Barriers in XBRL based Interagency Accounting Information Sharing: Qualitative Evidence from Indonesia

Research-in-progress

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Abstract

The purpose of this research is to examine barriers in eXtensible Business Reporting Language (XBRL) based interagency information sharing (IIS). Based on the theoretical framework, this study attempts to validate existing obstacles and identify potential new barriers in the context of Indonesia. This study employs a qualitative approach by interviewing some key informants from Indonesian government agencies.

As the preliminary findings, the research disconfirmed different geographic areas as the barrier. We found that law/policy might be either a barrier or a success factor. Lastly, the diverse needs of data granularity levels can be a barrier for the IIS.

As future research work, the study will examine whether the barriers outlined in the theoretical framework also apply to Indonesia (as a non-western country). This study's results may not be generalizable beyond Indonesia, but this study will also investigate whether there are similarities/differences against other studies conducted in non-western countries.

Keywords Accounting Information System, Accounting Information Sharing, eXtensible Business Reporting Language, XBRL, Business to Government (B2G) Reporting.

1 Introduction

Interagency information sharing (IIS) is the capability of government agencies to acquire, own and apply information in common with others (Estevez et al., 2010). Prior literature has revealed the benefits of interagency information sharing (Dawes, 1996; Landsbergen Jr. & Wolken Jr., 2001). However, successful interagency information sharing is not easy to achieve as there are many barriers identified by literature to implement it (Akbulut et al., 2009).

In the previous literature, several researchers attempted to develop theoretical models/frameworks related to the barriers in IIS, such as Dawes (1996), Gil-García, Schneider, Pardo, & Cresswell (2005), and Yang & Maxwell (2011). They classified the barriers into three perspectives, i.e. organizational, technological and political/policy perspectives. However, as future research, Yang & Maxwell (2011) suggested applying the framework in non-western countries because the theoretical framework was constructed mostly in the context of western countries. Furthermore, western and non-western countries may have socio-cultural and socio-political differences (Xu, 2006), so the relative importance and relationship between factors of organizational and political/policy barriers may also be different.

To follow that future research direction, some researchers did the investigation in the context of non-western countries, such as China (Fan et al., 2014), Taiwan (Tung-mou Yang & Wu, 2013), and Nigeria (Ikeanyibe et al., 2020). Sayogo et al. (2020) did investigate the IIS critical factors in Indonesia, but the scope was only agencies in a regency. This research focuses on Indonesian central governments at the national level because the companies send their XBRL based financial statements to central governments. By studying in the Indonesian context, this study can suggest more accurately the lesson that may influence general sharing policies for Indonesian governments.

The type of shared information that this research focuses on is the eXtensible Business Reporting Language (XBRL) based financial statements sent by businesses to Indonesian agencies. XBRL is an open standard mark-up language optimized for business information, including accounting and financial information (Debreceny et al., 2009). It is designed to standardize business reporting, including financial reports such as balance sheets and loss/profit statements.

There are two main practical problems in not implementing IIS for financial statements sent by businesses to government agencies, i.e. inconsistent information across the agencies and a reporting burden for the companies. The case of Lippo Bank that falsely claimed profit IDR 98 Billion instead of reporting its loss of IDR 1.3 Trillion (Tempo.co, 2003), is an example of inconsistent accounting information across agencies. This case might represent the iceberg tip of inconsistent information as the Minister of Finance of Indonesia suspected that many companies committed double accounting (Tempo.co, 2006). As the businesses may need to submit their financial information in different formats to different government agencies, it may cause a reporting burden for the companies to add to inconsistent accounting information sharing.

To identify and overcome the barriers related to IIS in Indonesia, this research aims to answer the following research question:

What are the barriers to XBRL based inter-agency accounting information sharing in Indonesia?

2 Literature Review

The purpose of this section is to identify, evaluate and synthesize the relevant previous literature for this research topic: XBRL based interagency Accounting Information Sharing.

2.1 Barriers in Inter-organizational information sharing

This research employs the theory of interagency information sharing *(Dawes, 1996)* as a theoretical lens to understand the XBRL based interagency information sharing in Indonesia. Via this theory, this research examines the barriers that may create the gaps between the expected and actual benefits that would produce the lesson that influences general sharing policies for Indonesian governments.

