



STUDY ON THE ELECTRONIC INVOICING (E-INVOICING) LANDSCAPE IN ASEAN MEMBER STATES (AMS)

Final Report

July 2022

Contents

List of Exhibitbits.....	5
I. Context & Objectives	7
1. Executive Summary.....	9
2. Introduction	12
2.1 What is E-Invoicing?.....	12
2.2 E-Invoicing Models.....	13
2.2.1 Interoperability Model.....	13
2.2.2 Real-time Reporting Model	14
2.2.3 Clearance Model	15
2.2.4 Centralised Exchange Model	16
2.2.5 Decentralised CTC and Exchange (DCTCE) Model	16
2.3 Benefits of E-Invoicing	17
2.3.1 Faster Payment Cycle.....	17
2.3.2 Productivity and Efficiency Benefits	17
2.3.3 Reduction in Manual Processing Errors	17
2.3.4 Cost Savings	18
2.3.5 Improve Tax Administration	19
2.3.6 Integrated Source-to-Pay Solution (S2P)	20
3. Brunei.....	22
3.1 Background/Business Landscape.....	22
3.2 Demand Side Assessment	23
3.2.1 Advantages of E-Invoicing.....	23
3.2.2 Push on Digital Economy Masterplan 2025	24
3.3 Supply Side Assessment.....	25
3.3.1 TAFIS E-Invoice Portal	25
3.4 Enablers Assessment	27
3.4.1 Government & Institutional Support.....	27
3.4.2 Nationwide Standards	28
3.4.3 Financing & Funding	29
3.5 Overview of E-Invoicing in Brunei.....	29
4. Cambodia	30
4.1 Background/Business Landscape.....	30

4.2	Demand Side Assessment	31
4.2.1	Push on Tax Digitalisation	31
4.2.2	Cambodia Digital Economy and Society Policy Framework 2021-2035	31
4.3	Supply Side Assessment	32
4.4	Enablers Assessment	33
4.4.1	Government & Institutional Support	33
4.5	Overview of E-Invoicing in Cambodia	34
5.	Indonesia.....	35
5.1	Background/Business Landscape.....	35
5.2	Demand Side Assessment	37
5.2.1	Improve Tax Administration	37
5.2.2	Efficiency in Issuing Invoices	37
5.3	Supply Side Assessment.....	37
5.3.1	e-Tax Invoices Client Desktop	39
5.3.2	e-Tax Invoices Web-Based	39
5.3.3	e-Tax Invoices Host-to-Host (H2H)	39
5.4	Enablers Assessment	40
5.4.1	Government & Institutional Support	40
5.5	Overview of E-Invoicing in Indonesia.....	42
6.	Laos	43
6.1	Background/Business Landscape.....	43
6.2	Demand Side Assessment	44
6.3	Supply Side Assessment.....	45
6.4	Enablers Assessment	46
6.5	Overview of E-Invoicing in Laos	46
7.	Malaysia	47
7.1	Background/Business Landscape.....	47
7.2	Demand Side Assessment	48
7.2.1	Push on Digital Economy	48
7.2.2	National E-Commerce Strategic Roadmap 2021 to 2025 (NESR)	49
7.3	Supply Side Assessment.....	49
7.4	Enablers Assessment	50
7.4.1	Government & Institutional Support.....	50
7.4.2	Financing & Funding	52

7.5	Overview of E-Invoicing in Malaysia	53
8.	Myanmar.....	54
8.1	Background/Business Landscape.....	54
8.2	Demand Side Assessment	55
8.3	Supply Side Assessment.....	55
8.4	Enablers Assessment	56
8.4.1	Government & Institutional Support.....	56
8.5	Overview of E-Invoicing in Myanmar.....	57
9.	Philippines.....	58
9.1	Background/Business Landscape.....	58
9.2	Demand Side Assessment	59
9.2.1	Improve Tax Administration	59
9.2.2	Benefits of E-Invoicing	60
9.2.3	Philippines Digital Transformation Strategy 2022 (PDTS 2022).....	60
9.2.4	The Tax Reform for Acceleration and Inclusion (TRAIN) Act	60
9.3	Supply Side Assessment.....	61
9.4	Enablers Assessment	62
9.4.1	Government & Institutional Support.....	62
9.4.2	Nationwide Standards	63
9.4.3	Financing & Funding	63
9.5	Overview of E-Invoicing in Philippines.....	63
10.	Singapore	64
10.1	Background/Business Landscape.....	64
10.2	Demand Side Assessment.....	66
10.2.1	Benefits of E-Invoicing	66
10.2.2	Faster Payment and Improve Cash Flow	68
10.2.3	Push on Singapore Green Plan 2030.....	68
10.2.4	Push by Large Enterprises.....	68
10.2.5	Push by Large Enterprises.....	69
10.3	Supply Side Assessment.....	70
10.3.1	Access Point Providers	70
10.3.2	Peppol Ready Solution Providers.....	70
10.4	Enablers Assessment	71
10.4.1	Government & Institutional Support.....	71

10.4.2	Nationwide Standards	73
10.4.3	Financing & Funding	74
10.5	Overview of E-Invoicing in Singapore	75
11.	Thailand	76
11.1	Background/Business Landscape.....	76
11.2	Demand Side Assessment.....	78
11.2.1	Advantages of e-Tax Invoice	78
11.2.2	Push on Thailand 4.0.....	78
11.2.3	Push from Large Enterprises.....	79
11.3	Supply Side Assessment.....	80
11.4	Enablers Assessment	81
11.4.1	Government & Institutional Support.....	81
11.4.2	National Standards	83
11.4.3	Financing & Funding	87
11.5	Overview of E-Invoicing in Thailand	88
12.	Viet Nam	89
12.1	Background/Business Landscape.....	89
12.2	Demand Side Assessment.....	91
12.2.1	Benefits of E-Invoicing	91
12.2.2	Tax Management Purposes	91
12.2.3	Promote Digitalisation of Business Processes	92
12.3	Supply Side Assessment.....	93
12.3.1	E-Invoicing Process	93
12.3.2	Key Types of E-Invoice Service Providers.....	96
12.4	Enablers Assessment	98
12.4.1	Government & Institutional Support.....	98
12.4.2	Nationwide Standards	100
12.4.3	Financing & Funding	101
12.4.4	Push from Large Enterprises.....	101
12.5	Overview of E-Invoicing in Viet Nam	102
13.	Conclusion.....	103
	Appendix.....	104
	Bibliography and references.....	104

LIST OF EXHIBITS

Figure 1.1 The 5 E-Invoicing models by the Expert Group

Figure 1.2 E-Invoicing landscape in ASEAN

Figure 2.1.1 The definition of E-Invoicing

Figure 2.2.1.1 Archetype for Interoperability Model

Figure 2.2.2.1 Archetypes for Real-time Reporting Model

Figure 2.2.3.1 Archetypes for Clearance Model

Figure 2.2.4.1 Archetype for Centralised Exchange Model

Figure 2.3.4.1 The illustration of the benefits of E-Invoicing

Figure 2.3.6.1 The integrated Source-to-Pay (S2P) Solutions

Figure 3.1.1 Schematic diagram of the invoicing process in Brunei

Figure 3.2.2.1 Timeline of key projects of Brunei's Digital Economy Masterplan 2025

Figure 3.3.1.1 Transition from PC based systems towards and integrated TAFIS system

Figure 3.4.1 Key initiatives to drive the adoption of E-Invoicing in Brunei

Figure 3.4.2.1 B2G invoicing process with TAFIS E-Invoice Portal

Figure 4.1.1 Schematic diagram of the invoicing process in Cambodia

Figure 4.4.1 Key initiatives to drive the adoption of E-Invoicing in Cambodia

Figure 5.1.1 Schematic diagram of the e-Tax Invoices process in Indonesia

Figure 5.1.2 Detail illustration of e-Tax Invoices process in Indonesia

Figure 5.3.1 Process of e-Tax Invoices in Indonesia

Figure 5.4.1 Key initiatives to drive the adoption of E-Invoicing in Indonesia

Figure 5.4.1.1 Supply Chain Financing Scheme

Figure 5.4.1.2 Indonesia's Core Tax System

Figure 6.1.1 Schematic diagram of the invoicing process in Laos

Figure 6.2.1 Laos E-Government Development Plan

Figure 7.1.1 Schematic diagram of the current invoicing process in Malaysia

Figure 7.4.1 Key areas that drive the adoption of E-Invoicing in Malaysia

Figure 7.4.1.1 Malaysia Digital Economy Blueprint

Figure 7.4.2.1 7 Key digitalisation areas

Figure 8.1.1 Schematic diagram of the invoicing process in Myanmar

Figure 8.4.1 Key initiatives to drive the adoption of E-Invoicing in Myanmar

Figure 8.4.2 Myanmar e-Payment Platforms

Figure 9.1.1 Schematic diagram of the E-Invoicing process in Philippines

Figure 9.3.1 The E-Invoicing System in Philippines

Figure 9.4.1 Key Initiatives to drive the adoption of E-Invoicing in Philippines

Figure 10.1.1 Schematic diagram of the E-Invoicing process in Singapore

Figure 10.1.2 Key milestones of E-Invoicing in Singapore

Figure 10.2.1.1 Testimonials from businesses in Singapore who adopt E-Invoicing

Figure 10.4.1 Key initiatives to drive the adoption of E-Invoicing in Singapore

Figure 10.4.2.1 Peppol 4-Corner Model

Figure 11.1.1 Thailand's development path towards a digital economy

Figure 11.1.2 Schematic diagram of the E-Invoicing process in Thailand

Figure 11.3.1 List of certified electronic data delivery service providers

Figure 11.4.1 Key initiatives to drive the adoption of e-Tax invoice system in Thailand

Figure 11.4.2.1 The e-Tax invoice by email system

Figure 11.4.2.2 The e-Tax invoice and e-Receipt system

Figure 12.1.1 Timeline of E-Invoice roll out in Viet Nam

Figure 12.1.2 Schematic diagram of the E-Invoicing process in Viet Nam

Figure 12.3.1.1 E-Invoice Process in Viet Nam

Figure 12.3.1.2 Summary of 3 ways to generate E-Invoice

Figure 12.3.1.3 E-Invoice process for A

Figure 12.3.1.4 E-Invoice process for B

Figure 12.3.1.5 E-Invoice process for C

Figure 12.3.2.1 Comparison between ESP and CSP

Figure 12.3.2.2 List of Certified ESP and CSP Providers

Figure 12.3.2.3 List of Certified ESP Providers Only

Figure 12.4.1 Key initiatives to drive the adoption of E-Invoicing in Viet Nam

I. BACKGROUND, CONTEXT & OBJECTIVES

BACKGROUND

The Electronic Invoicing (E-Invoicing) Landscape in ASEAN Member States (AMS) study was initiated under the ASEAN Digital Trade Standards and Conformance Working Group (DTSCWG) to understand the current and future levels of e-invoicing adoption and the impact of e-invoicing practices across ASEAN, with a focus on Business to Business (B2B) and Business to Government (B2G) e-invoicing.

This effort is led by Singapore and Viet Nam, under Strategic Thrust 1, Activity Programme 1 of the ASEAN DTSCWG Work Programme 2021-2025.

The consultative process with AMS* started in July 2021, and all consolidated responses are presented at the aggregate level in this final report.

*Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam.

CONTEXT

E-Invoicing is becoming increasingly popular in both the B2B and B2G sectors as it gradually replaces the old-fashioned paper of PDF invoices. The term E-Invoicing refers to the exchange of invoice documents between senders and recipients in an integrated electronic format. It provides great benefits both to the sender and to the recipient. With E-Invoicing, businesses no longer need to issue paper-based or PDF invoices that must be printed, posted or emailed. On the other side, buyers or recipients no longer need to manually input invoices into their financial system. Hence, the implementation of E-Invoicing is expected to help businesses improve efficiency, reduce cost, get paid faster, transact across borders, and have access to new financial options¹.

As one of the most dynamic and fastest-growing regions in the world², ASEAN has enormous potential and the most visible speed to implement E-Invoicing³. With a combined GDP of US\$3.08 trillion, the region spans a market of 661

¹ What you need to know about e-invoicing initiative – Available at <https://www.imda.gov.sg/-/media/Imda/Files/Programme/Nationwide-E-Invoicing-Framework/E-Invoicing-Infosheet.pdf>

² Active with Southeast Asia – Available at <https://www.oecd.org/global-relations/Active-with-Southeast-Asia.pdf>

³ E-invoicing in the ASEAN region – Available at <https://www.comarch.com/trade-and-services/data-management/news/e-invoicing-in-the-asean-region-current-state-and-future-developments/>

million people in 2020⁴ and attracts almost one-fifth of global FDI inflow annually⁵. Based on these conditions, countries in the ASEAN region have a strong drive to transform their invoice transactions using the E-Invoicing system in B2B and B2G sectors. This is evidenced by increasing interest in implementing E-Invoicing in ASEAN. Some ASEAN countries, such as Indonesia and Viet Nam, have already introduced a mandatory E-Invoicing system. However, most of them are still in their initial phase.

OBJECTIVES

Therefore, to better understand the E-Invoicing development in ASEAN, IMDA has commissioned to study the E-Invoicing landscape in the ASEAN Member States (AMS). AMS consists of 10 countries, namely Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam.

The study has been conducted by a combination of desktop research, survey analysis of the information provided by the member countries, industry insights gathered from the subject matter expert networks, and workshops to generate a landscape of E-Invoicing development in ASEAN, including:

1. Individual AMS stage of E-Invoicing adoption and readiness
2. Respective AMS's governance and/or legislation with regards to E-Invoicing
3. Key trends, underlying drivers, and key insights

During the six months of study, the team conducted research, analysed the inputs from a national-level survey conducted by IMDA, interviewed AMS-specific subject matter experts and conducted workshops with representatives from the AMS.

⁴ Statista Website – Available at <https://www.statista.com/statistics/796245/gdp-of-the-asean-countries/>

⁵ Active with Southeast Asia – Available at <https://www.oecd.org/global-relations/Active-with-Southeast-Asia.pdf>

1. EXECUTIVE SUMMARY

Electronic invoicing (E-Invoicing) is the automation of the payment request process between buyers and suppliers, from origination to transfer using a structured electronic format.

E-Invoicing has many benefits for businesses and the economy. The benefits range from faster payment cycle, lesser manual processing errors, higher productivity, cost savings and better tax administration. Typically, the adoption of E-Invoicing is driven by the efforts of 3 institutions at a national scale – tax authority, public procurement and business digitalisation agency, each looking at E-Invoicing with different primary objectives to fulfil. From a tax authority standpoint, E-Invoicing helps to improve tax administration and reduce non-compliant tax invoices. On the other hand, E-Invoicing allows public procurement to achieve greater efficiency for the Business-to-Government (B2G) transactions due to lower manual processing errors. As for the business digitalisation agency that aims to digitalise the business processes, E-Invoicing helps to achieve this aim as the invoicing process is done electronically and does not involve the use of paper which is more sustainable.

E-Invoicing requires regimes to institute a complex system that connects several stakeholders of the B2B invoicing process. These stakeholders range from government, seller of goods and services, buyer of the goods and services and technology providers of the E-Invoicing solutions. Whilst each country can adopt different models depending on the country's specific local nuances and choices, the Expert Group⁶, has identified 5 model archetypes of E-invoicing. The 5 E-Invoicing Models are: i) Interoperability Model; ii) Real-time Reporting Model; iii) Clearance Model; iv) Centralised Exchange Model; and v) Decentralised CTC and Exchange Model (DCTCE). (Refer Figure 1.1 The E-Invoicing models by the Expert Group).

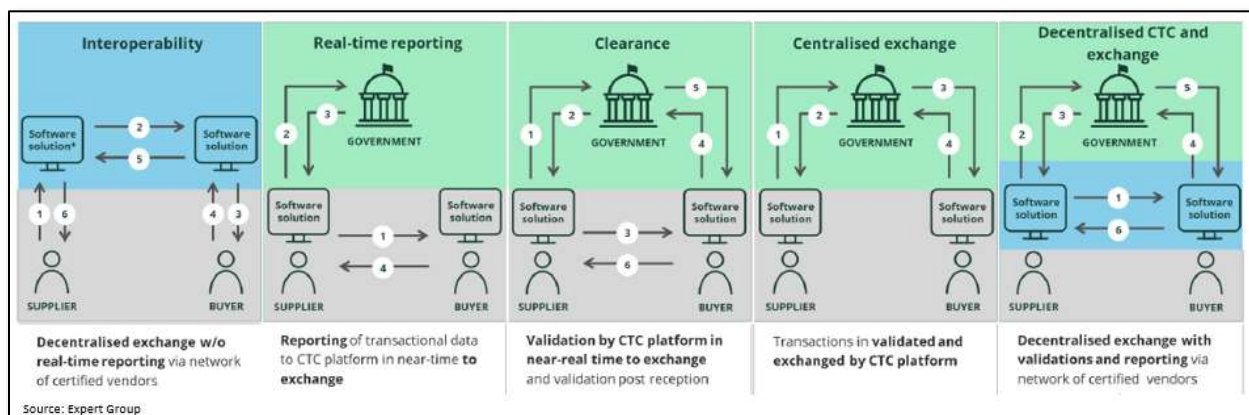


Figure 1.1 The 5 E-Invoicing models by the Expert Group

⁶ Expert Group consists of Digital Service Providers Australia New Zealand (DSPANZ), European E-invoicing Service Providers Association (EESPA), OpenPeppol, and Verband elektronische Rechnung (VeR)

Overview of the E-Invoicing Model Adopted by ASEAN Member States

E-Invoicing Model	Tax Administration	Business Digitalisation & Public Procurement	AMS Currently On
i. Interoperability		✓	 InvoiceNow
ii. Real-time Reporting	✓		 E-Invoicing/E-Receipting System  e-Tax Invoice & e-Receipt  E-Invoice without tax authority's authentication code
iii. Clearance	✓		 E-tax Invoices  E-Invoice with tax authority's authentication code
iv. Centralised Exchange	✓	✓	 e-Tax Invoice by email

SG, VN, ID and TH Have Implemented E-Invoicing, PH to Launch Pilot Program in July 2022

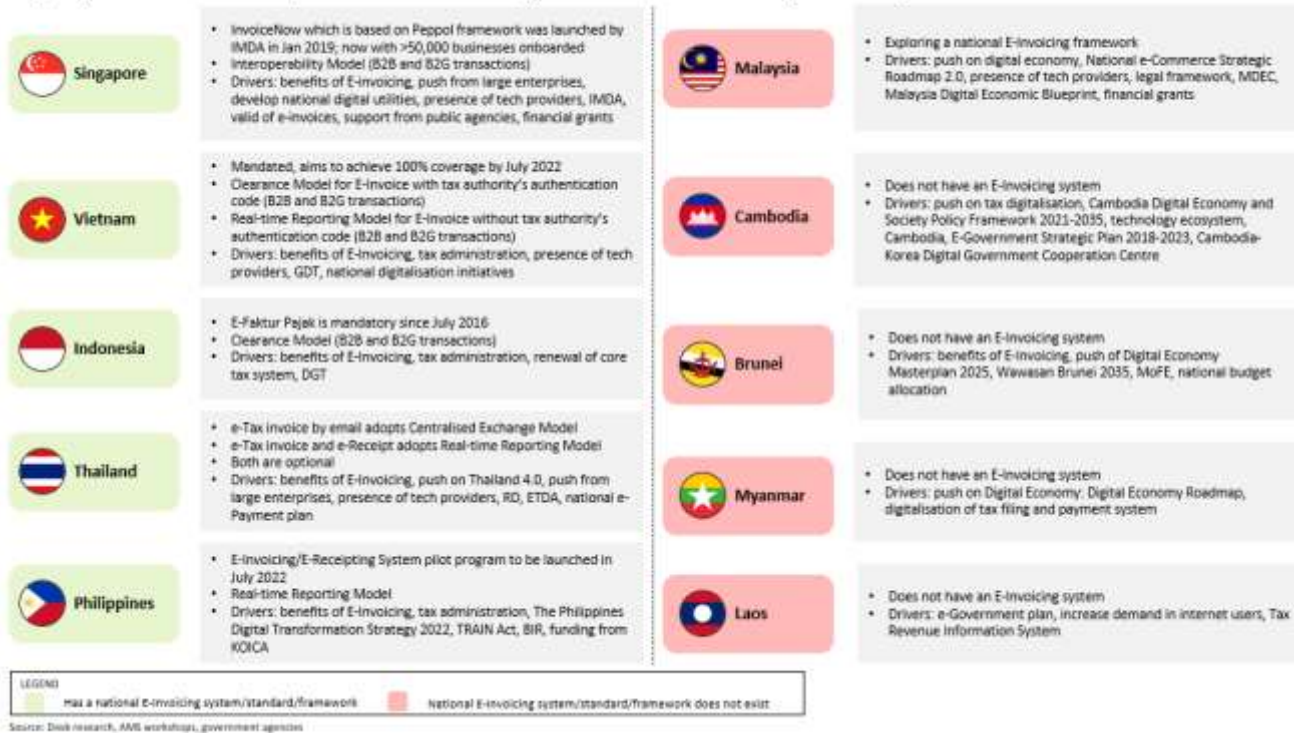


Figure 1.2 E-Invoicing landscape in ASEAN

Figure 1.2 shows the E-Invoicing landscape in ASEAN. As of May 2022, there are four AMS that have implemented E-Invoicing in their respective countries. The four AMS are Indonesia, Singapore, Thailand and Viet Nam. Indonesia has mandated the use of e-Tax Invoices since July 2016 which follows the Clearance Model. The main objective of e-Tax Invoices is to improve tax administration as it allows the tax authority to supervise and monitor all tax invoices. On the other side, Singapore has implemented InvoiceNow which is based on the Peppol framework (4-corner model). InvoiceNow follows the Interoperability Model in which the tax authority's approval of the invoice is not necessary. Singapore launched the nationwide E-Invoicing network back in January 2019 and has successfully onboarded 50,000 businesses by April 2022. Thailand has implemented two E-Invoicing solutions namely e-Tax invoice by email, and e-Tax invoice and e-Receipt. Although the e-Tax invoice by email adopts the Centralised

Exchange Model, an E-Invoicing system does not exist because all documents are sent via email. On the other hand, the e-Tax invoice and e-Receipt adopts the Real-time Reporting Model. Both solutions are still optional in Thailand. Lastly, Viet Nam has rolled out its E-Invoicing system according to different phases and across different provinces since November 2021 and aims to achieve 100% rollout by July 2022. The Viet Nameese government has mandated the E-Invoicing system. There are two types of E-Invoices in Viet Nam: i) E-Invoice with tax authority's authentication code, and ii) E-Invoice without tax authority's authentication code. E-Invoice with tax authority's authentication code works based on the Clearance Model, however, the E-Invoice without tax authority's authentication code works based on the Real-time Reporting Model.

Philippines is planning to launch a pilot program for its e-Invoicing/e-Receipting system in 2022. This e-Invoicing/e-Receipting system follows the Real-time Reporting Model and targets the 100 largest taxpayers in the country. The remaining 5 AMS; Brunei, Cambodia, Laos, Malaysia and Myanmar do not have a nationwide E-Invoicing system. Additionally, as of July 2022, no AMS has adopted the DCTCE Model.

In summary, E-Invoicing in ASEAN is in a developing stage but has significant potential to scale and generate economic benefits. It represents a significant opportunity for the ASEAN economy and businesses because E-Invoicing can change the way cross-border businesses interact with one another. This will help the ASEAN region to maintain trade competitiveness through seamless and efficient exchange of information. However, as the adoption rate is still low in ASEAN, a broader E-Invoicing adoption strategy and targeted initiatives such as targeted support to businesses and awareness creation, should be executed through strong public private sector collaboration.

2. INTRODUCTION

2.1 WHAT IS E-INVOICING?

E-Invoicing (also commonly known as electronic invoicing) is the automated creation and transfer of requests for payments between suppliers and buyers using a structured electronic format such as EDI or XML. With E-Invoicing, invoices are no longer sent via paper-based or PDF. The format of E-Invoicing allows information or data to be sent from one accounting system to another as a digital exchange with no or minimal human intervention⁷. Unlike the common understanding of the term “E-Invoices”, invoices in unstructured formats such as PDF or paper scanned invoices are considered as digital copies of invoices; hard copy invoices are not E-Invoices. (Refer to Figure 2.1.1 The definition of E-Invoicing). However, most of the AMS except Singapore have yet to reach the fully automated E-Invoicing stage as they are still developing their E-Invoicing system. Sellers in some of the AMS such as Indonesia, Thailand and Viet Nam are sending the invoices to the buyers via email which is categorised as email invoicing for the purpose of this report. In addition, Brunei’s TAFIS E-Invoice Portal that facilitates the B2G transactions is an example of E-Invoice by portal. To trade with the Bruneian government, all vendors must issue invoices using the TAFIS E-Invoice Portal.

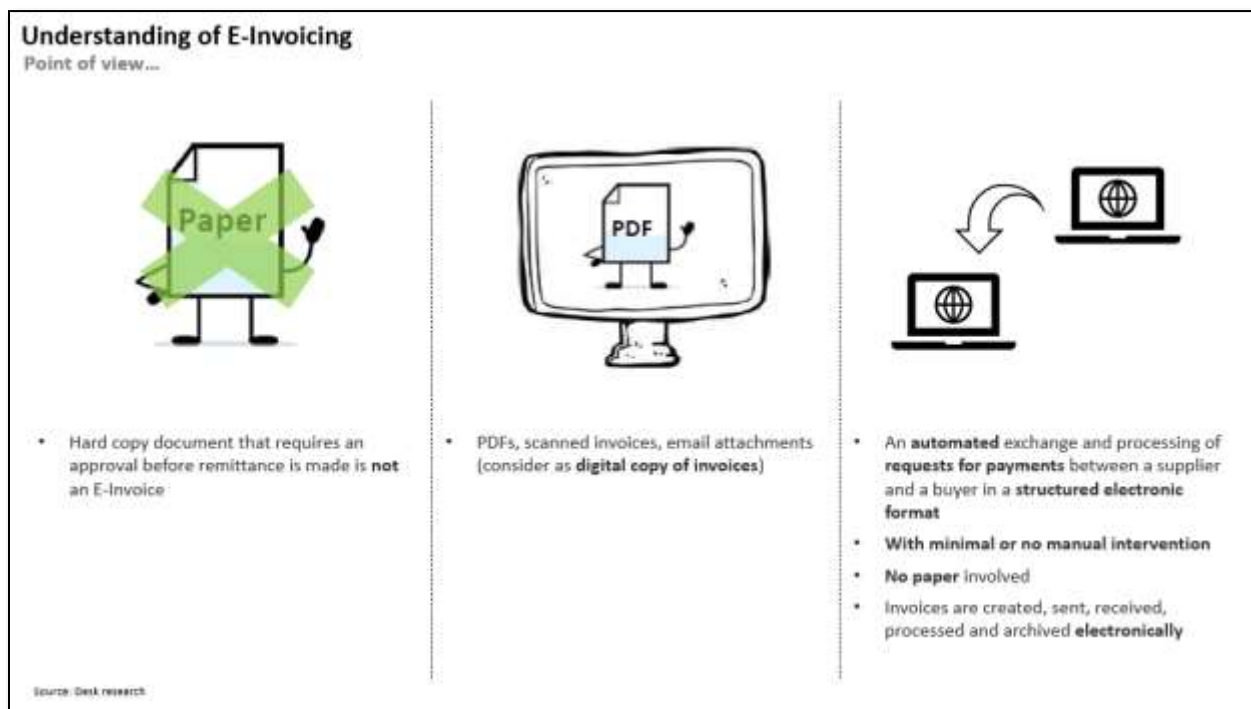


Figure 2.1.1 The definition of E-Invoicing

⁷ Federal government considers introduction of electronic invoicing – Available at taxathand.com

2.2 E-INVOICING MODELS

According to the Expert Group, E-Invoicing can be classified into five models: i) Interoperability Model; ii) Real-time Reporting Model; iii) Clearance Model; iv) Centralised Exchange Model; and v) Decentralised CTC and Exchange Model (DCTCE). However, not all five models are present in ASEAN. In order to simplify the E-Invoicing models in ASEAN, several archetypes have been developed according to the respective E-Invoicing system/framework.

2.2.1 Interoperability Model

The Interoperability Model is a commonly used interoperability mechanism for E-Invoicing and related supply chain document exchanges. The exchange of business documents is done via the four-corner model such as the Peppol framework. It uses a network of service providers that use an agreed document format and exchange methodology to deliver the business documents. Singapore's InvoiceNow is an example of the Interoperability Model. (Refer Figure 2.2.1.1 Archetype for Interoperability Model).

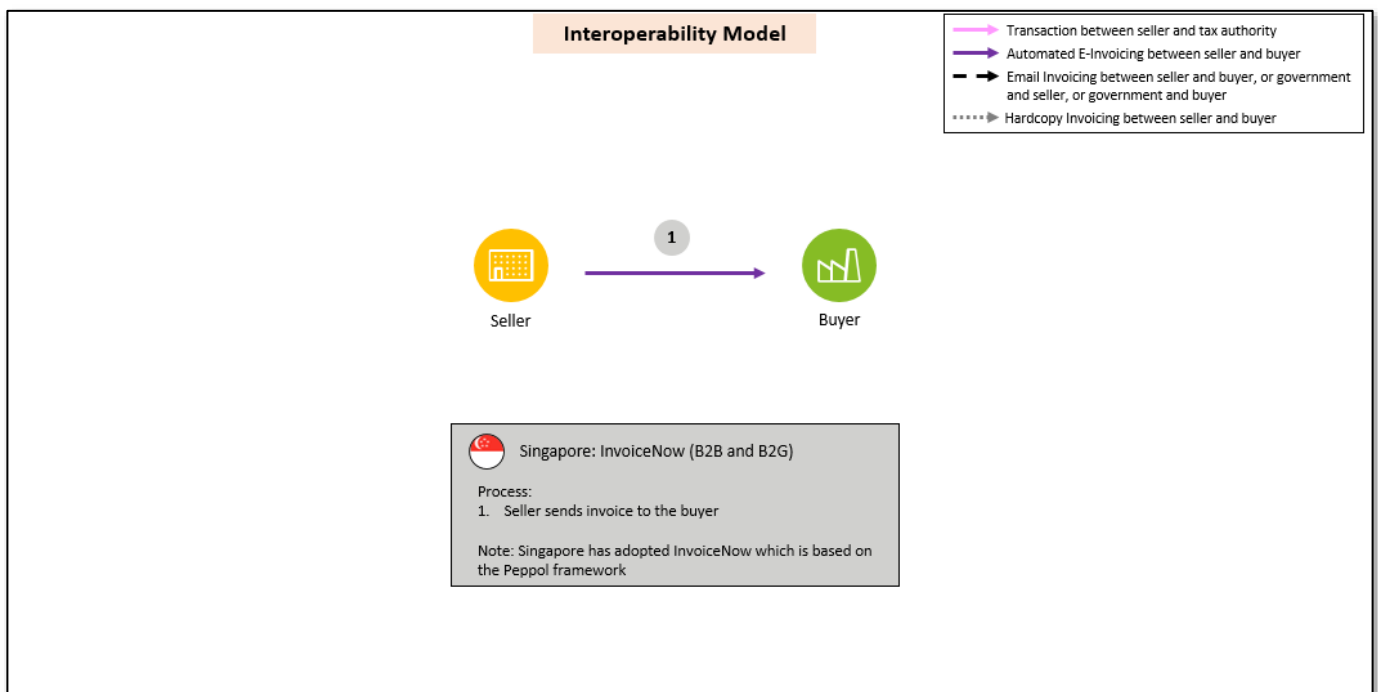


Figure 2.2.1.1 Archetype for Interoperability Model

2.2.2 Real-time Reporting Model

The Real-time Reporting Model requires near real-time or real-time submission of business data to the tax administration platform without dependency on the tax administration's approval. E-Invoicing in countries like Thailand, Philippines and Viet Nam are following the Real-time Reporting Model. (Refer Figure 2.2.2.1 Archetypes for Real-time Reporting Model).

