Vertical integration in the real estate sector: Three case studies

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Abstract

Companies and organizations choose different structures. Some, like the Swedish Transport Administration, have chosen to be a "pure client" and buy almost all things they need on the open market through competitive procurement. Some, like the three private companies studied in this paper, have chosen to vertically integrate to a considerable extent. The main question is why they have done that and what advantages they see from being vertically integrated.

After a review of the theories of vertical integration it is concluded that, in the studies cases, there is no support for theories related to monopolization and only marginal support for theories that focus on contracting problems related to the so called hold up problem.

In all three cases management skills and a stepwise development of capabilities were relevant. The interpretation presented is that the companies realized that they were good at certain things and then saw opportunities to use and develop these skills in nearby markets.

Another important factor is that vertical integration gives information and more options that are important in small number bargaining situations. The companies bargaining power increases when they are better informed about e.g. costs and profits in nearby activities, and when they can use in-house units, if there are problems to find reasonable conditions on the outside market.

An important observation is that most of the units in these companies also sell on the open market, and that it is common that they both produce in house and buy similar goods and services on the market. This also means that the company more easily can evaluate the competitiveness of the internal units.

If we look at the results from the perspective of problems that a non-integrated actor, like the Swedish Transport Administration, has to solve, it points to two special challenges. The first is how to keep informed about the situation in the "other" market. What are reasonable costs and what are happening on the technological front? What tendered prices should be accepted and what should be turned down? The second main challenge for a non-integrated client is how to strengthen their bargaining position in small-number bargaining situations, where there are risks for implicit collusion and very high prices during boom periods on the market.

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1. Introduction

As discussed in Perry (1989) most industries are characterized by firms that vertically integrate to different degrees. Looking at the Swedish construction and real estate sector this observation seems highly relevant. There are actors who reduce vertical integration rather dramatically. The most important example is the Swedish Transport Administration (Trafikverket) that a little more than a decade ago could do everything in-house: planning, design, construction and maintenance. They have now changed to a strategy called "A pure client" where all design, construction and maintenance are outsourced. Even some parts of the procurements are outsourced. The growing number of real estate funds in Sweden (NIAM, Sveafastigheter, etc) also typically follow an outsourcing strategy when it comes to property management, primarily because they are "transaction intensive" and do not plan to own the properties more than 5-10 years (the life-span of the fund). On the other hand several large commercial property companies have moved more of property management in-house, e.g. Humlegården.

The starting point for this study was the observation that there seems to be a tendency towards less vertical integration in the construction and real estate sector, but at the same time there is a group of successful private companies that are vertically integrated. The main research question in this paper is to try to explain why these companies have chosen this integrated structure. Observations from these companies will be used to test the large number of theories about vertical integration that can be found in the literature. Another way to formulate the research questions is therefore: Which theories can best explain the integrated structure chosen by these companies?

Looking closer at the integrated companies would also create interesting lessons for the companies that chose not to integrate, because they will have to solve similar problems but in different ways. 12

In this article vertical integration is defined as when a company, or a group of companies controlled by the same owner, are active in different stages in a production chain. "Up-stream" companies are defined as those that produce an input to the "down-stream" firms.

The structure of the article is to first present the method used (section 2) and then the three cases are described in general terms (section 3) without discussing possible explanations. An overview of theories about vertical integration is then presented (section 4) and in section 5

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1 This aspect of the research question is especially relevant as the article was written in a project about procurement: ProcSIBE (www.procsibe.se): Procurement for Sustainable Innovation in the Built Environment.
2 Palm (2015a and b) compare information structures and how incentives are created when property management are carried out in-house and when it is outsourced. The general message is that both can work if designed in the correct way.
it is analyzed which of the different theories that best explain the three cases. General conclusions and lessons for non-integrated companies are presented in the final section.

2. Method

The companies studied here are well-known in Sweden and they were chosen because they are rather large and successful companies that is known to have a comparatively large degree of vertical integration. Information about the companies were primarily collected from three different sources:

- Websites of the companies.
- Documents from the companies, e.g. yearly reports.
- Interviews with managers/owners in the three companies and other well-informed persons. The companies were also given the opportunity to comment on an earlier version of this article.

In one of the cases – Skanska – earlier research presented in Mokhlesian (2014) has been used. Mokhlesian study is primarily based on a larger number of interviews with staff in the company.

The literature concerning theories of vertical integration was primarily found by using the databases available through the KTH Library, supplemented with material found through Google Scholar. The ambition was on the one hand to look at some classic and leading researchers’ texts (like Williamson 1971, Klein, Crawford and Alchian 1978 and Joskow 1985) and on the other hand research presented in recent years to make sure that the theoretical material is up to date.

3. A stylized description of the three cases

In an integrated company it can be questionable to talk about a certain part of their activities as core activities or as more central than the others. Still this will be done below but mostly for pedagogical reasons. What is called central activities below, marked in yellow in the diagrams, are typically also those where the turnover in the company is the highest, but it can also be interpreted as the activity that the company would be least willing to give up.
3.1 Pandox

This real estate company that specializes in hotel properties was started after the real estate crisis in Sweden in the early 1990s after which banks had taken over properties from real estate companies in distress. One of the major banks and Skanska merged their hotel properties, and already from the beginning in 1995 the strategy was only to own hotel properties. Initially Pandox owned properties in Sweden only, but later in entered the hotel market in a number of other countries, primarily in Northern Europe. This focus on one property type was at the time rather unique in Sweden. The company has continuously expanded from less than 20 hotel properties in 1995 to more than 100 today. In Pandox (2013) it calls itself "One of the leading hotel property companies in Europe".