Various research has been conducted to identify the factors that affect information sharing among public organizations. Those factors were classified into three primary perspectives, i.e. technical/technology, organizational, and policy/politics (Dawes, 1996; Gil-García et al., 2005; T. M. Yang & Maxwell, 2011).

The barriers in the organizational and managerial perspective were organizational boundaries of bureaucracy (Dawes, 1996; T. M. Yang & Maxwell, 2011), geographic area (Pardo et al., 2004; Zheng et al., 2009), different culture/origin, lack of experience (Dawes, 1996), lack of resource (Zhang & Dawes, 2006), competing interest (Akbulut et al., 2009), the resistance of change, concern of losing valuable assets (TungMou Yang, 2012), concern of information misuse (Zhang et al., 2005), concern of the quality of the information received (TungMou Yang, 2012), incentives and rewards (TungMou Yang, 2012), trust, and leadership. The barriers in the technological perspective were heterogeneous hardware/software (Zhang & Dawes, 2006), IT Capability, information security, and IT Outsourcing. Four barriers were identified in the policy/politics perspective, i.e. legislation/law (Dawes, 1996; Gil-García et al., 2005; Landsbergen Jr. & Wolken Jr., 2001), information as power and authority, partisan dynamics (Zhang & Dawes, 2006), and public scrutiny (Landsbergen Jr. & Wolken Jr., 2001).

The following picture shows the theoretical framework summarizing and classifying identified barriers in previous work:

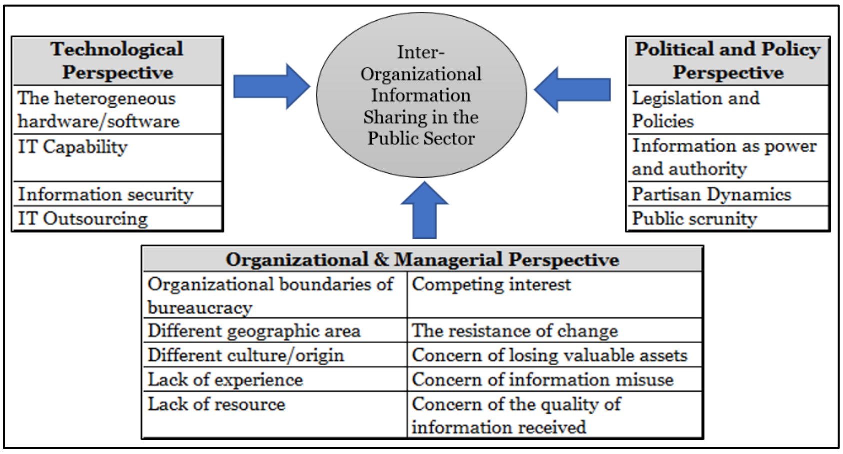

Figure 1: Barriers in inter-organizational information sharing (T. M. Yang & Maxwell, 2011)

2.2 The use of XBRL in Interagency Information Sharing (IIS)

Two example countries that have utilized XBRL as a data standard for their financial statements (FS) related B2G reporting (filling) are the Netherlands (Chen, 2012) and Australia (Lim & Perrin, 2014). In Australia, via an inter-organizational system (IOS) called Standard Business Reporting (SBR), the financial statements related information was shared among Australian agencies (Lim & Perrin, 2014). With the help of SBR, companies in Australia no longer had to re-enter information for multiple FS reporting obligations. The reporting burden would then be reduced as the financial information was recorded once and reported to many agencies to increase the business efficiency (Treasury - Australia Government, 2012).

In Indonesia, XBRL based B2G reporting had been initiated by the Central Bank of Indonesia (Rahwani, 2013) and the Indonesian Stock Exchange (Rahwani et al., 2015). In 2019, an XBRL based IIS pilot project was initiated between the tax authority (DJP) and the Indonesian Stock Exchange (IDX) to share the business' financial statements information (Direktorat Jenderal Pajak, 2019). To level the IIS up at the national level, Rahwani et al. (2019) proposed developing an XBRL based single point reporting system that can link and meet the requirements of multiple agencies in Indonesia. However, there are many issues to be aware of when implementing this IIS at the national level. Thus, it is important to identify and validate these barriers to implement the IIS project/initiative successfully.