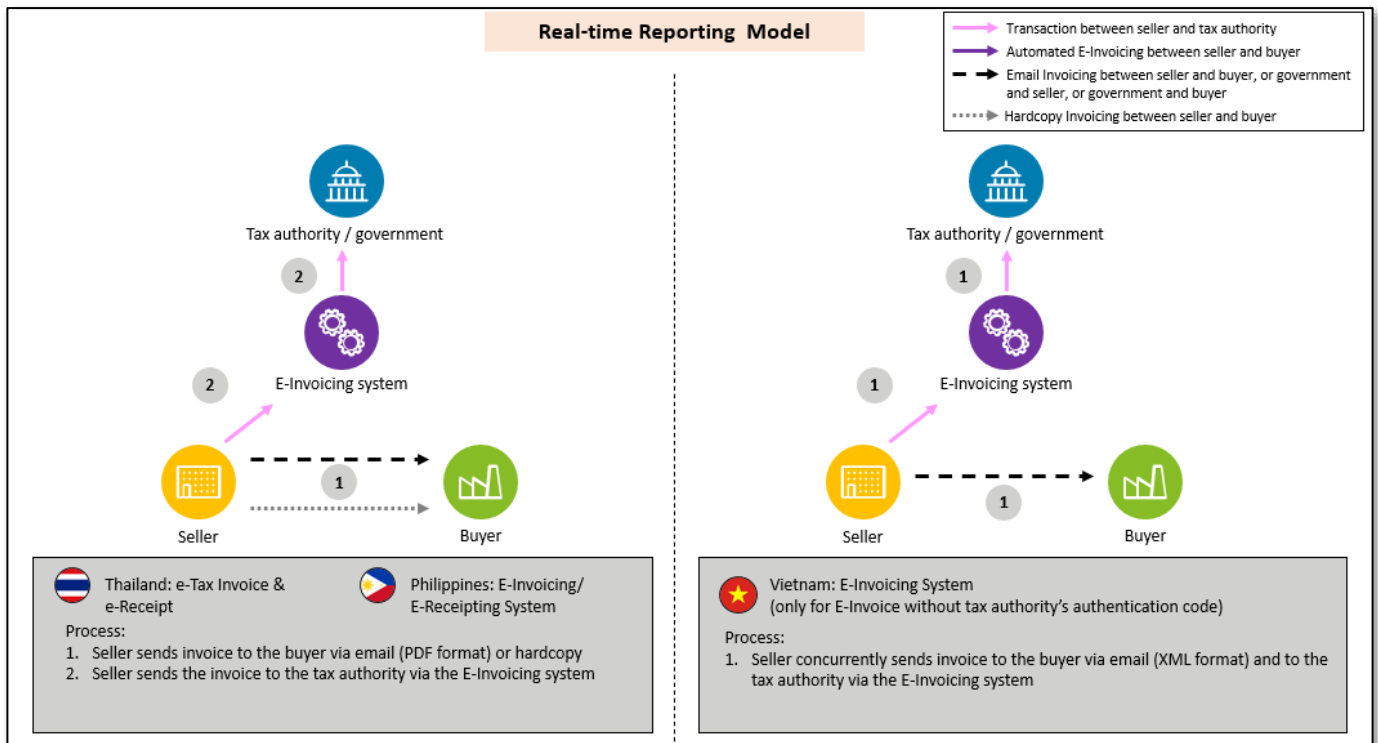


Figure 2.2.2.1 Archetypes for Real-time Reporting Model

2.2.3 Clearance Model

The Clearance Model can be defined as real-time or near-real-time controls of business transaction data submitted electronically to tax administration platforms whose approval is required for those data points and their continued business processing to be valid from a tax perspective. Indonesia’s e-Tax Invoices and Viet Nam’s E-Invoice with tax authority’s authentication code are examples of the Clearance Model in which all sellers must submit the invoices to the tax authority to obtain approval before sending them out to the buyers. (Refer Figure 2.2.3.1 Archetypes for Clearance Model). One of the main objectives for countries to adopt the Clearance Model is to improve tax administration and monitor all invoices as the tax authority plays an active role to validate the invoice before the transaction is completed.

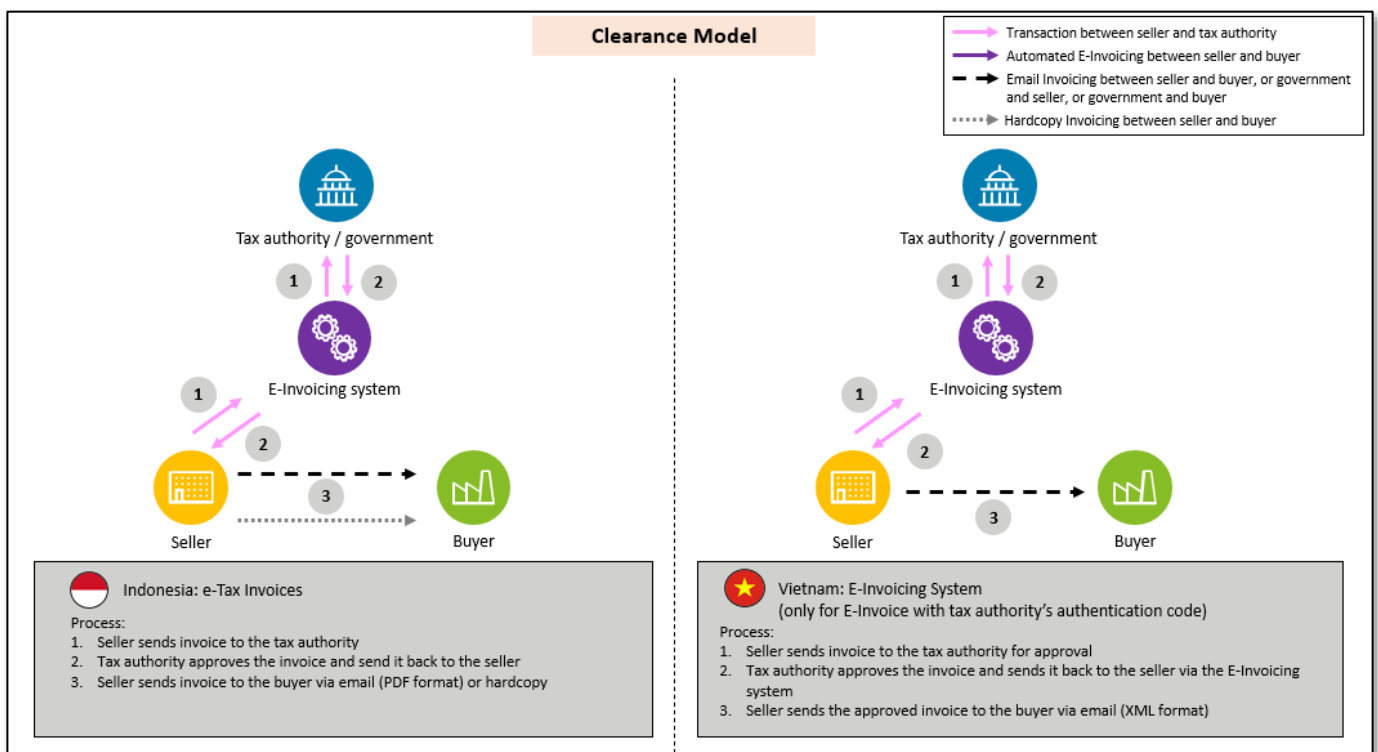


Figure 2.2.3.1 Archetypes for Clearance Model

2.2.4 Centralised Exchange Model

The Centralised Exchange Model may be an additional feature of the Clearance Model or a model which, for example, supports the public procurement. The central platform or network will be established by a government agency and replaces the direct exchange of documents between sellers and buyers (B2G transactions or both B2B and B2G transactions) for the defined circumstances⁸. Thailand's e-Tax invoice by email is an example of the Centralised Exchange Model (Refer Figure 2.2.4.1 Archetype for Centralised Exchange Model).

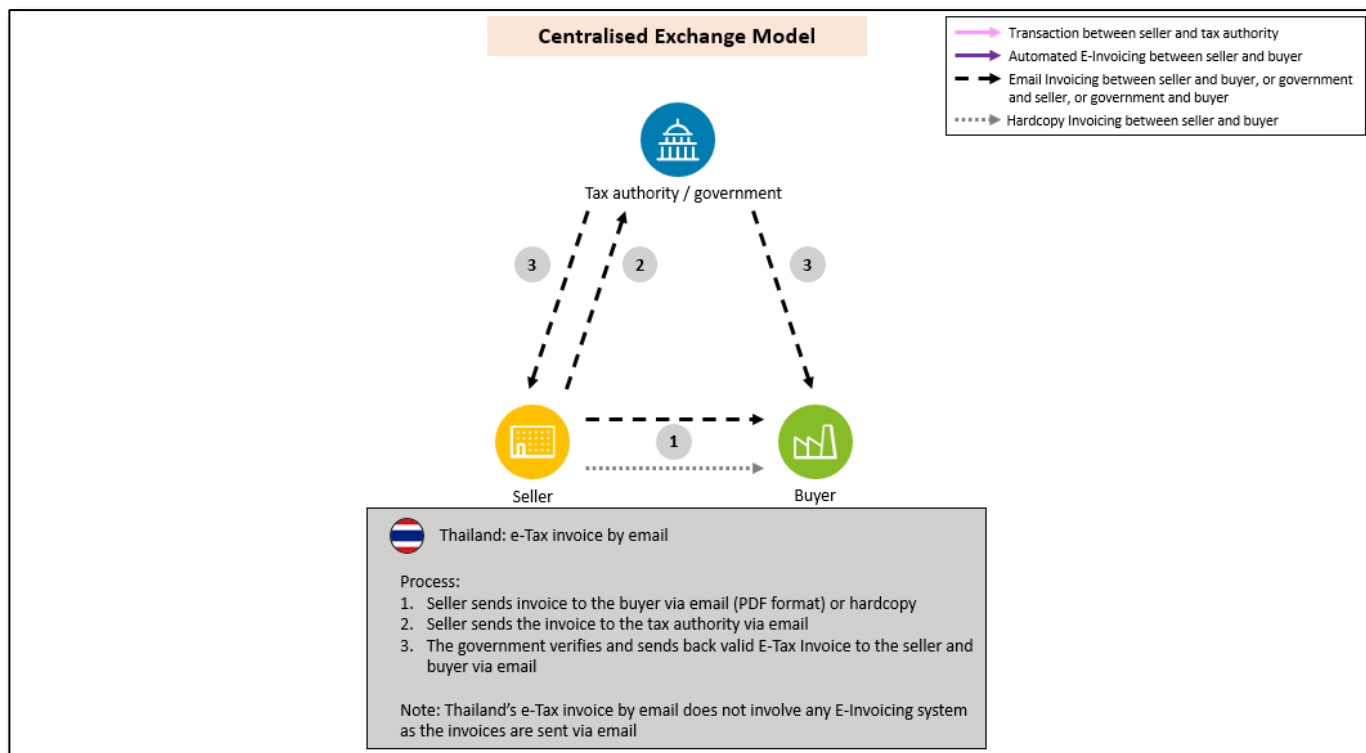


Figure 2.2.4.1 Archetype for Centralised Exchange Model

2.2.5 Decentralised CTC and Exchange (DCTCE) Model

The difference between the Centralised Exchange Model and the DCTCE Model is that the data validation and exchange is performed by certified service providers instead of a central platform by the government. All certified service providers need to adhere to the predefined minimum technical standards to ensure system interoperability but can use other agreed standards outside the regulated standards zone for tax reporting and clearance. Rather than building the system from scratch, DCTCE Model allows the government to leverage existing core investments in tax administration and public procurement platforms. DCTCE Model requires real-time or near real-time data submission to the government. However, as of May 2022, there is not yet a real-life example of a country to have implemented this model⁹.

⁸ A Next Generation Model for Electronic Tax Reporting and Invoicing, February 2022

⁹ A Next Generation Model for Electronic Tax Reporting and Invoicing, February 2022

2.3 BENEFITS OF E-INVOICING

There are numerous benefits associated with the implementation of E-Invoicing. It brings about ample benefits by digitalising a classically laborious process that involves significant processing, error, and storage cost. In addition, E-Invoicing also provides the foundation to integrate source-to-pay solutions and unlock greater value across the ecosystem.

2.3.1 Faster Payment Cycle

In the manual invoice process, businesses or individuals need to spend a lot of time organizing, preparing the required information, and proofreading the invoices before submitting them for approval. Conversely, E-Invoicing implementation can fully automate the invoice processes from preparing the invoices to approval. It allows invoices to be processed much faster. This leads to a shorter processing time that will enable businesses to get on-time payments from their buyers, which can strengthen business cash flow. In addition, the adoption of E-Invoicing shortens the time from invoicing to payment. It thus increases the suppliers' liquidity and increases the chance of buyers getting a trade discount if previously agreed¹⁰. This is supported by a study that stated E-Invoicing improves the on-time payment of invoices from 45% to 92%¹¹. In addition, a business can save processing costs up to US\$6 per invoice with E-Invoicing¹².

2.3.2 Productivity and Efficiency Benefits

There are direct and indirect benefits on productivity and efficiency associated with adopting E-Invoicing instead of traditional paper-based invoicing. The documents must be stored, sorted, and entered into the accounting system for paper or PDF invoices. These steps, especially data entry, are inherently time-consuming and prone to error. With E-Invoicing, data is sent directly from the supplier to the buyer's accounting system, eliminating the need for manual data validation or data entry. As a result, the entire invoicing process is made simpler and more efficient for buyers and sellers. With the automation involved in the E-Invoicing process, employee productivity also has spillover benefits. Since employees no longer need to process invoices manually, manpower hours can be reallocated to higher value-adding activities. Depending on how or where each organization allocates its time and resources, adopting E-Invoicing can significantly indirectly benefit organizational productivity.

2.3.3 Reduction in Manual Processing Errors

In current paper-based invoicing practices, missing or invalid invoices are often due to manual processing errors. From preparation to receipt of paper invoices, there are multiple points of potential errors that could arise. Conversely, an E-Invoicing system enables businesses to reduce manual intervention and mitigates the risk of losing

¹⁰ What you should know about e-invoicing – Available at <https://www.seeburger.com/info/what-you-should-know-about-e-invoicing/>

¹¹ IMDA Website

¹² Study on the impacts of the e-invoicing on Singapore's economy, 2018.

invoicing in transit. It allows invoices to be transferred from one system to another by removing manual data input to reduce the number of errors in invoices. Allowing less manual handling means reducing human errors in processing invoices¹³. In addition, the adoption of E-Invoicing enables businesses or individuals to reduce the likelihood of time-consuming invoice disputes since it uses automatic data exchange to reduce the possibility of manual entry errors by sending a signal to resolve the issue immediately¹⁴. The greater the level of automation in the invoicing process, the less likely it is for human errors to occur.

The benefit from error reduction in invoicing practices is also significant. A survey and other public literature from Hackett Group (2014) and IBM Sterling Commerce UK (2010) show that, on average, close to 3% of paper invoices are disputed, with corrective actions costing on average up to \$72 to rectify. These costs add up to approximately \$700 million a year in lost revenue and productivity¹⁵. Meanwhile, the E-Invoicing implementation can significantly reduce the error of invoices by up to 50%, according to findings from the same sources quoted above. And the average benefit per invoice from error was established to range between \$1.00 and \$2.09 depending on the degree of automation.

2.3.4 Cost Savings

Adopting E-Invoicing will eliminate storage costs and processing costs of traditional paper invoices. Invoices are often required to be archived and stored for certain durations, primarily for the purpose of audits. There will be significant storage costs with paper invoices, including the actual storage costs, retrieval costs (for audits or other requests), and destruction costs. It is estimated that 450 to 72,000 paper invoices are generated in a year per business¹⁶. Large organizations may choose to engage a storage management provider to store their documents off-site. Smaller organizations with smaller volumes of invoices may opt to keep their archives within their premises, this too involves the occupation of real estate, which involves costs that are often not taken into consideration. According to a previous study done by a consulting firm, the average cost of storage per invoice is estimated to range from S\$0.69 to S\$2.43, depending on the size of the firm and the volume of invoices. With the adoption of E-Invoicing, costs involved with processing paper invoices will also be eliminated. This includes postal, printing, and paper fees. It is estimated that by implementing E-Invoicing, businesses could save up to 70% in processing costs compared to manual PDF invoice processing¹⁷.

An illustration is provided below to understand the four E-Invoicing benefits above better. For example, a small company generated 2,000 paper invoices per year. After implementing E-Invoicing, this company gained significant benefits from saving processing and storage costs to reducing manual invoice errors. (Refer to Figure 2.3.4.1 The illustration of the benefits of E-Invoicing).

¹³ Electronic Invoice to the Future – Available at <https://www.cloudoffix.com/invoicing-cloud/features/e-invoice>

¹⁴ How e-invoicing affects more than “just” invoicing – Available at <https://www.basware.com/en-en/blog/march-2019/how-e-invoicing-affects-more-than-just%E2%80%9D-invoicing/>

¹⁵ S\$700 million based on estimated 440 million invoices in 2017, of which ~352 million (~80%) are paper invoices. With a 2.9% error rate, ~10 million invoices are estimated to be erroneous, where each error costs ~S\$72 to rectify

¹⁶ IMDA E-Invoicing Study

¹⁷ Deloitte – Tax Insights – Available at <https://www2.deloitte.com/content/dam/Deloitte/au/Documents/tax/deloitte-au-tax-insights-5-e-invoicing-310321.pdf>

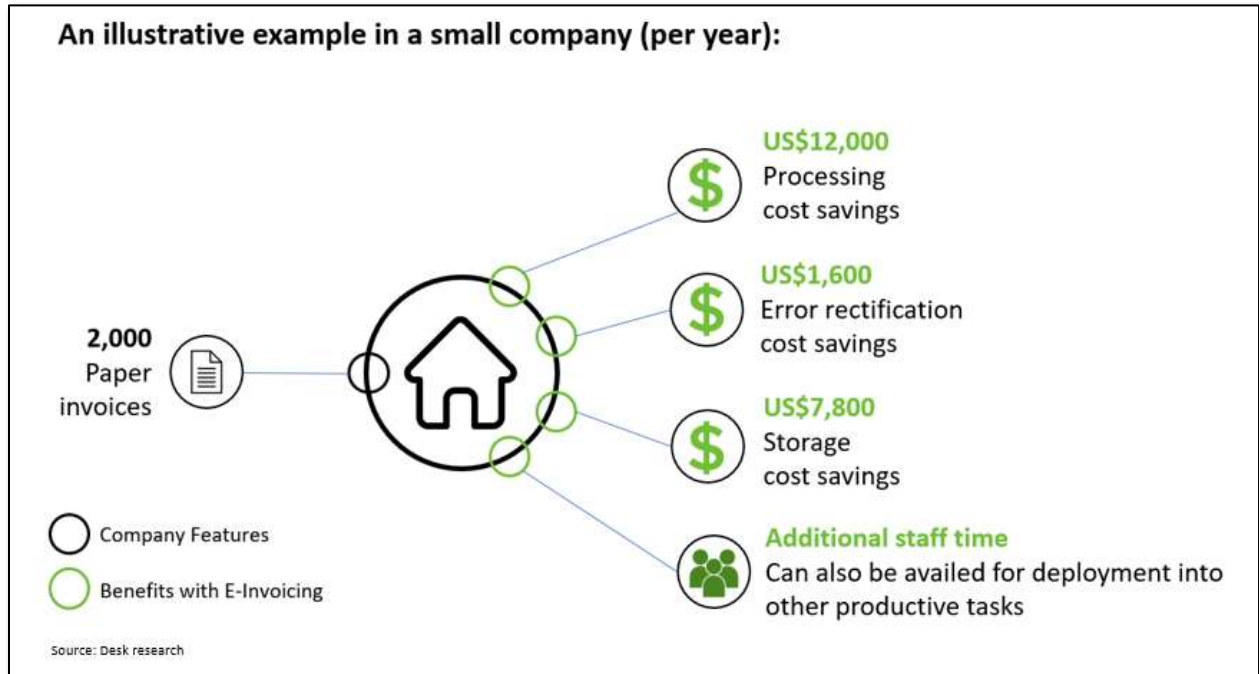


Figure 2.3.4.1 The illustration of the benefits of E-Invoicing

2.3.5 Improve Tax Administration

Other than business purposes, the current implementation of E-Invoicing is also driven by tax purposes. E-Invoicing system enables the tax authority to collect all invoice data in real or near-real time to improve tax administration. Non-compliant tax invoices are invoices where an individual or business entity intentionally misrepresents information on a tax return to avoid paying the entire tax obligation or to be invisible to tax authorities altogether¹⁸. This reduces the national income that belongs to the government and the people. The loss of tax income can be substantial. For example, in a report by the Directorate General of Taxes (DGT) in 2015, Indonesia experienced losses of US\$449,82 million due to non-compliant invoices¹⁹. Therefore, the urge to improve tax administration is the main objective for many countries, including the AMS to implement E-Invoicing.

In the past, non-compliant invoices were difficult and time-consuming for tax authorities to detect. This allows many businesses or individuals to fabricate or inflate their invoices fraudulently. Contrary to that, the adoption of E-Invoicing enables tax authorities to improve tax administration by digitizing all invoice processing. Besides, an E-Invoicing system can help tax authorities to ensure the validation of the invoice data. This can be done by using a digital signature that the invoice issuer must obtain before sending it to the buyer. Furthermore, E-Invoicing will enhance the transparency of business transactions, leading to improving tax compliance and administration. This is

¹⁸ OECD website

¹⁹ Indication of fictitious tax invoices reaching IDR 6.5 trillion – Available at <https://nasional.kontan.co.id/news/indikasi-faktur-pajak-fiktif-capai-rp-65-triliun>

supported by a study where 69.4% of the respondents agreed that e-VAT invoicing has contributed to better tax administration²⁰.

One of the AMS countries that have implemented this e-Tax invoicing system is Indonesia. This E-Invoicing system is known as the E-Faktur Pajak application. It was created in 2013 and was mandatory for all taxpayers around Indonesia from 2016 onwards²¹. Through this system, all invoices must be sent to the DGT to obtain approval before sending them to the buyer. It enables the DGT to ensure the authenticity of the invoices data to improve tax administration.

2.3.6 Integrated Source-to-Pay Solution (S2P)

Another benefit of E-Invoicing is to provide the foundation to make integrated source-to-pay (S2P) solutions that can unlock greater value across the ecosystem. S2P solution is a process that starts with finding, negotiating with, and contracting the supplier of goods and culminates in final payments for those goods. Implementing an S2P solution enables the combination of many critical processes into a single platform that leads to greater efficiency, strengthens regulatory compliance, and improves collaboration among trading partners²². This future integrated S2P can be classified based on the degree of solution integration and value-added features provided. As many countries have implemented today, the basic E-Invoicing only provides VAT compliance and payment request system. However, it can be further developed as a comprehensive end-to-end solution in the future, including an e-payment system. (Refer to Figure 2.3.6.1 The integrated Source-to-Pay (S2P) Solutions).

²⁰ Can Electronic Tax Invoicing Improve Tax Compliance? – Available at <https://elibrary.worldbank.org/doi/abs/10.1596/1813-9450-7592>

²¹ 1 July 2016, PKPs in Indonesia must use e-faktur – Available at <https://www.kemenkeu.go.id/publikasi/berita/1-juli-2016-pkp-se-indonesia-wajib-gunakan-e-faktur/>

²² What is Source-to-Pay? – Available at [https://www.ariba.com/solutions/business-needs/what-is-source-to-pay#:~:text=Source%2Dto%2Dpay%20\(S2P\)%20is%20a%20process%20that,networks%20to%20create%20procurement%20eficiency.](https://www.ariba.com/solutions/business-needs/what-is-source-to-pay#:~:text=Source%2Dto%2Dpay%20(S2P)%20is%20a%20process%20that,networks%20to%20create%20procurement%20eficiency.)

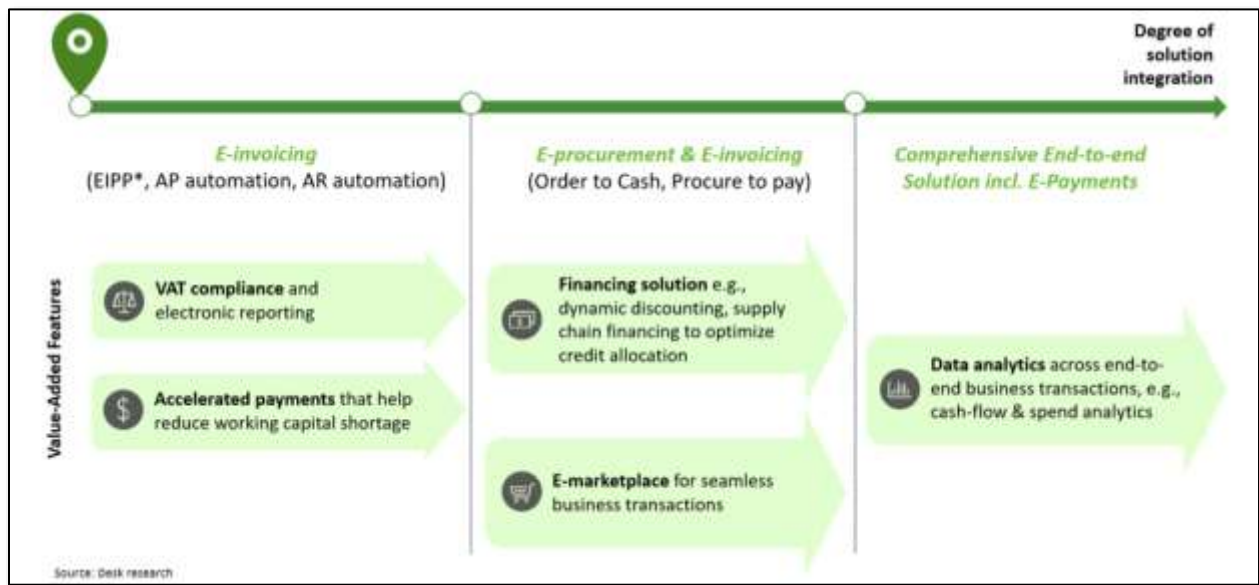


Figure 2.3.6.1 The integrated Source-to-Pay (S2P) Solutions

3. BRUNEI



3.1 BACKGROUND/BUSINESS LANDSCAPE

Brunei has a GDP of US\$12 billion and a population of 460,000²³. According to Brunei's Registry of Companies and Business Name, there are 11,840 registered companies in the country²⁴. Brunei's resource-oriented economy is driven by exports of liquefied natural gas (LNG) and crude oil to other Asian markets. However, the country is facing challenges in its economic landscape due to its heavy dependence on oil and gas. Moving forward, the government is looking to diversify the economy away from oil and gas and into other sectors. In 2008, Brunei Darussalam began its journey towards Wawasan Brunei 2035, its national vision to be transformed into a dynamic and sustainable economy²⁵. One of the key strategic roadmaps which support Wawasan Brunei 2035 is the Digital Economy Masterplan 2025. The Masterplan aims to drive and enhance Brunei's socio-economic growth through Digital Transformation²⁶. Key projects include the development of digital payments, one common billing system and the Treasury Accounting and Financial Information System (TAFIS).

TAFIS is the Bruneian government's Electronic Accounting and Information Financial System. The TAFIS E-Invoice Portal provides infrastructure and a standardised process for invoicing in business-to-government (B2G) transactions only. (Refer Figure 3.1.1 Schematic diagram of the invoicing process in Brunei). Brunei does not have an E-Invoicing system for the business-to-business (B2B) transactions.