In the hotel industry the most common structure is that there are 3 parties involved in a specific hotel: The property owner, the hotel operator that manages the hotel, and the company that controls the brand name and that also handles bookings. The relation between the property owner and the hotel operator is in Sweden typically regulated through a rental contract, and there exist a standard hotel rental contract that often is used. The rent is in many cases related to turnover to some extent. The operator can furthermore have a franchising contract with a company responsible for the brand name and bookings, but this contract can also take different forms.

Figure 1 below describes the structure in the Pandox company. The yellow "core" is the activity of Owning (O) hotels. Already from the start Pandox, however, also operates some hotels and that is the M in the diagram below. Initially they only managed some of their own hotels, but in recent years the company has started a separate Asset Management (AM) subsidiary that helps investors that want to buy hotels, and now it also manages some hotels owned by others than Pandox themselves.

Figure 1. The structure of vertical integration: Pandox

The Pandox company was initially owned by one major bank and Skanska. In the late 1990s it was put on the stock market, but in 2004 it was delisted and controlled by large Norwegian
investors. This can partly explain the Asset Management role of Pandox as these investors needed advice for other investments than the ones channeled through Pandox. In 2015 it was once again listed on the stock market.

3.2 Einar Mattsson

The Einar Mattsson company (or group of companies) is family owned and was started in the 1930s as a small construction company that built single family houses. It early moved into property development also and somewhat later into building and owning multifamily rental housing. Government loans for housing construction and allocations of municipally owned land made this possible. Property management was done in house. During the last decades the company has also started to act as developer of condominiums and seller of property management services to others. Today it is Stockholm’s biggest private owner of residential rental housing. The company today has four separate activities that is relevant from the perspective of this study:

1. It has a construction part that works as contractor both for other companies and when Einar Mattsson develops new properties. Around 50% of their own projects are built by their own construction company and the construction company are in more than the majority of cases working with other developers or property owners. Renovation projects are also part of what they do-

2. It works as property developer, both for new rental residential housing (that they always continue to own) and for condominium projects (“bostadsrätt”) that are sold to the co-operative that formally owns the apartment building.

3. It is the owner of a large stock of primarily residential rental housing, even if there are also some office space and space for retail and restaurants in these buildings. Most of this stock has been developed and built by the Einar Mattsson company, but they have also bought part of their current real estate stock on the open market, mostly projects that were in need of renovation. A rather recent acquisition was a large suburban stock build around 1970 that had been owned by a municipal housing company.

4. A property management part that manages the rental housing that the company owns, but also manages properties for other companies. They sell services both to other private landlords and to co-operative housing associations. Measured as square meter the external stock managed is today larger than the internal stock that they manage. The manage around 75% of the condominiums that they build.

Figure 2 below describes the structure: C stands for Construction, D for Developer, O for Owner and M for Property Manager. Notice that some of the external properties managed
by the Einar Mattsson company are in cooperative housing that was developed by the company.

Figure 2. The structure of vertical integration: Einar Mattsson

3.3 Skanska Sweden

Skanska is one of the largest project development and construction groups in the world. The core activity of the Skanska company in Sweden has historically been the work as contractor for construction work in the infrastructure and property sector. This also includes some maintenance works. In Sweden the company also has two other activities. The first is as a property developer for condominiums (co-operative housing). The properties are sold when they are ready and Skanska has no long run involvement in these developments, except during a rather short guarantee period.

The second is a developer of commercial properties, primarily office properties in the biggest cities. These are in most cases owned and managed by Skanska for some years but after that they typically are sold. In some cases Skanska may own them for a longer time period, and in rare cases they are sold before construction works are finalized but that is not part of the official policy.

Skanska has been involved in a number of Public Private Partnership projects in the UK and the USA, e.g. concerning prisons and hospitals. In Sweden there is only one such project - the New Karolinska Hospital in Solna - and this part of the company's activities will therefore not be discussed further in this paper.

Figure 3 below describes the parts of Skanska Sweden that are of interest for this study, where D stands for Developer, C for Contractor, O for Owner and M for Property Manager. They have in-house property managers but outsource much of the day-to-day work. They
often work together with the company Coor - a company that has a past as Skanska Facility Management that was sold in 2004 to international investors.

Figure 3. The structure of vertical integration: Skanska Sweden

4. Theories of vertical integration

As described in the overview in Perry (1989) the early literature on vertical integration focused on vertical integration as a strategy to reduce competition. The American competition authority e.g. forced the large film studios to sell of their cinema theaters in 1948 (see Gil 2015 for an analysis of the consequences). In the early 1970s Williamson published an important article (Williamson 1971) where he used theories based on Coase’s transaction cost concept and argued that vertical integration can be a tool to increase efficiency when there are relation specific investments. Similar ideas were presented in Klein, Crawford and Klein (1978) and vertical integration was here seen as a way to avoid the so called hold-up problem. In Afendulis (2011) theories about vertical integration are divided into two main groups:

"Typically, economic models assume that vertical integration is either driven by a desire to minimize transaction costs or a desire to foreclose competition." (p 18)

Bresnahan & Levin (2012,p 3) formulates the same idea when they argue that there are two very different literatures where one sees vertical integration as an efficient response to contracting frictions while the other sees vertical integration as a way of consolidating or extending market power.

