where there was a large focus on the operating cost, especially on benefits not required by law. Many companies were overpaying their personal on overtime and odd hours, for example.

But the reason for the cut in operating costs can also be found in Berlin, where the local union negotiated a forty-two hour workweek, which is more than

<sup>&</sup>lt;sup>42</sup> Sørensen et al. 2010 pp. 122

Buehler, Ralph and Pucher, John, Making *public transport financially sustainable pp. 3*, 2011, Transport Policy

<sup>&</sup>lt;sup>44</sup> Buehler et al. 2011 pp. 3

<sup>&</sup>lt;sup>45</sup> Buehler et al. 2011 pp. 4

comparable markets, such as the Danish with its thirty-seven hours per week.<sup>46</sup> The success in cutting the operating costs was also dominated in the 1990s, prior to the tenders, by the local authority and public owned bus companies to freeze the salaries, often for up to five years, even though they promised not to lay off any of the workers.<sup>47</sup>

Buehler and Pucher describe how often older drivers were encouraged to retire early and new younger drivers were hired on a lower salary. From 1997 to 2007, the amount of workers in the authorities has decreased by twenty-five percent, where the payroll cost has decreased from forty-eight percent to thirty-eight percent.

In Berlin, only eleven-thousand workers were in service by 2008, where it used to be twenty-eight-thousand in 1991. 48 Another way to cut the operating cost for the authority and municipalities can be found in Hamburg, where a bus line similar to a metro service moves around fifty-thousand passengers per day. The authors explain how this previously would have justified building an expensive metro line.

The success in Berlin is also due to a sufficient analysis of the traffic corridors, where there has been an increased focus on increasing corridors with many riders and decreasing corridors with fewer riders. This "metrobus" system is copied around the work, including Denmark, as it has been implemented in Aalborg, Århus, Odense and Copenhagen. The conflict of this "metrobus" service is, according to Buehler and Pucher, that many car-less households in rural areas are often left without any services, as their household is not close to one of the main corridors.49

Furthermore, most of the cost reduction in public transportation in Germany has been on behalf of the workers, which has resulted in a bigger turnaround in

Buehler et al. 2011 pp. 12
 Buehler et al. 2011 pp. 13

<sup>48</sup> Buehler et al. 2011 pp. 14

<sup>&</sup>lt;sup>49</sup> Buehler et al. 2011 pp. 19

employers throughout the German bus companies and a lower work moral. It is estimated that the salary in some cases is even too low to maintain a standard of living in many Metropolitan areas.

This has resulted in increased conflicts between unions and employers – and has led to many strikes within bus, train and even flight services around Germany.<sup>50</sup> One example of increasing the operational cost too much is the Berlin based S-bahn, where many of the workshops have been closed and the employees do not have enough time to inspect the cars in order, which almost resulted in an accident in 2009.

According to Buehler and Pucher, the lesson learned from Germany is to improve the quality of service having the customer in mind, with attractive priced monthly or annual tickets, and transit integrated services between the various regional transport modes. Internet based information with regular traffic information is also an increased factor.<sup>51</sup>

# 2.5. Breaking monopoly?

According to Van de Velde, it is only Denmark, Sweden and The Netherlands who have adopted the full model of subsidies, where countries like Germany, Austria, Spain, among others often have direct awards.<sup>52</sup> The author states that the market in Copenhagen and Denmark tends to be of increasing oligopoly, where for example Combus, the former State railway bus company came into deep financial trouble cornering the market with constantly underbidding, since the mid 90s. The company is now taken over by the British group Arriva.<sup>53</sup>

According to Héritier, the implementation of liberalization on the water, energy, communication and transport areas had the purpose of improving competition, productivity and creating more consumer choice. However, the author adds that

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<sup>&</sup>lt;sup>50</sup> Buehler et al. 2011 pp. 26

<sup>&</sup>lt;sup>51</sup> Buehler et al. 2011 pp. 28-30

<sup>&</sup>lt;sup>52</sup> Van de Velde, Didier, *A new regulation for the European public transport pp. 78*, 2008, Elsevier, Delft

<sup>&</sup>lt;sup>53</sup> Van de Velde, Didier, *The evolution of organizational forms in European public transport pp. 3*, 2001, Erasmus University, Rotterdam

after the liberalization of the market, there have been increasing concerns on the maintenance of the general interest goals in service provision, such as equality, continuity and services which are affordable.<sup>54</sup>

This raises some questions within the EU, if the liberalization of these markets is in sync with market making policies and economic regulations. Héritier questions if liberalization and general interest services have conflicting goals regarding economy.<sup>55</sup>

He argues that before the liberalization, most companies in these industries were shielded from competition, as they were seen as natural monopolies to provide services to the consumers. On the other hand, when the market is liberalized it means that the network infrastructure should have one owner i.e. traffic authorities, where to increase the efficiency the operations of services could be open to competition.<sup>56</sup>

Ünay argues that the public ownership has been dominant to European politics and the response to market failures has often been bureaucratic centralization. There has not been a tradition to rely on specialized agencies.<sup>57</sup> Governments have often resisted that public owned companies should be treated as private owned companies – also when it comes to monopolies.<sup>58</sup>

The thought of this liberalization of operations would therefore ensure greater productivity through increased competition between various operators, which would lead to more consumer choice and lower prices. Héritier argues that in this model, it would promote the general interest through liberalization e.g. on accessibility and affordability.<sup>59</sup>

<sup>56</sup> Héritier et al. 2001 pp. 827-828

<sup>&</sup>lt;sup>54</sup> Héritier, Adrienne, *Market integration and social cohesion: the politics of public services in European regulation pp.* 825-826, 2001, Routledge

<sup>&</sup>lt;sup>55</sup> Héritier et al. 2001 pp. 827

 $<sup>^{57}</sup>$ Ünay et al. 2011 pp. 27-28

 $<sup>^{58}</sup>$ Ünay et al. 2011 pp. 28

<sup>&</sup>lt;sup>59</sup> Héritier et al. 2001 pp. 828-829

There has also been an increase of free entrepreneurial systems in for example Eastern Europe, where especially mini bus services are running privately founded. This is also the case outside the EU, in Israel.<sup>60</sup> However, if the markets were to be dominated or made into an oligopoly this would be in direct conflict with the general interest and could either ensure higher prices, lower quality or disruption of services.<sup>61</sup>

#### 2.6. The Danish market

It is clear that there is a wish from the EU to harmonize the market for transportation, but it is simply not possible due to the various demands from the member states. Nonetheless, an agreement on liberalization on the land based transportation area was possible, even though it is not very strong nor full of demands; therefore it is up to each member state and each local traffic authority to make tenders in their own interpretation of the law. One of these traffic authorities is Movia, who currently finished their A15 tender.

The researcher does not find the framework on the latest EU regulation very demanding or setting specific frames for how to run subsidies. It gives a very open opportunity to form the subsidies as the authority of local government wants it, as long as there is great transparency and the contracts are not awarded longer than the period stated in the regulation. It is also the researcher's view that the Danish market is in many areas very transparent, but most material and decisions are only available for a very small group and not the greater population.

### 2.7. EU subsidies in the greater Copenhagen area

Within the Danish market the subsidy process first started in the greater Copenhagen area in 1989 with the introduction of a law on privatization of forty-five percent of all services in the greater Copenhagen area by 1994. At the time, HT was performing eighty percent of all daily services in the capital area, which

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<sup>&</sup>lt;sup>60</sup> Van de Velde, Didier, A new regulation for the European public transport pp. 79, 2008, Elsevier, Delft

<sup>&</sup>lt;sup>61</sup> Héritier et al. 2001 pp. 828-831

at the time consisted of three counties.  $^{62}$  From 1994, the HT law was replaced by the EU directive EC/94/243.  $^{63}$ 

In 2017 there have been numerous tenders in the greater Copenhagen area and all services have been through the process at least three times, which meant that many services has been through various contracts, quality goals and operators. The process of subsidies in the greater Copenhagen area has, in many years through the 2000s, been characterized by some unrest. Many operators have struggled to make profit from delivering service.

As Van de Velde describes the market has largely been adopted my multi-national and international companies,<sup>64</sup> one of these operators is the former largest Swedish operator Linjebus who arrived on the Danish market when it was privatized in 1989. Linjebus struggled for over ten years until it was bought by the French group Connex (later Veolia), who in 2007 was sold to the British Arriva group.

This scenario also included Scottish operator Stagecoach who struggled to make profit on the market and was sold to the former Danish state railway group Combus, who were sold in 2001 to the British Arriva group.<sup>65</sup>

Combus was notoriously known to underbid on contracts all over the country – and also in the greater Copenhagen area from 1997. The Danish government paid significant financial support to the company, which was later found illegal by the EU.<sup>66</sup>

Throughout the tenders, the focus has always been on the lowest price until 1997, where alternative fuel was introduced, and later the level of quality in delivered

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<sup>&</sup>lt;sup>62</sup> DeLaine, Thomas, For 25 år siden: HTs første udbud, 2014, Myldretid, Copenhagen

 $<sup>^{63}</sup>$  Directive 94/243/EC of the European parliament and of the council, European Union, Brussels

Van de Velde, Didier, *The evolution of organizational forms in European public transport pp. 3*, 2001, Erasmus University, Rotterdam

<sup>&</sup>lt;sup>65</sup> Van de Velde, *Regulations and competition in the European land transport industry: Some recent evolutions pp. 4*, 2003, Erasmus University, Rotterdam

<sup>&</sup>lt;sup>66</sup> DeLaine, Thomas, *Fakta om Combus*, 2001, Myldretid, Copenhagen

serviced has found ground. The recent trend is a combination of a low price along with a high level of delivered quality.

All but one privately owned Danish company has managed to survive through the subsidy process since 1989, and today there are twelve operators in the greater Copenhagen area. Eight of them are Danish based, mostly smaller companies, and four are international companies, such as the German based Deutsche Bahn, who owns Arriva group, and the French based Keolis group, which together hold the largest percentage of services.<sup>67</sup>

# 2.8. The quality measurement system

As mentioned in the introduction, quality in delivered service did not receive much attention beyond the basic when the privatization began in 1989, but later a system was introduced to measure quality of service in the greater Copenhagen area.

Every year since the quality measurement system was introduced HT, later Movia, has been hosting annual awards for best performance within the region. The award for most improved service, A-service, S-service and environmental operator of the year has also occurred.

The quality measurement system is based on various customer satisfaction indexes and delivered service, which means that all operators compete on the same numbers and levels. Not surprisingly, the annual winners have always been smaller operators or operators in the outskirts of the region.

