

Master thesis: Is the European e-invoicing market ready for collaboration?

Report for respondents

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Executive summary

In my master thesis I examined the perceptions of different e-invoicing providers towards two shared platform strategies; the *bilateral agreement* and the *multilateral agreement* based on a four-corner model. In a survey among a representative group of actors in the e-invoicing space, data was gathered for a thorough quantitative analysis, supplemented by qualitative data.

Two-sided markets, like e-invoicing, cope with 'winner-take-all dynamics'. At some point, companies have to choose between fighting for dominance and sharing the platform. In the European e-invoicing market there are hundreds of service providers competing for the same customers. According to the European Commission, broad-scale adoption of e-invoicing (especially in the SME segment) is still lacking. Literature on two-sided markets indicates that this might be the result of a battle for dominance, which indirectly impedes the uptake of new technologies and innovations. Sharing the platform might be a way out of this deadlock, but this has not yet happened on a large scale.

In my thesis I used general theory on innovation adoption to study attitudes towards two different shared platform strategies that are proposed as innovations, and the willingness to adopt the innovations is tested among European e-invoicing service providers.

Four so called 'innovation attributes' (relative advantage, complexity, compatibility and uncertainty) and two 'adopter characteristics' (size and industrial tenure) were tested as predictors for the intention to adopt (one or both of) the shared platform strategies (i.e. bilateral agreement and multilateral agreement based on four-corner model).

Compatibility, complexity and size were found to be significant predictors of the innovation adoption for both shared platform strategies. Compatibility showed a very strong *positive* predictor of the intention to adopt, meaning that compatibility of the shared platform strategy with a company's vision, service offering, business model, services and employee activities strongly increases the likelihood of adoption.

On the contrary, complexity was found to be *negatively* related to the intention to adopt and should, therefore, be kept at a minimum. Complexity encompasses the understanding, implementation, actual cooperation with competitors, technical requirements and governance of the shared platform strategy.

Size showed a significant *positive* effect on the intention to adopt, indicating that larger companies are more open to adopt the shared platform strategy than smaller ones.

Furthermore, the results showed that the intention to adopt the four-corner model was higher than the bilateral agreement. Despite this willingness to collaborate, there is still one big challenge that needs to be addressed according to the respondents; "the issue of interoperability".

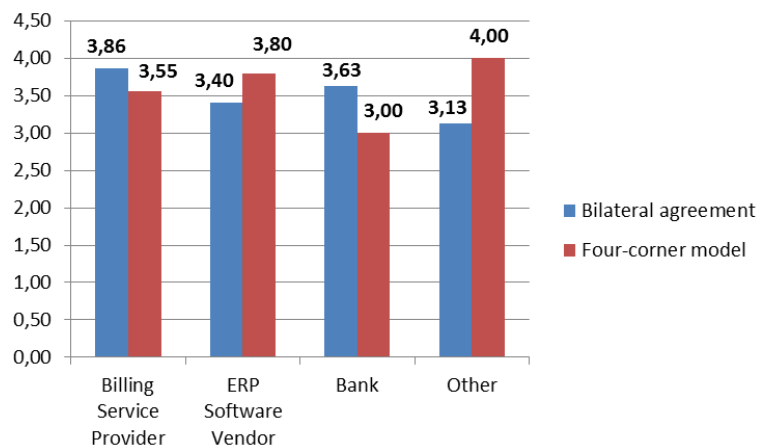
The following is recommended:

- Companies that are now ready to engage in a four-corner model should look for possible partners to set up collaboration. Focus should not be on convincing parties that are not ready yet, because they will delay or terminate the process.

- Once the four-corner model is in place, it is likely that other parties will soon follow, because of the strong and positive cross-side network effects (between senders and receivers).
- Governments should facilitate this process, through harmonization of the legislation between European member states. This will ease cross-border traffic and decrease complexity for E-invoicing service providers and their customers.

Main results

The following table shows the average scores of the intention to use either cooperative model, categorized by the role of the respondents.



The Billing Service Providers that participated in this study prefer the bilateral agreement over the four-corner model. This might be attributed to the recent development of the EESPA (European E-invoicing Service Providers Association) agreements among service providers.

The opposite holds for ERP Software Vendors. The qualitative data provided more insight in this result and will be discussed in more detail in the following paragraph. Banks are neutral regarding the adoption of the four-corner model and more positive about the bilateral agreement. The respondents in the “Other” category (i.e. consultants, e-commerce service providers, both inbound and outbound invoice solution providers, purchase-to-pay software providers and SWIFT partners) show a strong preference for the four-corner model.

Greatest challenges for e-invoicing

This paragraph elaborates on the greatest challenges for the European e-invoicing market according to the respondents.

First, solving the interoperability issue is considered to be the greatest challenge, indicated by two-third of the respondents. Some service providers are protecting their networks by refusing interoperability or through setting high roaming fees. Other players are uncertain about the added value of their services and, more importantly, afraid to lose their position in the market. It was suggested that service providers in the e-invoicing arena need to overcome the fear for competitors and focus on their own added value towards the market. It is important to keep in mind that the ultimate goal is to maximize the *value* of your technology, not your *control* over it. This study indicates that there are plenty of companies willing to cooperate. Focus on possible partners should,

therefore, be on companies that are willing to cooperate, rather than trying to convince companies that seek to dominate the market on their own.

Secondly, agreement on a standard(s) is necessary to enable interoperability. There is a wide variety of standards, but for efficiency reasons it seems easier to choose one existing standard. Furthermore, standards are just a means to an end, as such it was suggested to just agree on one standard and focus more on the value creation for the end-user.

Thirdly, offering more compelling value propositions for SMEs. Some providers disagree and argue that their solution is already attractive for SMEs. Others indicate that a business model change is required. Using large buyers (receivers) as a sales channel to onboard sellers (senders) is not the right way of maximizing the value of a service provider’s technology. There are already service providers with attractive SME features, such as cloud based, self-service paradigm and freemium business model. Software vendors might be part of the solution to establish a collaborative model. A frequently voiced opinion is that the establishment of a single standard between these parties will solve the SME problem, as it would give ERP vendors the confidence (of longevity and interoperability) to embed it in their import/export capability.

Fourth, legal requirements between EU member states differ, while harmonization is necessary for cross-border communication. It seems that the government is lagging behind regarding its harmonization efforts, despite the fact that e-invoicing is on top of The Digital Agenda for Europe.

Fifth, some companies offer compliance to their customers, where others do not. However, a four-corner model should facilitate participation of all type of market players, irrespective of their business model and service offering, if inclusivity and reach are to be established.

Sixth, addressing should be properly implemented. With both the bilateral agreement and the four-corner model an address book should be available, so that counterparts can be identified and reached. The respondents indicated PEPPOL (Pan European Public Procurement Online) as an adequate solution for addressing and routing.

Sample characteristics

E-invoicing experience ranged from 1.5 to 30 years, with an average of 7 years. The majority of respondents (65%) generate revenues from both senders and receivers of e-invoices. Approximately 22% collects their revenue from senders and 13% from receivers only. Companies of various sizes participated, with an average of 12.305 employees. 38% of the respondents indicated that they are involved in bilateral agreements, while 19% is engaged in some form of multilateral agreements.