The literature review however shows that there are a number of different versions of these two types of theories and also additional theories that focus more in the resources or capabilities of the firms. All in all, eight more specific theories of why firms choose to integrate vertically could be identified.
4.1. Vertical integration upstream as a way to reduce downstream competition

The classic case is where a downstream company buys an upstream company, and thereby reduces the possibility for competitors to buy from that firm at a fair price (see e.g. Pilsbury & Meany 2009). An example from the construction industry could be when a construction company buys a cement factory, or some other important input, and then increase the price for competitors if they want to by this input. For this anti-competitive strategy to work there must e.g. be high transportation cost and, for some reason, a lack of other upstream suppliers.

Hart, Tirole, Carlton & Williamson (1990), using a number of theoretical models, investigates under what circumstances vertical integration up streams can lead to reduced competition.

4.2 Vertical integration and the double marginalization problem

In this case there is assumed to be a monopoly both upstream and downstream. The upstream monopoly will charge their monopoly price when they sell to the downstream firm, and this price is higher than their marginal cost and therefore leads to a deadweight loss. The downstream monopoly buys at this monopoly price and then sells at its own monopoly price, which also is higher than the marginal cost and creates an additional deadweight loss.

It can be shown that under standard assumption the total deadweight loss would be lower if one of the monopolies bought the other and acted as one monopoly, see e.g. Berry (1989). Lafontaine & Slade (2007) present empirical information that is consistent with this view. Gil (2015) also shows that prices increased when vertical integration was forbidden in the film industry.

4.3 Vertical integration and the hold-up problem

The standard example of vertical integration driven by the hold-up problem is the relation between General Motors (GM) in the 1920s and the Fisher Body company that supplied most of the bodies for the cars (see e.g. Klein, Crawford & Alchian 1978 p 308f). In this case both companies depended very much on the other and Fisher Body had to make investments that only would be valuable if the relation to GM continued. This kind of situation creates uncertainty as the bargaining power of the investing party may be rather
low after the investment is made. To reduce the coordination problem, one of the companies could buy the other, and this is what happened in the specific case mention where GM bought Fisher Body in 1926.

Williamson (1971) argues that there are more control instruments within a company and “emphasize the differential incentive and control properties of firms in relation to market” (p 113) and “the wider variety and greater sensitivity of control instruments” (p 114) within a company, and argues that this is especially important when there are relations specific assets. He also argues that integration can be seen as a way to reduce haggling and the “indeterminacy of small number bargaining” (p 122). Klein, Crawford & Alchian (1978) analyze the same issue in terms of the risk for post-contractual opportunistic behavior when transactions are made on the market, compared to when they are made in-house, given that there are considerable quasi-rents created by the relation specific investments.

In the famous study on contractual structure and degree of vertical integration in the relation between coal mines and coal-burning plants Joskow (1985) ends the article with the following words (p 77) “Overall, I have found the transaction cost framework to be an extremely powerful vehicle for gaining a better understanding of the nature of vertical supply relationships between power plant owners and their coal suppliers.” Lafontaine & Slade (2007) also finds that backward integration is more common when there are specific investments and also when there are more complex inputs and more uncertainty.

In this literature vertical integration is therefore described as something that increases efficiency and it should therefore lead to lower prices. This is supported in e.g. the study mentioned by Gil (2015) mentioned above. ³

4.4 Vertical integration, transaction costs and undeveloped markets

In the vertical integration literature some authors use the transaction cost framework, but do not focus only on situations where there are relations-specific investments as in the classical hold-up problem. In a study by Acemoglu, Johnson & Mitton (2009) data are presented that indicate that the more reliable external markets are (lower contracting costs), the less vertical integration there is on the market. He also finds a relation between how developed financial markets are and the extent of vertical integration, as vertical

³ It should however be mentioned that in the property rights literature discussed in e.g Whinston (2003) it is argued that it is not necessarily the case that moving activities in-house reduces co-ordination problem and incentive problems. In the end this is an empirical issue, but in the rest of this paper it is assumed that the transaction cost schools is correct in their view that these possibilities differ between in-house and outsourced activities. Real estate related examples of such differences can be found in e.g Palm (2015a, b) that studies property management.
integration in general presuppose larger companies and then they need a well-functioning capital market to finance such a large company. Their empirical results furthermore shows that vertical integration seems more common in capital-intensive industry which is in line with the hypothesis that the hold-up problem lead to more vertical integration. The idea that vertical integration should be more common in early stages of economic development was presented already in Stigler (1951) who based his arguments on Adam Smith’s idea that the size of the market limits the degree of specialization. Lehmberg (2015) writes:

"Theory suggests that early in the development of an industry, firms may have little choice but to vertically integrate because the small market size blocks the emergence of potential suppliers and the development of intermediate markets" (p 2)

Fan, Huang, Mork & Yeung (2009, p 44) also find support for this:

"Patterns of vertical integration in China correspond well to likely regional transactions cost differences. Firms are more vertically integrated in provinces with weaker property rights protection, worse government, and laggard market reforms. Firms whose managers have closer ties to bureaucrats are also more vertically integrated."