The system has later transformed into a stricter system, where more demands are introduced in every tender. The system is very strict on delayed or cancelled services. The operators often have very short time to deliver information on these occurrences. If a service is cancelled it will result in a lower percentage on the delivered service index and increase in payment.

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<sup>&</sup>lt;sup>67</sup> Trafikselskabet Movia, Fordeling af kørsel i Movia fra december 2016, 2016, Trafikselskabet Movia, Copenhagen

The reason for this strict system is partly to be found during a larger period from the mid 2000s onwards to the early 2010s, where the quality measurement system and contracts were abused by various operators in the greater Copenhagen area.

Another reason is the development in social media, where internet based customer feedback is on the rise and more customers are aware and ready to share any experiences on social media the minute any episode occurs. The final reason for the strict system is found in the traffic authority, who constantly demands many factors in order to streamline the customer experience delivered product. The traffic authority is now aiming for a system which is more controlled based, rather than trust.

The delivered service index, also known as the performance index, is based on the bid from the operator towards the traffic authority and is basically the delivered service in index of one-houndred. Most operators signed contracts to deliver a service between ninety-nine point ninety-five and ninety-nine point ninety-eight. This is an increase as the norm until the mid 2000s was between ninety point ninety-nine and ninety point ninety-two. <sup>68</sup>

The customer satisfaction index is based on a thousand point scale and is for the operator and traffic authority to agree on how satisfied the customers will be based on the contract agreed. Most operators have recently agreed on performing between eight-hundred-sixty and eight-hundred-seventy. This goal has only been possible to reach on services in the outskirts and on smaller elder services, including in the central Copenhagen area.

To reach eight-hundred-sixty or eight-hundred-seventy on a frequent A service in Copenhagen seems very little plausible, but the operators have to set the bar high in order to win the tender. The traffic authority has then the right to issue fines when the quality level is not reached and release bonuses if the level is reached.

<sup>&</sup>lt;sup>68</sup> Trafikselskabet, Movia, Prisudvikling (køreplantimer) siden 2008. Alle priser i oktober 2015 prisniveau . A5, A6, A8, A9, A10, A11, A12, A13 og A14, 2016, Trafikselskabet Movia, Copenhagen

One of the main issues to maintain a high focus on keeping the standards is that the operators are pressuring the price on the tenders, often close to zero profit, in order to win the subsidy; at the same time they are bidding with a high level of delivered quality.

Furthermore, many factors in which the operators have no control over can occur. It can be traffic congestions, road works, etc. This will often lead to a lowering in customer satisfaction, which cannot be directly pointed back to the operator.

The quality measurement system is now the main measurement system for subsidies within the greater Copenhagen area.

#### 2.9. The A15 contract

As discussed, the EU regulations on tenders in the road transportation area did only leave a larger frame on how to act according to transparency and length of contract, therefore much of the smaller details in tenders is according to the authority in which the tender is being held.

In Copenhagen the authority is Movia, who is responsible for all tenders on buses in the capital and Zeeland regions. The latest tender is the A15 from 2016, effective from late 2017. The tender is effective on several lines in the regions, but the focus of this report is on line 8A in central Copenhagen.

The A15 tender is based on the EU directive EC/2014/25, which means that the tender is awarded after negotiation between the authority and the bidders<sup>69</sup>, and all operators need to be prequalified in order to enter the tender.

The prequalification process is to ensure the liquidation of the operators and that all necessary permits are in order, so that the tender cannot be awarded to any operator without the correct paperwork, which could lead to a disruption in

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<sup>&</sup>lt;sup>69</sup> Trafikselskabet Movia, *Udbudsmateriale til A15 – Udbud af almindelig rutekørsel I Movia pp. 9-10*, 2016, Trafikselskabet Movia, Copenhagen

service. 70 When entering the first round of the bidding process the bid should contain the following:<sup>71</sup>

- Costs on administration, depot, etc.
- Costs on vehicles, such as maintenance, cleaning and insurance
- Costs on drivers, fuel, etc.
- Costs on facility
- Quality level and level of delivered service
- Fuel and information on usage of newer or used buses
- A list of the type of vehicle expected to be entered on the service (fabric / model / length / fuel / euro level)
- Presentation on how the resources will be used if winning.

Movia is currently using the criteria of forty percent price, thirty-five percent quality in delivered service, ten percent environment and fifteen percent quality of material (bus).<sup>72</sup>

The package no. six containing line 8A is a contract of a one and a half year span, with the possibility of another one and a half year containing twenty-two buses in regular service with 79.569 annual hours in service.<sup>73</sup>

# 2.10. Quality of delivered service

The quality of delivered service is the criteria after price that is having the highest value and is measured by three different values.

The key value is the quality index, which is being measured on a scale from zero to one-thousand. In this particular tender for package six (line 8A), it is only possible to leave a bid on the deliver quality index between eight-hundred and one-thousand.

Trafikselskabet Movia et al. 2016 pp. 10-12
 Trafikselskabet Movia et al. 2016 pp. 14-15

<sup>&</sup>lt;sup>72</sup> Trafikselskabet Movia et al. 2016 pp. 18

<sup>&</sup>lt;sup>73</sup> Trafikselskabet Movia et al. 2016 pp. 27

The traffic authority is performing interviews with customers in order to determine the quality index where limitation of noise is the lowest parameter, second to lowest is the climate, thereafter the compliance of the time table and satisfaction with the driving are equal. Satisfaction of the driver's service and appearance is valued second most, where the most valued parameter is the interior condition of the vehicle.<sup>74</sup>

Another key value is the amount of delivered service, which is measured on a scale from zero to one-hundred. In this particular tender, the traffic authority will not accept any bids that promises lower than ninety-nine point ninety of delivered services. The quality index for delivered service is described in detail later in a separate part. The last measurement of quality is how the active traffic control is being handled by the operator and the continual communication with the authority.<sup>75</sup>

# 2.11. Awarding the contract and demands from the authority

When awarding points to the bidding operators, the authority will award between zero and ten points if a bid is valued between nine-hundred and one-thousand on the quality index scale, and between zero and ten points on the delivered service if the bid is valued between ninety-nine point ninety and one-hundred.<sup>76</sup>

There is also a scale on awarding the contracts based on the year of the vehicle. The scale is again between zero and ten e.g. if the bus is from 2007 or older there will be awarded zero points, where as if the vehicle is from 2017 there will be given ten points.<sup>77</sup> Amongst the criteria for vehicles which will enter service, there is also an award system for the number of seats in the bus, based on the same system from zero to ten.

Trafikselskabet Movia et al. 2016 pp. 155
 Trafikselskabet Movia et al. 2016 pp. 19

<sup>&</sup>lt;sup>76</sup> Trafikselskabet Movia et al. 2016 pp. 19-20

<sup>&</sup>lt;sup>77</sup> Trafikselskabet Movia et al. 2016 pp. 23

If the bus has less than twenty-nine seats, where twenty-three are front-facing there will be awarded zero points. If there are thirty-nine or more seats, where thirty-three are front-facing there will be awarded ten points. This point based system varies within the different packages.<sup>78</sup>

There is also different point based systems on various measures like the flex space near the doors. One of the more peculiar subjects in the tenders by Movia is that all vehicles have to be delivered one month prior to the start date of the awarded contract.

The buses need to be delivered in order for the authority to, among others, install IT systems.<sup>79</sup> But it is clear to see that the bidding process is very streamlined and the many demands are designed to more or less make all the buses look similar.

There are demands from the authority to the operators on the interior design, traffic information design, wideness of doors, length of the vehicle, amount of doors depending on the various bus types, font and size on numbers on the destination information signs and internal/external numbers, distance between seats, mute-function on FM radio whenever the front doors are open, kneeling function, placement and numbers of handrails, maximum inclination of the floors, placement of stop buttons, interior climate, escape hatches, surveillance, mirrors, alarm when the vehicle is backing, placement and numbers of trash cans, numbers of- and placement of designated holders for newspapers and information folders, tidiness of the vehicle, colors of the exterior bus and interior i.e. floors, hand rails, seats and rules on limited usage of only designated information on the destination signs, which means that only 'not in service', 'extra' and 'special service' is allowed. All this comes up to twenty-seven pages – only for the vehicle that is to be used in service.<sup>80</sup>

There are eight pages on demands for environment, twenty-two on IT and ten on commercials and infotainment.

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<sup>&</sup>lt;sup>78</sup> Trafikselskabet Movia et al. 2016 pp. 24

<sup>&</sup>lt;sup>79</sup> Trafikselskabet Movia et al. 2016 pp. 74-75

<sup>&</sup>lt;sup>80</sup> Trafikselskabet Movia et al. 2016 pp. 74-101

In the section on demands for operations and traffic management, the authority is expecting the winning operator to perform a continuous surveillance of the traffic situation on the services. In situations where there is a demand for extra focus i.e. marathons, demonstrations, etc., the operator is liable to provide extra staff to ensure the best possible operation of their service(s).<sup>81</sup>

There is a demand for resolute and fast act in the case of normal occurring situations like illegal parked vehicles, queuing, road works, weather or delayed correspondences. The traffic authority is demanding that the operator finds a fast solution to these issues, in order to normalize the operation as fast as possible.<sup>82</sup>

Movia suggests that the operator should follow instructions from the traffic authority information center – and also to find individual solutions to normalize the operation. In an unusual event, such as blockage of traffic, accidents, fires or severe weather conditions, there will usually be issued restructuring of services for a smaller period of time.

The operator is bound to inform the traffic authority of any situations that will have an effect on their service(s). Besides that, there is a sanction system if the operator does not provide information prior to a departure, if there is no driver or bus for the service, and latest ten minutes after departure if a bus is delayed or cancelled due to a failure on the vehicle.<sup>83</sup>

### 2.12. Awarding the contract and the system behind

When awarding the contracts of the tender, only the winner and not the entire bidding process (including other operators' bids, level of quality or quality index) is announced to the greater public, which is not in accordance with the regulation paragraph on great transparency.

In order to understand more of the politics behind the traffic authority, the researcher finds it relevant to examine the traffic plan 2016 engaged by Movia

<sup>&</sup>lt;sup>81</sup> Trafikselskabet Movia et al. 2016 pp. 150

<sup>&</sup>lt;sup>82</sup> Trafikselskabet Movia et al. 2016 pp. 151

<sup>&</sup>lt;sup>83</sup> Trafikselskabet Movia et al. 2016 pp. 151-152

and the owners, which are focusing mostly on the budget and the customer satisfaction.