²³ Statista

²⁴ One Common Portal

²⁵ Wawasan Brunei 2035 Booklet

²⁶ Digital Economy Masterplan 2025

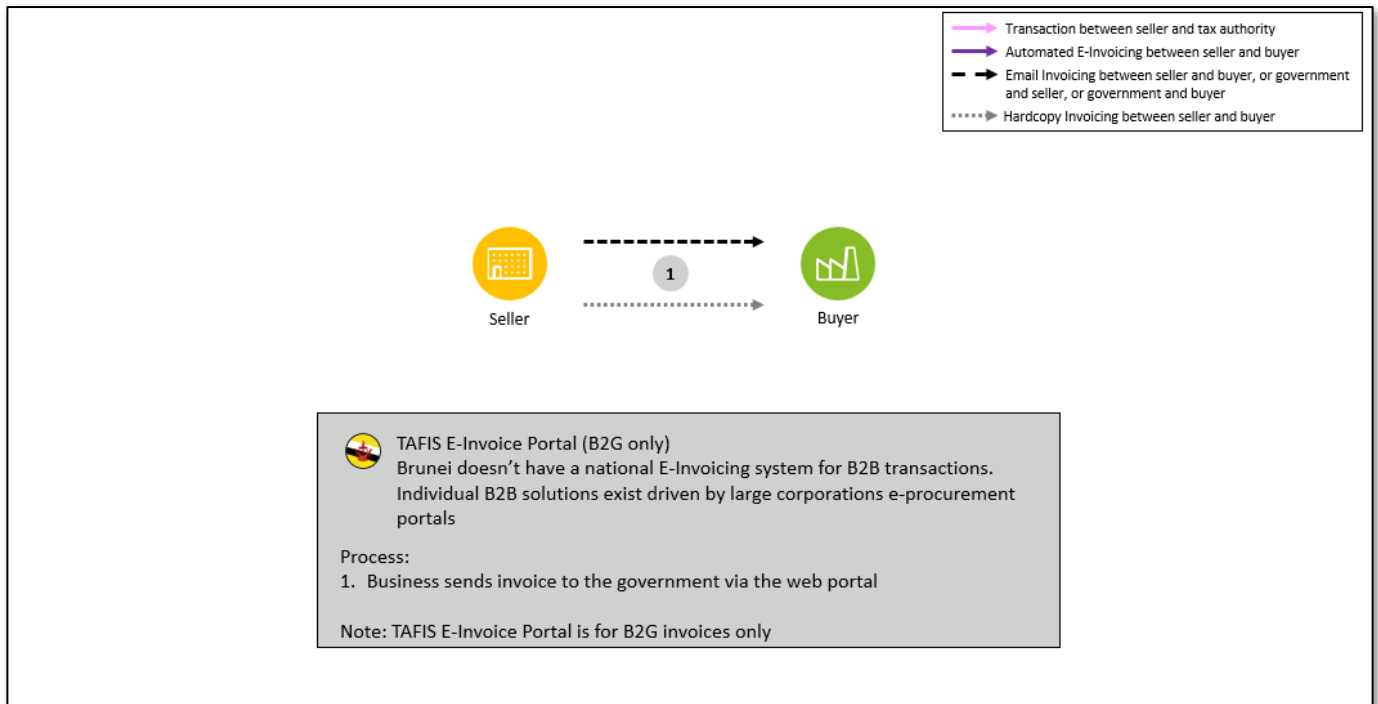


Figure 3.1.1 Schematic diagram of the invoicing process in Brunei

3.2 DEMAND SIDE ASSESSMENT

E-Invoicing in Brunei is still a relatively new process. The first iteration of TAFIS was launched in 2002. However, it was only till much later in 2017 when TAFIS was re-designed to facilitate B2G E-Invoicing, and the TAFIS E-Invoice portal was launched²⁷. The advantages of E-Invoicing and the government’s Digital Economy Masterplan have been identified as indications towards the proliferation of E-Invoicing within Brunei in the future.

3.2.1 Advantages of E-Invoicing

In the early 2000s, Brunei recognised the need to transform and enhance information and communication technology. This prompted the development and launch of the TAFIS system which facilitates the payment process and services. Since its launch in 2002, TAFIS has managed to enhance the efficiency, transparency and data quality of financial processes. For merchants or members of the public who use TAFIS as well, they can enjoy faster payments and increased convenience when liaising with any government department. More specifically, the TAFIS E-Invoice Portal helps to capture the actual date of the invoice submission to improve monitoring and accountability of parties involved in the transaction. It also eliminates hardcopy supporting document submission by allowing vendors to upload and digitize supporting documents, effectively improving overall payment processing time.

²⁷ TAFIS website

3.2.2 Push on Digital Economy Masterplan 2025

Brunei’s Digital Economy Council launched the Digital Economy Masterplan 2025 in June 2020, with the aim of transforming Brunei into a Smart Nation. The Digital Economy Masterplan 2025 is intended to support the broader national goal of Wawasan Brunei 2035 with the following strategic outcomes: A digital and future-ready society, A vibrant and sustainable economy and A digitally conducive ecosystem. Under the Masterplan, sectors targeted include the logistics and transportation, education and financial services sectors²⁸. Multiple digital transformation projects have already been carried out, including the development of TAFIS. (Refer to Figure 3.2.2.1 Timeline of key projects of Brunei’s Digital Economy Masterplan 2025). In the coming years, more projects in the private sector and other government departments will be underway. With projects relating to payments systems and a business service platform being in the pipeline, Brunei will likely continue pushing the utilisation of E-Invoicing systems.

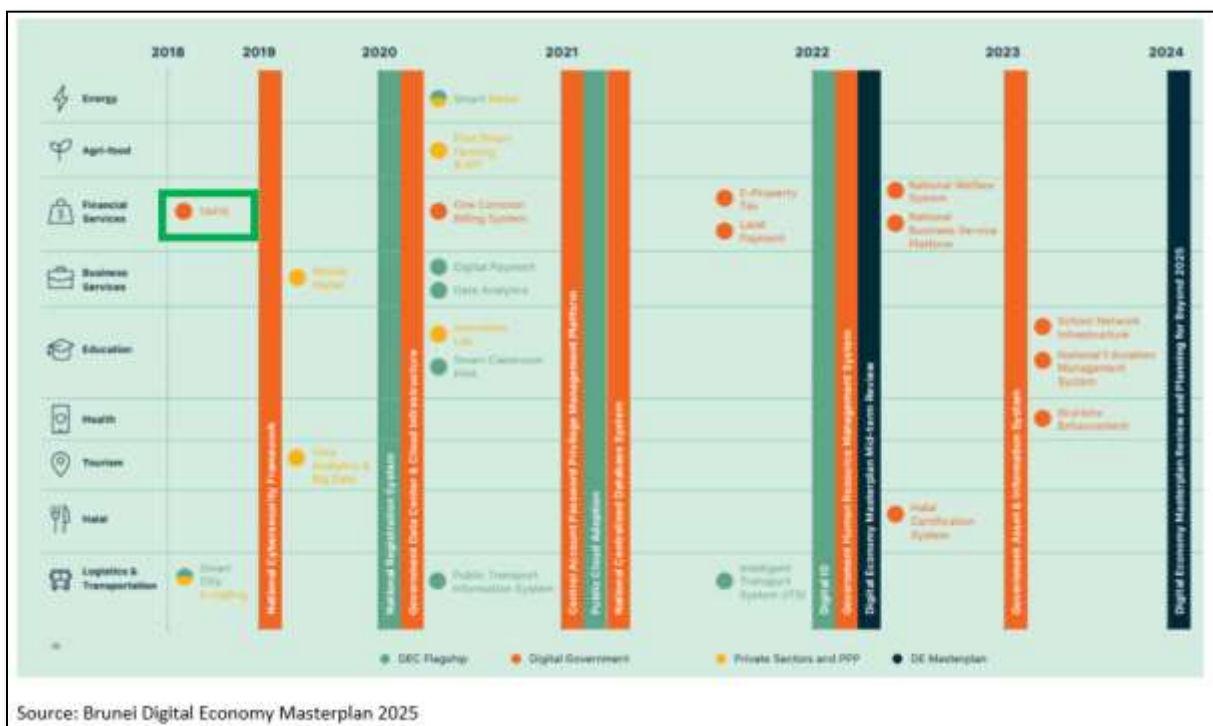


Figure 3.2.2.1 Timeline of key projects of Brunei’s Digital Economy Masterplan 2025

A key development that’s in the pipeline is Brunei’s National Business Services Platform (NBSP). The Brunei government has several different information systems that caters to the public and businesses with regards to application processes. Brunei Darussalam National Single Window (BDNSW), eDarussalam, Bru-HIMS, and OneBiz are some of the systems that have been implemented and have related processes to help accelerate the processing of approvals, licenses, and documentation. The NBSP will provide a consolidated system that will house all relevant government agencies processes relating to business to ensure a seamless flow of applicants’ data and information

²⁸ Digital Economy Masterplan 2025

across different agencies and applications. The platform will also provide convenient access to applicants' documentation in the form of softcopy data and other related files. This access to documentation will allow agencies to make their decision-making process more efficient and help facilitate more effective customer service processes. This initiative to digitalise and integrate the whole B2G and C2G process will aid in advancing Brunei towards being a digital economy.

Another key flagship project of the masterplan is the development of the National Centralized Database system. The database infrastructure will facilitate all government agencies to store their data centrally and share information through it²⁹. The centralised database will be set up in collaboration with Dynamik Technologies and can be accessed by agencies involved in welfare assistance such as the Ministry of Culture, Youth and Sports and the Brunei Islamic Religious Council. In return, this will allow agencies to share data on a range of matters, including welfare assistance programmes³⁰.

3.3 SUPPLY SIDE ASSESSMENT

The TAFIS E-Invoice Portal, which facilitates B2G transactions, is currently the only E-Invoicing system in Brunei.

3.3.1 TAFIS E-Invoice Portal

The TAFIS E-Invoice Portal is the nationwide B2G invoicing system in Brunei. During the mid-90s, the Ministry of Finance recognised the need for a new system to help re-engineer the government's financial processes and provide automation, in a bid to move towards becoming an information technology-based nation. In March 2002, Brunei's Ministry of Finance and Economy introduced Treasury Accounting and Financial Information System (TAFIS)³¹. The tender to develop TAFIS was awarded to BAG Networks Sendirian Berhad, a joint venture between a wholly government-owned company and Accenture³². The TAFIS System was built to enhance information and communication technology by facilitating payment processes, allowances and services. (Refer Figure 3.3.1.1 Transition from PC Based Systems towards and Integrated TAFIS System).

²⁹ National Centralised Database – Available at <https://www.brudirect.com/news.php?id=64767>

³⁰ National database to centralise gov't data – Available at <https://thescoop.co/2019/03/13/national-database-to-provide-govt-agencies-public-with-access-to-information/>

³¹ Ministry of Finance and Economy

³² Report on Public Sector Modernisation Through The Treasury Accounting and Financial Information System (TAFIS) Project

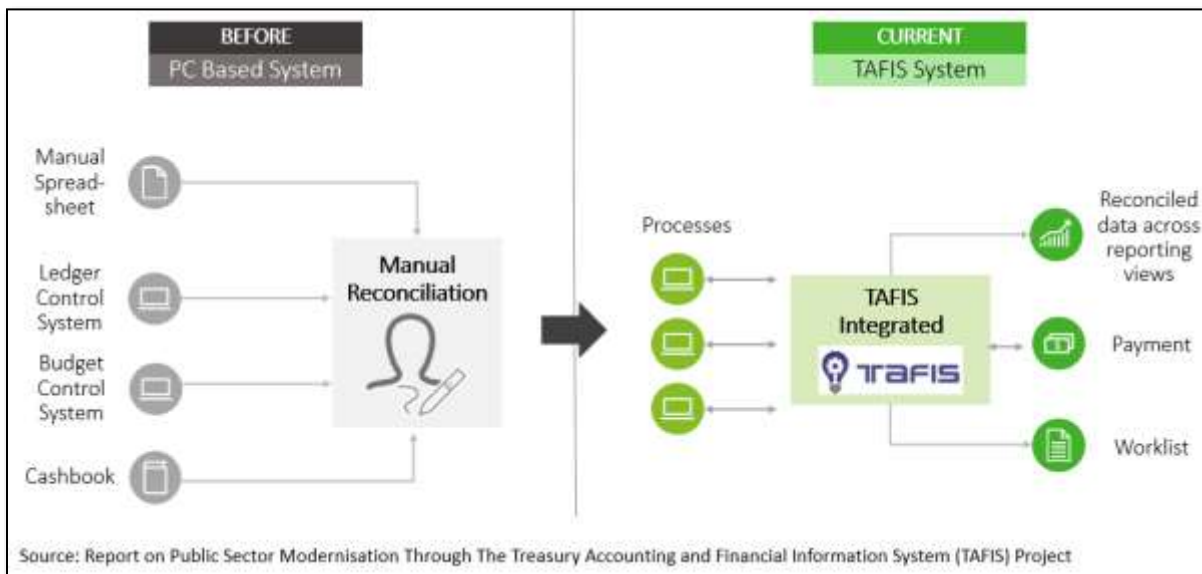


Figure 3.3.1.1 Transition from PC based systems towards and integrated TAFIS system

In 2017, the E-Invoicing function of TAFIS, TAFIS E-Invoice Portal, was further introduced. TAFIS E-Invoice Portal is an online Portal where government vendors and suppliers can submit invoices and digital supporting documents to government departments online. With the Portal, vendors can expect to receive payments within a maximum of 30 days of submission of E-Invoice. During the first 5 months of the launch of the TAFIS E-Invoice Portal, a total of 21,834 invoices were submitted through the system with 15,448 or 70.8% settled³³.

³³ 15, 448 Invoices Settled Through E-Invoice – Available at <https://mmwcreative.com/demo/oldthebruneian/15-448-invoices-settled-through-e-invoice/>

3.4 ENABLERS ASSESSMENT

In Brunei, E-Invoicing is only used between government vendors and the government (B2G) via the TAFIS E-Invoice Portal. However, there are a few enablers that point towards the potential of E-Invoicing becoming more mainstream, as outlined below. (Refer to Figure 3.4.1 Key initiatives to drive the adoption of E-Invoicing in Brunei).

Enablers	Initiatives
1) Government & Institutional Support	<ul style="list-style-type: none">• Wawasan Brunei 2035• Digital Payment Roadmap for Brunei Darussalam 2019-2025
2) Nationwide Standards	<ul style="list-style-type: none">• Regulation by Ministry of Finance and Economy (MoFE)
3) Financing & Funding	<ul style="list-style-type: none">• National Budget Allocation• Go Digital ASEAN

Source: Desk research

Figure 3.4.1 Key initiatives to drive the adoption of E-Invoicing in Brunei

3.4.1 Government & Institutional Support

Wawasan Brunei 2035

Wawasan Brunei 2035, was developed in 2008 and it outlines Brunei's aspirations and goals to achieve by the year 2035. The three main goals of Wawasan 2035 are for the citizens of Brunei to be highly skilled and accomplished, to enjoy a high quality of life and for the economy to be dynamic and sustainable. These 3 goals are further broken down into 12 national outcomes and 37 supporting KPIs³⁴. With Autoriti Monetari Brunei Darussalam (AMBD), Brunei's central bank, as one of the key stakeholders of this strategic plan, potential upgrading and transformations may be made to Brunei's financial systems. This might include digitalisation of payments systems and the expansion of E-Invoicing systems from solely B2G channels to include B2B channels as well.

Digital Payment Roadmap for Brunei Darussalam 2019-2025

AMBD has developed the "Digital Payment Roadmap for Brunei Darussalam 2019-2025" as part of its strategic initiatives to drive digitalisation in the payments industry in Brunei³⁵. The Roadmap, which outlines key strategies towards a Digital Payment Nation, is in line with Wawasan Brunei 2035's aspiration towards a dynamic and diversified economy. The digital transformation strategies in the Roadmap focuses on three key strategic areas of balancing regulation and innovation; adoption of open digital payment; and public awareness and education. The second key area involves greater adoption of digital payment solutions to promote market interoperability and

³⁴ Wawasan Brunei 2035 Booklet

³⁵ Press Release - Digital Payment Roadmap for Brunei Darussalam 2019-2025

encourage fair market competition. With the digital payment processes of businesses being developed, merchants can look forward to more secure and cost-effective payment systems, including E-Invoicing systems.

3.4.2 Nationwide Standards

Regulation by Ministry of Finance and Economy (MoFE)

To trade with the Bruneian Government, all vendors must issue invoices using the TAFIS E-Invoice Portal. The TAFIS E-Invoice Portal eliminates the need to submit a hardcopy invoice and replaces the manual process with an e-Submission on the online portal instead³⁶. Only vendors who are valid, active and registered under TAFIS can use the TAFIS E-Invoice Portal.

To submit an E-Invoice and to receive their payment vouchers, vendors need to follow an 8-step process as outlined by the Ministry of Finance and Economy (MoFE). (Refer Figure 3.4.2.1 B2G invoicing process with TAFIS E-Invoice Portal). Firstly, upon receiving a purchase order (PO) from the relevant government departments, the vendor shall deliver the goods or services. secondly, vendors are to provide information such as the vendor ID and total invoice amount on the TAFIS E-Invoice Portal and attach any supporting documents including the purchasing order in PDF format. Thirdly, following the successful entry of invoice details, an “e-Submitted” status will be indicated. Lastly, the vendor’s payment voucher will be created and approved after the E-Invoice has been “e-Certified” by the relevant government department. Vendors are required to archive any supporting documents for up to ten years after the transaction to prove the veracity of the invoice.

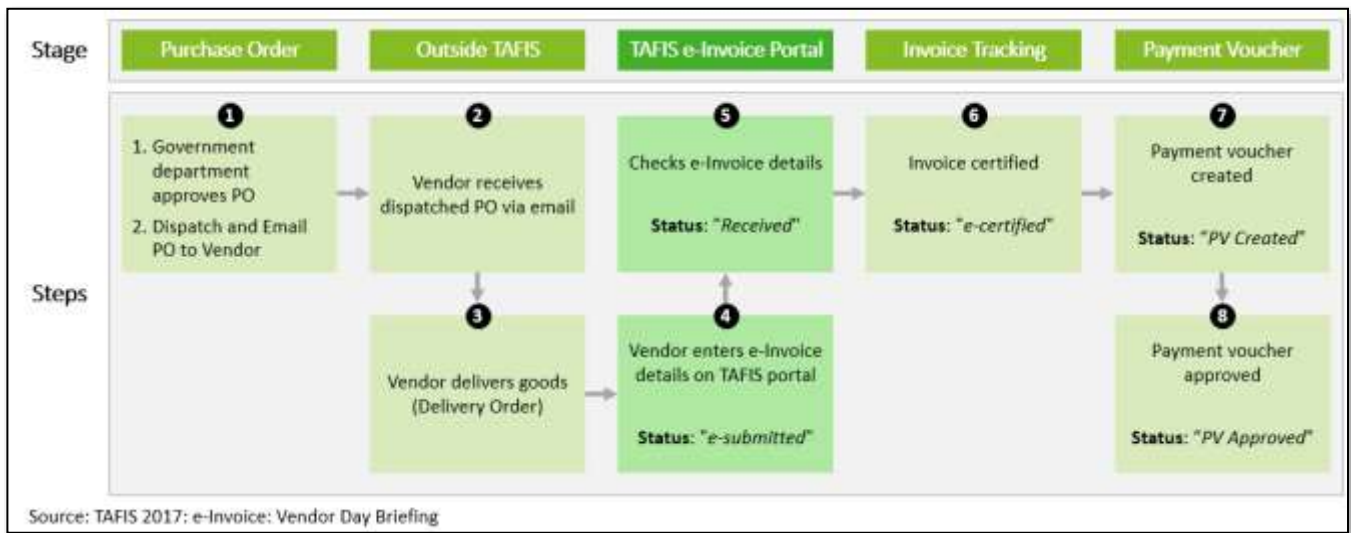


Figure 3.4.2.1 B2G invoicing process with TAFIS E-Invoice Portal

³⁶ TAFIS 2017: e-Invoice: Vendor Day Briefing – Available at <http://www.tafis.gov.bn/support.html#tab17-panel>

3.4.3 Financing & Funding

Go Digital ASEAN

In 2020, DARE (Darussalam Enterprise), launched Go Digital ASEAN. Supported by a US\$3.3 million grant from Google.org, the Go Digital ASEAN initiative aims to equip 200,000 individuals and small-medium enterprises across ASEAN member states with crucial digital skills and tools³⁷. In Brunei, the initiative will utilise the funding to develop digital literacy training modules for 4,000 micro-entrepreneurs and underemployed youth, deliver training to youth and business owners to gain the skills to open markets for their products, craft their own digital marketing campaigns and provide them with tools to monitor and adapt marketing campaigns.

National Budget Allocation

In Brunei's 2021-2022 national budget, BND1.9 million was jointly allocated to the Prime Minister's Office (PMO) and the Ministry of Finance and Economy (MoFE) to develop the Government Human Resource Management System (GHRMS)³⁸. This system will be integrated with the TAFIS to develop TAFIS Two in order to coordinate human resource management of the public sector including salary payment and other services.

3.5 OVERVIEW OF E-INVOICING IN BRUNEI

E-Invoicing in Brunei is still in its nascent stages, given that the TAFIS E-Invoice Portal is limited to B2G transactions. However, there are a myriad of digitisation initiatives being championed by various departments of the government, which indicates potential development in the areas of digital payments and E-Invoicing. The smart nation initiatives and transformation projects launched previously had a positive impact on the Smart Nation goals of Wawasan 2035, could potentially contribute to increase the usage of E-Invoicing in Brunei.

³⁷ Brunei launches Go Digital Asean – Available at <https://www.thestar.com.my/aseanplus/aseanplus-news/2020/07/17/brunei-launches-go-digital-asean>

³⁸ New budget to focus on productivity using technology – Available at <https://borneobulletin.com.bn/new-budget-to-focus-on-productivity-using-technology/>

4. CAMBODIA



4.1 BACKGROUND/BUSINESS LANDSCAPE

Cambodia follows an open market economy. The diversified economy depends heavily on textiles and tourism and includes significant agricultural, oil and natural gas, financial services, port and logistics services, education and trading activities. Cambodia had a GDP of US\$25.8 billion and a total population of 16.72 million in 2020 . As of today, Cambodia does not have a national E-Invoicing system. Sellers are sending invoices to buyers either by hardcopy postal or digitally in PDF via email. (Refer Figure 4.1.1 Schematic diagram of the invoicing process in Cambodia).

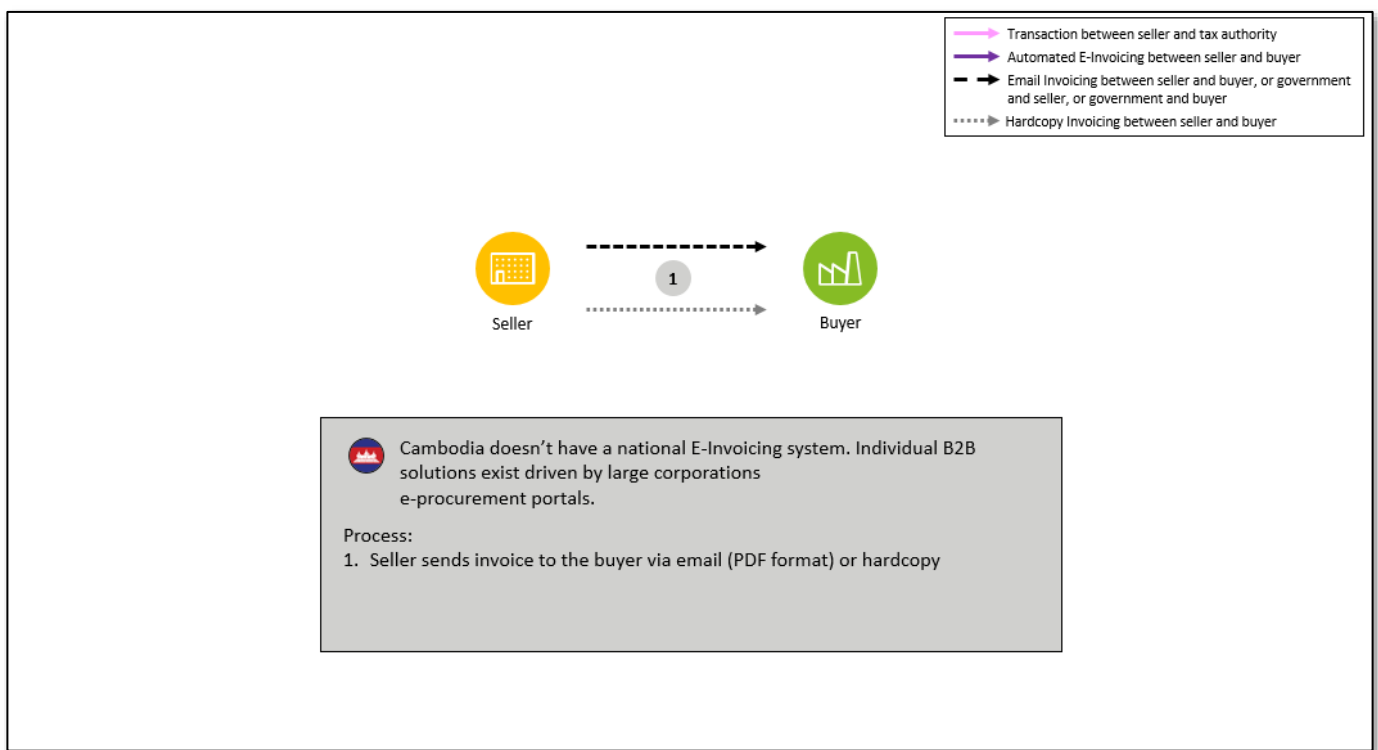


Figure 4.1.1 Schematic diagram of the invoicing process in Cambodia

4.2 DEMAND SIDE ASSESSMENT

Even though Cambodia does not have an E-Invoicing system, the push on tax digitalisation and the Cambodia Digital Economy and Society Policy Framework 2021-2035 could potentially drive up the adoption of E-Invoicing in Cambodia.

4.2.1 Push on Tax Digitalisation

Notification No. 1861 GDT (28 January 2021) announces the establishment of the e-filing system for income tax returns. The General Department of Taxation's (GDT) parent ministry, the Ministry of Economy and Finance issued Directive No 003 dated 20th February which gave GDT the order to launch the online Tax on Income (ToI) e-filing system³⁹. Self-assessed taxpayers must file their income tax returns through this e-filing system from March onwards. This e-filing system aims to provide a better service for taxpayers as well as to improve the effectiveness and efficiency of revenue collection, and to ensure transparency. Before this e-filing system, tax filings were physically delivered to the tax office and taxpayers would need to wait for long hours to make payment. The new e-filing system allows taxpayers to save more time because they do not need to go to the tax office or bank as the system includes an e-payment facility that eight commercial banks are cooperating with the tax department⁴⁰. Additionally, it helps to reduce carbon emissions as there is no need to travel back and forth. This e-filing system is one of the most impactful technology advances that the GDT has achieved to date. Ideally, all tax-related processes will be automated to achieve greater value for both the taxpayers and GDT. Potentially, this can drive up the adoption of E-Invoicing in Cambodia.

4.2.2 Cambodia Digital Economy and Society Policy Framework 2021-2035

Recognising global trends and understanding the potential of technology to promote competitiveness and sustainable growth, Cambodia aims to be ready to transform into a digital economy. In June 2021, the Royal Government of Cambodia (RGC) has introduced the Cambodia Digital Economy and Society Policy Framework 2021-2035. This framework has put in place a long-term vision in building a lively digital economy and society through preparing the fundamental digital adoption and evolution across the Cambodian economy from the Government, to the business community and Cambodian citizens. This vision is to be achieved in 15 years in line with three principles: Building Digital Foundations, Digital Adoption, Digital Transformation⁴¹. The Cambodian government believes that building a digital economy as a new source of economic growth will increase productivity and

³⁹ GDT: Income tax e-filing system online in March – Available at <https://www.phnompenhpost.com/business/gdt-income-tax-e-filing-system-online-march>

⁴⁰ Use of tax e-filing system mandated from March onwards – Available at <https://www.khmertimeskh.com/50817426/use-of-tax-e-filing-system-mandated-from-march-onwards/>

⁴¹ Cambodia Digital Economy and Society Policy Framework 2021 - 2035

economic efficiency as well as improve the well-being of the Cambodian people⁴². E-Invoicing can contribute towards achieving the goals.

4.3 SUPPLY SIDE ASSESSMENT

In Cambodia, the ICT sector has shown exponential growth and opportunities with an increase in the demand for the internet, mobile phones and other forms of technologies. The internet users in Cambodia have grown exponentially from 320,000 in 2010 to over 9 million by 2020⁴³. In addition, 4G was first launched in 2016 and the mobile operators in Cambodia are working aggressively to build their 5G networks. Smart Axiata Co Ltd, Cellcard, Metfone and South East Asia Telecom Group Pte Ltd are four Cambodian-based telecommunication companies that have tested 5G by September 2021⁴⁴. A faster internet speed and wider nationwide connectivity can help to build a stronger digital ecosystem which is a key driver towards building a digital economy.

Moreover, by mid of 2019, more than 50 payment companies were offering cashless services in Cambodia⁴⁵. This includes ABA Bank, a leading private financial institution in Cambodia. ABA has revamped its internet banking platform and launched the Internet Banking for Business (IBB) in 2020⁴⁶. With ABA's IBB, companies can now pay bills easily, process payrolls on time, transfer funds to local and international suppliers securely and process batch transactions. ABA's Host-to-Host solution offers businesses a fully automated bulk payment file submission and account reconciliation effortlessly by connecting the business ERP system with ABA's core banking system through a secure channel⁴⁷. Furthermore, ABA has integrated its IBB with accounting management software such as QuickBooks and Xero to enable a more seamless transaction for businesses.

Even if Cambodia does not have any E-Invoicing providers at this stage, the ICT and financial services ecosystems show that E-Invoicing is a potential development in Cambodia that contributes towards digitalising the economy.

⁴² Government launches new digital plan for its economic development – Available at <https://www.khmertimeskh.com/50877963/government-launches-new-digital-plan-for-its-economic-development/>

⁴³ IT & Communications in Cambodia – Available at <https://www.b2b-cambodia.com/industry-overviews/it-communications/#1464427173109-6271164d-cdb2>

⁴⁴ Cambodia Telecoms at a Crossroads: 5G & Monitoring – Available at <https://www.b2b-cambodia.com/articles/cambodian-telecoms-at-a-crossroads-5g-monitoring/>

⁴⁵ Telcos and Mobile Devices in Cambodia – Available at <https://www.b2b-cambodia.com/articles/telcos-and-mobile-devices-in-cambodia/>

⁴⁶ ABA Bank well set for the next 25 years after extraordinary journey – Available at <https://www.phnompenhpost.com/supplements/aba-bank-well-set-next-25-years-after-extraordinary-journey>

⁴⁷ ABA IBB website

4.4 ENABLERS ASSESSMENT

The Cambodian government is the main driver towards adopting E-Invoicing in Cambodia. (Refer Figure 4.4.1 Key initiatives to drive the adoption of E-Invoicing in Cambodia).

Enablers	Initiatives
1) Government & Institutional Support	<ul style="list-style-type: none"> • Cambodia E-Government Strategic Plan 2018 – 2023 • Cambodia-Korea Digital Government Cooperation Centre (DGCC)

Source: Desk research

Figure 4.4.1 Key initiatives to drive the adoption of E-Invoicing in Cambodia

4.4.1 Government & Institutional Support

Cambodia E-Government Strategic Plan 2018-2023

A digital-savvy government is a crucial component of a digital economy. The development of digital economy will need to go alongside with the setup of a unified governance system through which all ministries and institutions fulfil their duties electronically. Therefore, the Cambodia E-Government Strategic Plan 2018-2023 was drafted by the telecommunication ministry. This plan aims to encourage a shift towards a digital economy and to promote the use of digital technologies in the public sector to boost efficiency, fairness, transparency and convenience for the people⁴⁸. Specifically, South Korea has always supported Cambodia in improving its digital technology⁴⁹. The Ministry of the Interior and Safety of South Korea and the minister of Posts and Telecommunications of Cambodia signed a memorandum of understanding (MOU) on e-government in November 2021. Cambodia has deemed that Korea's e-government technology is the best fit for the nation's circumstances⁵⁰. The good partnership with South Korea could potentially help Cambodia speed up its implementation of E-Invoicing as South Korea is perceived as a leader in E-Invoicing in Asia.