4.5 Management skills, capabilities and experience

Argyres (1996) argues that vertical integration can be related to the firms "capabilities". One interpretation of this is that more random factors, like the skill and experience of the companies top management team, can influence whether the firm chooses to do something in-house or buy it on the market. This might create a situation of path-dependency where an earlier choice led to the development of certain "capabilities" that now make it rational to continue on the same path. He presents case studies where he tries to identify the specific factor behind a number of decision in a company whether to buy on the market or produce in-house. In a later article Argyres & Zenger (2012) discuss capabilities from a more dynamic perspective and how transactions cost arguments can explain why it can be rational to develop certain capabilities, or buy companies that has these capabilities. The development of the Disney Corporation is used as an example.

Hortacsu & Syverson (2007) studies the cement industry and finds that vertically integrated firms are more productive, but argue that this might not be related to vertical integrations as such. They summarize their results in the following way:

"On the whole, this evidence, both anecdotal and from our data, appears to suggest that vertical integration per se might not be the primary source of integrated producers’ productivity advantage. Rather, integrated produces, as with any producer with sufficient size and perhaps the necessary complementary managerial talent, even one with a purely horizontal organization - seem to be able to take advantage of the logistical coordination gains." (p 293)
Atalay, Hortacsu & Syverson (2014) also points to empirical evidence indicating that trade among vertically integrated firms can be relatively low and that vertical integration can be rational if higher quality intangible inputs (e.g. the best managers) are used across a greater set of activities. Gulbrandsen, Sandvik & Haugland (2009) shows that vertical integration is more likely if there is a closeness in the competences needed for the different activities, but also that asset specificity is important.

4.6 Vertical integration as a way to protect information

Brickley, Linck & Smith (2012) points out that if one firm vertically integrates then this might lead to other firms following after: If a downstream firm buys from an upstream producer that is vertically integrated with a downstream competitor, then the upstream firm can get information that it will share with the downstream competitor. In that case it might be rational for the downstream company also to vertically integrate backwards to avoid this type of information sharing.

4.7 Vertical integration as a way to enter a market

Bresnahan & Levin (2015) notes that vertical integration can be a way of entering a market and thereby increase competition. An example from the real estate industry is given in Lind & Kopsch (2014) that note that a foreign bank bought a real estate agent chain in Sweden, because the bank in that way could come into contact with potential customers for their mortgage loans. In that way competition in the mortgage market increased. Lee (2013) shows that in the videogame market exclusive titles for a certain console (which can be seen as a form of vertical integration) can make it easier for new firms to enter the market and thereby increase competition. Vertical integration by a producer into the retail market can also be seen as such a way to make it easier to reach customers and increase competition in the retail market, see e.g. the case discussed in Lafontaine & Slade (2007).

4.8 Vertical integration as a way to reduce problems related to small number bargaining

There is a factor that is mentioned already in passing in Williamson (1971, p 122) and that is what he calls "the indeterminancy of small number bargaining". Even if he relates this to asset specificity, this can be seen as more general problem and not necessarily related to asset specificity, but simple to a market where the number of competitors are rather small.
This will be returned to in the cases below and it can also be seen as one example of what Perry (1989, p 206) calls "The traditional business explanation for vertical integration" which "is that firms want to assure that supply of inputs and their market for outputs". Caves & Bradburd (1988, p 277) sees this as a separate aspect of transaction cost theory: "The chief empirical predictors of vertical integration coming from the transaction-cost model are small numbers of transactors on both sides of the market ex ante and the prevalence of transaction-specific assets and switching costs" (p 268).

5. Evaluation of the theories in relation to the cases

The literature review has led to the identification of eight separate theories or explanations of vertical integration. The list of possible explanations should be read in such a way that in each following step it is assumed that none of the earlier explanations are relevant. When we come to theory 5 and 8, for example, it is assumed that there are no relation specific assets.

1. Vertical integration to reduce competition by shutting competitors out from supply.
2. Vertical integration to avoid the double marginalization problem.
3. Vertical integration to reduce the risk of moral hazard when there are asset specific investments (hold-up problem), or more generally a complex contracting situation.
4. Vertical integration as a response to undeveloped markets in general.
5. Vertical integration as a way to increase efficiency when the firm has certain skills and capabilities.
6. Vertical integration as a way to protect information.
7. Vertical integration as a way to enter a new market in order to reach customers.
8. Vertical integration as a way to reduce problems related to small number bargaining.

In the analysis of the three cases in the next section these eight separate theories of vertical integration will be tested against the information about the cases.

5.1 Pandox

Some irrelevant theories

All three markets where Pandox act are reasonable competitive. There are a number of companies that give investment advice, there are many different hotel owners and a
number of hotel operators. Pandox did not enter the operations or the asset management market through acquisitions and it cannot have led to reduced competition.

As neither market was monopolized from the beginning, the double marginalization argument cannot be relevant neither.

There is no risk for any hold-up problem in the classical sense since the relations between the parties did not presuppose any large physical investments that only were useful in that specific relation. It is also hard to argue that there are any specific human investments needed, at least in a city with a rather large hotel market. Even if the operator gains some special skills in operating one hotel, this skill can be almost as valuable when operating another hotel in the same market. As we will be returned to below, there is a special case when a hotel is renovated, where contracting becomes more complex and vertical integration can give contractual advantages.

Another theory that can be put aside is the theory where vertical integration is used because the market/economy is at an early stages of economic development, before well-functioning markets have developed and where the legal system covering the market sector is not well-developed or reliable. Pandox is working in some of the most transparent markets in the world (see e.g. JLL real estate transparency index, JLL 2014) so any general problems with underdeveloped markets and/or legal systems cannot explain vertical integration.