### 2.13. Movia political meeting February 23, 2017 (Traffic plan 2016)

According to Movia, the owners (regions and municipalities) paid 2.78 billion Danish kroner for the service of buses and trains in Zealand in 2016. The buses were awarded 1.5 billion Danish kroner in 2016, where the operators were paid 3.0 billion Danish kroner. Beside the 1.5 billion subsidies, 1.7 billion is from ticket income.<sup>84</sup> The outcome of the 2016 budget was that 108 million Danish kroner went back to owners, as the budget on the subsidies was calculated higher than the actual expenses.<sup>85</sup>

There seems to be a clear pattern in cutting costs for delivering bus service within the Movia area, as it went from 1.582 billion in 2013 to 1.520 billion in 2016, but this can be explained with the development in fuel prices, as the numbers of bus routes are the same (445) and the amount of passengers have gone from 202.1 million in 2013 to 203.5 in 2016.

It is though worth to notice that Movia calculated with 207.1 million passengers in budget for 2016.<sup>86</sup> The amount of busses in service within the traffic authority is unchanged as well with 1.250 buses in service.

### 2.14. Passenger satisfaction

In the annual report from 2016, Movia listed their passenger satisfaction from 2012 onwards. The percentage of passengers who are very satisfied with the service is between nineteen percent and twenty-one percent. This value was twenty-one percent in both 2012 and 2016.

The indexes for satisfied passengers are also very close for the five years comparing, as it is between seventy-two percent and seventy-six percent. The

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<sup>&</sup>lt;sup>84</sup> Trafikselskabet Movia, Afgivelse af Årsrapport 2016 til revision pp. 1-2, 2017, Trafikselskabet Movia, Copenhagen

Trafikselskabet Movia et al. 2017 pp. 4

<sup>&</sup>lt;sup>86</sup> Trafikselskabet Movia et al. 2017 pp. 10 + 12

number was seventy-five percent in 2012 and seventy-four percent in 2016.<sup>87</sup> But as a part of decision process for the 2016 traffic plan, there is a suggestion from Movia to lower the aim for very satisfied passengers down to twenty-five percent. This is due to the many changes which will be going on in Copenhagen, especially when the new metro is to open (projected for 2019).<sup>88</sup>

Four municipalities did not support this proposition, including the municipality of Copenhagen. One of the municipalities wanted Movia to differentiate between city and rural districts, where one municipality suggested that the municipalities together with Movia worked on better marketing for satisfied customers.<sup>89</sup> Nonetheless, the suggestion was maintained and implemented in the 2016 traffic plan.

In the traffic report 2016, Movia mentions that some of the key features of the new strategy for satisfied customers are that there is a need for more focus on the traffic flow for buses, a better connection interline and between bus and train, and better traffic information systems. 90

According to the report, ninety-five percent of the passengers were satisfied with the delivered service, but the amount of very satisfied passengers was only twenty-one percent, but the goal was thirty percent. Movia performed a great survey in 2015 on quality in service among their customers, where five-thousand people participated.

The outcome of this survey was that the passengers and the key points in the customer satisfaction for customers riding in Copenhagen seem to reliability, time spent traveling and good conditions for the bus stops.<sup>91</sup>

 $<sup>^{8787}</sup>$  Trafikselskabet Movia et al. 2017 pp. 63

<sup>&</sup>lt;sup>88</sup> Trafikselskabet Movia, Godkendelse af Årsrapport 2016 inkl. Revisionsprotokollat til udsendelse til repræsentantsskabet

pp. 3, 2017, Trafikselskabet Movia, Copenhagen
 Trafikselskabet Movia, Årsrapport 2016 appendix 1, 2017, Trafikselskabet Movia, Copenhagen

<sup>90</sup> Trafikselskabet Movia, *Trafikplan 2016 pp. 40*, 2017, Trafikselskabet Movia, Copenhagen

<sup>&</sup>lt;sup>91</sup> Trafikselskabet Movia et al. 2017 pp. 41

One of the key features in the survey was also change-free travel, meaning that passengers were more satisfied if they did not have to change multiple times to get to their destination. It can therefore question that Movia in Copenhagen is to renew the whole net of buses when the next metro line opens. 92

The survey from 2015 resulted in some recommendations for future travel. One of the key recommendations was to think about traffic flow when thinking public transportation, and to think more of the reliability, comfort and traffic information.93

In order to gain better reliability, some investment in bus lanes and intelligent traffic systems is needed, and therefore there is now a project undergoing to ensure better reliability started by Movia. The project is to suggest a reliability program which will set the frame for the investment in the regional bus net from 2016 onwards.

Reports show that there are advantages in investing in these reliability measures, as minutes can be reduced of the timetable if the buses can make the way faster through designated bus lanes, intelligent intersections, among others.

Movia and Copenhagen municipality showed a great success regarding passenger satisfaction on the 2014 opened +way system going from central to north of Copenhagen.<sup>94</sup>

However, the travel time has not been significant reduced as Copenhagen municipality never got the intelligent intersections to function, and therefore the services using the designated +way system were stopped on various intersections, instead of driving in a flow. Movia claims that in rush hour the travel time on the +way system has been reduced by approximately two minutes. 95

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Trafikselskabet Movia et al. 2017 pp. 21-26
 Trafikselskabet Movia et al. 2017 pp. 42

<sup>&</sup>lt;sup>94</sup> Trafikselskabet Movia et al. 2017 pp. 44

<sup>&</sup>lt;sup>95</sup> Trafikselskabet Movia et al. 2017 pp. 71

# **Chapter 3: Theoretical framework**

## 3.1. Legal pluralism

Legal pluralism argues that law operated by a single actor is often regulated by multiple legal or quasi-legal regimes, <sup>96</sup> where international law can be a foundation of additional rights for standards and frameworks intended for regulations <sup>97</sup>. In addition, non-state actors and industry standard-setting organizations do exercise normative pull, which in some areas can be very significant. <sup>98</sup>

Seeking to understand the various roles of law within globalization, legal pluralism gives way for a nuanced approach of how legal norms are enunciated in a hybrid world, where the starting premises is that multiple groups understand themselves to be bound by norms of a national state, municipalities or regions, though many norm-generating communities have great power over our actions, even though they are not part of the state-based system.<sup>99</sup>

Pluralism recognizes that the conception of law we hold must include more than the official sanctioned governmental law, and that law does not dwell in the coercive orders of supreme power alone, <sup>100</sup> as it is persistently constructed through the race of norm-generating communities.

By using pluralism, it is possible to grasp a legal system which is both sovereign and imperfect, as outside norms affect the system, but do not fully dominate it. The pluralist framework captures an analytic and constant relationship that can be

<sup>&</sup>lt;sup>96</sup> Berman, Paul Schiff, *Global Legal Pluralism – A jurisprudence of law beyond borders pp.2*, 2012, Cambridge University Press, New York

<sup>97</sup> Berman et al. 2012 pp. 1

<sup>98</sup> Berman et al. 2012 pp. 5

<sup>&</sup>lt;sup>99</sup> Berman et al. 2012 pp. 45

<sup>&</sup>lt;sup>100</sup> Berman et al. 2012 pp. 12

seen in international normative communities, which positivistic visions of legal authority do not observe.<sup>101</sup>

## 3.2. Legal pluralism rationale

This research was conducted in a legal pluralist framework, as this provides an approach for understanding the law in society, and how the interaction between law, social factors, legal and non-legal actors interrelates in a hybrid world, as law is often regulated by several legal regimes.

Legal pluralism is relevant as legislative supremacy establishment; like state institutions and EU, it is linked to the population via elections, and holds the legal understanding of the law, where non-governmental groups thrive for a norm-change in the legal part of the regulation. <sup>102</sup>

The social understanding of the law is comprehended through the laws of the national state or other legislative supremacies, which this research connects to the EU. It is also formed by non-governmental groups, industrial groups and the recent emerging social media process, representing another way for the legal actors and social understanding to change.

Various actors on the Danish market and within the EU regulatory process have different approaches to the law and the law-making practice, which is visible in the following chapters.

#### 3.3. Governance

The governance approach offers a scope on European politics, which has moved away from how and why states integrate to how the EU governed areas, and how non-governmental and governmental actors collaborate, and argues that the European integration process began to shift above member states and that

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<sup>&</sup>lt;sup>101</sup> Berman et al. 2012 pp. 25

<sup>&</sup>lt;sup>102</sup>Stone, Alex Sweet, Constitutionalism, Legal Pluralism, and International Regimes *pp. 630-631*, 2009, Indiana Journal of Global Legal Studies, Indiana

policymaking were more characterized by complex overlapping geographically structures. 103

The governance approach also relies on the hypothesis that the interaction of multiple actors is very complex, yet a dynamic system of policy making which involves non-governmental and governmental actors, although integration is not always the highest goal in the EU decision making process. The approach focuses on the importance of the various institutions within certain areas of governance, but does not focus on the institutional design. <sup>104</sup>

#### 3.4. New Governance

Recently, a different approach to governance within the EU has gained momentum. The new ways of governance are more based on standards of performance which are more voluntary, than standard regulations.

The new ways of governance aim to involve the participation of private actors when formulating new policies and are called "the Open Method of Coordination" and consist of four elements, which are fixed guidelines for the union with goals ranging from short to long, indicators and benchmarks through quantitative and qualitative methods, European guidelines which reaches national and regional policies and a mutual learning process through monitoring, evaluation and peer-review.<sup>105</sup>

The new mode of governance is unlike the previous model of governance in the EU, not to set a single construction of governance for all member countries, but to use best practice. However, it is important to notice that governance in the EU is largely still based on the original governance practice. <sup>106</sup>

Dyson, Tom & Konstadinides, Theodore, European Defence Cooperation in EU Law and IR Theory pp. 118, 2013, Palgrave MacMillan, Basingstoke

Dyson et al. 2013 pp. 121

Eberlein, Burkard & Dieter, Kerwer, New Governance in the European Union: A Theoretical perspective JCMS 2004 Volume 42 pp. 122-123,2004, Blackwell publishing, Oxford

Héritier, Adrienne, New modes of governance in Europe. Policy Making without Legislating pp. 3, 2002, Institute for advanced studies, Vienna

One of the crucial limits that the European process making is suffering under is the systematic limits of non-decision; this comes to display when the liberalization process becomes a competition, forcing lower regulatory standards. <sup>107</sup>

This especially shows when poor countries are competing against richer countries, where the poor countries are willing to lower their standards in order to keep the production.

Furthermore, studies show that the negotiation between member states on a non-hierarchical way often causes a deadlock and use of veto rights, and therefore the European decision process can be prolonged for months or even years. A removal of the veto power has showed to be more successful in order to agree on a decision.

#### 3.5. Democratic experimentalism

In the late nineties, the theory of democratic experimentalism occurred on the basis of a specific logic of decision making. The theory is widely based on that policy networks are more often involved in political decisions<sup>109</sup>, which more specifically comes to work when industry experts or local groups are getting involved directly in the decision making process i.e. when a citizen committee are striving for better public transportation in their local community.