Cambodia-Korea Digital Government Cooperation Centre (DGCC)

In 2022, the Ministry of Post and Telecommunications launched the DGCC which plays an important role in building policy and capacity of digital government cooperation. The DGCC was established from a collaboration between the Post Ministry and the South Korean Embassy. DGCC is a hub for supporting joint Cambodia-Korea digital cooperation projects, providing policy advice and capability building, especially for sharing the Korean digital government

⁴⁸ Ministry to prepare the country for digitalization – Available at <https://www.phnompenhpost.com/business/ministry-prepare-country-digitalisation>

⁴⁹ South Korea offers tech boost for government – Available at <https://www.khmertimeskh.com/269395/south-korea-offers-tech-boost-for-government/>

⁵⁰ Korea and Cambodia signed MOU on e-government – Available at https://www.mois.go.kr/eng/bbs/type001/commonSelectBoardArticle.do?bbsId=BBSMSTR_00000000019&nttId=74942

experience through events, digital government forums and workshops⁵¹. This digital hub aims to offer training to civil servants in all ministries and key public institutions on digital governance and to establish a digital governing system. The training for civil servants will cover basic and advanced courses, mainly internal electronic document management and electronic documents implementation as a case study to apply in their daily work⁵².

4.5 OVERVIEW OF E-INVOICING IN CAMBODIA

According to the Cambodian government, it may need five years to bring all the fundamental elements together for digital readiness, then another five to ten years to grow the digital economy into a technology-driven market⁵³. Even though Cambodia does not have an E-Invoicing system, the push on tax digitalisation as well as the government's policy and framework are some signs of Cambodia moving towards digitalising its economy.

⁵¹ Digital Government Cooperation Centre launched – Available at <https://www.khmertimeskh.com/501001349/digital-government-cooperation-centre-launched/>

⁵² Digital hub to boost governance – Available at <https://cambodianess.com/article/digital-hub-to-boost-governance>

⁵³ Ministry to prepare the country for digitalisation – Available at <https://www.phnompenhpost.com/business/ministry-prepare-country-digitalisation>

5. INDONESIA



5.1 BACKGROUND/BUSINESS LANDSCAPE

The Indonesian market has slowly grown towards one of the world's emerging economic hotspots. With strong government support, Indonesia is growing away from its dependence on exports of raw materials to a modern, industrial, and service economy. Furthermore, in the past few years, Indonesia has experienced a steady Gross Domestic Product (GDP) growth of 5.8%⁵⁴. In 2020, Indonesia recorded a GDP per capita of US\$3,869.59⁵⁵. Today, it is the largest economy in the Southeast Asia region and the world's fourth most populous nation⁵⁶.

Digital technologies have brought increased opportunities for businesses in Indonesia with more than 62 million SMEs now⁵⁷. With higher economic growth and business transactions, invoice management and tax compliance are pressing issues that need to be tackled. Indonesia is experiencing challenges in its tax control system especially in VAT revenue that led to a large tax gap and negative impact on the Indonesian VAT revenue. Based on the data published by the Directorate General of Taxes (DGT), throughout 2015, potential losses due to fictitious invoices was IDR6,46 trillion or equivalent to US\$449,82 million⁵⁸. To tackle this problem, the DGT created e-Tax Invoices in 2013 and shortly after that, on 1 July 2014, DGT officially implemented e-Tax Invoices with an electronic tax invoice submission feature⁵⁹. Through e-Tax Invoices, it is expected that the service becomes faster, phony and double invoice become less, and VAT enterprise(s) will be more comfortable and secure in conducting their tax rights and obligation, as well as reducing cost of compliance occurred from printing hardcopy invoices. e-Tax Invoices ensures the validity of tax invoice by verifying registered data of VAT enterprise(s) in taxpayers database, compliance with regulation regarding formal and material aspect on issued and credited tax invoice; and paid VAT⁶⁰. Through this system, suppliers will need to obtain approval from DGT before sending the invoices to their buyers. From 1 July 2016 onwards, it is mandatory for all Taxable Person in the B2B and B2G sectors to issue invoices through the e-Tax Invoices system. (Refer Figure 5.1.1 Schematic diagram of the e-Tax Invoices process in Indonesia and Figure 5.1.2 Detail illustration of e-Tax Invoices process in Indonesia).

⁵⁴ 4 Business Opportunities Emerging in Indonesia – Available at <https://www.investindonesia.go.id/en/article-investment/detail/4-business-opportunities-emerging-in-indonesia>

⁵⁵ World Bank

⁵⁶ World Bank

⁵⁷ Indonesia's SMEs hold the key to growth. How can they scale up? – Available at <https://www.weforum.org/agenda/2021/09/how-can-indonesian-smes-scale-up/#:~:text=Indonesia%20is%20going%20through%20unprecedented,SME%20for%20every%20five%20Indonesia>

⁵⁸ Indication of fictitious tax invoices reaching Rp6.5 trillion – Available at <https://nasional.kontan.co.id/news/indikasi-faktur-pajak-fiktif-capai-rp-65-triliun>

⁵⁹ Indonesia: E-Invoicing (E-Tax Invoices) – Available at <https://www.linkedin.com/pulse/indonesia-e-invoicing-e-faktur-pajak-ridvan-yigit/>

⁶⁰ Directorate General of Taxes Annual Report 2014

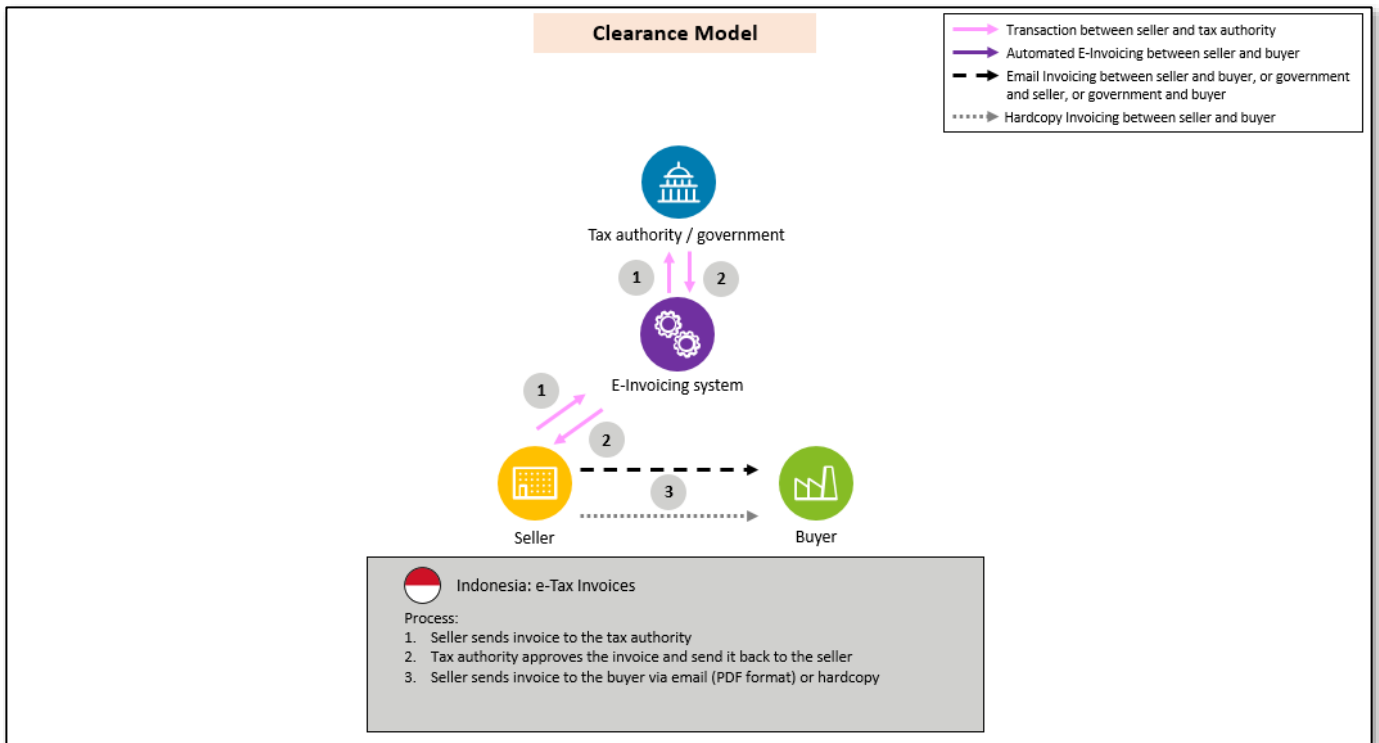


Figure 5.1.1 Schematic diagram of the e-Tax Invoices process in Indonesia

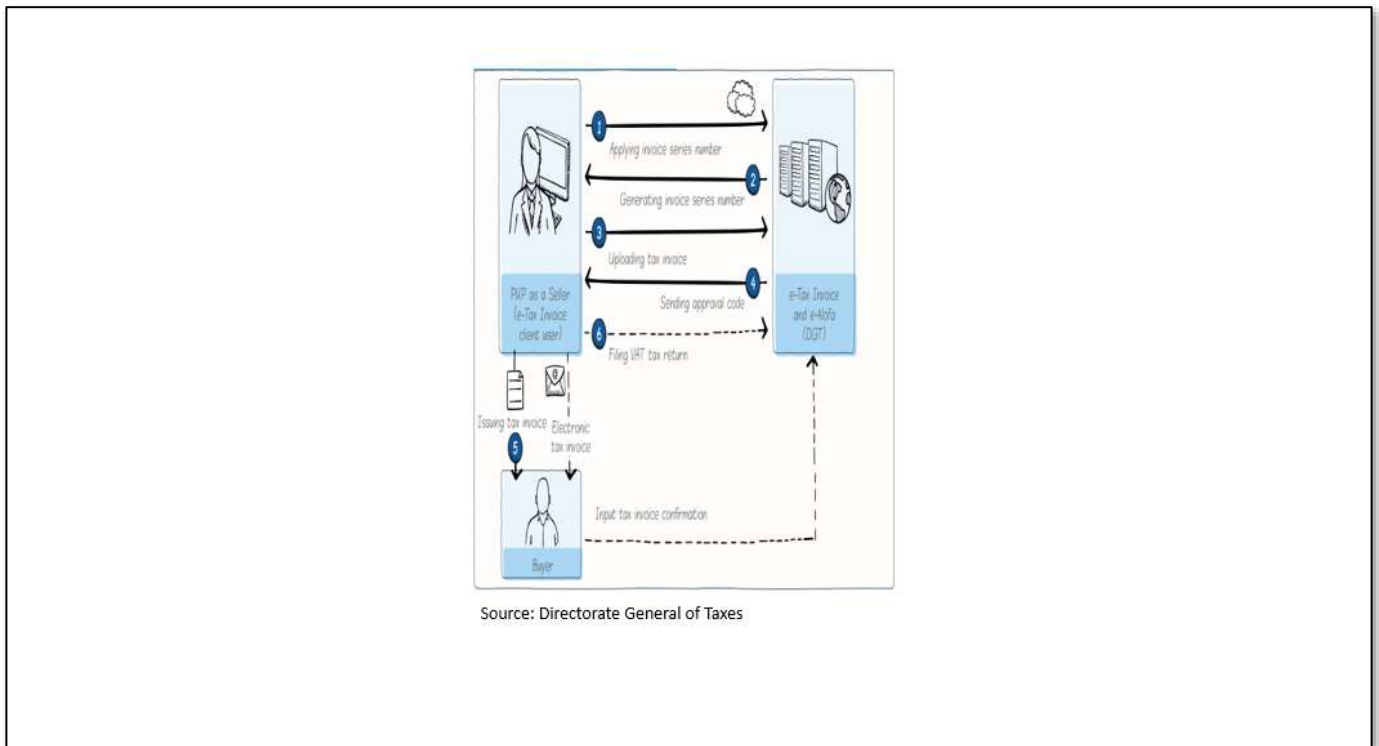


Figure 5.1.2 Detail illustration of e-Tax Invoices process in Indonesia

5.2 DEMAND SIDE ASSESSMENT

The adoption of e-Tax Invoices in Indonesia is mainly driven by the urge to improve tax administration and the efficiency in issuing E-Invoices.

5.2.1 Improve Tax Administration

According to DGT's data, throughout 2015, Indonesia has experienced a potential loss of US\$450 million due to inaccurate invoices⁶¹. Therefore, to improve tax administration, DGT has introduced a new policy, namely e-Tax Invoices. With this e-Tax Invoices, all Taxable Person are required to prepare the E-Invoices under a prescribed process. In addition, all E-Invoices must be submitted to the DGT to obtain their approval before sending them to the buyer. Non-compliant invoices can be reduced because the serial number of a tax invoice will go through rigorous validation stages. As a result achieving the main objective of the e-Tax Invoices to improve tax administration as it allows the tax authority to monitor and supervise all tax invoices.

5.2.2 Efficiency in Issuing Invoices

The e-Tax Invoices enables businesses to issue invoices in electronic format instead of paper invoices. This help businesses reduce cost as they don't have to pay for paper or postal fees since everything can be done electronically. Sellers can now send invoices via the e-Tax Invoices, which requires less manpower in the invoice processing process. Buyers can access and download a copy of their invoices from the e-Tax Invoices seamlessly. The e-Tax Invoices requires all Taxable Person to submit their invoices before sending them out to the buyers. For DGT, e-Tax Invoices will facilitate in providing administration services of Tax Invoice serial number and reporting of e-SPT as well as facilitate the monitoring of Taxable Person for VAT Purposes' compliance. Additionally, the DGT can also validate all the invoices which helps to reduce non-compliant invoices.

5.3 SUPPLY SIDE ASSESSMENT

In Indonesia, the process of issuing an electronic tax invoice is done by using the e-Tax Invoices application. This is a government policy to overcome non-compliant tax invoices. The system was launched to further regulate and standardize tax invoice data that is regarded as unsuitable for tax purposes. The main feature of e-Tax Invoices to issue E-Invoices in line with the DGT's requirements. The e-Tax Invoices works on a Clearance Model where the taxpayers will send the E-Invoices to the DGT, for the DGT to validate and to approve the invoice data. The approval is in the form of a QR code which will be placed automatically on a tax invoice after being successfully uploaded. Invoices without the QR code are considered as invalid invoices. After receiving the approved tax invoice, the seller

⁶¹ Indication of fictitious tax invoices reaching Rp6.5 trillion – Available at <https://nasional.kontan.co.id/news/indikasi-faktur-pajak-fiktif-capai-rp-65-triliun>

can send it to the buyer via email or on a hardcopy basis. On the buyer side, the received e-Invoices will be validated via the VAT input feature of the e-Tax Invoices application or by scanning the QR code printed on the e-Invoices⁶². (Refer Figure 5.3.1 Process of e-Tax Invoices in Indonesia).

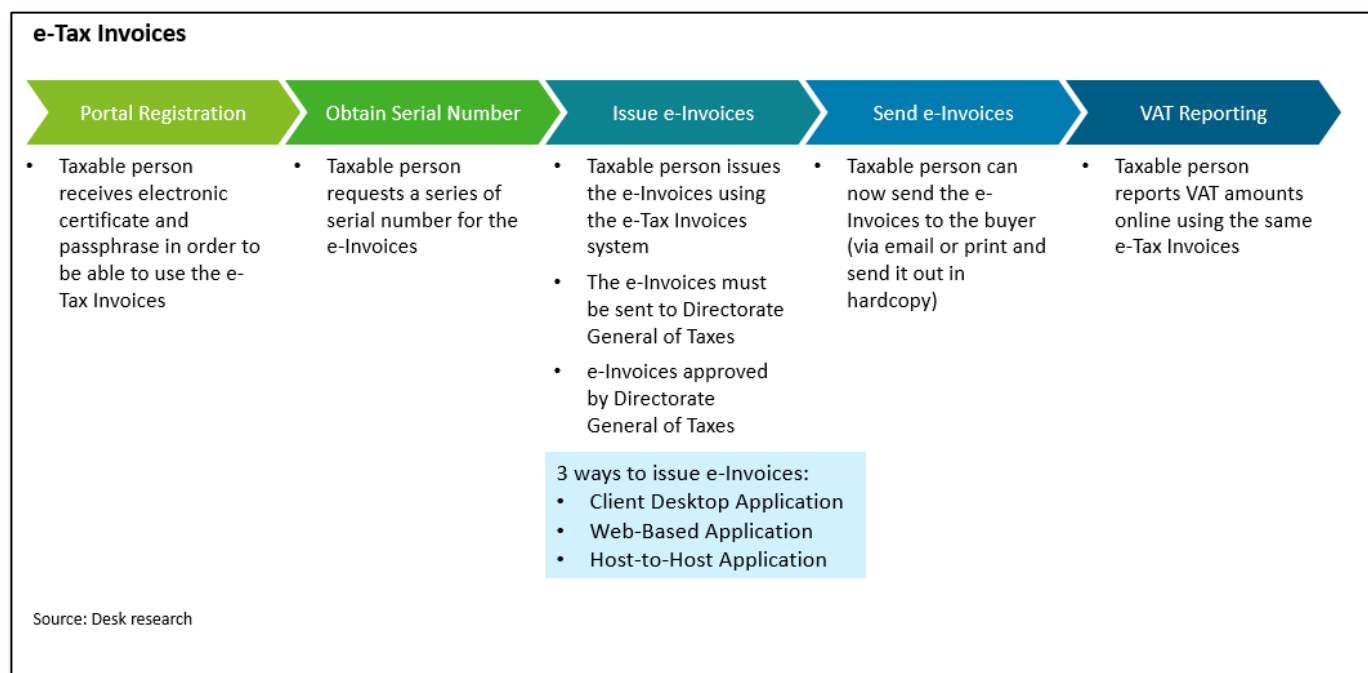


Figure 5.3.1 Process of e-Tax Invoices in Indonesia

By implementing the e-Tax Invoices system, it is expected that the tax payment process by Taxable Person will be easier, faster, and more efficient. Thus, in the future, the DGT will continue to develop e-Tax Invoices applications to facilitate the business entities in submitting their tax obligations, especially for business entities with an export orientation and transactions of excisable goods⁶³. In addition, after the application of the new VAT tax rate rule, which is 11%, which will take effect April 1, 2022, DGT will adjust the e-Tax Invoices feature so that all tax processes are not hampered and continue to run smoothly for both taxpayers and administrations taxation^{64 & 65}.

To issue E-Invoices through the e-Tax Invoices application, three methods can be used by taxpayers, namely e-Tax Invoices Client Application, e-Tax Invoices Web-Based, and e-Tax Invoices Host-to-Host (H2H) Application/ERP Systems. These solutions are provided by both the DGT and local technology provider which is Tax Application Service Provider (PJAP)⁶⁶.

⁶² Indonesia e-Faktur – Available at <https://snitechnology.net/efaktur-indonesia/>

⁶³ DDTC newsletter

⁶⁴ DDTC newsletter

⁶⁵ Act No. 7 concerning Harmonization of Tax Regulations

⁶⁶ Regulation of The Director General of Taxes Number of Taxes Number PER-03/PJ/2022 about Tax Invoice

5.3.1 e-Tax Invoices Client Desktop

e-Tax Invoices Client Desktop requires taxpayers to download and install the application first before using it. Consequently, it can only be accessed from a device that has the application installed. The desktop client e-Tax Invoices application has undergone development, where the biggest system change is version 3.2 which is implemented nationally starting April 1, 2022 which can be downloaded on the <https://efaktur.pajak.go.id/aplikasi> to accommodate the need for electronic tax services, such as changes in VAT rates starting April 1, 2022 and several provisions in the Invoice service⁶⁷.

5.3.2 e-Tax Invoices Web-Based

For some small-scale enterprises, this e-Tax Invoices Web-Based will be most suitable for them. Taxpayers must not download the application because it can be accessed through the E-Invoicing portal anytime and anywhere if there is an internet connection. This application can be accessed through the <https://web-efaktur.pajak.go.id> page which is used to report the VAT Period Tax Report⁶⁸.

However, to be able to access this application, Taxable Person must use a browser that has been installed with an electronic certificate owned, such as when accessing <https://efaktur.pajak.go.id> when applying for a tax invoice serial number (NSFP).

5.3.3 e-Tax Invoices Host-to-Host (H2H)

Finally, the most advanced E-Invoicing system is the e-Tax Invoices Host-to-Host (H2H). This application is basically used for large-scale companies with high tax invoices. Not only can be accessed via many devices, but it also allows taxpayers to integrate the tax system with their ERP/accounting system so that they no longer have to adjust their financial statements once the tax transactions are settled⁶⁹. This system is used by technology providers that are appointed by the DGT since 2018 as the official partners known as Tax Application Service Provider (PJAP)⁷⁰. Those official partners have to conduct a system test (User Acceptance Test) before being appointed as PJAP by DGT. Three PJAPs are providing this service in Indonesia, namely KlikPajak.id, OnlinePajak, and Pajakku⁷¹.

⁶⁷ Regulation of The Director General of Taxes Number of Taxes Number PER-03/PJ/2022 about Tax Invoice

⁶⁸ Regulation of The Director General of Taxes Number of Taxes Number PER-03/PJ/2022 about Tax Invoice

⁶⁹ KlikPajak, an 'Online' Tax Application that is Integrated with Financial Reports – Available at <https://klikpajak.id/blog/klikpajak-aplikasi-pajak-online-yang-terintegrasi-dengan-laporan-keuangan/>

⁷⁰ Directorate General of Taxes Decree No KEP-169/PJ/2018.

⁷¹ DGT Website

5.4 ENABLERS ASSESSMENT

In Indonesia, the adoption of e-Tax Invoices is mainly driven by the DGT, the renewal of the core tax system, the Supply Chain Financing and the push on tax digitalisation. (Refer to Figure 5.4.1. Key initiatives to drive the adoption of E-Invoicing in Indonesia).

Enablers	Initiatives
1) Government & Institutional Support	<ul style="list-style-type: none">• Directorate General of Taxes (DGT)• Renewal of Core Tax System• Supply Chain Financing• Push on Tax Digitalisation

Source: Desk research

Figure 5.4.1 Key initiatives to drive the adoption of E-Invoicing in Indonesia

5.4.1 Government & Institutional Support

Directorate General of Taxes (DGT)

e-Tax Invoices was first introduced by the Indonesian government back in 2013. On 1 July 2014, the DGT officially implemented E-Invoices with an electronic tax invoice submission feature. Since July 2015, it has been mandatory for enterprises in Java and Bali to use e-Tax Invoices. As of 1 July 2016, all Taxable Person registered businesses in Indonesia are required to use e-Tax Invoices⁷². All sellers will need to obtain approval from the DGT before sending it to their buyers. The Indonesian government expects successful implementation of e-Tax Invoices can help to monitor and supervise tax invoices which leads to VAT revenue.

Renewal of Core Tax System

The Renewal of Core Tax System is a strategic agenda initiated by the government. It plans to redesign the tax administration business process through an information system that is commercial-off-the-shelf based. It is an information and technology system that provides integrated support for the tasks execution of the DGT. Business process automation is included, starting from the taxpayer's registration process, tax return and other tax documents, tax payment, audit and billing supports and the function of taxpayer accounting⁷³. This system aims to create a tax administration that is reliable and easy to comply with.

⁷² Indonesia: E-Invoicing (E-Tax Invoices) – Available at https://www.linkedin.com/pulse/indonesia-e-invoicing-e-faktur-pajak-ridvan-yigit?trk=read_related_article-card_title

⁷³ Indonesia embraces the next stage of tax digitization: What can be expected – Available at <https://www.internationaltaxreview.com/article/b1trvgk6ndmngf/indonesia-embraces-the-next-stage-of-tax-digitisation-what-can-be-expected>

Supply Chain Financing (SCF)

Supply Chain Financing (SCF), also known as reverse factoring, is an alternative financing solution by allowing businesses to lengthen their payment obligation to their suppliers while providing the option for them to get paid earlier⁷⁴. During 2017-2018, the SCF application has experienced strong growth between business entities in Indonesia, the more beneficial it becomes for SMEs. In 2018, SCF transactions of SMEs increased by around 16.28%⁷⁵. With the SCF application provided by banks or other financial institutions, the adoption of e-Tax Invoices enables financing opportunities for buyers and suppliers which can strengthen business cash flow. To get this financing, business owners or suppliers can sell E-Invoices to banks or other financial institutions as supply chain financing providers. The e-invoice is then purchased at a discount so that supplier can get payments faster even though the buyer has not paid it off. (Refer to Figure 5.4.1.1 Supply Chain Financing Scheme). From the buyer side, it can extend payment terms to the supplier without adversely affecting the financial stability of the supplier. Although Indonesia has not implemented a supply chain financing scheme that is integrated with the e-Tax Invoices application, it can be a potential development in the future for the DGT, so that, more and more business entities will use the e-Tax Invoices.

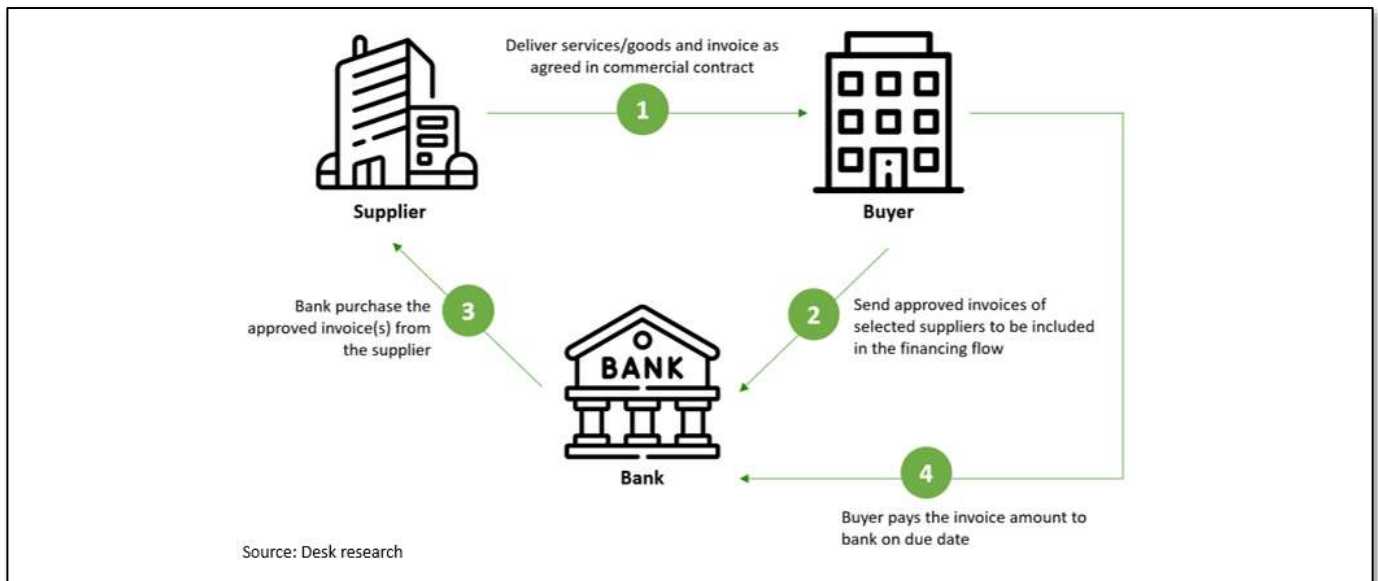


Figure 5.4.1.1 Supply Chain Financing Scheme

⁷⁴ What is Supply Chain Finance – Available at <https://primerevenue.com/what-is-supply-chain-finance/#:~:text=Supply%20chain%20finance%2C%20also%20known,suppliers%20to%20get%20paid%20early.>

⁷⁵ OECD Website

Push on Tax Digitalisation

The Ministry of Finance, through the DGT, is committed to carrying out the Third Tax Reform in Indonesia, especially in accelerating the transformation of the technology-based tax system. The 5 pillars of this tax reform are organization, business process, human resources, regulations, and IT and database. One of DGT's initiatives to digitalise the national tax system is to create an integrated taxpayer accounting system to automate all tax transactions. (Refer to Figure 5.4.1.2 Indonesia's core tax system). By leveraging digital tools, e-Tax Invoices marks a key milestone for the Indonesian government to strengthen its tax system. Other than the e-Tax Invoices system, the DGT has developed other systems such as e-SPT (electronic tax return), e-Billing, to e-Filing as the initiative to accelerate tax digitalisation.

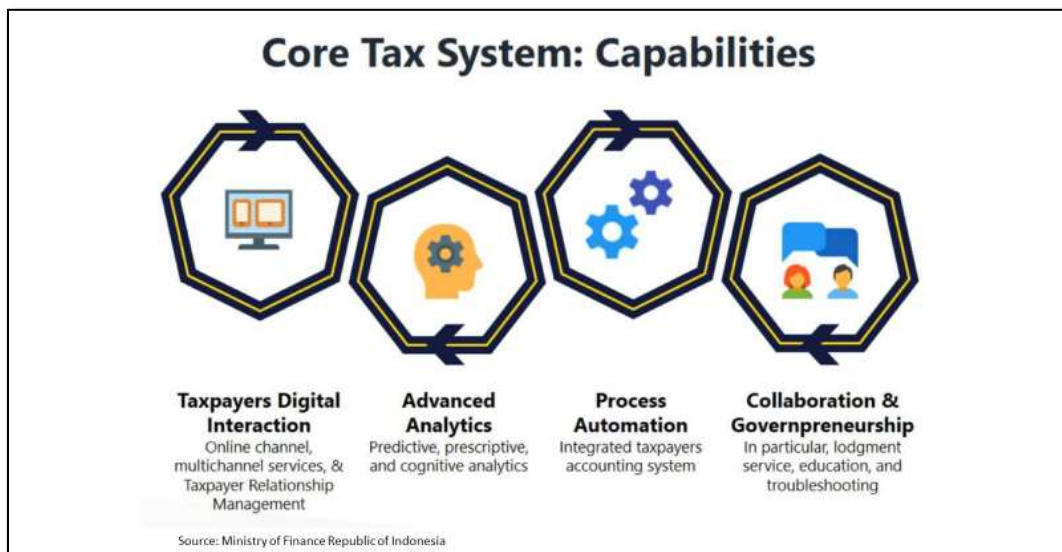


Figure 5.4.1.2 Indonesia's Core Tax System

5.5 OVERVIEW OF E-INVOICING IN INDONESIA

Indonesia has its own e-Tax Invoices system, which requires all VAT taxable invoices between Businesses to Businesses and Businesses to Government to submit their E-Invoices to DGT for endorsement before sending them to the buyers. The main objectives for this e-Tax Invoices system is to improve tax administration and to secure VAT revenue for Indonesia. From July 2016 onwards, DGT has mandated for all Taxable Person to implement this e-Tax Invoices system. Furthermore, the government's purpose to digitize its tax administration proves that Indonesia is moving towards creating a new ecosystem that is more transparent, efficient, and simple. Meanwhile, from the business perspective, the adoption of e-Tax Invoices is expected to help businesses improve its' business performance, reduce cost, and streamline the invoice issuing process. In addition, businesses can also use e-Tax Invoices as collateral to obtain fast funding from a bank or other financial institutions through a supply chain financing scheme.