Looking at the more promising theories we start with asking why Pandox entered the upstream market of asset management.

Vertical integration upstream into asset management

This vertical integration into asset management seems to be rather clear cut case where management skills and capabilities developed over many years can be used in an additional area. Owning, and buying and selling, a large number of hotels over the years, Pandox learned how to identify potentially profitable objects and to write good contracts with operators and other aspects of being a hotel owner. These skills can then be used to help other investors to enter the hotel market in a profitable way. Pandox long and broad experience as owner and from the transaction market should give them a competitive advantage over other advisors.

From Pandox (2013) one can learn that the asset management activity seemed to start when one of the owners of Pandox needed help in taking care of a hotel that this company owned. This then developed further into investment advice.

The problem with this type of upstream vertical integration is that Pandox may end up giving advice to their competitors, and then of course the other hotel owner may question whether Pandox really are giving the best advice. A necessary condition for the model to work is that
the role of asset managers to other hotel owners are limited to cities or submarkets where
Pandox is not active themselves, and that it is a market that they do not plan to enter. From
this perspective the traditional advisors, who only act as advisors, would be more credible,
but on the other hand Pandox as asset managers may have a somewhat broader role and
can continuously work with the contractual relations in the hotels as they also work with the
operation of hotels. They can also offer hotel operating services if that is necessary.

Vertical integration downstream into operations

In Pandox (2013) there are a number of statements that suggest why they operate a specific
hotel. First they write: "This business model is used when there is no suitable partner with
whom to sign a lease". One interpretation of this is the following. The market for operators
of a specific type of hotel in a specific city is a rather thin market with a limited number of
potential operators. In some situations there may not be several operators who are very
keen on operating the specific hotel and the owner will not be able to get a good contract
with an operator in this situation.

Behind this first motive, there is actually a second motive, even if that is not explicitly stated
in the text, and that relates to information. By operating hotels the company knows the
economic situation of an operator, it knows the economic potentials of a specific hotel and a
specific hotel contract, and therefore it knows what is a reasonable contract and a
reasonable rent level in a specific market. If no external operator is willing to enter into such
a "reasonable" contract, then Pandox can operate the hotel themselves.

The fact that Pandox can operate the hotel themselves gives them a stronger bargaining
position for all of their hotels as they can credible threaten to operate the hotel themselves
if no external operators are willing to sign a "reasonable" contract.

There are some similarities between this case and the case where a company could enter
the retail market either directly or through a franchise: By making it clear that they have the
option to enter the market directly, the producer also strengthens its bargaining position in
relation to potential franchisers and general retail chains.

The ability to operate a hotel is also an advantage in their asset management role. If they
advise an investor to buy a certain hotel, and there are uncertainties about the future of the
hotel operations then Pandox can offer to operate the hotel on reasonable terms.

A further but more special motive for operating a hotel themselves are indicated by the
formulation that they operate themselves "if the hotel is in need of extensive development
work". This motive fits very well with a theory about contracting problems in complex
situations. As a renovation project contains a lot of uncertainties and as these can affect the
income of the operator, regulating the renovation process in a contract with an external
party can be difficult, at least if there is not a long term relation between the parties. It will then be more efficient to operate the hotel themselves during the renovation process as decisions then can be made by one party who takes all the consequence into account.

A further more recent reason for expanding their operation part is suggested by the following formulation "Most international hotel companies have surrendered their role as operators and become more focused on branding" (Pandox 2013, p 3). This also shows how strategies in some companies affect strategies in other companies. When some companies reduce their vertical integration and primarily focus on branding, then this gives room for other companies to expand when competition is reduced in one of the activities, in this case the operation part. The change in the market opens an opportunity to use the capabilities that the company have in more cases.

Finally there remains two general questions. The first is the classical one about how to make sure that the in house operations are efficient. It should first be observed that the different activities now are carried out in separate legal entities and that profits therefore are observable for each unit. It is also important for checking the efficiency of the in-house activity that the operations part of the company can be evaluated by comparing with the terms they get with external operators. They can compare their own operations with other companies operation and learn from other and make sure that their own operations are efficient. As they also operate other owners' hotels, even if this is a smaller part, they must at least be as efficient as others as the external owners otherwise would have selected another operators. The operations part can therefore be benchmarked in a number of ways.

A final questions is to what extent other hotel owners are using the same model and how one can explain why not everyone is doing it. There are several possible explanations why not all property owners have chosen the same model. There might be completely different business models to reach an efficient structure, e.g. a much more passive ownership model with long-term contracts that put more responsibility and power on the operator. A company may use a model where the owner has a long term cooperation with an operating company in some kind of partnering relation, where the owner feel that they do not need to have a operational part, especially if they own a smaller number of hotels. Starting up an hotel operation part from scratch is always risky, and it can be observed that Pandox started this in a very small scale and has then be able to develop it over time. When Pandox started in 1995, just after the real estate crises, there had also been a large number of bankruptcies among hotel operators (see Lind 1995) so using external operators could be seen as especially difficult and risky at that special time. The incentives to start an operation part in the new company was therefore strong. There might always be special historical circumstances that can explain why certain capabilities are developed.
Summary

The table below summarizes the results above. A minus sign means that theory is not relevant, a plus sign in parentheses means that the theory is partly relevant and a plus sign means that the theory is highly relevant.