The local governments have the most important task of converting the given information and to use it to form best practice into future performance standards. These performance standards motivate a network of local and regional government to share their best practices and draw experience from them. The practice is not only for local governments, but can be used in regulatory agencies and at national level as well.

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<sup>&</sup>lt;sup>107</sup> Eberlein et al. 2014 pp. 127

Eberlein et al. 2014 pp. 128

<sup>&</sup>lt;sup>109</sup> Eberlein et al. 2014 pp. 132

The idea of democratic experimentalism is to support the representative democracy, where the national government can gain from local experience. Furthermore, it offers a potential solution to some of the challenges within the EU governance.

#### 3.6. Multi-level Governance

The model of multi-level governance describes that the national governments are important in the decision making process of the EU, and argues that the national states' interest is more dominant in the policy making, but not solely by the state.

The model argues that the decision-making process is shared by different level of actors, which means that the parliament, commissions and court of the EU have great influence.

This means that even though the national states do play an important role in the decision-making process, it is important to examine the influence on the European governmental level in order to explain the policy making. Additionally, when individual states cluster together to make a decision on a policy, it is a loss of control for the individual national governments, especially because the decisions are made from the qualified majority when voting on policies in the EU. 112

Many actors are involved in multi-level governance, where both multi-states and non-state organization are participating in order to set new standards and norms and placing their understanding of the law and how to create it.<sup>113</sup>

The development of the multi-level governance model can also be described as a development from a command and control state towards an enabling state, which is partly a product of many years of 'new public management' where the service/produce part of the government is separated from the democratic/political element of the government.

<sup>&</sup>lt;sup>110</sup> Eberlein et al. 2014 pp. 133

Hooghe, Liesbet and Marks, Gary, *Multi-level governance and European Integration pp. 3*, 2001, Rowan & Littlefield Publishers, Maryland

Hooghe et al. 2001 pp. 4

<sup>&</sup>lt;sup>113</sup> Berman et al. 2012 pp. 36

The main goal throughout the last 15 years for Western governments has been to increase efficiency within public service instead of the previous focus on the political field in society. 114

#### 3.7. The regulatory State

Some scholars are describing the regulatory state within the EU as a regulatory state inside the state, which means that regulations of the EU system regulate law and practices within each member state on many areas. 115

The rise of the regulatory state is the direct effect on the fact that EU does not have the budget or the bureaucratic means to inflict policies on the national states, and therefore the regulations are a good compromise for EU to remain in the authoritarian role, while giving the member states more free ways to compromise within the regulations. 116

The EU will never be able to become a state and therefore it is described as a regulatory state, since it exercises some key roles of statehood, but only in limited areas of economy and social regulations.

## 3.8. Institutional regulation theory

The regulatory process explained through the institutional theory is that public policies are interest of political and bureaucratic networks, often governmental, and that the political control of bureaucracy has the power to control the regulators.

The regulators can be monitored and therefore kept politically accountable by strict procedural requirements, standards, executive power of appointment, judicial review and executive power of appointment. The theory explains that

<sup>132, 2001,</sup> The policy press

Moran, Michael, *Understanding the Regulatory State pp. 391*, 2002, Cambridge University Press, Cambridge

<sup>&</sup>lt;sup>116</sup> Moran et al. 2002 pp. 402

when such a complex system is functional, it leaves no single authority in control of an independent agency, but the agency is under public control.<sup>117</sup>

## 3.9. Governance models in land based transportation

With many policy-making processes being started every year, in various fields of the EU and their member states, it is only understandable that there are different approaches to these and therefore one single theory is not applicable for all; so, when it comes to the decision-making process within the land based transportation area in the EU, it would be hard to state that democratic experimentalism is overly represented regarding policy making.

Although especially within the railways, customer feedback is taken in concern when creating timetables. For buses the involvement is not much customer based, as in passengers, but customers in the sense of the municipalities and regions, who in the end are paying for the traffic authority. Since the mid 00s there has been more involvement from these partners within the Danish market on public transportation.

Therefore, it is easy to say that there are more governmental and intergovernmental factors involved in the processes and not the wishes of local groups of companies or municipalities, although new governance was more involved in the recent policy making process when it comes to best practices.

The major difficulty with this model, from the transport policy view, is that every member state wants their best practice to be the recurring theme in the policy – and almost every European country has a different view on policy making within transportation. It is consequently clearer that multi-level governance is the key entry point of governance within the policy making process in this field due to this difficulty.

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<sup>&</sup>lt;sup>117</sup> Terry M, Moe, *Interests, Institutions and positive theory: The politics of the NLRB.Studies in American Political Development pp. 236-299*, 1987

The member states could only agree on very few points within the recent policy, which made it into a very thin, but strongly framed regulation. It is evident that all governments wanted more efficiency, flexibility and transparency within the current regulation on the land based transportation area in the spirit of new public management.

The national states interest and the greater EU point of interest have been very important, yet contradictive in the process of this policy, thus the policy ended up as a compromise, which the researcher discussed previously in the literature review.

The advantage of working with multi-level governance especially in land based transportation is that at some point the member states will agree on a policy, although it can take significant time to develop. The final product is based on a will to deliver effective service that is cost-efficient.

The disadvantage is that more member states can cluster together and push for a decision that may not be the best for some other member states, who often stand alone or in minority with their wishes or demands for their policies.

A removal of the veto power as suggested in new governance could possibly have solved the problem of the long yearly process to develop the policy, but would probably not solve the problem of some member states being neglected.

#### 3.10. Legal pluralism, governance and regulations

When the policy making is a European matter, the effect is still on the national states; depending on the size and aim of the regulations, a certain amount of national regulation is necessary.

Within land based transport on the Danish market, the researcher is able to apply the institutional theory, as the local traffic authority in Denmark is under public control, in the sense that it does not have a single owner, but holds a vast owners circle of many municipalities and regions, although the regulatory policy is enforced by the Danish government. While norm-generating communities are seeking influence in the process of both EU regulations and on the Danish market, the law is mostly governed by state-actors. The regulatory process is a hybrid of multiple legal systems, interconnecting to find common praxis for the final regulations, to define the land based transportation liberalization.

The policy from the EU specifically requires great transparency, and this goes along with the institutional regulation theory, as the regulated part is being monitored on many parameters such as economy, quality, CSR, among others.

The Danish market is a system with strong legal sovereignty from the state actors, where norm-generating communities often seek influence, but without greater success.

The lack of success on the Danish market for most multi-national companies is therefore a direct result of the above, although the Danish market is organized in a way where the government has no direct power over any authorities, but requests for yearly economical reports from the customer of the authority, which are the municipalities and regions. The traffic authority needs to deliver key information about passengers and annual reports to the government, which in turn must inform the EU in accordance to the policy on the area.

### **Chapter 4: Methods**

The research was conducted in three distinct parts. The first part was a comprehensive analysis of the literature to determine the key factors of EU law, the Danish market and the tenders from the authority represented in the greater Copenhagen area.

The second part was a personal survey conducted with one-hundred-and-one customers on Copenhagen based bus services 1A, 4A, 8A and 9A, to review the customer insight on parts of the subsidy system.

The third and final part was developed through interviews with five key individuals within the Danish market, who could provide inside knowledge from the operators and authority perspectives.

#### 4.1. Part one: Literature selection rationale

The literature selected for the analysis required a representation of valid knowledge about the EU law system, especially when dealing with transport law, the EU and member state governance. Furthermore, it was relevant to select literature which also had great understanding in the various markets within the member states.

The final part of the literature selection was aimed at finding insightful knowledge about the subsidy system within the greater Copenhagen area, where the researcher performs a description of the various measurement systems for quality control and awarding contracts.

#### 4.2. Keyword search

For indentifying valid literature for analysis, this research used a keyword search on the online databases Google scholar and LUBsearch. The search was conducted using a combination of keywords: governance, EU governance, EU transportation policies, EU member state policies, EU regulations, EU market

integration, member state regulations, governance theories, transport regulations, traffic congestion in Copenhagen, legal pluralism and Movia subsidies.

Followed by an analysis of the titles and abstracts, a total of twenty articles were selected. These included theoretical governance and legal pluralism frameworks, European regulation, the Danish market and the regulatory process.

The twenty articles were combined and applied in both the literature review and analysis chapters.

### 4.3. Reports and publications

Another part of the search for valid literature was through reports and publications on the website of the traffic authority of the greater Copenhagen area – Movia. From this database, a total of 7 reports were selected and used for the research.

### 4.4. Known literature and WebPages

The final part of the literature search was conducted on behalf of personal knowledge on WebPages in which the Danish market is being described, including Myldretid.dk and busfronten.dk, as well as the author's own report on public-private partnerships in public transportation in Copenhagen.

Literature search on traffic congestion in Copenhagen for the analysis was also conducted using the Copenhagen Municipality's and the TomTom GPS company's websites.

#### 4.5. Part two: Personal survey with passengers

The purpose of the survey was to collect quantitative data, representing the passengers' point of view, to complete the analysis with significant primary data.

This part of the research provided insight to a very constricted part of the Danish market and stood out, when compared to the surveys which Movia conducts on the quality of their service.

The survey was conducted on two different occasions: the first round was conducted on March 11th for passengers traveling on line 8A and on March 12th for customers traveling on 4A. In order to hold neutral position regarding both authority and operators, the survey was conducted outside, near the vehicles on terminating stops Nordhavn Station and Svanemøllen Station around midday on both days. Sixty people were invited to attend the survey, where forty-eight accepted – out of those, twenty-three were on line 8A and twenty-five on line 4A.

The second round was conducted on May 15th for passengers traveling on line 1A and line 9A. This survey was, like the first round, conducted outside of the terminating stops at Hvidovre Hospital and Refshaleøen from midday to early afternoon. Sixty people were invited to attend the survey, where fifty-three accepted – out of those thirty were traveling on line 1A and twenty-three on line 9A.

## 4.5.1. Conduction of survey and ethical considerations

In order to conduct a personal quantitative survey with many participants it is important to identify the target population<sup>118</sup>, which for this research were passengers traveling with the A-bus system.

The study followed a random recruitment process, focusing on approaching participants one at a time, for a small questionnaire consisting of four individual questions. The researcher decided to conduct the surveys in four different locations within the A-bus system, and verbally approached the individuals to receive consent to participate in the questionnaire.

The researcher explained the aim of the research and then asked the four questions to the respondent, while typing the answers into the handheld computer. The surveys were conducted face to face in order to ensure a relaxed and informal environment.