6. LAOS



6.1 BACKGROUND/BUSINESS LANDSCAPE

Laos has a GDP of US\$18.82 billion (2020)⁷⁶ and a population of 7.28 million⁷⁷. The country is one of the fastest-growing economies in East Asia and the Pacific. In recent decades, the country has made significant developmental progress by improving access to electricity, schools, roads, and has also become an important energy exporter. The growth of the past two decades was predominantly driven by large-scale investments in capital intensive sectors, particularly in mining and hydropower⁷⁸. As of 2022, there are 178,642⁷⁹ registered enterprises in Laos. However, as of today, Laos does not have a national E-Invoicing system. Sellers are sending invoices to buyers either by hardcopy postal or digitally in PDF via email. (Refer to Figure 6.1.1 Schematic diagram of the invoicing process in Laos).

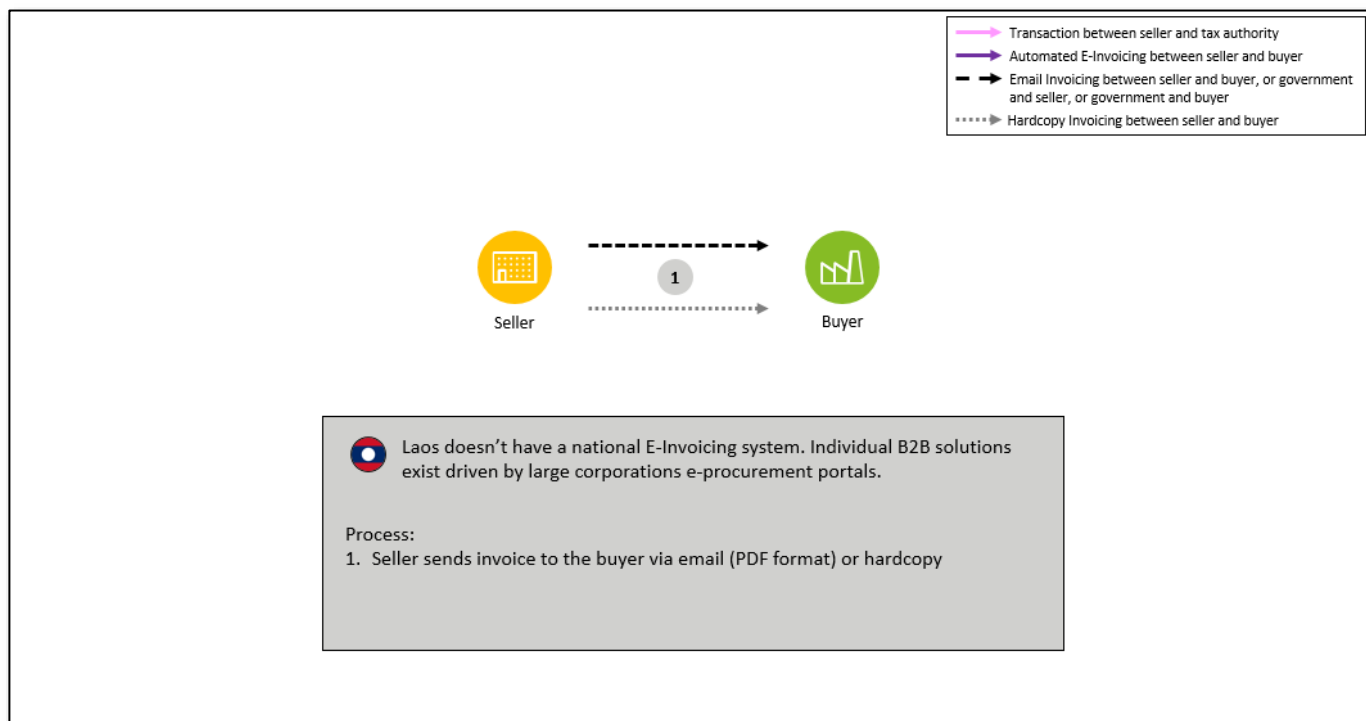


Figure 6.1.1 Schematic diagram of the invoicing process in Laos

⁷⁶ Laos: Gross domestic product (GDP) in current prices – Available at <https://www.statista.com/statistics/804939/gross-domestic-product-gdp-in-laos/>

⁷⁷ Laos: Total population – Available at <https://www.statista.com/statistics/804952/total-population-of-laos/>

⁷⁸ World Bank

⁷⁹ National Enterprise Database Statistics

6.2 DEMAND SIDE ASSESSMENT

The Lao government has a structured e-Government Development Plan which may lead to the development of an E-Invoicing system in the future. Launched in 2013, Laos' e-Government Development Plan aims to digitise governmental transactions and interactions. This development plan is led by the Ministry of Technology and Communications (MTC) of Laos⁸⁰. The initiative aims to build and centralise all government computer services and information regarding government departments, businesses, and citizens. The first stage focuses on developing G2G services and applications, followed by the second and third stages which will focus on developing G2B and G2C services respectively⁸¹. (Refer Figure 6.2.1 Laos E-Government Development Plan).

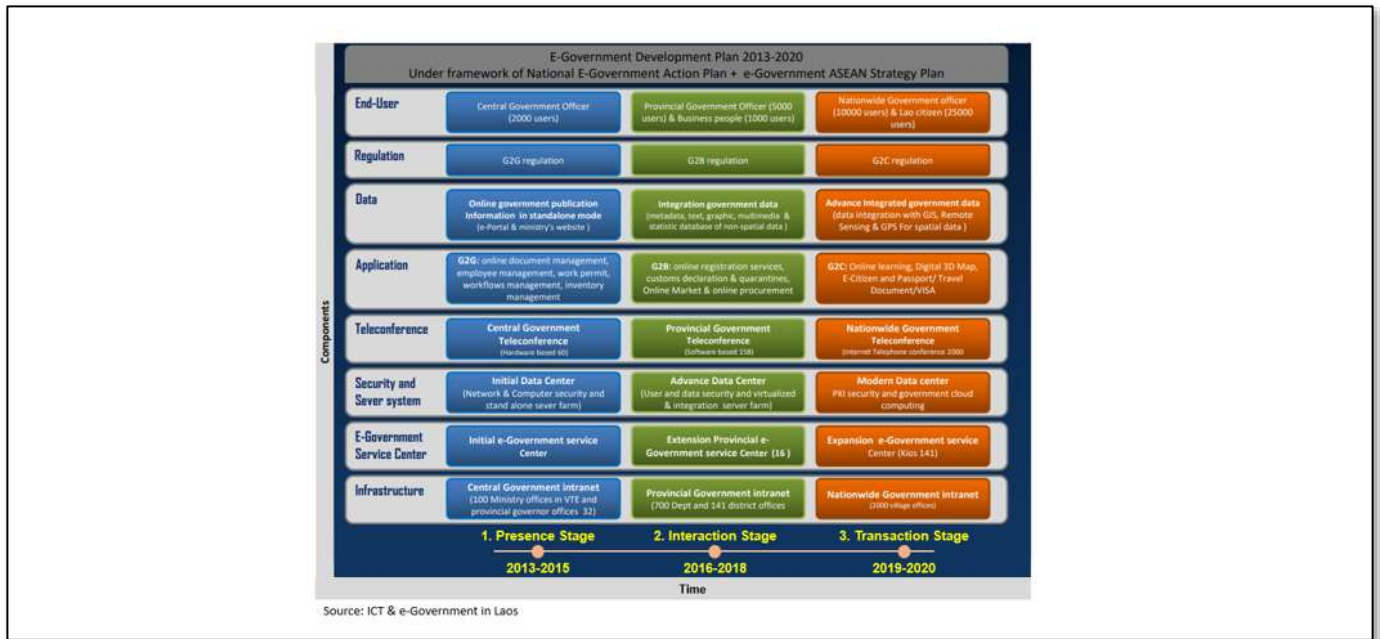


Figure 6.2.1 Laos E-Government Development Plan

The e-Government system will be integrated with other government systems, including e-Health (Ministry of Public Health), Lao Decide Info (Ministry of Planning and Cooperation) and e-Revenue (Ministry of Finance). The government will also be working with businesses in the private sector for the research and development of the appropriate IT infrastructure for the e-Government platform. With the push towards an e-Government and the potential integration with nationwide financial systems, the tax system in Laos may potentially be undergoing a digital transformation too.

⁸⁰ Laos Heads to E-Government with TrueConf Video Conferencing – Available at <https://trueconf.com/blog/press-release/laos-heads-to-e-government-with-trueconf-video-conferencing.html#:~:text=The%20E-Government%20Center%2C%20under%20the%20Ministry%20of%20Technology,unified%20software%20framework%20for%20all%20Laoti an%20government%20institutions.>

⁸¹ ICT & e-Government in Laos – Available at https://www.itu.int/en/ITU-D/Regional-Presence/AsiaPacific/Documents/Events/2017/Sep-SCEG2017/SESSION-1_Lao_Ms_Kesone_Soulivong.pdf

The MTC has also partnered with the United Nations Development Programme (UNDP) to further accelerate the progress of the e-Government Development Plan. This collaboration project will help to build digital capacities and strengthen digital infrastructure for better, more inclusive and unified public service delivery. Tapping on the expertise of UNDP will help the Lao government take stock of the digital maturity of government entities and identify opportunities and weaknesses of the current system. This collaborative project is aligned with The Government’s vision of adopting ICT tools across various tiers of administration at the ministries, departments, provinces, districts, and villages within the country⁸².

6.3 SUPPLY SIDE ASSESSMENT

Despite the lack of a nationwide e-invoicing system, the Laos government has stepped up efforts to push for the development of the Information and Communication Technology (ICT) sector in a move to drive national development⁸³. With Laos’s rapid economic growth and the quality of its population that is increasingly developing with the available technologies⁸⁴, the ICT sector is seen as having the potential to reap opportunities offered by an integrated world economy. Demand for internet users and mobile connections in Laos continues to increase⁸⁵, with some businesses that have adopted digital tools to accelerate digital transformation. For example, Banque Pour Le Commerce Exterieur Lao Public (BCEL), one of the biggest state-owned commercial banks in Laos, has partnered with Hong Kong mobile payment service provider Wallyt to provide mobile payment transactions through WeChat Pay and Alipay for Lao merchants⁸⁶. These factors can help the Lao government to build the digital ecosystem in the future, including the E-Invoicing system.

One of the main players in the digitalization process in Laos is the Internet Service Providers (ISPs) such as Unitel, Lao Telecom, ETL Public Company, and Beeline. The existence of ISPs has helped the Lao government to improve its business outlook by simplifying business registration processes, easing tax collection, and addressing bureaucratic inefficiencies that hamper economic and business growth. For example, Unitel has supported the government during its digital transformation by expanding new services and updating technologies⁸⁷. It has been appointed to act as a consultant to build e-Government and smart healthcare projects. Furthermore, Unitel was the only company offering a new secure and quick payment method for more than six million people in Laos. All these infrastructures and the current digital initiatives can help to enable E-Invoicing development in Laos.

⁸² Digital Government Transformation Project (RFF) Project Kickoff and Digital Maturity Assessment Introduction

⁸³ Govt, Development Partners Push for Technology, Innovation Development – Available at <https://laotiantimes.com/2016/11/17/govt-development-partners-push-technology-innovation-development/#:~:text=The%20government%20and%20its%20development,move%20to%20drive%20national%20development.&text=The%20five%20year%20science%20and,also%20approved%20at%20the%20meeting.>

⁸⁴ Strengthen existing Laos STI policy initiatives in priority areas, including SDGs – Available at https://asean.usmission.gov/innovasean_20161114/

⁸⁵ Digital 2021: Laos

⁸⁶ Latest Laos Mobile Payments Partnership with to Target Chinese Tourist – Available at <https://fintechnews.sg/34411/laos/latest-laos-mobile-payments-partnership-to-target-chinese-tourist/>

⁸⁷ Viet Nam support Laos’ digital transformation – Available at <https://opengovasia.com/Viet-Nam-supports-laos-digital-transformation/>

6.4 ENABLERS ASSESSMENT

Laos has a tax e-filing service called Tax Revenue Information System (TaxRIS). TaxRIS facilitates e-filing of taxes for Lao citizens. The web portal was developed to improve tax services in Laos and increase the transparency of taxation by promoting tax compliance in the country. Currently, 6 types of tax filing are provided by TaxRIS: VAT, Withhold Tax, Profit Tax, Excise Tax, Salary Tax, Miscellaneous and Lump-Sum Tax⁸⁸. This digital tax filing system might contribute to the demand for E-Invoicing as it would create an integrated tax collection ecosystem.

6.5 OVERVIEW OF E-INVOICING IN LAOS

Overall, there is still a lack of a nationwide E-Invoicing system in Laos. However, the government does have a structured e-Government Development Plan. Collaborations with UNDP will also facilitate the enhancement of the digital infrastructure in the country, which might lead to the development of an E-Invoicing system in the future.

⁸⁸ TaxRIS Homepage

7. MALAYSIA



7.1 BACKGROUND/BUSINESS LANDSCAPE

Malaysia has successfully diversified its economy from agriculture and commodity-based to manufacturing and service sectors. It is the fourth-largest economy in Southeast Asia with a GDP of US\$337 billion⁸⁹ and a total population of 32.7 million⁹⁰. The services sector contributed about 54.77% of Malaysia's GDP followed by the industry which contributed to approximately 35.93% and agriculture for 8.19%.⁹¹ Malaysia is the leading exporter of electrical appliances, parts and components⁹².

As of April 2022, Malaysia does not have a National E-Invoicing framework. Currently, hardcopy invoices are still common as well as invoices in the form of PDF format. There are also E-Invoicing modules in some existing accounting and ERP systems that are being adopted, based on 2-corner or 3-corner model which are not interoperable between the different proprietary systems. (Refer Figure 7.1.1 Schematic diagram of the current invoicing process in Malaysia). To enhance cross-border trust, the Malaysian Government announced that it is embarking on a national E-Invoicing project⁹³.

⁸⁹ World Bank

⁹⁰ Department of Statistics Malaysia

⁹¹ Malaysia: Share of economic sectors in the gross domestic product (GDP) from 2010 to 2020

⁹² World Bank

⁹³ Malaysia announces two flagship initiatives to catalyse digital economy, investment opportunities – Available at <https://www.theedgemarkets.com/article/malaysia-launch-two-flagship-initiatives-catalyse-digital-economy-investment-opportunities>

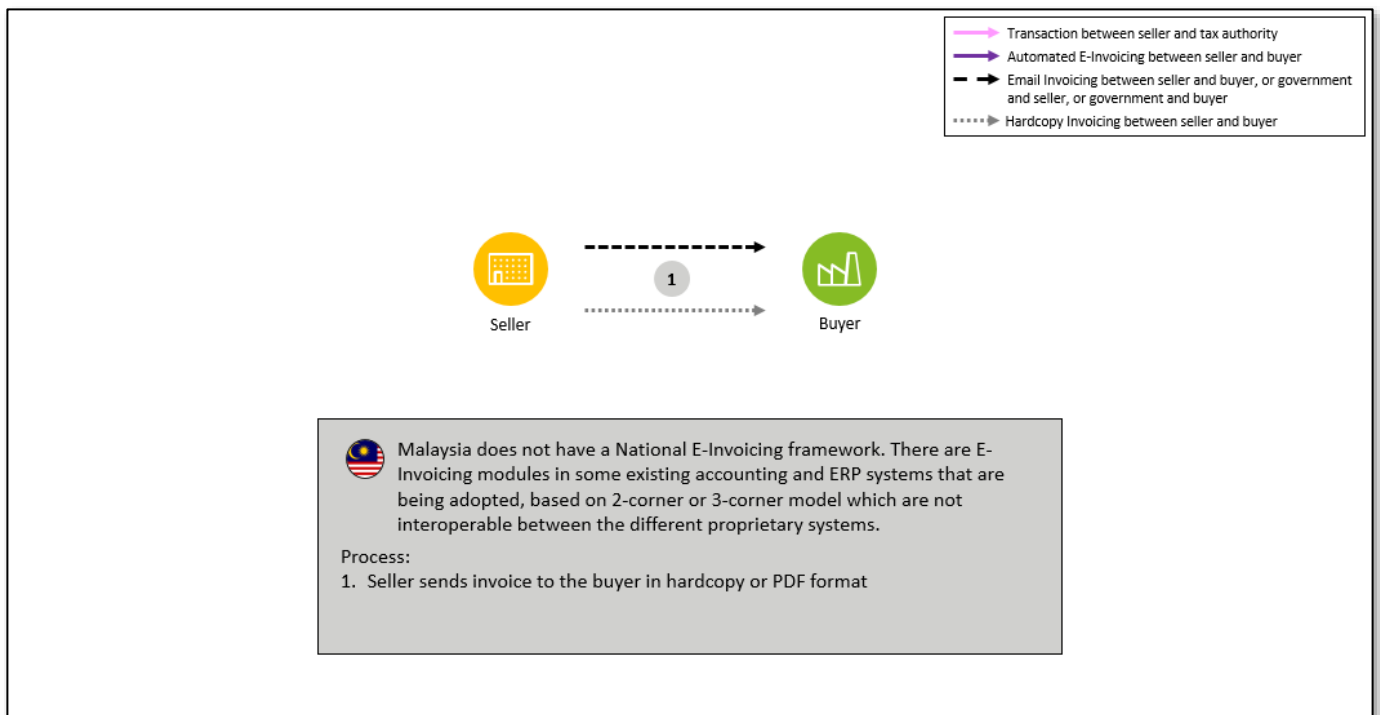


Figure 7.1.1 Schematic diagram of the current invoicing process in Malaysia

7.2 DEMAND SIDE ASSESSMENT

Although Malaysia does not currently have a national E-Invoicing framework, various initiatives have been announced and are being undertaken by the Malaysian Government to drive digitalisation and growth of digital economy, including Malaysia Digital Economy Blueprint (MyDigital) and the National E-Commerce Strategic Roadmap (NESR). Programmes under these initiatives are expected to accelerate digitalisation of businesses including E-Invoicing.

7.2.1 Push on Digital Economy

Malaysia is introducing a Digital Trade initiative to further accelerate and catalyse the digital economy. According to MDEC's CEO, Mahadhir Aziz, the main objective of the Digital Trade initiative is to drive interoperability and harmonisation of standards and regulatory approaches to facilitate trade within and across borders. Such cross-border initiative raises the need for a seamless cross-border B2B process that an E-Invoicing framework can contribute towards meeting the initiative's objective.

7.2.2 National E-Commerce Strategic Roadmap 2021 to 2025 (NESR)

The National Digital Economy and Fourth Industrial Revolution (4IR) Council has approved NESR as a catalyst for the growth of Malaysia's e-commerce ecosystem. The NESR, led by MDEC is targeting 875,000 micro, small and medium enterprises (MSMEs) to adopt e-commerce by 2025. Additionally, this roadmap seeks to boost e-commerce export adoption among 84,000 businesses and increase the average revenue per user to RM9,500⁹⁴. NESR is guided by three overarching principles namely, to intensify e-commerce adoption and growth, to enhance ecosystem development, and to strengthen policy and regulatory environment. NESR is aligned to Thrust Two of the Malaysia Digital Economy Blueprint which is to boost economic competitiveness through digitalisation; and Thrust Five, which aims to create an inclusive digital society. One of the programmes under the NESR is national E-Invoicing, to drive interoperability and facilitate a more seamless transactions between trade partners.

7.3 SUPPLY SIDE ASSESSMENT

Although Malaysia does not have an E-Invoicing framework, there are some technology providers available in Malaysia. For example, Esker helps organisations around the world to streamline their business document processes. Its vision is to help businesses deliver their paper documents electronically. Today, Esker is widely recognised as a leader in AI-driven process automation software all around the world where companies use their cloud-based solutions to drive greater efficiency, accuracy and cost savings. Other than serving the western countries, Esker is providing its E-Invoicing services in Malaysia with a subscription fee⁹⁵.

Another example is Pantas who helps businesses to transform financial workflow by digitizing business processes and providing seamless access to financing. Pantas provides services such as E-Invoicing as well as cash flow monitoring and plans to roll out integrated payment solutions and competitive financing solutions in the future⁹⁶. Instead of sending invoices via emails, with Pantas, the whole process is integrated into the system, offering an end-to-end invoicing, billing and payment software. Pantas has tailored and localised its solution to fit the Malaysian or SEA market⁹⁷. For buyers and suppliers to receive invoices, they must use the same software. In order to build a network of users, Pantas is offering their E-Invoicing solution for free which helps to encourage businesses to get on board.

⁹⁴ MDEC targets 875,000 MSMEs to adopt e-commerce by 2025 – Available at <https://www.theedgemarkets.com/article/mdec-targets-875000-msmes-adopt-ecommerce-2025>

⁹⁵ Esker website

⁹⁶ Pantas website

⁹⁷ They returned from NYC to launch a free, enhanced e-invoicing solution for M'sian SMEs – Available at <https://vulcanpost.com/772975/pantas-free-e-invoice-accounting-software-malaysia-sme/>

7.4 ENABLERS ASSESSMENT

As the Malaysian government has plans to introduce a national E-Invoicing framework, there are a few enablers that Malaysia can 'build upon' to drive the adoption of E-Invoicing. Some of these enablers are mentioned below. (Refer Figure 7.4.1 Key areas that drive the adoption of E-Invoicing in Malaysia).

Enablers	Areas
1) Government & Institutional	<ul style="list-style-type: none">• Legal framework• National E-Commerce Strategic Roadmap• Malaysia Digital Economy Blueprint
2) Financing & Funding	<ul style="list-style-type: none">• SME Business Digitalisation Grant• Smart Automation Grant (SAG)

Source: Desk research

Figure 7.4.1 Key areas that drive the adoption of E-Invoicing in Malaysia

7.4.1 Government & Institutional Support

Legal Framework

Sellers can issue E-Invoices according to Section (22) of the Sales Tax Act 2018⁹⁸ and Section (22) of Service Tax Act 2018⁹⁹. In addition, Section (6) of the Electronic Commerce Act 2006 provides legal recognition of electronic message as follows:

“Any information shall not be denied legal effect, validity or enforceability on the ground that it is wholly or partly in an electronic form¹⁰⁰.”

Furthermore, according to Section (24) of Sales Tax Act 2018 and Section (24) of Service Tax Act 2018, the all records of sales of taxable goods must be stored for seven years from the latest date to which the record relates.

Malaysia Digital Economy Corporation (MDEC)

Malaysia Digital Economy Corporation (MDEC) is the agency under the Ministry of Communications and Multimedia Malaysia leading the digital transformation of the economy for 25 years. MDEC aims to enable a progressive, innovation-led digital economy. MDEC will continue to lead Malaysia towards becoming a globally competitive digital nation through the development and execution of the *Malaysia Digital* initiative, which aims to create substantial digital economic spill-over through equitable access to digital tools, knowledge, and income

⁹⁸ Sales Tax Act 2018

⁹⁹ Service Tax Act 2018

¹⁰⁰ Electronic Commerce Act 2006

opportunities. Predicated on a new framework built upon three primary components – Agility, Flexibility, and Relevance – *Malaysia Digital* is set to enhance Malaysia’s value proposition to attract digital investments, firmly establishing Malaysia as the digital hub of ASEAN.

Malaysia Digital Economy Blueprint

The Malaysian government introduces MyDIGITAL as a national initiative that symbolises the government’s aspiration to transform Malaysia into a digitally enabled and technology-driven high-income nation, and a regional leader in the digital economy. MyDIGITAL outlines the plans to accelerate Malaysia’s progress as a technologically advanced economy, through the Malaysia Digital Economy Blueprint. The Malaysia Digital Economy Blueprint envisions that Malaysia will become the regional digital economy leader and achieve inclusive, responsible and sustainable socio-economic development. 6 strategic thrusts have been identified and these strategic thrusts are supported by 22 strategies, 48 national initiatives and 28 sectoral initiatives. (Refer Figure 7.4.2 Malaysia Digital Economy Blueprint). The implementation of this blueprint is divided into 3 phases. Phase 1 starts from 2021 to 2022 and aims to strengthen the foundation of digital adoption. Phase 2 which covers 2023 to 2025 will drive inclusive digital transformation and Phase 3 covering 2026 to 2020 will make Malaysia a digital content and cyber security lead in the regional market. This blueprint will drive the digital economy to optimise digital possibilities across the society, businesses and government.

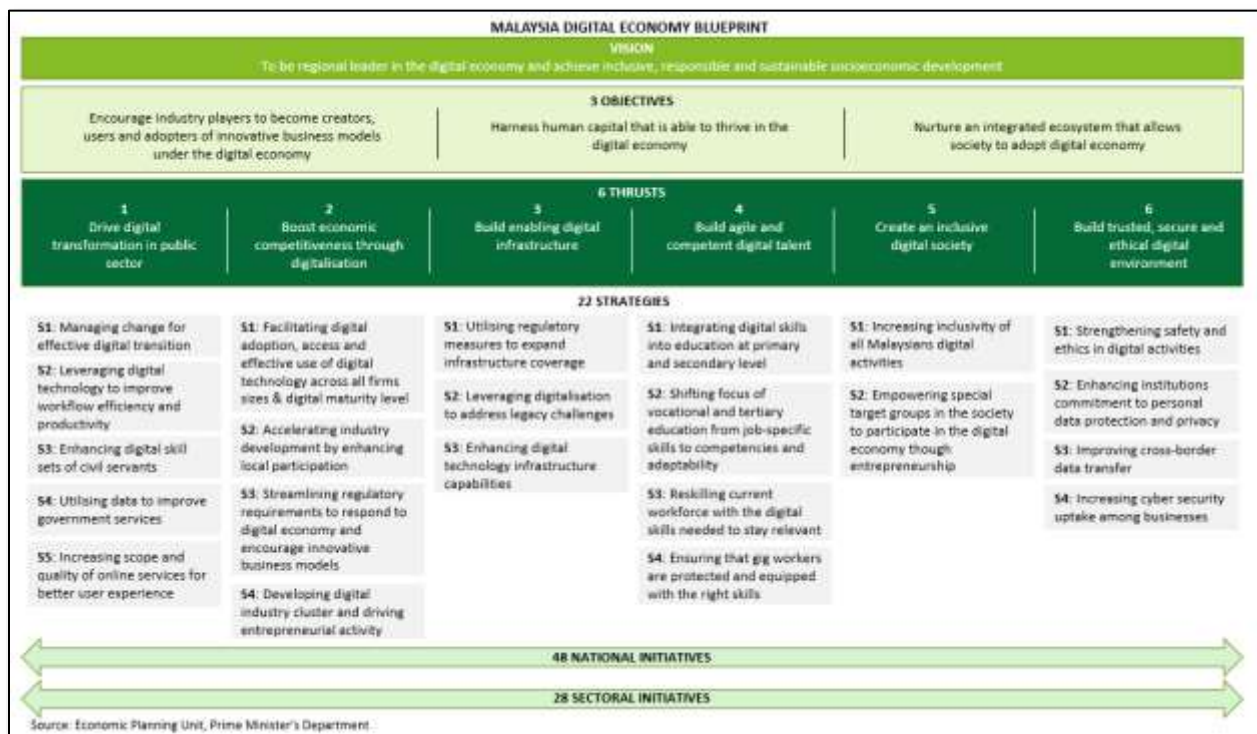


Figure 7.4.1.1 Malaysia Digital Economy Blueprint

7.4.2 Financing & Funding

SME Business Digitalisation Grant

The favourable provisions for digital adoption set out in the 2020 Budget denotes the government is actively encouraging more local businesses to digitalise their business operations. This is a strategic collaboration effort between the Ministry of Finance (MOF), Bank Simpanan Nasional (BSN) and MDEC in managing the grant to eligible SMEs to adopt digitalisation in daily operations. The government will provide a 50% matching grant of up to RM5,000 per company for the subscription of the services. This grant will be worth RM500 million over 5 years, limited to the first 100,000 SMEs applying to digitalise their business operation¹⁰¹. The government has identified 7 key digitalisation areas that should be adopted by SMEs. (Refer to Figure 7.4.2.1 7 Key digitalisation areas).