Table 1 Explanatory power of different theories: Pandox

<table>
<thead>
<tr>
<th>Theory</th>
<th>Explanatory power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shutting out competitors</td>
<td>-</td>
</tr>
<tr>
<td>Avoid double marginalization</td>
<td>-</td>
</tr>
</tbody>
</table>
| Hold-up problem                | (+)
| Undeveloped markets            | -                 |
| Skills and capabilities        | +                 |
| Protect information            | -                 |
| Enter new markets              | -                 |
| Reduce small number bargaining problems | +               |

5.2 Einar Mattsson

Some irrelevant theories

As in the Pandox case the theories that focus on limiting competition seems irrelevant. There is a considerable number of construction contractor companies, and there is today a considerable number of property management companies. It should also be noted that vertical integration is not a recent phenomenon in the company and it did not start with buying up an independent companies in order to reduce competition. There is also a number of private housing companies and there is also a rent regulation system that makes the double marginalization problem irrelevant.

Neither construction activities nor property management use equipment that only can be used in relation to a specific customer, so the classical hold-up problems also seems irrelevant. The same hold for arguments about general contracting problems related to undeveloped markets. Most residential housing companies, both municipal and private, use external contractors when they build and there are standard contracts that can be used (ABT, ABB). There are also standard contracts for property management (AFF) that many companies use, even if in-house management is more common that outsourcing for Swedish residential housing companies. All this implies that there should not be any major general problem with using external construction contractors and external property management companies.

4 Only for renovation cases.
The company however pointed out that there is one situation where vertical integration reduces contracting problems and that is when a small property owner need to renovate their residential rental problem. In this case being able to offer both construction services and property management services as one package gives a competitive advantage. As there is strong tenant protection in Sweden it is important to be able to inform and interact with the tenant and get their permits during the renovation phase. A small property owner will have difficulties doing this and there can be coordination problems if the property owner should higher one firm to handle the interaction with the tenants and one firm that do the construction works.

Theories about vertical integration that refers to the need to hide information also seems rather irrelevant as both construction and property management is based on general skills that is known by many actors on the market. The “final” customers of Einar Mattsson are primarily private households and these can easily be reached through advertising, so vertical integration is not needed to reach customers. The rent regulation system also means that there are queues to rental housing in most areas. This means that there are even less reasons to integrate forward into property management in order to reach customers.

More probable explanations

One similarity between the Pandox case and the Einar Mattson case is that these companies are viewed as having very competent managing teams. Starting as a small construction company many decades ago it was logical to enter into the role of developer and also property owner/manager when the company found that it could compete in new markets. If a company has been successful as developer of rental housing, it was also logical to enter the market for development of condominiums during the last decade as prices of condominiums have increased quickly. Management skills and capabilities therefore seem highly relevant.

If the company has developed an efficient in-house organization it is also logical to use these skills to start to sell property management service. When the company starts to develop condominiums, it also an advantage to be able to offer management services to cooperative housing organizations. During the last 20 years around 100 000 apartments in central Stockholm have been converted from rental housing to condominiums, and this has also opened up a large market for property management services.

Even if the market for contractors are “reasonably” competitive still there can be situations where the developer has difficulties in finding a competent contractor at a reasonable price, and the same might occur in the market for property management services. Having possible suppliers of these activities in-house reduces the risk of what might be called temporary low competition. According to the company this is typically the case during a boom on the construction market where project could have been delayed or become very costly if they
did not have in internal construction company. (During such a period the price paid to the construction will not reflect the current market, so the profit from being able to use the internal company will show up in the developer part of the company.)

From the perspective of the construction contractor part of the company, having a developer within the same ownership-sphere also reduces risk, as it might be possible to work for an in-house developer if there is low demand on the outside market.

Most large residential property owners are carrying out property management mostly by in-house staff so there is no special explanation for why Einar Mattsson has chosen to do this. The most general arguments for in house property management is that it gives top management more information and that it gives more flexibility.

A general problem with internal activities is to keep them competitive, but in the Einar Mattson case both the construction part and the property management part sell services on the open market and their quality and price can therefore be evaluated relatively easily. The construction part do not compete for construction jobs internally, but are allocated projects by central decisions, but then the details are bargained by the parties.

Summary

The arguments above are summarized in Table 2.

Table 2  Explanatory power of different theories: Einar Mattsson

<table>
<thead>
<tr>
<th>Theory</th>
<th>Relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shutting out competitors</td>
<td>-</td>
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<td>Avoid double marginalization</td>
<td>-</td>
</tr>
<tr>
<td>Hold-up problem/contracting problem</td>
<td>(+)</td>
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<tr>
<td>Undeveloped markets</td>
<td>-</td>
</tr>
<tr>
<td>Skills and capabilities</td>
<td>+</td>
</tr>
<tr>
<td>Protect information</td>
<td>-</td>
</tr>
<tr>
<td>Enter new markets</td>
<td>-</td>
</tr>
<tr>
<td>Reduce small number bargaining problems</td>
<td>+</td>
</tr>
</tbody>
</table>

5.3 Skanska Sweden

Some irrelevant theories
As in the earlier cases, theories that see vertical integration as a way to limit competition seem irrelevant. There is a considerable number of real estate companies who could take on the role of developer for the kind of office properties that this study focus on. Avoiding double marginalization also seems irrelevant.

There are no relation specific assets (no hold-up problem) and no especially complex contracting situations. Acting as contractor only is something that Skanska does most of the time and there are in Sweden standard contracts regulating the relation between developer and contractor. The same hold for arguments about general contracting problems related to undeveloped markets.