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 $<sup>^{118}</sup>$  Creighton, James L., the Public Participation handbook pp. 114, 2005, John Wiley & Son, San Francisco

Each survey lasted an average of two to three minutes, where some of the respondents had follow-up questions to the research, which led to extended conversations about the subsidies of the services in Copenhagen. None of these conversations were included in the research.

The survey was performed speaking Danish, and the answers written in English by the researcher. Afterwards, the participants were invited to check their answers for confirmation.

In order to ensure the sincerity of the participants, all questionnaires were conducted on an anonymous basis. The researcher did not collect any names of the participants.

All participants were randomly selected and therefore none of them were known to the researcher prior to this survey. This increased the reliability of the research, as it ensured honesty when participating in the survey.

### 4.6. Survey design and results

The survey was designed to achieve knowledge on the user perspective on delivered quality of service, on the A bus system in Copenhagen. Divided into four questions, two of them were designed to be only 'yes' or 'no' answers and the remaining two were designed using a Likert scale from 'very low' or 'very rare' to 'very high' or 'very often'.

The data was collected into separate excel files marked with "participant" followed by a number. In the process of analyzing the data, all participant answers were transferred into a separate excel file for each of the two conducted surveys. The data collection is presented in the chapter of results.

#### 4.7. Part three: Personal interviews and ethical considerations

Using a research interview conversation, the researcher obtains information on people's perceptions, views and opinions, in their own words. Following specific rules and techniques, a structure and a purpose, the research interview represents a

professional conversation, where knowledge is created through the collaboration between researcher and interviewer. 119

Conversations have for long been used as a mean of constructing systematic knowledge. Particularly in social sciences, research interviews are gradually increasing as a method, as there is also a focus on the social construction of knowledge. 120

In this study, interviews were chosen as a way to achieve knowledge from individuals, in order to make the research more reliable. The key individuals selected for interviews have all obtained knowledge on the Danish market in the greater Copenhagen area, for a consistent amount of years.

There are key ethical issues to considerate when performing a research interview. The information obtained from this method is highly dependent on the social relationship between researcher and interviewee and on the interviewer's skills. The participant must feel free and safe to talk about delicate or confidential matters, whereas the interviewer ensures respect and the privacy of the interviewee. 121

Verbal consent was provided for each interview, upon description of the research questions and overall aim of this research. It is relevant to indicate that the researcher was known to the participants prior to the interview, as part of businesses/companies himself worked with.

Questions were posed in a neutral manner, to avoid possible bias and leading the interviewee to a certain answer. Once the interview was finalized, each of the 5 key individuals read and agreed with the English-written transcription.

<sup>&</sup>lt;sup>119</sup> Kvale, S. and Brinkmann, S., *Interviews – Learning the craft of qualitative research interviewing*. 2<sup>nd</sup> ed pp. 1-2, 2009, Sage, Thousand Oaks.

<sup>&</sup>lt;sup>120</sup> Kvale and Brinkmann et al. 2009 pp. 7-8

<sup>&</sup>lt;sup>121</sup> Kvale and Brinkmann et al. 2009 pp. 14-16

All key personal is anonymous in this research, due to privacy issues and in order to supply this research with the greatest honesty possible. The individuals were all known by the researcher prior to the interviews.

# 4.7.1 Part three: Conduction of interviews with key personal

Five individuals were chosen to participate in this research - three of these individuals were from the operators and two were from the traffic authority. All participants were working in different functions within the subsidy and quality measurement system.

The interviews with all individuals from the operators were based on the questionnaire from the passenger survey, but in order to obtain a full range of information, they were conducted in a semi-structured approach, which made room for adding questions or elaborating if needed.

The interviews with the contract worker and quality measurement system worker from the authority were conducted as a dialogue, based on the presented research and the passenger survey questionnaire. These interviews were also conducted in a semi-structured approach.

The interviews were verbally agreed on before conducted, and were all conducted in the offices of the interviewed individuals. Conducting the interviews in a familiar environment has the purpose of creating a relaxed and professional atmosphere. <sup>122</sup>

At first, the aim of the research was presented to the individuals, who had the possibility of asking questions regarding the subject. Thereafter, the interviews were conducted. The researcher transcribed the interviews from Danish to English on a computer while they were conducted, without the use of a recording device.

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<sup>122</sup> Kvale and Brinkmann et al. 2009 pp. 10

As mentioned in the ethical considerations, at the end of the interview, each participant read their own transcript and verbally agreed with what was written by the interviewer. All interviews lasted between fifteen and thirty minutes.

## **Chapter 5: Empirical results**

#### Chapter 5.1: The connection between theory and the primary data

While a significant part of the collected literature covers the EU regulatory process, the Danish market and the quality measurement system, the surveys and key interviews focus on the effect of the EU regulatory process on the Danish market within the greater Copenhagen area, and how the quality measurement system is functioning within the various roles between traffic authority and operators.

The survey conducted with the passengers represents how the quality measurement system, A-bus services and subsidy process affect the passenger's attitude towards these factors.

The interviews with key individuals in the greater Copenhagen area focus on how the described literature on the EU regulatory process, the Danish market and quality measurement system relates to the various interviewees' positions, and how they perceive the law and the norm-generating process.

### **5.2.** Survey results

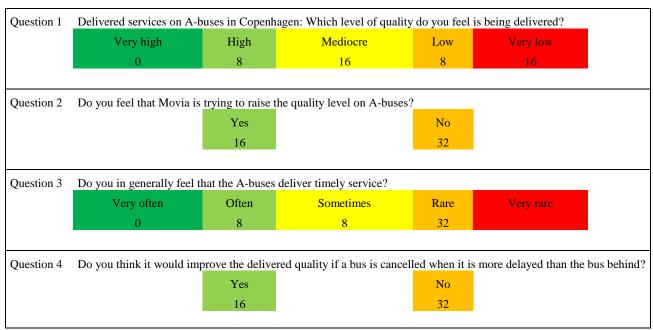


Figure 1. Illustration of survey results obtained from the first round.

As mentioned in the methodology, the survey with passengers was conducted on two separate occasions, and the results of the first conducted survey is that fifty percent responded low or very low when asked about delivered quality, eighty-seven percent mediocre or lower for the question on quality raising in the A-bus system, sixty-six percent 'no' on the timely service, and finally, eighty-three percent answered sometimes or lower on the question about more timely service if a bus is cancelled.

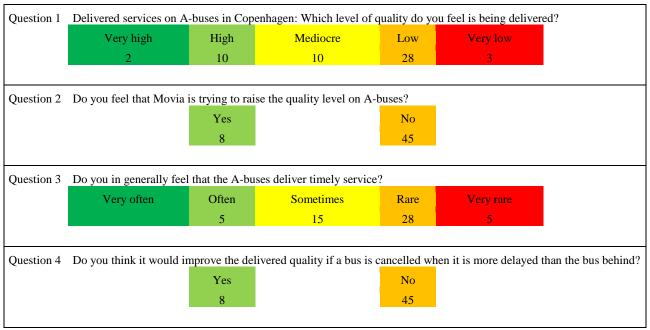


Figure 2. Illustration of survey results obtained from the second round.

The second-round survey has similar results, as a higher number of participants in this survey had a negative opinion towards the questions. The results of this survey shows that sixty percent answered low or very low on the question for delivered service in the A-bus system, seventy-five percent mediocre or lower on the question asking if Movia are trying to raise the level of quality, eighty percent answered 'no' on the question for timely service and finally eighty percent answered 'no' when asked if it would improve the quality if some buses were cancelled.

The results of the survey led the researcher to the conclusion that there is a clear tendency of a more negative attitude towards the delivered service of the A-bus system; very few of the responses were 'very often/high' when presented as an opportunity. Standing out in this survey is the answers on the question of delivered timely service, where the majority of the answers pointed on rare. The result of the customer survey was taken into consideration and discussion, in the later interviews with key personal in the Danish market.

# 5.3. Key informant interview 1 'Operational manager'

When discussing the level of quality, the key interviewee stated that the operator did not have any help or will from the traffic authority to raise the level – but at the same time there is a huge pressure to keep the quality index high and the fines low. Often the operator is to find their own solutions in order to higher the level of quality.

Digital solutions have not yet been the success from the operators' perspective as wanted, and many customers go through the bus without noticing the quality or measurements to improve the quality, so the key is to influence those few who really notice the quality in a positive way. This is an area which often is in the hands of the driver, so therefore it is important to motivate the driver to take part of this.

In the dialogue regarding how the traffic authority is trying to increase the level of quality, he repeats that this is almost never the case. The quality system on bonus or fines is the factor in which the authority is more interested. The experiences that the customers have when they sit in the buses are hardly influenced by the authority.

He continues and says that they are getting fines for an outside destination sign which does not light up and shows the line, but he can hardly see how this has an influence on how the customer sees their quality of delivered service. He has never heard any customer state that they were unsatisfied because one of the destination signs did not work. There is a lack of collaboration on these things, he finished.

In the third discussion on the question regarding punctuality, he states that the A bus system does not deliver timely service, which is often due to the lack of interest from the traffic authority, but also the municipalities. It is not existing, he says. The operators have many times tried to create solutions, which often are not a high pressure on the budgets, but there is no will to either listen or do anything the operators are stuck with lower customer satisfaction measurements, due to not being able to deliver timely service, which again is due to the lack of engagement by the authorities.

He continues on the fourth question on delayed services that if a bus is cancelled it would not improve quality, because then the customers need to get off the delayed bus and board the next. This is not a good way to improve the timeliness of the delivered service.

He states that another way of providing timely service is to frequently control, but this would be hard as all shifts are steady – and once more they would reach into a problem in their contracts, because the operator is paid for a fixed amount of hours. He finishes by saying that there is a lot of mistrust within the present form of contracts between authority and operator.

## 5.4. Key informant interview 2 'Operational assistant'

Discussing the level of quality, he states that taking in consideration the city size, the interval between the buses on the A-bus system is reasonable, but it does not seem like the traffic authority takes any interest in trying to higher the level of the quality in delivered product when it comes to this system.

Many of the A-buses are stuck in traffic and therefore it is very difficult to deliver a timely service. The traffic situation, especially in Copenhagen municipality, is a direct consequence of numerous cars, lack of traffic solutions and focus on removing parking spaces, giving room for more bike lanes and not considering bus lanes.

If the traffic authority was to engage contracts where delayed services were cancelled mid-route, it would not improve the quality of delivered service, as the buses would most likely be stuck in traffic anyway on their way to the terminus point.