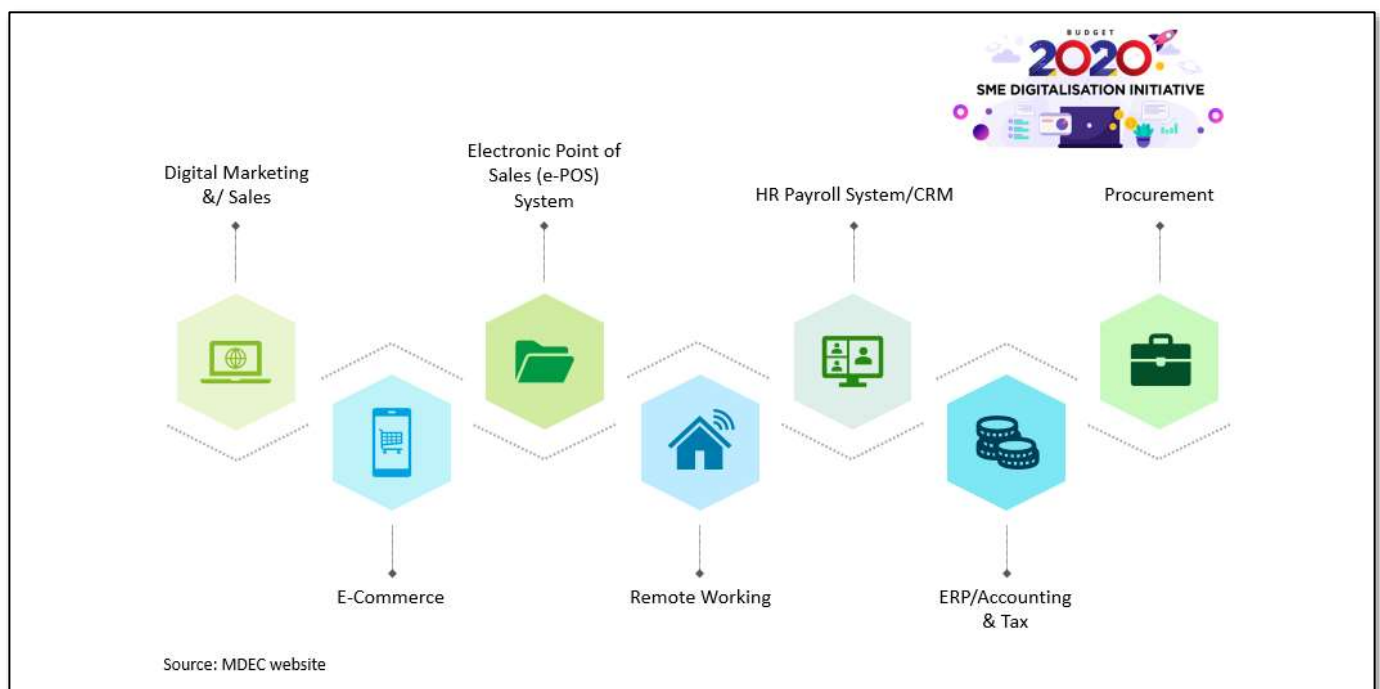


Figure 7.4.2.1 7 Key digitalisation areas

Smart Automation Grant (SAG)

SAG is a matching grant for services companies to automate their business processes and move towards digitalisation. The two objectives of this grant are to future-proof Malaysian companies and ensure their competitiveness in the coming years by assisting them to move up the value chain from a technology frontier in automating their business operations, and to identify pain points, gaps of their business and identify potential solutions to automate their business operations. This grant will be used solely to kick start the development and implementation of the project by technology to automate the business operations. The SAG functions as an

¹⁰¹ Propelling SMEs into the digital world – Available at <https://mdec.my/digital-economy-initiatives/for-the-industry/sme-digitalisation-grant/>

outcome-based grant, whereby projects must achieve specific digitalisation benefits, such as an increase in revenue, savings in business cost, reduction of process time cycle, reduce man-hours and create new sources of growth. Each successful applicant will be awarded up to 50% of the total project cost or subjected to a ceiling limit of RM200,000¹⁰². The targeted service-based SMEs covers general and professional services including retail, wholesale, food and beverages, tourism, logistics, transportation, education, healthcare, real estate and professional and financial services.

7.5 OVERVIEW OF E-INVOICING IN MALAYSIA

Malaysia is currently in the process of exploring a National E-Invoicing framework that drives interoperability between different E-Invoicing solutions. The current legislation supports the framework for E-Invoicing and the presence of agencies like MDEC whose mandate is to drive digitalization of enterprises, transforming Malaysia into a more digitalised economy to be ready to adopt E-Invoicing in the near future. Together with the Malaysia Digital Economy Blueprint, the National E-Commerce Strategic Roadmap, a supportive technology ecosystem as well as the existence of the various grants available for local businesses, Malaysia has strong enablers to drive the adoption of E-Invoicing in Malaysia.

¹⁰² Smart Automation Grant (SAG) – Available at <https://mdec.my/grant/smart-automation-grant/>

8. MYANMAR



8.1 BACKGROUND/BUSINESS LANDSCAPE

Myanmar has a GDP of US\$81.26 billion (2020)¹⁰³ and a population of 53.2 million¹⁰⁴. The economy is heavily dependent on agriculture, oil and natural gas. Before the pandemic, the tourism industry also played a big part in contributing to the economy. As of today, Myanmar does not have a national E-Invoicing system. Sellers send invoices to buyers either by hardcopy postal or digitally in PDF via email. (Refer Figure 8.1.1 Schematic diagram of the invoicing process in Myanmar).

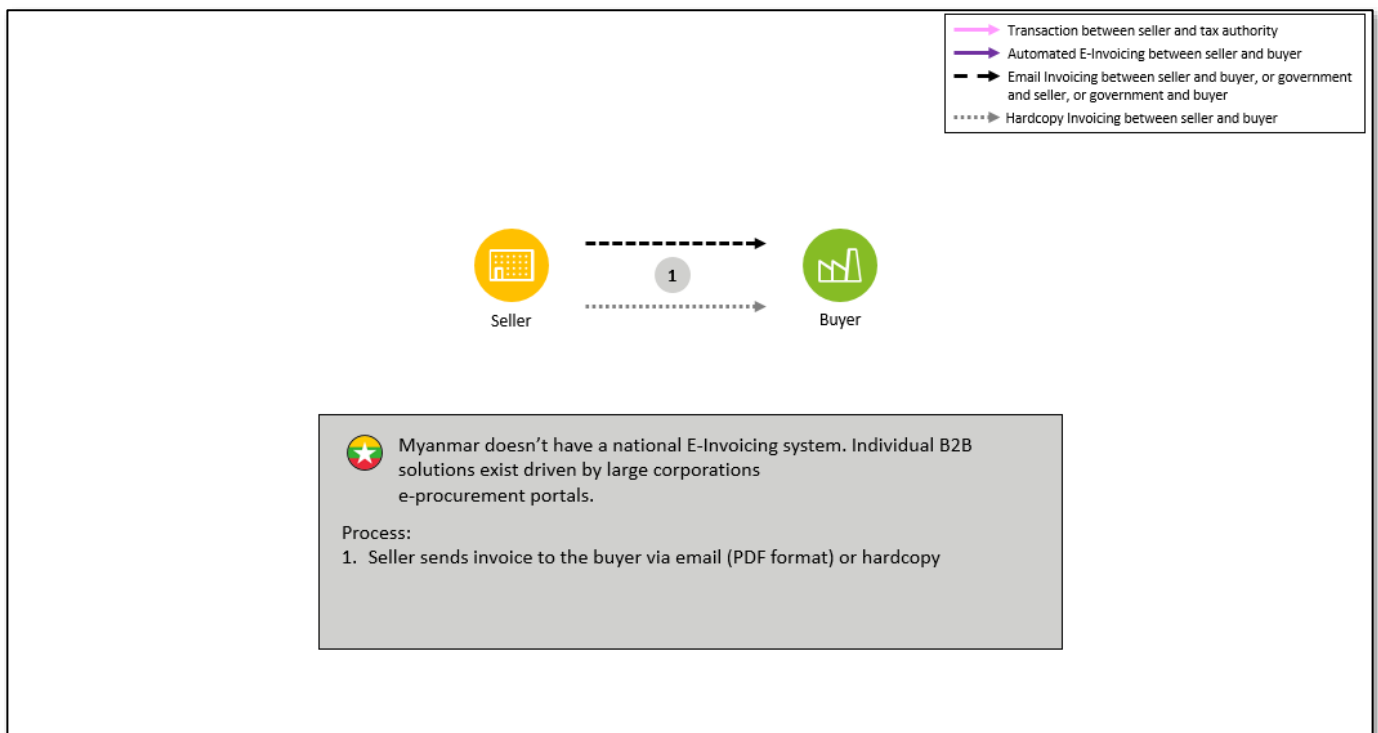


Figure 8.1.1 Schematic diagram of the invoicing process in Myanmar

¹⁰³ Myanmar: Gross domestic product (GDP) in current prices from 2006 to 2026 – Available at <https://www.statista.com/statistics/525760/gross-domestic-product-gdp-in-myanmar/>

¹⁰⁴ Myanmar: Total population from 2016 to 2026 – Available at <https://www.statista.com/statistics/525781/total-population-of-myanmar/#:~:text=In%202020%2C%20the%20estimated%20total,at%20approximately%2053.2%20million%20inhabitants.>

8.2 DEMAND SIDE ASSESSMENT

There has been a push towards transforming into a digital economy in Myanmar. Since the launch of Myanmar's Digital Economy Roadmap on 26 February 2019, the country has been taking strides to digitise their nation. To develop this roadmap, Myanmar has been looking towards international leaders, UK and Sweden, as well as nearby counterparts, Singapore and Thailand, for guidance on suitable initiatives and priorities to undertake. One of the key priorities of this strategic plan is to raise digital transformation across all business sectors in Myanmar by 30% by 2025¹⁰⁵. The digital economy will be developed by focusing on four main pillars: Digital Transformation, Digital Government, Digital Trade and Digital Society. The four pillars cover transformation efforts in nine priority sectors, including financial services and digital trade. Myanmar's Digital Economy Development Community (DEDC) was also formed to establish digital corporations and incorporate digital technology in the above sectors¹⁰⁶. Some of the long-term plans include drafting policies to support digital trade and e-commerce, online payments, tax incentives, and cybersecurity. Some key short term action plans for digital trade include legitimising electronic transactions, electronic certificates, and digital signatures.

8.3 SUPPLY SIDE ASSESSMENT

There has been a push towards transforming into a digital economy in Myanmar. Since the launch of Myanmar's Digital Economy Roadmap on 26 February 2019, the country has been taking strides to digitise their nation. To develop this roadmap, Myanmar has been looking towards international leaders, UK and Sweden, as well as nearby counterparts, Singapore and Thailand, for guidance on suitable initiatives and priorities to undertake. One of the key priorities of this strategic plan is to raise digital transformation across all business sectors in Myanmar by 30% by 2025¹⁰⁷. The digital economy will be developed by focusing on four main pillars: Digital Transformation, Digital Government, Digital Trade and Digital Society. The four pillars cover transformation efforts in nine priority sectors, including financial services and digital trade. Myanmar's Digital Economy Development Community (DEDC) was also formed to establish digital corporations and incorporate digital technology in the above sectors¹⁰⁸. Some of the long-term plans include drafting policies to support digital trade and e-commerce, online payments, tax incentives, and cybersecurity. Some key short term action plans for digital trade include legitimising electronic transactions, electronic certificates, and digital signatures.

¹⁰⁵ Myanmar Digital Economy Roadmap

¹⁰⁶ Govt draft roadmap to develop and support digital economy in Myanmar – Available at <https://www.mmtimes.com/news/govt-draft-roadmap-develop-and-support-digital-economy-myanmar.html>

¹⁰⁷ Myanmar Digital Economy Roadmap

¹⁰⁸ Govt draft roadmap to develop and support digital economy in Myanmar – Available at <https://www.mmtimes.com/news/govt-draft-roadmap-develop-and-support-digital-economy-myanmar.html>

8.4 ENABLERS ASSESSMENT

In Myanmar, the tax e-Filing System, tax e-Payment System and the National Payment System (NPS) Strategy are existing digital initiatives that may potentially contribute to the development of an E-Invoicing system. (Refer Figure 8.4.1 Key initiatives to drive the adoption of E-Invoicing in Myanmar).

Enablers	Initiatives
1) Government & Institutional Support	<ul style="list-style-type: none"> • Tax E-Filing System • Tax E-Payment System • National Payments System Strategy

Source: Desk Research

Figure 8.4.1 Key initiatives to drive the adoption of E-Invoicing in Myanmar

8.4.1 Government & Institutional Support

Tax E-Filing System

Myanmar has a tax e-filing service by the Internal Revenue Department (IRD). The tax e-filing service facilitates online tax payment for both corporate and individual tax¹⁰⁹. Currently, the e-filing can be applied to the submissions for Specific Goods Tax (“SGT”), Commercial Tax (“CT”), and Capital Gains Tax (“CGT”) returns, Corporate Income Tax (“CIT”) and Personal Income Tax (“PIT”). In order to register for and use the e-filing system, the taxpayer must perform a one-off registration through the IRD’s website. Upon receiving a confirming account registration, the taxpayer will receive an approval email from the IRD and can then begin e-Filing. IRD is encouraging the use of the e-filing system in order to streamline filings to make tax return submissions more convenient¹¹⁰.

Tax E-Payment System

Myanmar’s electronic tax payment system works in tandem with the e-Filing system and was first introduced in 2018. The IRD has mandated the use of the e-Payment system for all taxpayers as of 1 October 2020. Taxpayers can make payments through m-Banking, e-banking, i-banking and mobile payment systems. The eight platforms taxpayers can make payments through are:

¹⁰⁹ Online Payment System for Taxpayer – Available at <https://onlinepayment.ird.gov.mm/etax>

¹¹⁰ Myanmar: IRD Introduces E-Filing System & Expands E-Payment Platforms to Taxpayers – Available at <https://www.dfdl.com/resources/legal-and-tax-updates/myanmar-ird-introduced-e-filing-system-expands-e-payment-platforms-to-taxpayers/#:~:text=As%20part%20of%20the%20implementation,file%20returns%20and%20pay%20taxes.>

e-Payment Platforms			
1	AYA Pay, AYA m-banking and i-banking	5	KBZ i-banking
2	AGD One-pay system	6	MAB m-banking
3	CBM –Net system (via a local bank)	7	MPU Debit card
4	CB Pay, CB i-banking	8	Sai Sai Pay-UAB bank

Figure 8.4.2 Myanmar e-Payment Platforms

These e-payment platforms are available to taxpayers with a valid Tax Identification Number (TIN). If tax payments will be made through a local bank account (via the CBM-Net System), the taxpayer is required to perform a one-off registration at the relevant tax office. If payments will be made using other banking platforms (m-Banking, e-banking, i-banking and mobile payment systems), the taxpayer is not required to perform separation registrations with the tax office. In this case, the tax payment can be directly accessed through these systems using the taxpayer’s TIN. Once payment has been made, taxpayers will receive an acknowledgement from the respective online payment platform. Afterwards, the tax office will email the taxpayer upon successful payment of the tax¹¹¹. With the e-Filing and e-Payment system in place, this might potentially contribute to the demand for E-Invoicing as the three systems can work in tandem to create a seamless digital tax ecosystem.

National Payments System Strategy

Myanmar’s National Payments System (NPS) Strategy was launched in May 2020 by the Central Bank of Myanmar (CBM). The NPS Strategy was designed to guide the establishment of a modern and inclusive national payments market across the government, businesses, and individuals in Myanmar over the period of 2020-2025. The main objective of the strategic plan is to establish a safe, efficient, and inclusive National Payments System that effectively contributes to Myanmar’s financial stability and economic growth. The strategy aims to focus on three key areas: (i) Modernizing the payment and settlement infrastructure; (ii) Strengthening institutions; and (iii) Enhancing payment instruments and services. In the long term (in 5-6 years), the NPS Strategy envisions that most government payments will migrate to digital form. A majority of the population and businesses will also have access to payment services and will use digital payments¹¹².

8.5 OVERVIEW OF E-INVOICING IN MYANMAR

Overall, E-Invoicing in Myanmar is still in its nascent stages. Large corporations such as MPT are making efforts to shift from traditional invoicing towards E-Invoicing. Digital initiatives such as the digitisation of the tax process and the National Payments System are contributing to the B2B digital ecosystem and can potentially set the stage for future E-Invoicing platforms.

¹¹¹ Myanmar: IRD Introduces E-Filing System & Expands E-Payment Platforms to Taxpayers

¹¹² Myanmar National Payments System Strategy (2020-2025)

9. PHILIPPINES



9.1 BACKGROUND/BUSINESS LANDSCAPE

With a Gross Domestic Product (GDP) growth average of 5-6% over the five last years¹¹³ and 109.6 million population¹¹⁴, the Philippines has been considered as one of the most dynamic economies in the East Asia Pacific Region. Fueled by an increase in public consumption, business transaction, fiscal reform and investment, the country has become a regional showcase for socioeconomic progress¹¹⁵. Furthermore, supported by a growing middle class and young population, the Philippines is on its way from a lower middle-income country to an upper-middle-income country in the near term¹¹⁶. However, the current economic situation of the Philippines has been affected by the Covid-19 pandemic.

Digital transformation is one of the key topics that the Philippines keeps upholding. With its young and digitally savvy population, there is potential to accelerate the Philippines digital sector¹¹⁷. This requires the government to provide an environment that ensures openness, transparency, and greater competitiveness by optimizing the role of Information and Communications Technology (ICT). One of the areas that are in focus to be tackled is invoicing and receipting processes. The Philippine government, through the Bureau Internal Revenue (BIR), is planning to implement e-Invoicing/e-Receipting system to reduce the cost of tax compliance and tax administration, facilitate tax compliance and reduce tax leakage. With this planned E-Invoicing system, mandated taxpayers are required to issue E-Invoices/E-Receipts by using taxpayers' ERP or Computerized Accounting System (CAS) and/or Point-of-Sales (POS) or Cash Register Machine (CRM), and Web-based issuance facility of the e-Invoicing/e-Receipting system (EIS) of the BIR. (Refer to Figure 9.1.1 Schematic diagram of the E-Invoicing process in Philippines).

¹¹³ Philippines: Growth rate of the real gross domestic product (GDP) from 2016-2026 – Available at <https://www.statista.com/statistics/578705/gross-domestic-product-gdp-growth-rate-in-philippines/>

¹¹⁴ World Bank

¹¹⁵ DICT Website

¹¹⁶ World Bank

¹¹⁷ The Growing Digital Economy in the Philippines – Available at <https://alphabeta.com/wp-content/uploads/2021/10/philippines-economic-impact-report.pdf>

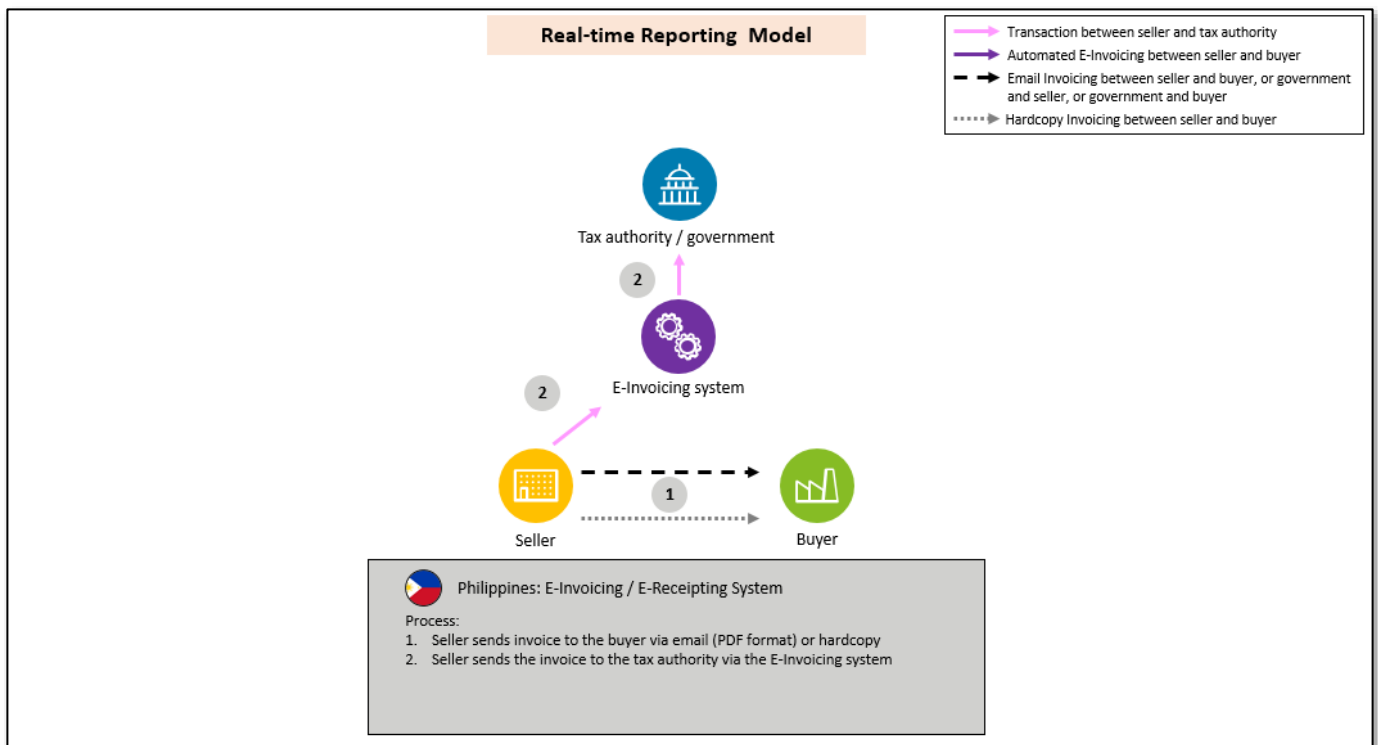


Figure 9.1.1 Schematic diagram of the E-Invoicing process in Philippines

9.2 DEMAND SIDE ASSESSMENT

Although E-Invoice has been acknowledged as a legal document since 2000 under the e-Commerce Law, the recent move to e-Invoicing/e-Receipting system is a long-awaited push toward fully embracing digitalization into government practices. The initiative to implement this mandatory E-Invoicing system is mainly driven by the Tax Reform for Acceleration and Inclusion (TRAIN) Act, The Philippine Digital Transformation Strategy and the aim to facilitate tax compliance and reduce tax leakage.

9.2.1 Improve Tax Administration

Currently, The BIR is committed to stepping up efforts to improve tax administration¹¹⁸. Not only enforcing the existing laws but conducting studies to implement a new tax system. Therefore, the BIR took the initiative to adopt the e-Invoicing/e-Receipting system which maximises the use of information in order to reduce tax leakage that is prevalent in current paper-based processes¹¹⁹. This planned system follows the Real-time Reporting Model in which

¹¹⁸ Taking tax evasion seriously – Available at <https://www.manilatimes.net/2021/08/19/business/top-business/taking-tax-evasion-seriously/1811508>

¹¹⁹ Philippines: A Step towards the mandatory electronic invoice – Available at <https://edicomgroup.com/blog/philippines-step-towards-mandatory-electronic-invoice#:~:text=The%20Bureau%20of%20Internal%20Revenue,taxpayers%20and%20the%20tax%20authority.>

all business transactions will be transmitted to the BIR, real or near-real time, after the issuance of invoice/receipt. This will enhance the transparency of business transactions and improve tax compliance.

9.2.2 Benefits of E-Invoicing

The BIR e-Invoicing/e-Receipting system (EIS) is expected to generate data that shall facilitate tax audit and processing of tax refunds. Through reports that can be generated using the compilation of transaction data, BIR aims to be able to enhance the bureau's third-party matching for tax audit/assessment purposes.

One of the primary objectives of the new system is to lessen or eradicate the so-called Sales Suppression practiced by some taxpayers. Under-reporting or non-reporting are currently practiced by a significant number of taxpayers. Issuance of fake invoices or receipts and incorrect reporting of sales are examples of the challenges BIR wants to address using an enhanced E-Invoicing system.

It also aims to facilitate the submission of the required transactions by the taxpayers. This ultimately shall reduce the cost of tax compliance and tax administration through improved business processes, streamlined procedures and the provision of more e-services.

9.2.3 Philippines Digital Transformation Strategy 2022 (PDTS 2022)

In 2019, the Department of Information and Communication Technology (DICT) launched a new roadmap towards digital transformation that is called Philippines Digital Transformation Strategy 2022 (PDTS 2022). This roadmap lays out the Philippines government's strategies to achieve the digital transformation and stipulate that the new e-government system will be completed and implemented by 2022¹²⁰. This roadmap recommends the mandate to shift to E-Invoicing system in the Philippines.

9.2.4 The Tax Reform for Acceleration and Inclusion (TRAIN) Act

TRAIN Act is the first package of the Comprehensive Tax Reform Program (CTRP) in the Philippines which aims to enhance a more progressive Philippines tax system to accelerate poverty reduction and sustainably address inequality¹²¹. This law provides the government with the corrective measure to eliminate the inefficiencies in the

¹²⁰ Philippines to implement e-invoicing program – Available at <https://www.pagero.com/news/philippines-to-implement-e-invoicing-program/>

¹²¹ What is Comprehensive Tax Reform Program – Available at <https://taxreform.dof.gov.ph/>

Philippines tax system by mandating the establishment of an E-Invoicing system¹²². Under this law, taxpayers who engage in the export of goods and services, e-commerce, and those considered as large enterprises, are required to issue E-Invoices within five years from the effectiveness of the TRAIN laws, i.e., before 1 Jan 2023¹²³.

9.3 SUPPLY SIDE ASSESSMENT

The process of E-Invoicing implementation in Philippines is currently in its development phase for the one hundred (100) pilot large taxpayers. Based on the conceptual framework of the e-Invoicing/e-Receipting system based on the needs of taxpayers as well as the tax administration requirements in the Philippines, E-Invoice/E-Receipt may be issued by mandated taxpayers using taxpayers' ERP or Computerized Accounting System (CAS) and/or Point-of-Sales (POS) or Cash Register Machine (CRM), or through Web-based issuance facility of the e-Invoicing/e-Receipting system (EIS) of the BIR. Use of the Web-based issuance facility of the EIS is free. (Refer Figure 9.3.1 The E-Invoicing system in the Philippines).

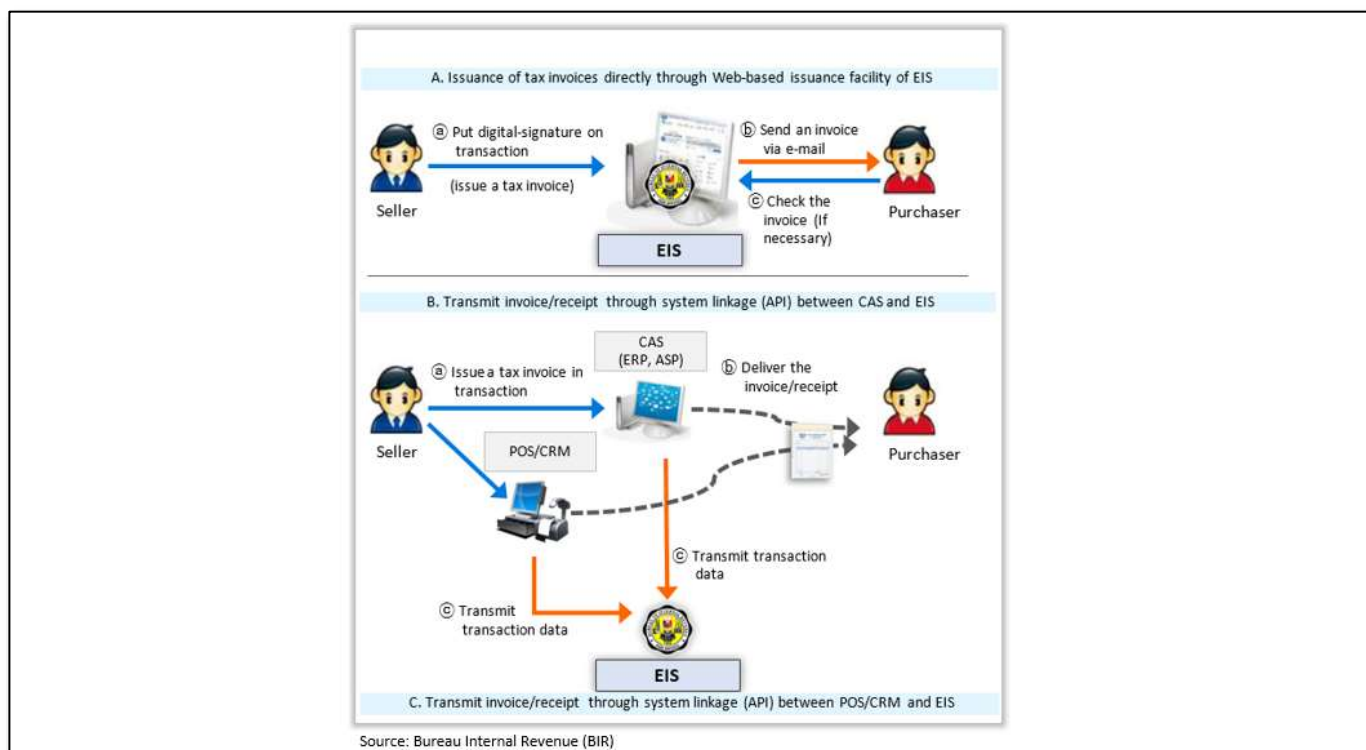


Figure 9.3.1 The E-Invoicing System in Philippines

¹²² DOF aims to complete e-invoicing by 2022 – Available at <https://www.dof.gov.ph/dof-aims-to-complete-e-invoicing-by-2022/#:~:text=The%20Tax%20Reform%20for%20Acceleration,of%20an%20e%2Dinvoicing%20system.>

¹²³ Invoicing Solutions in Philippines – Available at <https://ins-globalconsulting.com/invoicing-solutions-in-philippines/#>

9.4 ENABLERS ASSESSMENT

In Philippines, the initiative to adopt the E-Invoicing system is mainly driven by the government’s support, nationwide standards and funding provided by KOICA. (Refer Figure 9.4.1 Key Initiatives to drive the adoption of E-Invoicing in Philippines).

Enablers	Initiatives
1) Government & Institutional Support	<ul style="list-style-type: none"> Bureau of Internal Revenue (BIR) Multi-Lender Electronic Supply Chain Financing (SCF)
2) Nationwide Standards	<ul style="list-style-type: none"> e-Invoicing/e-Receipting System (EIS)
3) Financing & Funding	<ul style="list-style-type: none"> E-Invoicing Implementation Grant from KOICA

Source: Desk research

Figure 9.4.1 Key Initiatives to drive the adoption of E-Invoicing in Philippines

9.4.1 Government & Institutional Support

Bureau of Internal Revenue (The BIR)

The BIR, under the supervision and control of the Department of Finance, has duties to collect all national internal revenue taxes, fees, and charges through the just enforcement of tax laws for the noble purpose of nation-building and elevating the lives of Filipinos¹²⁴. By 2022, BIR is planning to implement the E-Invoicing pilot project for the 100 largest taxpayers to facilitate tax compliance¹²⁵. Through this system, all E-Invoices/receipts sales data will be transmitted to the BIR system immediately after the issuance.