As will discussed in the next section, there are however specific contracting issues related to introduction of new techniques that can be important for deciding to vertically integrate.

More probable explanations

The arguments presented in Mokhlesian (2014) point to asymmetric information as the main background factor for why the company choose downstream vertical integration into developer (and as a result of this and short term property manager, was judged to be profitable by Skanska. The idea is that the company has knowledge of new (green) technologies that they believe will work, but where it might be difficult to convince an independent developer of the value of this new technique.

In order to understand this better we have to start with the more general question why a contractor choose to enter into the business of being a developer and own an office property before selling it? As long as the company only works as a contractor with design-bid-build contracts, then all kinds of innovations are in the hands of the client. Now, suppose that the contractor, especially an internationally active one, has their own ideas about how things can be done and also develop new techniques of their own. To make money out of this superior knowledge there are at least three possible ways.

1. **Convince a client using a design-build-bid (DBB) contract to use the new technique**, and that the client either be willing to pay extra for higher quality and pay the same for a cheaper technique. Nyström, Lind & Nilsson (2015) discuss an example of this, and the method is then that the contractor is involved in an early stage of the project and the parties then agree on the design with the new technique and write as a DBB-contract.

2. **Work with a Design Build contract**, where the client specifies functional demands and the contractor then makes the design and takes responsibility for that the techniques chosen lead to a building that fulfill the functional demands specified by the client. There is a trend towards using DB-contracts to a larger extent today in Sweden, but from the perspective of using new techniques the risk might be difficult for the contractor to handle within a DB-
contract. One aspect is that the client still is responsible for the management of the building and this creates uncertainty. If something goes wrong with a technique in someone else’s building, the contractor cannot control the process as any corrections have to be done in cooperation with the developer/owner. This creates additional risks. In a DB contract the “downside” risk is taken by the contractor that has to pay extra if something goes wrong, but if the technique turns out to be very successful, then the client will reap the profit.

3. Being a developer themselves. Introducing innovations as a developer and not only as a contractor in a DB-contract has a number of advantages:

- The company has full control of the project and can make any adjustments they like without consulting an independent client. They can test new techniques just as they like and if it turns out that certain functional demands cannot be made, then the company can choose not to fulfill them and maybe accept a somewhat lower price instead of taking the cost of reaching a predetermined functional demand. (The renegotiate the functional demands in the original DB-contract would be a more unpredictable path.)

- The company can keep information about the details of the new technique secret to a larger extent when they do not have to interact with a client during the construction process.

There are also other possible advantages, beside the one related to new techniques, with being a developer/owner and a contractor at the same time, just as in the Einar Mattsson case:

- It might open opportunities to stabilize demand for contractor services.

- It will improve “learning by doing” as the company can learn about how the building works and how it must be management. In that way it can reduce the risk in the construction stage, e.g. when they work with a DB-contract.

An important risk reducing aspect is also that the company does not have to sell the building at a specific time as they can manage the building for a number of years. This means that they can wait until “the right moment” comes for selling the building.

Potential problems of the strategy

The first potential problem is that the company needs more capital in order to act as a developer. It needs to buy land and finance the building activities and then wait a few years before it can sell and get the capital back. For a big international actor like Skanska financial aspects should however not be a problem, both because they have capital themselves and because they should be an attractive customer for the banks.
The second problem is that the strategy implies that the company has to find tenants to the office buildings, something that they did not have to worry about when they worked as a contractor. Skanska has chosen to build up this competence in house, and have their own staff working with finding tenants and marketing. There are, however, also a number of consultancy firm that could help with that. In some cases Skanska also have to option to use the buildings themselves for some years, while they look for tenants with a good reputation and a high willingness to pay. In some cases a large prospective tenant is also involved in the project from the beginning and then Skanska only has to find tenants for the remaining areas in the building.

A third question is why it can be enough to own the building a rather short period. Can the advantageous discussed above materialize even if the developer sells the building after 2-5 years? An underlying assumption could be that eventual technical problems will show up rather immediately and that the building will continue to work well for many years if it has worked well the first years. In reality Skanska has long term relations with some of the investors and then have a strong incentive to make sure that the buildings also work well in a longer perspective. Skanska is also involved together with the buyer in following up data for the building and together more long-term evaluations are made, and thereby they get more information about the building works in a longer time period and can use this knowledge in future projects. (The company also pointed out the horizontal integration, working in many countries with similar project, is important for their knowledge about possible technical alternatives and how various technical solutions work. It also makes it possible to take on larger tasks.)

**Summary**

The arguments above are summarized in Table 3.

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5 It can be noted that experts have argued that if there are any problems with the construction of a specific road segment these problems will show up within approximately 8 years (Nyström et al 2015). It is not possible to design a road in such a way that it works well for 10 years and then suddenly breaks down.
### Table 3  Explanatory power of different theories: Skanska Sweden

<table>
<thead>
<tr>
<th>Theory</th>
<th>Relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shutting out competitors</td>
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<td>-</td>
</tr>
<tr>
<td>Hold-up problem</td>
<td>-</td>
</tr>
<tr>
<td>Undeveloped markets</td>
<td>-</td>
</tr>
<tr>
<td>Skills and capabilities</td>
<td>(+)</td>
</tr>
<tr>
<td>Protect information</td>
<td>(+)</td>
</tr>
<tr>
<td>Enter new markets</td>
<td>-</td>
</tr>
<tr>
<td>Reduce small number bargaining problems</td>
<td>+</td>
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</tbody>
</table>

### 6. Analysis

In table 4 the results from the three case studies above are summarized, and in this section the focus will only be on the theories and aspects that seems to be relevant to explain the vertical integration in these cases.