### 5.5. Key informant interview 3 'Quality manager'

The discussion began on the quality of the delivered service in the A-bus system, where he stated that the idea of the A-bus system is good and it can function, but the problem lays in that the traffic authority continually focuses on economy. Every aspect of the system is about economy instead of focusing on the passengers, and that is the reason why the project does not function very well. It does not seem that the operators can administrate the A-bus system, but instead have to deliver in accordance of the wishes from the traffic authority. If one operator was to win all the A-buses in the system or several A-buses and place them on the same depot, there might be a way for the operator(s) to influence the traffic authority and the quality of delivered service and product.

He continues and states that one of the operators just started a project on one of the A-services that aims to provide the customers with the promised interval between services, which is five to seven minutes depending on the time of the day. This has recently been an opening in the contracts so that the operators can more openly administrate their services. so that the timetable and interval are in general more articulate.

If the trail is successful, it is to be implemented on all A-services. On other services than the A-lines, the contracts are still too focused on the economical part and the contracts, especially the contracts where the incentive part is not being used. He continues and states that the collaboration for the traffic authority is linked to the conjectures. When there is a plunge in customers, the traffic authority seems to engage in more campaigns and collaborations, but when there are more customers the engagement disappears.

On the question on delivered timeliness he states that because of massive problems with the accessibility, especially in the municipality of Copenhagen, and the lack of flexibility in the contracts, it is very difficult to deliver timely service on the A-bus network. If a bus is to be cancelled because it is late, it would not be very positively seen from the customers' perspective, as they rather want a delayed service, and they hardly notice when two services come just after one another, taken in mind that there is no psychical timetable available. He finishes by expressing that the traffic authority directly tells the operators, that their customer is them, not the customers.

### 5.6. Key informant interview 4 'Contract worker'

The length of the contracts within the Greater Copenhagen area is quite long – they can last up to twelve years – which, according to the contract worker, is "longer than most marriages nowadays". And it is not easy to just "get a divorce" from these contracts from any of the parts. The operator and the traffic authority hold two different roles, where the authority is having a political bottom-line, the operators have an economical bottom-line. This can result in various conflicts of interest between the two parts.

When having different roles, there has to be a great sense of equal treatment among all the operators and this is a great focus area from the traffic authority. The importance of treating every operator equally is especially profound in the cases where some operators do not perform accordingly to their contracts; therefore other operators would wonder why they would spend considerable fiscal and labor force to perform better.

The level of delivered quality can for some operators be a curve which goes up and down over the length of the contract, and if the authority did not have any tools to deal with the downward side of the curve, there is a chance that the curve would never stop going down until hitting the bottom.

This is of course not applicable for all operators, but there are previous and recent cases of some or great negligence of contracts. He continues and says that the traffic authority in Copenhagen is trying to follow-up on the quality in a way that it makes sense, but there is a long way from management, to the traffic service personal on the streets.

The best example on negligence from an operator was in the previous subsidy called 'HUR 10', where one operator won all the buses and did not have anything under control. At that time, the traffic authority truly began to focus on the delivered quality and some measures were taken to tighten up the grip of all contracts.

It is also relevant to put the Danish or Copenhagen model in focus when comparing to other European countries, on an international level, as the Copenhagen model seem to be the strongest according to a so far non-published report. There seem to be a great transparency and dialogue/cooperation with the operators from the authority side.

One of the discussions that is being repeated in EU transportation is if subsidies should be line or area based, where Denmark and Copenhagen is line based, Stockholm for example are based on depots, where a whole depot is up for tender at a time. One of the challenges of subsiding per line is that it becomes very transparent, and the operator cannot cover themselves.

The quality delivered at a customer level are becoming much more transparent, thus it develops increased competition and Copenhagen is one of few authorities in Europe who has more than sixteen operators – and this is directly due to the subsidies on lines instead of areas or depots.

According to him, the operators are not always effective at focusing on how sound their product is and how they deliver. He continues by saying that the customer satisfaction is slowly rising within Copenhagen where in addition, there have been less economical fines and fines for breaches in quality within the Copenhagen area. This is due to a better focus on transparency, higher focus or a different focus from a new operator through subsidies.

Some operators are fined less because they are more engaged in their business and their contracts, and therefore have a stronger focus on the delivered quality of service. However, all actors must be treated equally and therefore there has to be a system that meets the delivered quality – the way the system works can always be discussed.

## 5.7. Key informant interview 5 'Quality control agent'

The system to measure the delivered service and the quality measurement system has changed greatly in recent time; from the authority's side, there is now a focus on fixed amount of fines, where all quality control agents had to check four-hundred buses a month and had to write fifty fines, which is one in every eight busses they would control.

According to the quality control agent, it is not possible to find all these flaws and it would become senseless to do so. The agents issued therefore many so-called 'zero fines', which indicates that the operator will not get penalized yet, but if the same bus has the same mistake occurring again, it will. This is normal procedure in the quality measurement system.

Nonetheless, the authority would not accept these 'zero fines' and the new focus on giving a fixed amount of fines has increased both the short-term and long-term sickness leave statistics, which has risen three point five times more than before this system was taken in use. Moreover, if an agent does not complete fifty fines a month, there is a risk of receiving a written warning.

He highlights the fact that the authority has released a top list of which agents are handing out most fines, and where these top lists, in many companies, have encouraged workers to work harder, smarter or better. This system it is not in good use for a workplace that spends a great amount of time engaging in a dialogue with the operators.

The new system of fixed fines seems to be on retreat as many agents have complained; although the system is still focusing on the fines, they will adjust

their level every week to the median of the given fines per agent - so if it is eight fines one week per agent in median, it will become eight for the next week and so on.

### **Chapter 6: Analysis**

### 6.1. Regulatory challenges

The EU member states struggled to agree upon both the first and second regulation for the land based transportation area, due to several legal interests. Furthermore, the regulations are not very extensive compared to most regulations within the EU, although it represents the best outcome of the legal understandings of dissimilar requests and demands from the member states in the working progress.

According to legal pluralism, legal norms are understood in a hybrid world by a connection of a national state or norm-generating communities to the law, which can explain why the process was prolonged and troublesome when creating the regulation. Each member state is operating a different market with different versions of transportation law, which they all sought to engage in the European regulation.

Moreover, many multi-national transportation companies have been pushing for influence through lobbyism or inter-governmental work, with their understanding of how the law should be processed and understood for their benefit in the liberalization of the European market.

The recent regulation holds the most important principles of post new public management in multi-level governance and the core of the EU - the free market. The regulation is engaging in more transparency and more competitiveness between the private operators, who are operating on behalf of a public subsidy, although it also leaves space for those national states who continually want to have a state-owned operator within the free market, competing on the same terms as the private operators.

One of these operators is the public owned Århus Sporveje of Århus, Denmark, who continues to operate the city buses in Århus since 1928. There are no public operators in the greater Copenhagen area; as mentioned in the literature review,

Van de Velde highlights that the public owned operators did not have any success in the free market nationwide or in the greater Copenhagen area.

The recent regulation is the superlative outcome of a multi-level governed regulation process and is appropriate for the single member-states, as it meets the demands of liberalization and national-state interest. The regulation sets the standards of transparency, length of contracts and agreement of the free market. In theory, the regulation aims that, in every country within the EU, all operators are operating and participating in subsidies on equal terms; however, in practice it is not so, as the example of the German market presented in the literature review.

It is clear that each market has different terms of operation, where some markets like the German has lower operations, salary costs and benefits, but longer working hours. The driver cost in Denmark is significantly higher, the working hours are lower and there are greater benefits, especially fiscal benefits on the Danish market compared to the German.

The salaries are in general lower in the Eastern and Southern Europe compared to the Nordic countries. Therefore, in practice, the regulation is adequate for the single market of every European country, but does not support an inter-European market where e.g. a German company can participate on German salary and labor market terms within a Danish subsidy, which for the national state is beneficial, but in the free market thoughts of the Rome tractate, not completely coherent.

The regulation is therefore a very clear example in which national interest and multi-level governance are appropriate for the regulation making, for the land based transportation area in the EU. The free market as wished in the Rome tractate is not applicable in the current regulation, but the market is liberalized and open, and the EU member states will never be able to merge into one single inter-European market.

The regulation on the land based transportation area ensures that all governments within the EU are operating on the same terms and that both national and international operators are free to move cross-border to participate in subsidies,

however it has to be done within the market of the country where the subsidy is taking place. This explains why big actors like First (UK), Arriva (UK), Deutsche Bahn (DE), Keolis (FR), Transdev (FR), Nobina (SE), Alsa (ES), Avanza (ES) had great success of expanding around the European markets. Most national states also have larger bus operators with greater success i.e. Anchersen (DK), Dito Bus (DK), Bent Thykjær (DK), Connexxion (NL) and Busslink (SE).

The regulatory issues are most outspoken inside the member-states, when they are to define their demands for the subsidies, where the traffic authority in the greater Copenhagen area has formed very strong demands for their operators over time, as described in the literature review.

The demands cover everything from the color of the vehicle to how much the floor can tilt. This is to ensure a streamlined product that appears similar for the passengers, no matter which operator operates the service. Some of the issues that may emerge are the different expectations to the quality measurement system, where traffic authority and operator are not always in agreement.

This is in direct strand with multi-governance and legal pluralism, where the traffic authority, as government agency, always has the final say, even though some actors understand the regulatory laws in another norm-set conception.

# 6.2. The Danish model in the greater Copenhagen area

The greater Copenhagen area has for more than twenty-five years been a subject to subsidies within public transportation, and what originally started as a privatization process is now a self-regulated market in which the free market powers thrive at its best. This is in thread with institutional regulation on the market, as all actors are equal and can be held accountable for the action throughout a system that monitors every actor and their roles, which I will discuss later in this section.

On the Danish market, especially within the greater Copenhagen area, the market has always regulated itself as Van De Velde<sup>123</sup> mentions, and the operators who cannot deliver and underbid, fail to succeed in the very harsh environment of the Danish market, where the profit margin is most of time only around two to four percent. While the market has been dominated by international actors since the early 1990s, they are currently losing momentum due to upcoming Danish actors who understand the development of the market, which has recently changed from a more fiscal orientated to a fiscal and quality oriented market.

While much of the bus scene in Copenhagen has been challenged until around the mid 2000s/early 2010s, by operators who continually underbid and had troubles deliver the promised service, the market has lately been changed into more focus on the delivered quality with a system that focuses more on control, then on trust.

The Danish market has developed from an internal-, national-, governmental decision-making process market, to a market where privatization of the buses in the Copenhagen area entered the intergovernmental decision-making process within the EU, to open and regulate the market within all the member states. The Danish market stands out according to the traffic authority of greater Copenhagen in transparency and involvement of operators, and is working better than most European markets due to the principles of institutional regulation.