Multi-Lender Electronic Supply Chain Financing (SCF)

Currently, the Bangko Sentral ng Pilipinas (BSP) is planning to establish an electronic supply chain financing (SCF) platform that can be tapped by multiple lenders that enables Micro, Small, and Medium Enterprises (MSMEs) to obtain financing¹²⁶. According to the Department of Trade and Industry, 99% of the roughly one million registered businesses in 2018 are MSMEs. Therefore, MSMEs are crucial in developing the Philippines economy. In the SCF platform, buyers will send approved invoices from a supplier to a bank and based on the buyer’s credit rating, the bank can make an early payment to the supplier¹²⁷. Simply, the SCF will allow lenders to use MSMEs’ receivable or invoices to finance them. Interestingly, the development of the SCP platform may include the integration of an E-

¹²⁴ The Benefit of BIR Registration – Available at <https://www.manilatimes.net/2020/07/11/business/columnists-business/the-benefits-of-bir-registration/740255>

¹²⁵ BIR seeking \$7.3-M KOICA grant for e-invoicing system – Available at <https://www.dof.gov.ph/bir-seeking-7-3-m-koica-grant-for-e-invoice-system/>

¹²⁶ BSP exploring supply chain financing for MSMEs – Available at <https://www.bworldonline.com/bsp-exploring-supply-chain-financing-for-msmes/>

¹²⁷ Supply Chain Finance and Trade Finance Tools Support Global Relationship During Crisis – Available at <https://www.unionbank.com/commercial/insights/middle-market-businesses/supply-chain-finance-solutions-tools-during-crisis>

Invoicing system¹²⁸. Although this integration is not yet apparent in Philippines, some companies such as Fintech or commercial banks are already starting to emerge. UnionBank and First Circle are two companies that have provided SCF services for MSMEs in Philippines, including the digitization of invoice order processing¹²⁹.

9.4.2 Nationwide Standards

e-Invoicing/e-Receipting system (EIS)

The Philippine Government developed its e-Invoicing/e-Receipting system (EIS) with the assistance of KOICA based on the government requirements and needs of the taxpayers. Based on the conceptual framework of the e-Invoicing/e-Receipting system of the Philippines, E-Invoice/E-Receipt may be issued by mandated taxpayers. This e-Invoicing/e-Receipting system follows the Real-time Reporting Model in which all business transactions will be transmitted to the BIR, real or near-real time, after the issuance of invoice/receipt. Mandated taxpayers who are using CAS and/or POS/CRM shall develop an Application Programming Interface (API) which will connect with the EIS of the BIR to transmit the sales data from the E-Invoice/E-Receipt generated from their CAS and/or POS/CRM.

9.4.3 Financing & Funding

E-Invoicing Implementation Grant from KOICA

To establish the e-Invoicing/e-Receipting system, the Philippine Government was granted funding from the KOICA to develop and implement the EIS for the 100 pilot large taxpayers. In 2018, the KOICA team and Douzone consortium have visited the Department of Finance (DOF) to gather data in preparation for the feasibility study on the proposed E-Invoicing and receipting system. According to BIR Deputy Commissioner Arnel SD. Guballa, they have already compiled the list of the 100 largest taxpayers that will take part in the pilot project¹³⁰.

9.5 OVERVIEW OF E-INVOICING IN PHILIPPINES

The e-Invoicing/e-Receipting system implementation in Philippines is currently in its development phase for the 100 pilot large taxpayers. The initiative to digitalize all invoice and receipt transactions is mainly driven by the urge to improve tax administration and transform into a digital economy. In addition, backed by strong government support, Philippines has received a grant from KOICA to design a localised E-Invoicing model.

¹²⁸ BSP exploring supply chain financing for MSMEs – Available at <https://www.bworldonline.com/bsp-exploring-supply-chain-financing-for-msmes/>

¹²⁹ Supply chain financing in the digital era – Available at <https://www.manilatimes.net/2018/04/07/business/columnists-business/supply-chain-financing-in-the-digital-era/390975>

¹³⁰ BIR seeking \$7.3-M KOICA grant for e-Invoice system -Available at <https://www.dof.gov.ph/bir-seeking-7-3-m-koica-grant-for-e-invoice-system/>

10. SINGAPORE



10.1 BACKGROUND/BUSINESS LANDSCAPE

Singapore is recognised as the financial, shipping and trade hub for Southeast Asia and the larger Asia-Pacific region. It is mainly driven by its strategic location, open and trade-driven economy, well-established infrastructure, stable government, and regulatory system. This leads to manufacturing, wholesale trade, and finance and insurance sector as the top 3 contributors towards the country's GDP¹³¹. Although Singapore is one of the smallest countries in Southeast Asia, it has more than 400,000 business entities operating in the country with an estimation of 440 million B2B invoices being issued within a year¹³².

In Singapore, most sellers issue invoices by extracting data from their accounting/ERP systems, formatting it in human-readable form and sending it to the buyer via paper or email. After receiving the invoice, the buyer will need to manually enter or scan the information into their systems. Singapore was comparatively slow to adopt a national E-Invoicing program as compared to some other developed countries¹³³. However, IMDA has worked to close the gap by implementing the nationwide E-Invoicing network in 2019. This network now referred to as InvoiceNow, is based on the Peppol framework enables business-to-business (B2B) and business-to-government (B2G) E-Invoicing. (Refer Figure 10.1.1 Schematic diagram of the E-Invoicing process in Singapore). Singapore is currently the only country in the ASEAN region to be on the Peppol network. (Refer to Figure 10.1.2 Key milestones of E-Invoicing in Singapore).

¹³¹ Share of nominal GDP in Singapore in 2020, by sector – Available at <https://www.statista.com/statistics/1122999/singapore-nominal-gdp-breakdown-by-sector/>

¹³² Survey on E-Invoicing landscape in AMS by DTSCWG

¹³³ E-Invoicing in Singapore: what you need to know – Available at <https://hub.tradeshift.com/accounts-payable/e-invoicing-in-singapore-what-you-need-to-know/>

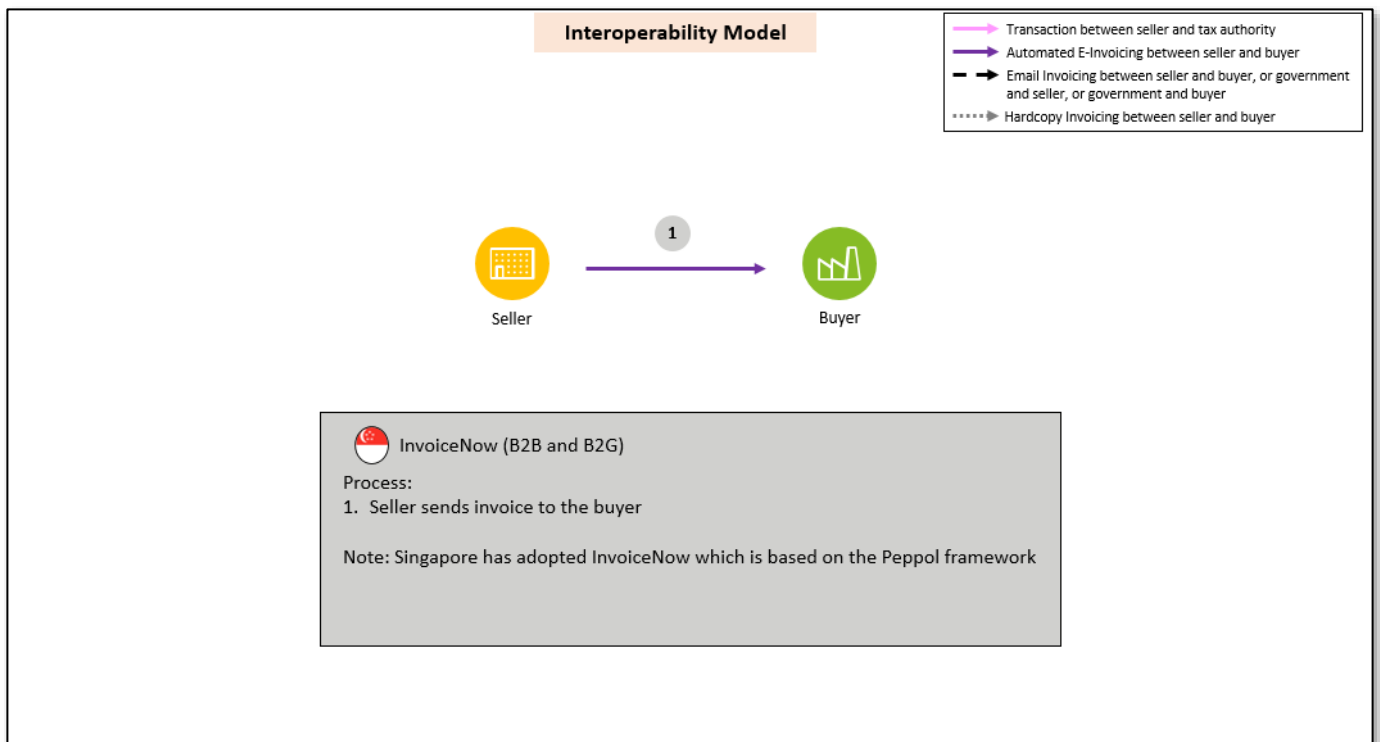


Figure 10.1.1 Schematic diagram of the E-Invoicing process in Singapore

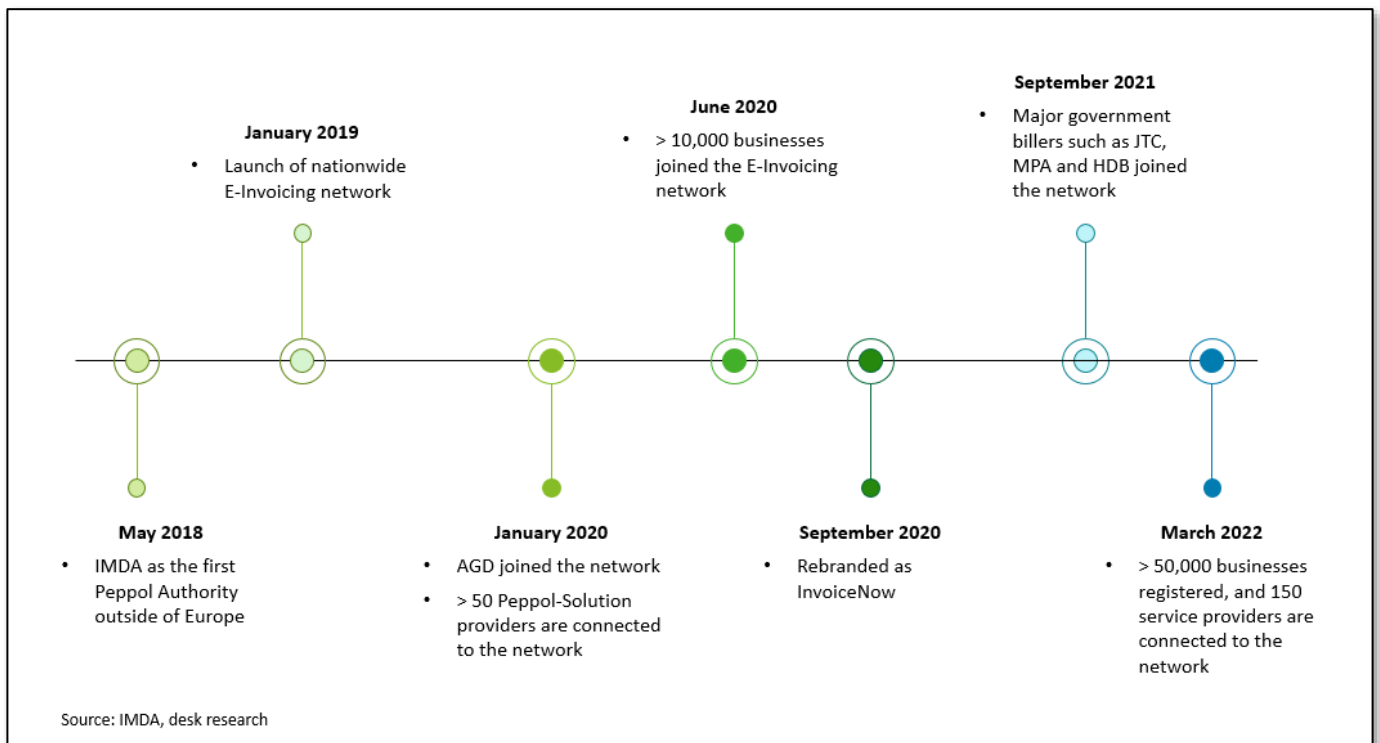


Figure 10.1.2 Key milestones of E-Invoicing in Singapore

10.2 DEMAND SIDE ASSESSMENT

Although Singapore has started to adopt E-Invoicing in 2019, it is still emerging from a global standpoint. The benefits of E-Invoicing, faster payment cycle, push on Singapore Green Plan 2030 and developing national digital utilities have been identified as important drivers towards adoption of E-Invoicing in Singapore.






10.2.1 Benefits of E-Invoicing

One of the major drivers behind the adoption of E-Invoicing is companies are appreciating the benefits of E-Invoicing. In a manpower crunch market, businesses are adopting E-Invoicing to improve efficiency as it does not involve any human intervention. In comparison to sending invoices via email or hardcopy, 80% of the companies believe that E-Invoicing is a better option as it is less time consuming and requires less manpower¹³⁴. For example, Ms Cindy Sim, MPA's Director for Finance, Procurement and Administration mentioned that E-Invoicing allows them to achieve greater efficiency as it enables customers to receive invoices digitally¹³⁵. E-Invoicing has helped companies within the freight services and logistics sector to cut their invoice processing time by 50% which frees up time for their workers to learn new skills¹³⁶. With the advantages of E-Invoicing, many firms in Singapore have started to adopt E-Invoicing. (Refer Figure 10.2.1.1 Testimonials from businesses in Singapore who adopt E-Invoicing).

¹³⁴ IndSights Research – Available at <https://www.insights.sg/research-finding/imdas-nationwide-e-invoicing-network-initiative/>

¹³⁵ Article on HDB, JTC and MPA, Which Issue Over Two-Thirds of Government Invoices, Offer E-Invoicing Through IMDA's InvoiceNow – Available at <https://www.hdb.gov.sg/cs/infoweb/about-us/news-and-publications/press-releases/30112011-HDB-%20JTC-and-MPA-Offer-Einvoicing-Through-IMDAs-InvoiceNow>

¹³⁶ Article on HDB, JTC and MPA, Which Issue Over Two-Thirds of Government Invoices, Offer E-Invoicing Through IMDA's InvoiceNow – Available at <https://www.hdb.gov.sg/cs/infoweb/about-us/news-and-publications/press-releases/30112011-HDB-%20JTC-and-MPA-Offer-Einvoicing-Through-IMDAs-InvoiceNow>

<p>“Thus, not only can e-invoicing significantly lessen Maison Kayser’s dependence on paper invoices, but it can also help the company achieve a convenient and fuss-free operation.”</p> <p>- Mr Henry Chan, Executive Director</p>		<p>“By reducing manual processes, our transactions are now accurately updated and error-free.”</p> <p>- Mr Henry Chan, Executive Director</p>	
<p>“I am thrilled that e-invoicing is becoming the choice for more customers as less time is required to manually key in data in the computer at the end of the day.”</p> <p>- Mr Faizal Hussein, Founder</p>		<p>“Sending invoices then became a breeze—create and click send, that’s it. These few steps have tremendously reduced the amount of paperwork. With InvoiceNow, we have cut down on all manual work and only spend less than two days generating and transmitting invoices to clients.”</p> <p>- Liew Wai Leong, CEO</p>	
<p>“With InvoiceNow, generating invoices has never been quicker and easier. So I now have more time to innovate better solutions for my clients, together with my team.”</p> <p>- Mr Isaac James, Director</p>		<p>“InvoiceNow has made my workflow and payments a lot smoother and I can now focus on innovating new food products for foodies everywhere.”</p> <p>- Ms Audrey Chew, Co-Founder</p>	
<p>“With E-Invoicing, I hope to reduce paperwork and errors. Also, I can spend less time on paperwork and have more time for productive work.”</p> <p>- Mr Richard Koh, Founder</p>		<p>“It allows us to streamline our invoicing process by implementing direct exchange of invoices over Peppol network to improve business efficiency.”</p> <p>- Ms Neo Sing Hwee, Head Of Operations System & Control</p>	

Source: IMDA

Figure 10.2.1.1 Testimonials from businesses in Singapore who adopt E-Invoicing

10.2.2 Faster Payment and Improve Cash Flow

The paper/PDF invoicing concept revolves around the process where the sellers key in the information manually and send it to the buyers which the buyers will then manually enter the details into their system. This is a very time-consuming process as it involves spending hours to organize, fill up the information needed and proofread before the final submission for approval. Conversely, E-Invoicing can fully automate the invoice capture, routing and approval process which allows invoices to be processed much more quickly. The shorter processing time enables on-time payment and reduces late payment which can strengthen business cash flow. This is further supported by a study that shows E-Invoicing improves the on-time payment of invoices from 45% to 92%¹³⁷.

10.2.3 Push on Singapore Green Plan 2030

On 10 February 2021, Singapore's government launched the Singapore Green Plan 2030 which is a nationwide movement to advance its agenda on sustainable development. This Green Plan comprises five key pillars known as City in Nature, Energy Reset, Green Economy, Resilient Future and Sustainable Living¹³⁸. Environmental-friendly actions can start small by reducing the usage of paper. E-Invoicing allows organisations to issue their invoices and transfer information electronically. As such, there is no need to print and archive physical invoices resulting in lower paper consumption and need for storage space. This further encourages businesses to adopt E-Invoicing in Singapore.

10.2.4 Push by Large Enterprises

FUJIFILM Business Innovation Singapore

FUJIFILM is a strong advocator of sustainability and business innovation which they actively seek ways to reduce their environmental footprint through innovation action plans. FUJIFILM is dealing with approximately 25,000 invoices every month which requires a large amount of human effort and time to process the invoices manually¹³⁹. To overcome the barriers of manual invoices, FUJIFILM decided to shift to E-Invoicing. As a result, FUJIFILM managed to drive up their business efficiency by shortening processing time as well as reducing paper consumption and encouraging its business clients to be part of the InvoiceNow network.

¹³⁷ IMDA website

¹³⁸ SG Green Plan website

¹³⁹ How e-invoicing drives sustainability for FUJIFILM Business Innovation Singapore – Available at <https://www.imda.gov.sg/news-and-events/impact-news/2021/07/How-e-invoicing-drives-sustainability-for-FUJIFILM-Business-Innovation-Singapore>

Mapletree Investments Pte Ltd

Mapletree is a leading real estate development, investment, capital and property management company headquartered in Singapore. Mapletree is one of the early adopters of E-Invoicing in the private sector¹⁴⁰. The adoption of E-Invoicing helps the firm to streamline its invoicing process as invoices can be exchanged easily through the Peppol network. This is treated as a strategic solution to improve their business efficiency while they expand their businesses globally. Furthermore, Mapletree places a strong emphasis on its sustainable business practices such as minimising the environmental footprint¹⁴¹. Thus, E-Invoicing helps the business to be greener by reducing the carbon footprint due to lower paper consumption.

Pan Pacific Hotels Group

Pan Pacific Hotels Group is a member of Singapore-listed UOL Group Limited, one of Asia's most established hotel and property companies with an outstanding portfolio of investment and development properties. The Pan Pacific Hotel Singapore and some of the related companies under UOL Group Limited, Singapore Land Group Limited and Pan Pacific Hotels Group Limited has implemented E-Invoicing with automation¹⁴². The automated process allows invoices to be captured by the accounts payable invoice monitor and routed via an approval matrix as soon as they arrive. Whenever there are any outstanding approvals, notifications will be triggered to alert the approvers. The firm can now view invoices in real-time without any unnecessary delays.

10.2.5 Push by Large Enterprises

Singapore is evolving from a manufacturing-oriented economy and financial hub into a high-tech epicentre of the ASEAN region. Since the launch Smart Nation initiative in 2014, Singapore has been focusing on building its' national digital utilities to improve the lives of its citizen, make it more profitable for its businesses and make its government and public services more efficient¹⁴³. Digital utilities can be loosely defined as digital services that can be offered to all enterprises to help accelerate digital transformation. E-Invoicing is just one of the digital utilities. E-Invoicing is a great example to support digital trade with the help of interoperable online platforms and payment services¹⁴⁴. The implementation of E-Invoicing aligns with IMDA's mission to drive Singapore's digital transformation¹⁴⁵. Hence, the adoption of E-Invoicing is part of the support to promote e-payment services in the Smart Nation initiative. Other examples include utilities meant for local enterprises such as National Digital Identity (NDI), SGFINDEX, cross-border digital utilities like Business sans Borders and Singapore Trade Data Exchange¹⁴⁶. All these efforts help to boost the demand for E-Invoicing.

¹⁴⁰ IMDA website

¹⁴¹ Mapletree Investment Pte Ltd website

¹⁴² IMDA newsletter

¹⁴³ Smart Nation: Singapore is set to enter a brave new digital world – Available at <https://www.dhl.com/global-en/home/about-us/delivered-magazine/articles/2020/issue-1-2020/inside-the-next-new-singapore.html>

¹⁴⁴ World Economic Forum

¹⁴⁵ IMDA website

¹⁴⁶ New data-sharing platform for shipping industry aims to reduce inefficiency: Heng Swee Keat- Available at <https://www.straitstimes.com/singapore/politics/new-data-sharing-platform-for-shipping-industry-aims-to-reduce-inefficiency-heng>

10.3 SUPPLY SIDE ASSESSMENT

Singapore, a financial hub and adopter of the Peppol framework has made it an attractive market for technology providers. As E-Invoicing was introduced in 2019, the supply side is emerging and indeed first growing. On the back of Peppol, there has been an increase in technology providers offering E-Invoicing solutions. These technology providers are categorized into Access Point (AP) providers and Peppol Ready Solution providers. The top E-Invoicing solution providers in Singapore are Xero, SESAMi and DataPost¹⁴⁷.

10.3.1 Access Point Providers

An AP is a connectivity service that links business systems to the nationwide E-invoicing Peppol network. The AP has the ability to register a user on the network, identified by a Peppol ID. Users can then use their unique ID to access the E-invoicing network. After the Peppol ID has been validated, companies can start to send E-Invoices to other Peppol users. For large corporates that are using their enterprise system, they can connect to the Peppol network via an AP. Some authorised APs in Singapore include Basware Corporation, DataPost Pte Ltd, DBS Bank, eInvoice.sg Pte Ltd and SESAMi (Singapore) Pte Ltd¹⁴⁸. DataPost is a user-friendly E-Invoice Software as a Service (SaaS) that allows firms to onboard seamlessly with minimal changes to their existing invoicing software. DataPost is one of the top E-Invoicing solution providers in Singapore not just because it is a certified AP, it also provides value-added services such as invoice financing, SG QR code generation of invoices and archiving and payment integration through the same portal¹⁴⁹. This has made it more attractive as businesses can automate their business processes through the DataPost portal itself.

10.3.2 Peppol Ready Solution Providers

Peppol Ready Solutions consists of solutions such as Accounting, ERP and SCM which are connected to the Peppol network where users can send and receive E-Invoices through the Peppol network. Xero and Singapore E-Business Pte Ltd are some examples of the Peppol Ready Solution Providers in Singapore¹⁵⁰. Xero is a cloud-based accounting software platform for small and medium-sized businesses. Xero's products are based on the Software as a Service (SaaS) model and sold on a subscription basis¹⁵¹. Xero allows businesses to customise and send invoices on the go, accept payments and even set automatic reminders from a desktop or its app. Moreover, there are a few free Peppol Ready Solutions Providers available in Singapore, for example, DataPost, eInvoice.sg and PAGERO¹⁵².

¹⁴⁷ Survey on E-Invoicing landscape in AMS by DTSCWG

¹⁴⁸ IMDA website

¹⁴⁹ DataPost website

¹⁵⁰ IMDA website

¹⁵¹ Xero website

¹⁵² IMDA website

Non-technology firms like banks such as DBS and OCBC have adopted banking platforms such as PayNow, to help companies to digitalize their business processes. Their corporate banking customers can now issue or receive invoices via InvoiceNow for free and use PayNow to pay these invoices. As a result, this scales up the adoption of E-Invoicing among corporate customers.

10.4 ENABLERS ASSESSMENT

With the Government’s support and funding, IMDA and some public agencies have been actively involved in driving the adoption of E-Invoicing with their respective initiatives. (Refer Figure 10.4.1 Key initiatives to drive the adoption of E-Invoicing in Singapore). It appears that these initiatives have a positive impact on scaling up the usage of E-invoicing.

Enablers	Initiatives
1) Government & Institutional Support	<ul style="list-style-type: none"> • IMDA implemented the nationwide E-invoicing network referred to as InvoiceNow • E-Invoices are legally valid • AGD announced publicly to support InvoiceNow • Public agencies such as HDB, JTC and MPA have joined InvoiceNow
2) Nationwide Standards	<ul style="list-style-type: none"> • Adopts Peppol framework that connects 400,000 businesses across the world
3) Financing & Funding	<ul style="list-style-type: none"> • E-Invoicing Registration Grant (ERG) • Digital Resilience Bonus (DRB) • Productivity Solutions Grant (PSG) • Chain Leader Grant

Source: Desk research

Figure 10.4.1 Key initiatives to drive the adoption of E-Invoicing in Singapore

10.4.1 Government & Institutional Support

Nationwide E-Invoicing Network, InvoiceNow

IMDA has launched the nationwide E-Invoicing network, InvoiceNow, in January 2019. InvoiceNow aims to help businesses to improve their efficiency, reduce cost, enjoy faster payment, and stay green at the same time. There are more than 50,000 Singapore businesses that have joined the network to transact digitally with their business partners within Singapore and across the globe, who are also on the Peppol network.

E-Invoices Are Legally Valid (legal basis)

Singapore's Electronic Transactions Act (ETA) provides a legal framework that governs nearly all digital services such as e-commerce, electronic records, electronic contracts and signature. Section 6 of the ETA gives legal recognition to electronic records by declaring as follows:

"For the avoidance of doubt, it is declared that information shall not be denied legal effect, validity or enforceability solely on the ground that it is in the form of an electronic record¹⁵³."

Other than that, according to the Inland Revenue Authority of Singapore (IRAS) Record Keeping Guide for GST-registered Businesses, section 3.3.2.a.:

"Records can be kept electronically using a computer and/or accounting software....Physical copies of source documents need not be kept to substantiate your business transactions for tax purposes if the source documents are kept electronically¹⁵⁴."

Therefore, E-Invoices are legally valid in Singapore and businesses do not need to print a physical copy for record purposes if the invoices are stored electronically. However, as Singapore is following the Interoperability Model and according to IRAS, businesses are required to keep their records for at least 5 years¹⁵⁵.

Accountant-General's Department (AGD)

The AGD is a department under the Ministry of Finance (MOF). The AGD supports the Accountant-General in fulfilling his statutory duties under the Constitution, the Financial Procedure Act and other legislative statutes. The AGD partners with MOF in making Singapore a better place through finance and closely cooperate with Government agencies to raise the capabilities of financial management in the Public Sector. The AGD department has publicly announced its support for E-Invoicing to the Government Procuring Entities (GPEs) by emphasizing InvoiceNow as their preferred channel.

Public Agencies Joining InvoiceNow

To drive transformation and help businesses seize opportunities in the digital economy, IMDA is working with the Housing & Development Board (HDB), JTC Corporation and the Maritime and Port Authority of Singapore (MPA) to issue E-Invoices directly into their business customers' accounting system through InvoiceNow. Approximately 70% of the invoices issued by the public sector come from these organisations¹⁵⁶. By joining InvoiceNow, the business partners of these agencies can streamline their transactions and it helps to create a seamless customer experience. More public agencies are expected to join the network in the future.

¹⁵³ ETA website

¹⁵⁴ IRAS website

¹⁵⁵ IRAS website

¹⁵⁶ Article on Businesses can receive e-invoices from govt agencies on InvoiceNow network – Available at <https://www.straitstimes.com/tech/tech-news/businesses-can-receive-e-invoices-from-govt-for-1st-time-on-invoicenow-network>

10.4.2 Nationwide Standards

Peppol Framework

In Singapore, most sellers issue invoices manually via physical post or email which is a time consuming and error-prone process as both the sellers and buyers will need to manually enter and scan the information into their system. However, In May 2018, IMDA became the first Peppol Authority outside of Europe. By adopting the Peppol framework, it allows direct transmission of E-Invoices from one finance system to another without any human intervention. Documents are exchanged in the form of a common XML format known as the BIS (Business Interoperability Specifications) Billing 3.0 UBL¹⁵⁷. Documents are exchanged through the Access Points who are responsible for mapping the invoices of various formats into a standard format and sending them to the receiving Access Points through the Peppol network. (Refer Figure 10.4.2.1 Peppol 4-Corner Model).

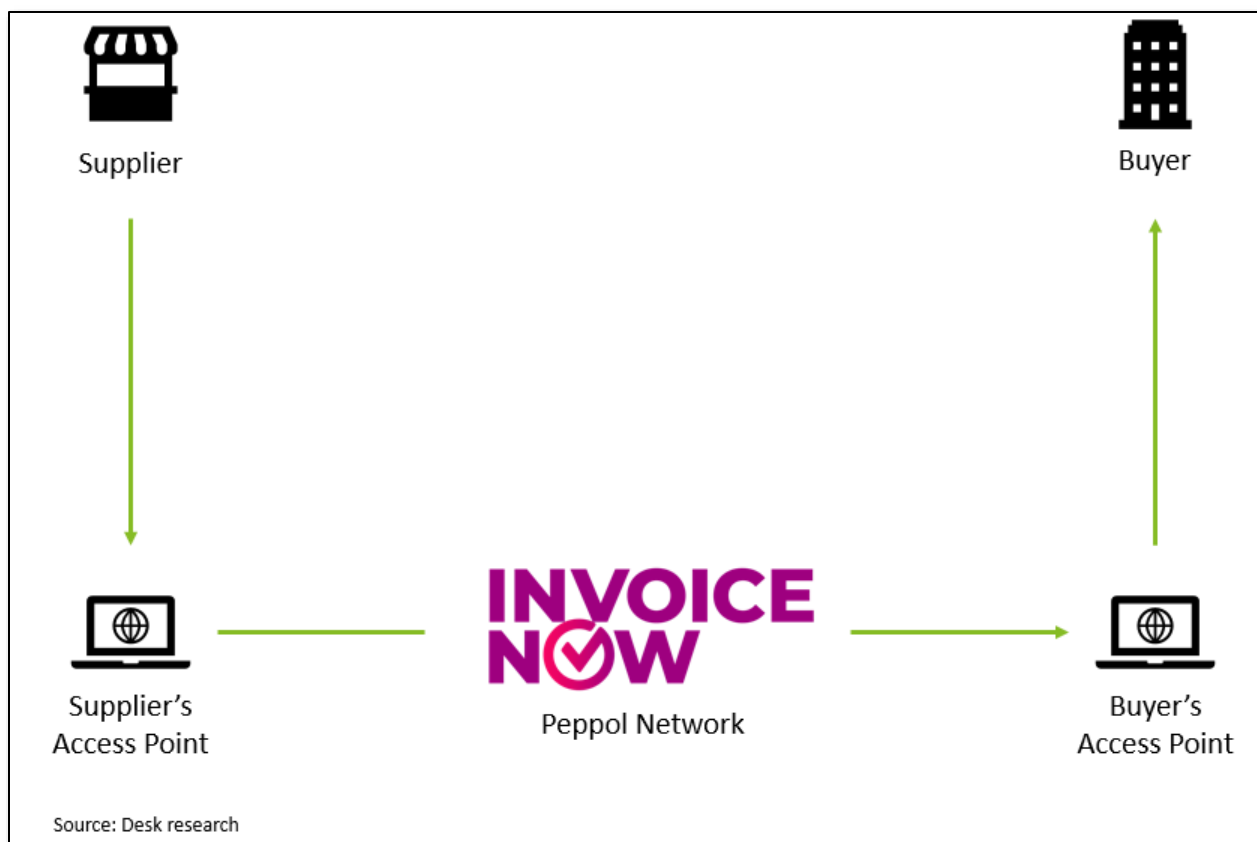


Figure 10.4.2.1 Peppol 4-Corner Model

¹⁵⁷ Nationwide E-Invoicing initiative – Available at <https://www.imda.gov.sg/programme-listing/nationwide-e-invoicing-framework>

10.4.3 Financing & Funding

E-Invoicing Registration Grant (ERG)

This is a new scheme introduced by IMDA in partnership with Enterprise Singapore (ESG) to promote the digitalisation of businesses in Singapore. This one-time grant of \$200 aims to incentivise and encourage all organisations to join the nationwide E-Invoicing Network which helps businesses to increase efficiency and reduce cost. A resilience budget of \$10 million has been set aside for this grant¹⁵⁸. This grant is only applicable for businesses that are valid, active and registered in Singapore on or before 25 March 2020 and is only limited to the first 50,000 organisations that join the network before 31 December 2020. Rapid growth has been observed as more than 10,000 businesses have joined the nationwide E-Invoicing network within 3 months¹⁵⁹.