3 Research Approach

This study adopts qualitative research by interviewing some key informants from government agencies. The key informant interviews involve interviewing a selected group of individuals who are likely to provide needed information on a particular subject (Kumar, 1989), in this case, related to information sharing among the governments. The research engages with five Indonesian government agencies, i.e. the Financial Services Authority (locally known as *Otoritas Jasa Keuangan*, or OJK) via the Indonesia Stock Exchange (IDX), Central Bank of Indonesia (BI), Indonesia Tax Authority (DJP) and Indonesia Statistic Authority (BPS). Indonesia Stock Exchange (IDX) was not a government agency, but it still had the function of the government agent, i.e. organizing the capital market in Indonesia.

In terms of theorizing strategy, the research implemented what Kirk & Miller (1986, p.25) have explained regarding the good qualitative technique, i.e., alternating inductive and deductive processes (Hyde, 2000).

In doing so, the interviews were divided into two parts. The first part employed inductive reasoning (theory building) by giving the participants an open-ended interview question, i.e. "*Would you please let me know the barriers in implementing interagency information sharing specific to your organization*?". This question attempted to collect some additional barriers in the context of Indonesia. The interviewees were then free to explain the obstacles that they had so far based on their experiences. Therefore, this part prevented the interview from interfering with their opinion by giving in the first place some barriers found in the previous literature.

In the second part, the interview was then alternated to implement deductive reasoning (theory testing), i.e. developing interview questions based on the IIS barriers theoretical framework. This second part interview aims to validate the barriers in the context of Indonesian government agencies.

The research adopts thematic analysis for identifying themes and patterns in the data. Then the study identifies the existing theory related to IIS barriers that can explain the pattern.

The ethics committee at the University of Canberra, Australia, has approved this research. Due to the COVID-19 pandemic restriction, the interviews were done online.

4 Findings and Discussions

This section discusses preliminary findings focusing on three barriers, i.e. different geographical areas, law/policy, and data granularity level.

a) Different geographical areas

Pardo et al. (2004) argued that different geographical origins might challenge ensuring the integrated data quality. Zheng et al. (2009) and (Bigdeli et al., 2011) also added that geographic boundaries could matter to IIS. However, with the advancement of current information technology, internet connectivity can overcome this geographic distance problem. All interviewees of this research had agreed that different locations of the participating agencies would not be a problem to the interagency information sharing. Yang (2012) also found that government agencies' geographic areas were no longer essential for inter-organizational information integration. One interviewee gave an example of an Interorganisational information system (IOS) (called SIPINA) coordinated between DJP and OJK.

> "I think that having different geographic areas is not a problem. For example, SIPINA, It's an information exchange between countries. So far, we haven't got any complaints/issues related to the distance between countries."

SIPINA stands for *Sistem Penyampaian Informasi Nasabah Asing*, which means the Foreign Customer Information Submission System. SIPINA is an IOS used and developed by the financial services authority (OJK) to share tax information with the Directorate General of Taxes (DJP). OJK developed this system to implement Indonesia participation obligations in the Automatic Exchange of Information (AEOI) program related to the automatic exchange of financial account data with foreign jurisdictions. Another interviewee argued that this is not a geographic distance problem but the availability of internet connection. This interviewee said:

> "This is indeed an obstacle in itself with connection, not related to geography area, but with the connection."

The reliability of internet connectivity where the participating organization was located was actually the problem. Two interviewees gave two examples in the case of business to government (B2G) reporting.

> "The internet connection is still a little problematic for some areas. It's different if we talk in Jakarta, and also in big cities like Surabaya. Several listed companies may exist in Kalimantan.".