This is visible due to the equal treatment of all operators, bearing in mind that some operators want to perform very well and have an internal system that wants to do better than promised by contracts, where other operators are satisfied with reaching their quality numbers, and some struggle to deliver. It is therefore not unusual that the operators who are actively trying to perform well or better than promised in their contracts are receiving fewer fines than the operators who struggle to perform, but nonetheless, the system is based on controlling each unit equally. Accordingly, when some operators feel that the authority is too strict, it might just be the system in function.

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<sup>&</sup>lt;sup>123</sup> pp. 8-10

### **6.3.** The quality measurement system

The quality measurement system is an excellent example of a multi-level governance framework, where the institutional regulation system functions as the State; regions and municipalities trust a regulatory system that meets all actors equally, in a structure where all are responsible for delivering a certain result for the chain to function. The researcher has referred to this system as the chain of operations, in this study.

The quality measurement system itself and the process of assessment of the operators performing in it, is according to some operators not equivalent, and there is a wish for a system which is based more on cooperation and trust, than the system based on control which is in operation, however, there have been many cases of operators performing in upwards and downwards spirals which are inconsistent and not very responsive towards the passengers who are using those services.

Some operators interpret an understanding of the legal framework differently than the authority and this occasionally surfaces as disputes, where the authority, as state actor, must act. This often results in a norm-change that will affect all operators in the quality measurement system.

According to the authority, it is necessary to keep the control based system in function, as there are some cases of negligence from some operators, especially prior to the 2010s. It is important for the authority to keep a strong grasp on all operators, in order to ensure that all deliver according to their contract. This is one example of the strict standards mentioned in the institutional regulation theory to monitor the regulation, and ensure that the political system behind continually delivers parameters that can be measured to track all participating actors.

The way in which the quality control system functions is a constant debate within both operators and authority, but the opinions are not always the same. In the chain of operations, the authority has its political background and customers; the operators have a more economical approach as their customers are, first of all, the stakeholders.

The passengers are a common customer for the two, but are not first priority per se, although passengers are the key to all actors in the chain of operations and are themselves part of the chain. However, in order to maintain the satisfaction at a customer level on the political background, there is a demand for timely, high quality, low expense service that serves the citizens in a satisfactory manner, so whenever the traffic authority can deliver that, there is mostly a satisfactory mood among their customers.

For the operators to maintain satisfied customers, it is necessary to perform well within their contracts, as a higher success rate and lower fines will release more bonuses from the traffic authority.

So why are all operators not performing flawless service? Mostly because there are several different business models, where some operators maintain a flat organization with direct contact, high maintenance, personal happiness and a will to deliver highly than the promised budgets and quality. Some operators have a top-down organization, where there is almost no contact between management and service, with a minor part of personal and maintenance focus, and where there is little focus to deliver above budgets and quality levels.

It is often the operators with the top-down organizations that fail to regain contracts and lose momentum on the Danish market. It is also these operators who are more likely to get more fines during quality control sessions, as well as delivering a lower degree of service compared to the operators who have flat organizations. However, this system has lately been challenged by the authority who wanted their agent to a fixed amount of fines per month, which has caused some dissatisfaction among the operators.

The main focus within the greater Copenhagen area has more recently developed to be the quality measurement system and the delivered quality, as the development of greater technology and information systems has made institutional regulations, within multi-level governance, a fairer way of measuring these multiple parameters on the land based transportation area.

According to the traffic authority, there are many satisfied passengers within the area and these numbers are rising in a slow but steady tempo towards higher quality. These numbers are though expected to decline again over the next ten years, as Copenhagen is focusing more on the developing metro system which is to be opened around 2019.

The quality measurement system is deeply associated with the subsidy process now, as the quality is more important than price itself in the subsidy process, and the level of quality that has been used by the operators in the tenders has increased rapidly.

The different municipalities and the region around Copenhagen have all agreed on a new network of buses, which will leave most of the inner city out of high frequent A-bus services. And even though the analyzing reports on passenger satisfaction and habits in Copenhagen state that passengers value not only fast and frequent service, but journey with less changes more, the idea of the new network is to result in passengers to change from bus to metro or the other way around, where service today is directly possible by bus.

As an effect on the new network, there is a common understanding and acknowledgement that this will result in less satisfied passengers. It therefore raises a concern in this research, when the quality measurement system and the latest subsidies are based on higher satisfied customers and delivered service, when subsequently the network is changed and the municipalities are expected a lower passenger satisfaction.

According to one of the operators in the greater Copenhagen area, one of the key concerns is that the traffic authority does not assist the operators in raising the level of quality. Therefore, it is up to the operator to stand alone on this subject, which can be a challenging process, as the operator does not have any effect on the municipal decision-making process regarding intelligent bus lanes,

intersections or traffic issues, which is one of the flaws in the chain of operations, as these concerns cannot be escalated to a higher level. This way, the operator calls for more cooperation between authority and operator to solve these issues.

It is the same concern raised by the operators, when talking about the quality measurement system. Some of the fines seem to be simple bureaucracy for "smaller things" as a passenger information sign which is blank, but according to the traffic authority as earlier discussed, it is important to set standards and to treat every operator equally, however, in order for the institutional regulation to work it is also important not to accept flaws, even though they seem meaningless from the operators' point of view, as the monitoring is necessary for the strict system e.g. with the passenger information that does not turn on and show the destination of the service.

Some operators are operating to immediately secure the mistakes accordingly with their contract, and therefore find the fines very strict and unnecessary, while other operators would let the bus be in service all day with the error if not fined, since they would not think of it as a contractual important matter. Therefore, it is important to fine according to the traffic authority, as it is crucial not to lose the grasp on the operators; some might not be able to self-regulate, which in the end would lead to a negative passenger experience.

Even though some operators never receive negative feedback in the customer measurements about, for example, signs which are not turned on, it is only because of the strong fine/bonus system, since operators are more likely to act if they get fined and therefore the bus will not stay in service with a broken information system more than accepted.

The quality measurement system is to a large extent a sovereign state law based system, but multiple legal regimes are present, as it is affected by the operators and authority customers who have their own conception of the law. Some operators are following the system set by state standards, where others conceive the system to their advantage, often functioning as norm-generating actors. This

norm-generating process can result in both improvements and diminishments in the system.

The customers of the authority often thrust for norm changes when it comes to environmental issues and larger citizen complaints, where the operators are working towards a norm change on easing up the system towards a more trust-based system.

So far it has been largely unsuccessful for non-state actors to influence the system in their norm-generating process, but especially due to the increasing traffic in Copenhagen, the system has lately been more open to changes.

### 6.4. The A-bus system in Copenhagen

The traffic authority, operators and passengers all agree that the A-bus system (which lately developed into an A-bus + C-line no. 5 system) is essential to Copenhagen, but it holds some challenges.

The challenges, according to the operators, are that the system is very focused on economy and not on the passengers. It is often expected from the municipalities and traffic authority that the system runs through central and suburb Copenhagen without any challenges, but these are in fact several, where traffic is the most outstanding one.

The passengers react quickly to delays and hardly have any understanding the reasons hereof. All key personal at the operators that was interviewed for this research stated that the municipality of Copenhagen and the traffic authority did not do enough to meet this traffic challenges.

According to an analysis from Tomtom, the commuting population of Copenhagen is to experience one-hundred hours extra compared to a free-flow city<sup>124</sup>; the number of hours was sixty-one hours in 2012 and seventy-one hours in

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<sup>&</sup>lt;sup>124</sup> TomTom Traffic Index, *Copenhagen congestion level*, TomTom, Amsterdam, 2017

2013<sup>125</sup>, so it is clear that there is a rising congestion problem in Copenhagen. Furthermore in 2014 only twenty-four percent of the population in Copenhagen used public transportation – however it is important to notice that thirty-six percent used a bicycle, so the share of journeys in car are only forty percent. 126

Recently, a new system to meet the challenges of the A-bus system was started by one of the operators, by aiming to keep the interval between services. This is operated by actively regulating services, where some might move forward on the line without customer, in order to gain the lost minutes due to various delays, often caused by traffic.

But this system has for many years been functioning on a minor scale at the operators to actively take delayed services out of the line and move them forward in order to make the service timelier, where this new system is not only based on when traffic goes wrong, but is to be active daily to ensure that the passengers feel that the promised interval between services are being met.

One of the foremost concerns within the operators is that the continual congestion in Copenhagen and delayed services will affect the customer satisfaction index, which the traffic authority uses to pay out bonuses or hand out fines for either delivering or not being able to deliver service according to their contracts.

According to the traffic authority, it can always be discussed how the various systems are functioning and how the improvements should be when introducing new systems. The new flow-system on the A-bus services is arguably introducing a main point from democratic experimentalism into the chain of operations, where the regulatory State in local areas is learning from best practices.

# 6.5. Passenger focus and the chain of operations

As discussed earlier, there is a chain of operations within the greater Copenhagen area which is in thread with institutional regulation and, as also discussed, the

<sup>125</sup> Behrendt, Maria, *Bilkøerne i København vokser kraftigt*, Ingeniøren, Copenhagen, 2013 126 Københavns Kommune, *Status på København – nøgletal for København pp. 48*, Københavns Kommune, 2016,

Copenhagen

focus is not directly on the passengers, where the traffic authority and the operators each has their main customers that come prior to the passenger focus.

The passenger focus is therefore a direct product of the customer focus from those two parts, where each has to focus on and serve the passengers in order to satisfy their customers, which translates into a very complex system.

But it is functioning as described in the institutional regulation theory, where the authority is under public control due to a system that functions under the lines that no single authority is in control of an independent agency e.g., politicians in the municipalities are interested in being reelected, therefore there is a need for general satisfaction with the public transportation in the municipality; the politicians want timely and high quality service which the traffic authority must provide.

This institutional system on the customer focus is in thread with legal pluralism, as law regulated by a single actor is represented and regulated in multiple legal regimes. The passengers are influenced by both state and non-state actors in the norm-generating process, and therefore have different understandings of the customer relationship with the traffic authority, compared to the traffic authority point of view.

The main customer to assure for any of the parts involved is not the passenger, but it is important to keep the passenger satisfied, in order to maintain a healthy customer relationship. The passengers perceive that the legal system and the subsidy process are about them.

The municipalities, regions and operators have a different approach to the legal relationship with the traffic authority, and in order to perform timely and high quality service, the traffic authority must organize a contract with an operator that can perform accordingly. If they cannot perform, there must be a system that ensures the operator is encouraged by a fine/bonus system, depending on the performance.

The chain of operations functions accordingly with the institutional regulation where there are no single owners of the authority, the chain of operations has to function and all actors has to perform within a contract or a demand from another part. The complex system seems to function very well within the greater Copenhagen area, where the chain can also be reversed.