### Table 4  Explanatory power of different theories: Overview

<table>
<thead>
<tr>
<th>Theory</th>
<th>Pandox</th>
<th>Einar Mattsson</th>
<th>Skanska</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shutting out competitors</td>
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<td>-</td>
<td>-</td>
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<tr>
<td>Skills and capabilities</td>
<td>+</td>
<td>+</td>
<td>(+)</td>
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<td>-</td>
<td>(+)</td>
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<td>Enter new markets</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Reduce small number bargaining problems</td>
<td>+</td>
<td>+</td>
<td>(x)</td>
</tr>
</tbody>
</table>

The only situation where complex contracting factors seemed relevant was for Pandox in the special case when a hotel was renovated, and where many uncertainties would have made it more difficult with an external operator.

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6 Only for hotels going through a renovation.

7 Only when they sell integrated renovation services including construction and property management services.
In all three cases management skills and a stepwise development of capabilities were relevant. My interpretation is that companies realized that they were good at certain things and then saw opportunities to use and develop these skills in nearby markets. Einar Mattsson started as small contractor company but then ventured into both project development and into long term owning and managing of residential properties. Skanska has moved in the same direction, but only into short-term owning and managing.

There were however also specific historical circumstances that contributed to the development of their strategies. When Pandox was started after the real estate crisis in the early 1990s, the market for hotel operation was not working very well. In recent years new opportunities for Pandox have opened up as other actors have left the market of hotel operations. In similar way the price increases on the condominium market in Stockholm, and the large number of conversions from rental apartments to condominiums, have created possibilities for Einar Mattsson to act as a developer also for condominiums and to sell management services to the cooperate housing associations that manage the condominium buildings.

The only case where innovation and an interest in protecting information is directly relevant is in the Skanska case. In this case knowledge developed as a contractor can be used to introduce new techniques and take both the up-side and the down-side risk of this new technique. Introducing the technique in your own building also makes adjustment during use simpler. If everything works as planned the building can be sold to especially to long term institutional investors who are willing to pay a high price for new “reliable” buildings with “reliable” tenants and rather long-term rental contracts.

Necessary conditions for both Skanska and Einar Mattsson are that they can raise enough capital and also be able to bind more capital in real estate, but both companies have over the years developed a strong financial base and also good relations to banks. In the early stages of the development of the Einar Mattsson company generous government loans to developers of rental housing was also important.

Perhaps the most important and interesting aspects that can be found in all three cases is that vertical integration is related to small-number bargaining situations and that vertical integration increases flexibility and bargaining power in these situations. Several different dimensions can be identified:

- Vertical integration increases information. A developer that has a contractor part, and a hotel owner that also operates hotels, e.g. knows what things cost and can better evaluate what is a reasonable offer. Information from the management stage can give information that is useful for the developer and/or construction stage.
- Vertical integration opens up new options: If it is difficult to find an external company that are willing to carry out a task at a reasonable price, then it can carry out this in house. Or if the contractor company has problems to get jobs, there might be
possible to adjust the plans for the developer part to find work for the contractor part.
- The combination of better information and more options increases bargaining power in relation to external companies and this reduces risk in general.

But successful vertical integration also means that certain challenges have to be met. All three companies have now chosen to put the different parts in different subsidiary companies, but completely owned by the mother company. In this way the efficiency of the different parts are easier to monitor, and it would also be more credible to threaten to sell the part if they do not cooperate with other parts of the group. In the cases above the different subsidiaries also competes for work on the open market and that should also increase competitive pressure on the different parts. Putting the different parts in different companies can however reduce the incentive to cooperate, and reduce information flow between the different units. Leiringer, Green & Raja (2009) analyze a company that both worked as a construction contractor and as manager of Public Private Partnership projects, and argue that there were different cultures in the different parts of the company and that co-operation and information flow did not work very well even if it was within one group of companies with the same owner. A strong central management unit and the hiring of the “right” kind of staff will be necessary conditions for vertical integration having the advantages described above.

7. Conclusions

The main classical theories of vertical integration cannot explain the cases studied here. It was not about reducing competition and not about contracting problems related to relation-specific investments. Instead the explanations of the cases, with some minor differences could be related to a combination of "capabilities", better information and increased flexibility and bargaining power in small-number bargaining situations. In the Skanska case risks related to the introduction of new techniques also played a role.

If we look at the results from the perspective of problems that a non-integrated actor, like the Swedish Transport Administration, has to solve, it points to two special challenges. The first is how to keep informed about the situation in the "other" market. What are reasonable costs and what are happening on the technological front? What tendered prices should be accepted and what should be turned down, and perhaps a new procurement carried out? In order for the client to be able to formulate functional demands in a rational way, it is necessary to weight marginal costs and marginal benefits for different functional levels, and this is difficult if the client does not have a good estimate of the costs for different functional levels. The second main challenge for a non-integrated client is how to strengthen their
bargaining position in small-number bargaining situations, where there are risks for implicit collusion and very high prices during boom periods on the market. One alternative to vertical integration might e.g. be working with long term partnering relation with different types of suppliers and contractors. But this is not the right place to discuss this further.

References