> "There are some Bank Perkreditan Rakyat (BPR, or Rural Bank) located in the rural areas where the internet connectivity is still not good, such as the island of Roti,"

Hence, the different geographic areas would be no longer a barrier for the IIS. The internet access/connectivity problem might be categorized as the barrier of lack of resources.

b) Law/Policy

Law/policy can permit or prohibit sharing (Zhang et al., 2005). The research also found that law/policy might be a barrier or a success factor in IIS. One of the interviewees confirmed that:

> "Yes, that's right, the Law on Confidentiality of Customer Information – Banking."

Privacy laws might create barriers to the IIS. For example, the implementation of a bank secrecy law would make the DJP have no automatic access to the financial information of Indonesian taxpayers. DJP would only access a company's financial information in a tax investigation by creating a written request from the Minister of Finance (MoF) to the OJK.

Conversely, laws might be legal support for the implementation of the IIS. For instance, the law of Automatic Exchange of Information (AEOI) no. 19 of 2017. DJP would have automatic access to the financial information of foreign citizens, which is then to be shared with this citizen's country tax authority. An interviewee mentioned the other example:

> "There is Law no. 21 of 2011 article 43 which states that BI, OJK, LPS can share information in an integrated manner."

Hence, laws might be a barrier or the other way around, even authorizing the participating agencies to disclose information for a certain purpose.

c) Data granularity level

We define a new barrier as a barrier outside the defined theoretical framework. Our research found that different needs of data granularity levels were a barrier to interagency information sharing (IIS). In the pilot project of XBRL based single reporting system, the IDX and DJP had different needs of data granularity level (both in terms of the reporters and the financial statement). Granularity is the level of detail of data stored in a database (Harrington, 2016). The low level of granularity contains the high detail of granularity and vice versa.

One of the interviewees feels that reaching a single reporting seems still far away as the regulators have different needs of financial statements. For example, IDX might accept the commercial in the consolidated version, whereas the DJP also requires the individual (single entity) financial statements (besides the consolidated one) and fiscal financial statements.

> "It seems that a single-entry system is still far away to reach because the needs of regulators are different, i.e. fiscal financial reports and a single entity financial statement. The DGT needs a single entity based financial statements, while the IDX requires the consolidated report."

On the reporter granularity level, IDX might only need the consolidation version of financial statements from the holding company. In contrast, the DJP required the financial statements of every corporate taxpayer (both the parent company and its subsidiaries). This DJP's need was regulated via the tax regulation number PER-19/PJ/2014 that a holding company should report its consolidated financial statements and its own company's financial statement.

The research also found that the needs of every agency regarding the granularity level of financial level might be different. For example, in the case of using XBRL based financial statements shared by IDX for BPS, the IDX might need only on the aggregation level of Cost-Of-Sales, whereas the BPS would need the breakdown of the Cost-Of-Sales.

> "There was an account called Cost-Of-Sales (COGS), which had no breakdown in the XBRL instance document. The breakdown was needed for our statistical publication needs. Thus, we inputted the breakdown of that account into our system based on the financial statements in PDF format."

Different agencies may have different needs of reporting granularity levels. Zhengyu et al. (2009) found that it is important to decide the appropriate level of granularity data to meet consumers' requirements. In our case, this requirement is equivalent to the reporting needs of the participating agencies. If these needs are not fulfilled, the information shared among them will not be useful by the organization that need it. So, the cooperation of information sharing may be unsuccessful as well.

Hence, we consider that different needs of data granularity levels among the participating agencies might be a barrier for the IIS.

5 Conclusion and Future Work

Despite the benefit of IIS in minimizing inconsistent accounting information and B2G reporting burdens, not all agencies participated in the IIS project/initiative. Thus, this research aims to reveal the barriers in the IIS. By having the pre-list of barriers taken from the theoretical framework, this research validates the barriers identified by previous literature. Furthermore, the study also seeks whether there are new barriers in the context of Indonesia.

As future work of this study, we will examine whether the barriers in the theoretical framework fit with Indonesia's context (as a non-western country). The research results may lack generalizability beyond Indonesia, but we will investigate whether there are some similarities/differences against other studies in the context of non-western countries.

Concerning the theory of interagency information sharing, understanding the barriers would help formulate the sharing policy, which would minimize the gap between the expected and actual benefits of the information sharing. Understanding the IIS would then give practical contributions (lessons) in developing a better policy in implementing the IIS.

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