The operators need the traffic authority to perform on planning and traffic service, and the traffic authority is used by the municipality as an agency of guidance when planning cancellations, diversions or greater changes in the municipal network. This chain of operations is only broken when the municipalities or regions have to make cuts in their budgets.

The passenger satisfaction is high in the greater Copenhagen area and is, as discussed, still on the rise. However, when investigating into specific parts of the system, as this research did, it is clear that some passengers where unsatisfied with the level of quality and timely service. The survey conducted for this research showed more than half were unsatisfied with the A-bus system when interviewed on some A-bus services and many respondents did not feel that the traffic authority was doing enough to lift the level of the delivered product.

The passenger focus has developed through contracts and demands as one of the main themes for both operators and traffic authority, and it is with a joint focus to lift this in the greater Copenhagen area. The phenomenon of passenger satisfaction has risen with the access to social media and that subsidies are increasingly focusing on quality of delivered service, more than the price of delivered service alone. As described above in the circle of operations, the importance of satisfaction is present on every level and it is therefore important to keep improving in this area, to ensure a continual progress.

### **Chapter 7: Conclusion**

Land based transportation in the greater Copenhagen area is based on an EU regulatory structure, which affects the national subsidy process. This process is under constant influence by the quality measurement system, where the focus, when awarding contracts, has changed from a fiscal only politic to a combination of fiscal and delivered quality.

The regulatory process has been formed by both state and non-state actors, who have been seeking influence by their understanding of a common European regulation, but these many norm-setting groups have been unable to agree on a larger inter-European regulation.

The current regulation encourages national markets within the European regulation to develop within the national state, instead of having to bring most decisions into a common European decision board. The current regulation is therefore a standard framework of entry, in which all member countries have to form their subsidy process accordingly to the liberalization process.

On the Danish market, this standard made way for the traffic authorities to formulate their demands for the operators in the subsidy process, where the traffic authorities in the greater Copenhagen area have always been first-movers on these standards, and the authorities in the greater Copenhagen area have enjoyed an important position on the Danish market.

The current traffic authority in the greater Copenhagen area holds a great and significant position as the negotiator for their customer base, which are the municipalities and regions of the area. Furthermore, there is considerable amount of transparency in the subsidy process and within the quality measurement system which has represented a greater role in the subsidy process.

The Danish market within the greater Copenhagen area shows considerable competition between operators, holding a large number of operators compared to

other markets, due to a model where lines instead of depots are being put up for tenders.

The Danish market is a suitable example of the development from traditional governance into multi-level governance, where the regulatory State in form of institutional regulation is effective. The system is not without flaws, but the idea of subsiding lines instead of packages or depots has provided many operators, compared to other markets.

Linked to the subsidy process is the quality measurement system, which is a key factor in the greater Copenhagen area. The purpose of the system is to treat all operators alike, no matter the performance or the engagement in their contract. The system is strict and based on fines and bonuses, as it is necessary for the traffic authority to keep strict standards when operating within institutional regulations.

The system is strict due to some operators, in the beginning of the 2000s, failing to comply with the engaged contract, and has therefore developed into a system that by some operators is identical with mistrust. However, the traffic authority describes the system as a fair and demand-based that complies with both well-performing operators, and operators which do not perform accordingly with their contracts.

Multi-level governance is a relevant part of the quality measurement system, as it reflects on great transparency and promotes strong collaboration between traffic authority and operators.

The well-performing operators will naturally receive fewer fines than less well-performing operators due to the obvious fact that they perform better. The system can arguable be operated differently, but it is important for the traffic authority, especially when contracts are engaged on continually longer periods of time and are focusing more on delivered quality, to keep their focus on their role as an authority that often has to take the final decision.

Operating a quality measurement system that serves many passengers and operators will always be difficult to run and will arguably never be able to satisfy all parts, but the model that serves the greater Copenhagen area suits both the traffic authority and the operators.

One of the key functions within the Danish market is the chain of operations, where the customer focus varies depending on the part of the chain. The customer in focus for the traffic authority are the municipalities and regions, where the operators serve the traffic authority, hence a natural product of these customers are the passengers.

The operators often raise the concerns on the traffic issues in order to perform well to the passengers, as buses are increasingly delayed due to the rise of traffic congestions in the municipality of Copenhagen. If the passenger is not satisfied, the operators will have a difficult time satisfying their customer, which is the traffic authority, who again will have trouble satisfying their customer

Therefore, it is essential that the chain of operations functions in order to satisfy all customers in the chain. If one fails, it will often lead to a chain-reaction in which all will be unable perform accordingly to the engaged contract.

Institutional regulation and multi-level governance is a large part of the chain of operations, where all parts are depending on each other. But through legal pluralism, it is understood that all parts of the chain have a different understanding of the legal system.

The customer focus on the Danish market is not only understood by the singular customer of each part of the chain, but has to be understood from the perspective of each part. Furthermore, the passenger focus is highly important in order for the chain to function. The passengers have as well a different understanding of the legal system.

A number of weaknesses can be identified in this research. Interviews with regulatory staff were not performed, which could complement the study with relevant knowledge. Additionally, there is a general lack of literature that is able to cover all aspects of this matter, with only 3 authors performing research in the past.

On the other hand, the study holds several strengths, as it provides a detailed overview of the structures that constitute the land based transportation system in Copenhagen, through the use of both relevant literature and authorities' inside reports; it is complemented with quantitative and qualitative primary data from both costumer and staff points of view; and it represents a subject that has not been explored deeply, providing opportunity to further research.

#### References

Behrendt, Maria, *Bilkøerne i København vokser kraftigt*, 2013, Ingeniøren, Copenhagen, (https://ing.dk/artikel/bilkoeerne-i-koebenhavn-vokser-kraftigt-164043)

Berman, Paul Schiff, Global Legal Pluralism – A jurisprudence of law beyond borders, 2012, Cambridge University Press, New York

Buehler, Ralph and Pucher, John, *Making public transport financially sustainable*, 2011, Transport Policy

Creighton, James L., the Public Participation handbook, 2005, John Wiley & Son, San Francisco

DeLaine, Thomas, Fakta om Combus, 2011, Myldretid, Copenhagen

DeLaine, Thomas, For 25 år siden: HTs første udbud, 2014, Myldretid, Copenhagen

Dyson, Tom & Konstadinides, Theodore, European Defence Cooperation in EU Law and IR Theory, 2013, Palgrave MacMillan, Basingstoke

Eberlein, Burkard & Dieter, Kerwer, New Governance in the European Union: A Theoretical perspective JCMS 2004 Volume 42, 2004, Blackwell publishing, Oxford

European Union, Directive 94/243/EC of the European parliament and of the council, European Union, Bruxelles

European Union, Regulation (EC) No 1370/2007 of the European Parliament and of the Council of 23 October 2007 on public passenger transport services by rail and by road and repealing Council Regulations (EEC) No. 1191/69 and 1107/70, 2007, Bruxelles

Héritier, Adrienne, Market integration and social cohesion: the politics of public services in European regulation, 2001, Routledge

Héritier, Adrienne, New modes of governance in Europe. Policy Making without Legislating, 2002, Institute for advanced studies, Vienna

Hooghe, Liesbet and Marks, Gary, *Multi-level governance and European Integration*, 2001, Rowan & Littlefield Publishers, Maryland

Kerwer, Dieter and Teutsch, Michael, *The European Union impact on national Policymaking*, 2001, Rowman & Littlefield Publishers, Cumnor Hill

Kohler-Koch, Beate, *The evolution and transformation of European Governance*, 1999, Routledge

Kvale, S. and Brinkmann, S., Interviews – Learning the craft of qualitative research interviewing.  $2^{nd}$  ed, 2009, Sage, Thousand Oaks.

Københavns Kommune, *Status på København – nøgletal for København*, 2016, Københavns Kommune, Copenhagen (https://www.kk.dk/sites/default/files/Status%20på%20København%202016.pdf)

Moran, Michael, *Understanding the Regulatory State*, Cambridge University Press, Cambridge, 2002

Peters, B. Guy & Pierre, Jon, *Developments in intergovernmental relations:* towards multi-level governance, 2001, The policy press

Pallavicini, Jef, *Public-private partnerships in public transportation*, 2015, Metropol, Copenhagen

Sandholtz, Wayne and Sweet, Alec Stone, European integration and supranational governance, 1998, Oxford University Press, Oxford

Smith, Michael E., Rules, *Transgovernmentalism, and the Expansion of the European Political Cooperation (part of European integration and supranational governance)*, 1998, Oxford Press, Oxford

Stone, Alex Sweet, Constitutionalism, Legal Pluralism, and International Regimes, 2009, Indiana Journal of Global Legal Studies, Indiana

Sørensen, Claus Hedegaard, *Increased coordination in public transport – which mechanisms are available?*, 2010, Elsevier, Kongens Lyngby

Terry M, Moe, Interests, Institutions and positive theory: The politics of the NLRB.Studies in American Political Development, 1987

TomTom Traffic Index, *Copenhagen congestion level*, 2017, TomTom, Amsterdam (http://www.tomtom.com/en\_gb/trafficindex/city/copenhagen)

Trafikselskabet Movia, Afgivelse af Årsrapport 2016 til revision, 2017, Trafikselskabet Movia, Copenhagen

Trafikselskabet Movia, Fordeling af kørsel i Movia fra december 2016, 2016, Trafikselskabet Movia, Copenhagen

Trafikselskabet Movia, Godkendelse af Årsrapport 2016 inkl. Revisionsprotokollat til udsendelse til repræsentantsskabet, 2017, Trafikselskabet Movia, Copenhagen

Trafikselskabet Movia, *Prisudvikling (køreplantimer) siden 2008. Alle priser i oktober 2015 prisniveau. A5, A6, A8, A9, A10, A11, A12, A13 og A14, 2016,* Trafikselskabet Movia, Copenhagen

Trafikselskabet Movia, *Trafikplan 2016*, 2017, Trafikselskabet Movia, Copenhagen

Trafikselskabet Movia, *Trafikselskabet Movia Årsrapport 2016*, 2017, Trafikselskabet Movia, Copenhagen

Trafikselskabet Movia, *Udbudsmateriale til A15 – Udbud af almindelig rutekørsel I Movia*, 2016, Trafikselskabet Movia, Copenhagen

Van de Velde, Didier, *A new regulation for the European public transport*, 2008, Elsevier, Delft

Van de Velde, Regulations and competition in the European land transport industry: Some recent evolutions, 2003, Erasmus University, Rotterdam

Van de Velde, Didier, *The evolution of organizational forms in European public transport*, 2001, Erasmus University, Rotterdam

Ünay, Sadik, *The rise of the Regulatory State in Europe*, 2011, Turkish Journal of politics