Digital Resilience Bonus (DRB)

DRB is an initiative by the Singaporean government to help businesses adapt to a digitally demanding economy. This DRB aims to help the food services and retail sectors that are impacted by the challenges arising from Covid-19 due to their close consumer-facing nature. Innovative digital technologies are ways to improve operational efficiency. To be eligible for DRB, businesses will need to be registered on the Peppol E-Invoicing network and have an active PayNow Corporate account¹⁶⁰. In addition, businesses that adopt certain digital solutions in the required categories can receive a payout of up to \$10,000.

Productivity Solutions Grant (PSG)

PSG was launched to support firms who are keen on adopting IT solutions to enhance their business processes and improve productivity. A maximum funding of 80% will be provided for eligible companies starting from 1st of April 2020 to 31st of March 2022 to encourage SMEs to continue their digitalisation and productivity upgrading efforts¹⁶¹. SMEs can apply for PSG if they meet the following criteria:

- Registered and operating in Singapore
- Purchase/lease/subscription of the IT solutions or equipment must be used in Singapore
- Have a minimum of 30% local shareholding; with the company's group annual sales turnover less than \$100 million, or less than 200 employees (for selected solutions only)

¹⁵⁸ IMDA website

¹⁵⁹ IMDA website

¹⁶⁰ IMDA website

¹⁶¹ Productivity Solutions Grant (PSG) – Available at <https://www.imda.gov.sg/disg/Programmes/2019/04/productivity-solutions-grant>

Chain Leader Grant

The Local E-Invoicing Acceleration Fund (LEAF) programme provides grant support to chain leaders up to 50% of their qualified implementation cost and is capped at \$150,000¹⁶². There are 3 stages in the programme starting with the pre-qualification form. The short-listed applicants will proceed with the grant application and within four to five weeks, IMDA will notify the successful applicants. The applicant's eligibility criteria are as follow:

- Be a business entity registered/incorporated in Singapore and be physically present in Singapore
- May be an SME or non-SME
- Significant influence or connectivity with other businesses (having invoiced related transactions with at least 500 other businesses – suppliers and/or customers)

However, the chain leader grant has ended in 2020.

10.5 OVERVIEW OF E-INVOICING IN SINGAPORE

Businesses in Singapore are realising the advantages of E-Invoicing and understand the importance of digitalisation, there has been an increase in the demand for E-Invoicing where 71% of the businesses will recommend it to their business partner¹⁶³. The adoption rate was accelerated during the Covid-19 pandemic as E-Invoicing allows them to save cost and meet regulatory deadlines in the pandemic. From the support given by the Government and IMDA, the adoption of E-Invoicing within the public procurement and its' national-level initiatives have encouraged businesses to embark on the E-Invoicing pathway. With the overview of the demand and supply side in sight and its' key initiatives, Singapore is on the right path and is considered to be leading the ASEAN region in driving E-Invoicing adoption. However, in the future, further actions from government agencies, large corporates and technology providers are needed to scale up the usage of E-Invoicing.

Before the introduction of the nationwide E-Invoicing network, Singapore recorded an overall e-invoicing adoption rate of 21% across all sectors¹⁶⁴. As of March 2020, only 1,000 businesses had joined the network¹⁶⁵ but with the help of the E-Invoicing Registration Grant (ERG) that was announced in March 2020, more than 10,000 businesses joined the E-Invoicing network within 3 months. Today, there are more than 50,000 businesses who have joined the network¹⁶⁶.

¹⁶² IMDA website

¹⁶³ IndSights Research Report – Available at <https://www.indsights.sg/research-finding/imdas-nationwide-e-invoicing-network-initiative/>

¹⁶⁴ Adoption rate of E-Invoicing by enterprises in Singapore in 2019, by sector – Available <https://www.statista.com/statistics/1180839/singapore-e-invoicing-adoption-rate-by-enterprises-by-sector/>

¹⁶⁵ IMDA website

¹⁶⁶ IMDA

11. THAILAND



11.1 BACKGROUND/BUSINESS LANDSCAPE

Thailand has undergone 3 economic and industry leaps to get to where it is today. (Refer to Figure 11.1.1 Thailand's development path towards a digital economy). Thailand 1.0 focused on agriculture where the Thais made a living on farmlands and livestock. Secondly, Thailand shifted its gears in the 1970s when it successfully developed a light industrial sector. As for Thailand 3.0, a boom in the heavy industry with the Japanese, American and European carmakers and electronics companies evolved into the automobile manufacturing hub of Southeast Asia¹⁶⁷. Since then, Thailand has been trading actively with ASEAN countries and China, the world's second-largest economy. Over the last four decades, Thailand has made remarkable progress, moving from a low-income to an upper-middle-income country¹⁶⁸. In 2016, the Thai government launched Thailand 4.0 with the intention to transform Thailand into a value-based economy that will change Thailand's traditional farming to smart farming, traditional SMEs to smart enterprises¹⁶⁹.

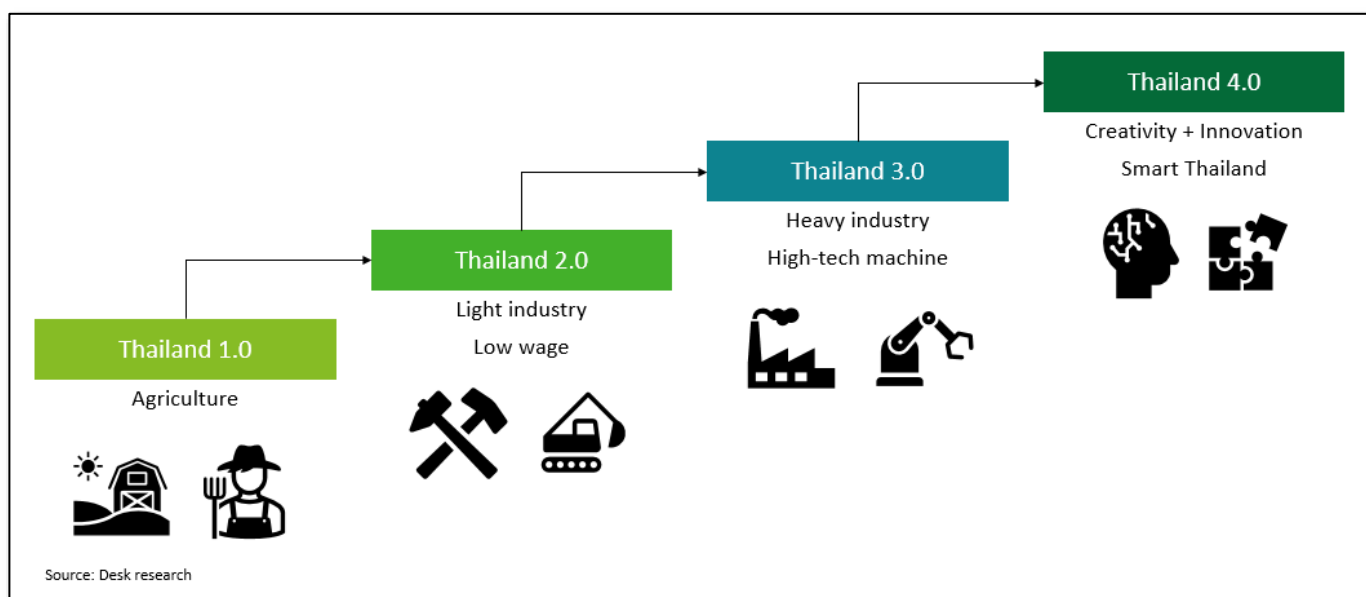


Figure 11.1.1 Thailand's development path towards a digital economy

¹⁶⁷ Fast forward to Thailand 4.0 – Available at <https://www.scmp.com/presented/business/topics/fast-forward-thailand-40/article/3021184/fast-forward-thailand-40>

¹⁶⁸ World Bank

¹⁶⁹ New Thailand 4.0 policy aims to run country into 'Smart' one – Available at <https://ecommerceiq.asia/thai-government-launches-thailand-4-0/>

The e-Tax invoice system was first introduced in Thailand in 2012 by the Revenue Department (RD) Regulation on the preparation, delivery and storage of e-Tax invoices and e-Receipts B.E.2555. With that said, this e-Tax invoice system was introduced even before Thailand 4.0 plan. However, the 2012 RD regulation has been superseded by the 2017 RD regulation. Now, there are two separate e-Tax invoice systems available in Thailand. These two systems are identified as e-Tax invoice by email and e-Tax invoice and e-Receipt. (Refer Figure 11.1.2 Schematic diagram of the E-Invoicing process in Thailand). e-Tax invoice by email follows the Centralised Exchange Model, however, an E-Invoicing system does not exist for this e-Tax invoice by email as all the invoices are sent via email. On the other side, the e-Tax invoice and e-Receipt adopts the Real-time Reporting Model where the sellers send the invoices to the buyers without the dependency of RD’s approval but are required to submit all the e-Tax invoices issued in near real-time or real-time to the RD.

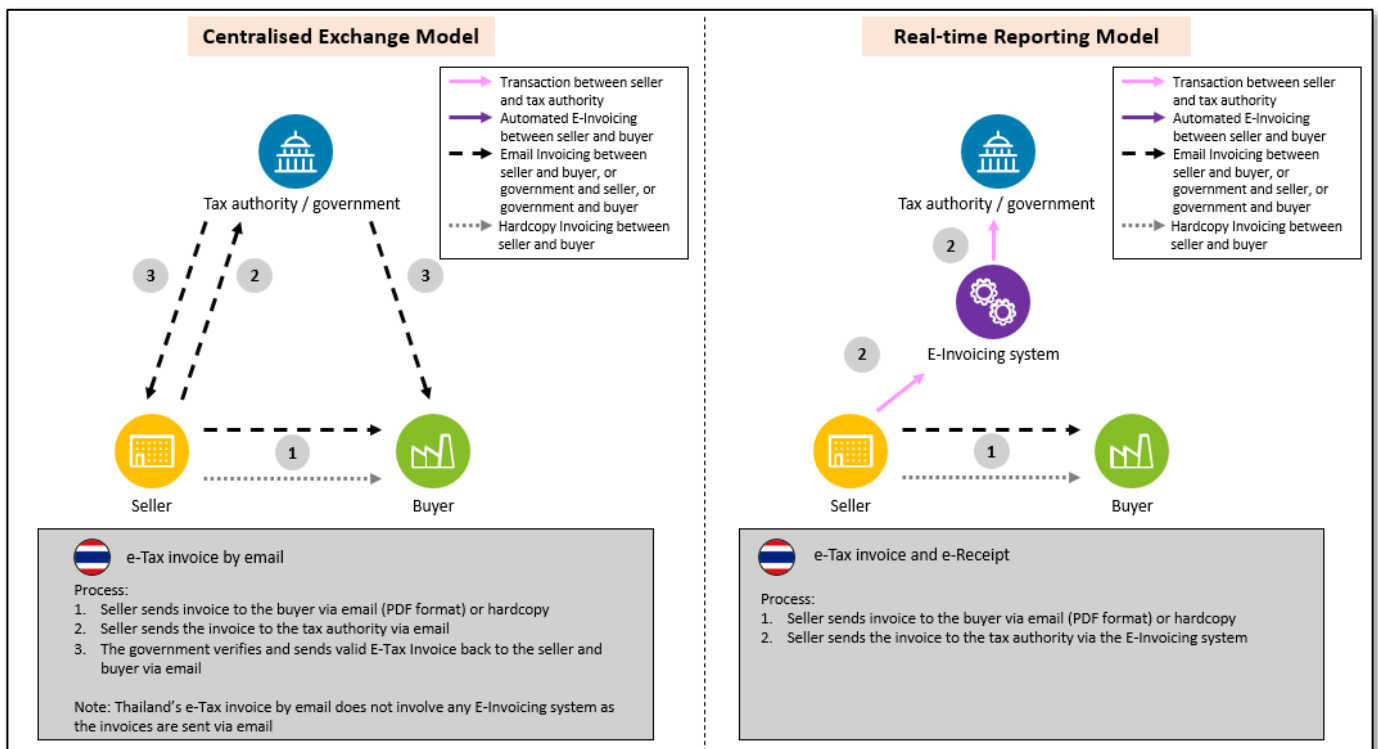


Figure 11.1.2 Schematic diagram of the E-Invoicing process in Thailand

11.2 DEMAND SIDE ASSESSMENT

The advantages of the e-Tax invoice, push on Thailand 4.0 and push by large enterprises are the drivers behind the adoption of e-Tax invoice in Thailand.

11.2.1 Advantages of e-Tax Invoice

The issuing and delivering tax invoices in Thailand have been done in paper form for a long time which costs both money and time. However, digitising the tax invoices in the electronic form helps businesses to reduce costs as paper invoices are not needed anymore. Moreover, this e-Tax invoice can be stored electronically which further reduce the cost as it does not require paper filing and additional storage to keep the invoices. Companies in Thailand can now reduce the cost of tax compliance by five times¹⁷⁰. Other than that, e-Tax invoice helps firms to save time as they can receive the tax invoice documents immediately via the electronic system. Instead of searching for the paper invoice manually, companies can now search the tax invoices on the electronic file storage which helps to save time and is more convenient for them. Therefore, more and more businesses in Thailand are adopting the e-tax invoice system.

11.2.2 Push on Thailand 4.0

In 2016, the Prime Minister of Thailand Prayut Chan-o-cha officially launched the national policy of Thailand 4.0 which has two major objectives, to transform Thailand into a digital economy, and become an advanced and entirely digitized economy by 2032¹⁷¹. Thailand 4.0 is an economic model that is based on innovation, creativity, high-quality services and new technology, employed to boost the citizens' life. To promote digital transactions, the Thailand government has launched a few projects such as the National Digital ID (NDID) initiated by the Ministry of Finance and Ministry of Digital Economy and Society, and e-Tax invoice and e-Receipt system by the RD¹⁷². The e-Tax invoice and e-Receipt system is a way to promote digital economy by transforming paper invoices into electronic invoices. To show their support towards Thailand 4.0, commercial banks issue tax invoices to their customers in electronic format whereas the insurance companies issue their receipts in electronic format with a digital signature¹⁷³.

¹⁷⁰ Revenue department pushes e-invoices – Available at <https://www.bangkokpost.com/business/1689368/revenue-department-pushes-e-invoices>

¹⁷¹ Thailand 4.0 – Implementation of e-tax invoice and e-receipt – Available at <https://www.roedl.com/insights/thailand-4-0-digital-economy-implementation-e-tax-invoice-e-receipt>

¹⁷² ETDA Thailand initiates National Digital ID project to promote online transactions – Available at <https://opengovasia.com/etda-thailand-initiates-national-digital-id-project-to-promote-online-transactions/>

¹⁷³ Thailand 4.0 – Implementation of e-tax invoice and e-receipt – Available at <https://www.roedl.com/insights/thailand-4-0-digital-economy-implementation-e-tax-invoice-e-receipt>

11.2.3 Push from Large Enterprises

Bangkok Industrial Gas Company Limited (BIG)

BIG is a joint venture between the Thai investors (led by Bangkok Bank) and Air Products and Chemicals Inc, which provides innovative industrial gas solutions. BIG is one of Thailand's pilot companies that adopted the e-Tax invoice system since 1st January 2018. This helps to improve competitiveness and meet customer's satisfaction. BIG's clients can log into the BIG e-Invoice platform to issue invoices. BIG has received positive feedback from its clients as it helps to reduce cost and the time needed to wait and process the invoices¹⁷⁴.

Zuellig Pharma Thailand

Zuellig Pharma is one of the largest healthcare services groups in Asia. In order to transform its operational process, the company rolled out a highly innovative platform that combines order placement with invoice management tools. This system helps the company's customers to generate invoices themselves using any mobile device or computer. Zuellig Pharma decided to work with HSBC by integrating HSBC's one-stop payments and collections solution, Omni Collect into their digital platform eZPay¹⁷⁵. This solution allows the company to offer additional online payment channels for their customers to use. Zuellig Pharma takes this end-to-end digital experience as a way to reshape the digital collections landscape across the healthcare and pharmaceutical industry.

Collaboration between Large Banks to Digitize Trade Documents

According to Kasikornbank, in 2017 alone, 500,000 letters were issued through Thailand's commercial banking system. Issuing a letter of guarantee is very time consuming and requires a lot of human effort as the lengthy procedure can take days. In order to enhance efficiency and reduce cost, fourteen banks in Thailand including Bangkok Bank, Krung Thai Bank, Siam Commercial Bank and Kasikornbank joined hands to develop a shared trade finance platform based on blockchain technology¹⁷⁶. With the help of this new system which will digitize the documents, the processing time can be shortened to as little as 30 minutes. Not just digitizing the documents, companies can store their supplier's letter of guarantee using the cloud system and access the updated document whenever they want. This shows that Thailand is moving towards digitizing its trade documents, instead of just digitalizing its business processes.

¹⁷⁴ Bangkok Industrial Gas Company Limited website

¹⁷⁵ HSBC merges Omni Collect with eZPay – Available at <https://www.bangkokpost.com/business/2056531/hsbc-merges-omni-collect-with-ezpay>

¹⁷⁶ Thailand's leading banks to share blockchain platform – Available at <https://asia.nikkei.com/Asia300/Thailand-s-leading-banks-to-share-blockchain-platform>

11.3 SUPPLY SIDE ASSESSMENT

One of the ways to submit the e-Tax invoice to RD via the e-Tax invoice and e-Receipt system is to appoint a service provider who will transmit the data on behalf of the VAT registrant to RD. Taking notice of the move towards digitalisation from the RD, some local technology providers are helping firms to embark on this e-Tax invoice journey. For example, Netbay saw this opportunity to enable digitization within many customers' business processes. Netbay is a leading local technology provider that delivers and provides Software as a Service (SaaS) on cloud computing. Netbay developed its own InvoiceChain service for the preparation, delivery and storage of e-Tax invoice and e-Receipt. As a response to the Covid-19 pandemic, Ocean Network Express Thailand (ONE), a company that engages in container shipping businesses decided to work with Netbay to launch its e-Tax invoice and e-Receipt program¹⁷⁷. With that said, ONE's customers can now access their e-Tax invoice and e-Receipt with just a few clicks. In addition, Lyreco, a B2B leader in the distribution of office suppliers, issued hundreds of thousands of invoices in Thailand per year has identified Netbay's InvoiceChain as the most suitable platform to provide the e-Tax invoice and e-Receipt service¹⁷⁸. Lyreco has successfully launched its e-Tax invoice system in the second quarter of 2021. As of now, there are a total of 16 service providers onboarded¹⁷⁹. (Refer Figure 11.3.1 List of certified electronic data delivery service providers).

List of certified electronic data delivery service providers	
Netbay Public Company Limited	DataOne Asia (Thailand) Co., Ltd.
Internet Thailand Public Company Limited	Krung Thai Bank Public Company Limited
T.K.S Technology Public Company Limited	I am Consulting Company Limited
Processing Center Co., Ltd.	Ginkgo Soft Co., Ltd.
Stream I.T. Consulting Company Limited	Brainergy Co., Ltd.
Kasikorn Bank Public Company Limited	Papermate (Thailand) Co., Ltd.
Chanvanich Security Printing Company Limited	Navani Company Limited
Komarsh (Thailand) Co., Ltd.	Professional Computer Company Limited

Source: Revenue Department

Figure 11.3.1 List of certified electronic data delivery service providers

¹⁷⁷ ONE Thailand thrives on digital transformation with e-tax invoice/e-receipt service – Available at <https://www.logistics-manager.com/one-thailand-thrives-on-digital-transformation-with-e-tax-invoice-e-receipt-service/>

¹⁷⁸ Lyreco Thailand website

¹⁷⁹ Service provider – Available at https://etax.rd.go.th/etax_staticpage/app/#/index/serviceprovider#top

11.4 ENABLERS ASSESSMENT

There are a few enablers that Thailand can 'build upon' to drive the adoption of the e-Tax invoice given the precedence. Some of these enablers are mentioned below. (Refer Figure 11.4.1 Key initiatives to drive the adoption of e-Tax invoice system in Thailand).

Enablers	Initiatives
1) Government & Institutional Support	<ul style="list-style-type: none">• National e-Payment Master Plan• Electronic Transactions Development Agency (ETDA)• National Digital Trade Platform (NDTP) Ecosystem• E-Tax invoice and e-Receipt via blockchain network
2) National Standards	<ul style="list-style-type: none">• Revenue Department Regulation• National Payment Message Standard (NPMS)
3) Financing & Funding	<ul style="list-style-type: none">• Tax incentive on investments in e-tax system

Source: Desk research

Figure 11.4.1 Key initiatives to drive the adoption of e-Tax invoice system in Thailand

11.4.1 Government & Institutional Support

National e-Payment Master Plan

The National e-Payment Master Plan is a national strategy created by the Ministry of Finance and the Bank of Thailand (BOT) in cooperation with related government and private entities in 2015. This strategy aims to push the development of payment infrastructures and promote the use of electronic payment services across all sectors. This plan consists of five important projects which one of it is the e-Tax and e-document system. As part of the plan, the e-Tax invoice system is intended to create an integrated electronic tax system that is crucial to support the growth of e-payment in Thailand. With the e-Tax invoice and e-Receipt system, businesses can send invoices, make payments and send receipts all electronically.

Electronic Transactions Development Agency (ETDA)

ETDA was set up under the Ministry of Information and Communication Technology and is the main agency responsible for developing, promoting and supporting electronic transactions. ETDA's mission is to push e-commerce of the country to support and encourage electronic transactions with security standards. In 2019, the Director-General of the RD and the Director of the ETDA signed a Memorandum of Cooperation about the information system certification of electronic data delivery service providers. This was signed to help prepare

electronic documents between the RD and the ETDA¹⁸⁰. This agreement is meant to create trust and security standards for service providers to deliver electronic invoice information which is related to the preparation of e-Tax invoice and e-Receipt. Both parties believe that the certification can help to increase the confidence among the e-Tax invoice and e-Receipt users.

National Digital Trade Platform (NDTP) Ecosystem

Thailand has been actively participating in cross-border trade. However, international trade typically involves up to at least 20 processes, 30 to 40 documents generated and 50%-60% of information re-entered manually for at least once¹⁸¹. Therefore, in 2019, Thailand's Cabinet has approved to set up NDTP which will bring the central system linking the international digital trade data up to the same standards as other countries to boost trade in the ASEAN region¹⁸². NDTP aims to increase the efficiency of trades by reducing processing costs and time. It helps to mitigate double financing and fraudulent documents as well as providing opportunities for SMEs to trade internationally and have easier access to funds¹⁸³. This system targets to transform trade digitally by generating documents in electronic format, sending documents through a digital platform and making electronic payments. The first phase of this new system focuses on four types of documents including invoices. Businesses are encouraged to generate and send invoices digitally to increase efficiency and reduce cost as aligned with the aim of NDTP. This further boost the adoption of e-Tax invoices in Thailand.

E-Tax Invoice and e-Receipt via Blockchain Network

In 2018, Thailand RD announced that they were testing a blockchain system to track value-added tax (VAT) invoices and payments. The Director-General of RD, Ekniti Nitithanprapas was quoted as saying that blockchain would help to verify VAT invoices and in turn help to eliminate any that were not genuine¹⁸⁴. On January 2021, the Director-General of the Thai RD issued a notification (No. 30) with prescribed rules, procedures and conditions for producing, delivering, receiving and maintaining e-Tax invoices and e-Receipts on a blockchain network. However, these rules, procedures and conditions were effective for a specific period from 1 February 2021 to 31 July 2021¹⁸⁵. Issuers of e-Tax invoices or e-Receipts via the blockchain network service providers must follow the rules below:

- a) They must issue e-Tax invoices or e-Receipts that contain the essential information required under the Revenue Code (sections 86/4, 86/9, 86/10 and 105 bis, depending on the circumstances).
- b) They must generate the e-Tax invoices or e-Receipts referred to above in item (a) in one of the following ways:
 - Through an electronic form produced in Excel file format and imported into the blockchain network;

¹⁸⁰ ETDA and Revenue Department to develop electronic payment system infrastructure – Available at <https://opengovasia.com/etda-and-revenue-department-to-develop-electronic-payment-system-infrastructure/>

¹⁸¹ Thailand National Digital Trade Platform – Available at https://standard.etda.or.th/afact2019/file/TNSC_20190522%20ND%20Slide%20for%20AFAC.pdf

¹⁸² Thailand develops national digital trade platform – Available at <https://en.Viet Namplus.vn/thailand-develops-national-digital-trade-platform/160284.vnp>

¹⁸³ Thai government gets industry help with digital platform – Available at <https://opengovasia.com/thai-government-gets-industry-help-with-digital-platform/>

¹⁸⁴ Thai government trials blockchain in fight against tax fraud – Available at <https://www.coindesk.com/markets/2018/12/03/thai-government-trials-blockchain-in-fight-against-tax-fraud/>

¹⁸⁵ Deloitte Newsletter

- Through procedures set forth in a previous notification regarding the production of e-tax invoices and e-receipts (Director-General Notification No. 15, dated 18 October 2019) and an import into the blockchain network; or
 - Through the blockchain network, based on the formats and procedures specified by the service provider.
- c) They must deliver the e-Tax invoices to the purchasers of goods or recipients of services as required under section 86 of the Revenue Code, or deliver the e-Receipts to purchasers, hire-purchasers, or payers as required under section 105 of the Revenue Code, via the blockchain network that is the network system specified by the recipients of the e-Tax invoices or e-Receipts pursuant to the electronic transactions laws.
- d) In a case where the e-Tax invoices and e-Receipts are delivered from the service provider to the service recipients, the issuers of the e-Tax invoices and e-Receipts will no longer be required to deliver the e-Tax invoices and e-Receipts to the RD under the provisions of Director-General Notification No. 15 dated 18 October 2019.

11.4.2 National Standards

Revenue Department Regulation

a) E-Tax invoice by email

E-Tax invoice by email was first initiated by RD Regulation on the preparation, delivery and storage of e-Tax invoices by email B.E. 2560 which is legally effective since 1st March 2018. It allows VAT registrants to issue a tax invoice to their buyers in electronic format and send it to the buyer via email. This e-Tax invoice is an electronic copy of the tax invoice sent to the RD by email. The aim of this e-Tax invoice by email is to help VAT registrants become familiar with electronic systems and get ready to fully use the e-Tax invoice and e-Receipt system in the future.

An e-Tax invoice by email is considered legitimate and valid only if the invoice meets all the following requirements:

- Comply with a legal format of a tax invoice under the Revenue Code
- Create the tax invoice as an electronic file (PDF/A-3 file), and
- Have the email timestamped to verify the existence of the e-Tax invoice by ETDA

The VAT registrant must use the registered email address to compose an email attached with the e-Tax invoice file, send it to the buyer's email address and copy ETDA in the email (csemail@etax.teda.th) for ETDA to verify the sender as an eligible VAT registrant from the ETDA database. After the email has been timestamped digitally, ETDA will send a valid e-Tax invoice to the seller, buyer and RD through email. To be eligible to use this e-Tax invoice by email system, the VAT registrant will need to meet certain requirements as stated by the RD¹⁸⁶. (Refer Figure 11.4.2.1 The e-Tax invoice by email system). This e-Tax invoice by email follows the Centralised Exchange Model as EDTA verifies and sends the valid e-Tax invoice to RD, seller and buyer via email.

¹⁸⁶ Revenue Department



Figure 11.4.2.1 The e-Tax invoice by email system

b) E-Tax invoice and e-Receipt

E-Tax invoice and e-Receipt was first initiated by the RD regulation on the preparation, delivery and storage of e-Tax invoices and e-Receipts B.E. 2560 which is legally effective since 20th June 2018. This e-Tax invoice and e-Receipt system requires VAT registrants to prepare tax invoices and receipts in electronic format with a digital signature. VAT registrants can create a digital signature by obtaining an electronic certificate from the certification authority that is under the Thailand National Root Certification Authority (Thailand NRCA) supervised by ETDA. Currently, there are only 2 electronic certification providers available, namely Thai Digital IDD Company Limited and Internet Thailand Public Company Limited. The e-Tax invoice and e-Receipt follows the Real-time Reporting Model as approval from the RD is not required before the sellers send e-Tax invoices to the buyers but near real-time or real-time submission of the e-Tax invoices to the RD is required.

The e-Tax invoice is only legitimate and valid if it meets all three requirements as follow:

- Comply with a legal format of a tax invoice under the Revenue Code
- Create the tax invoice in XML format, and
- Digitally signed to verify the existence of the e-Tax invoice with the electronic certificate issued by a certification authority

The contents of these e-Tax invoices and e-Receipts must be in line with the relevant laws and regulations. To be eligible to use this e-Tax invoice and e-Receipt system, the business will need to meet certain requirements as stated by the RD¹⁸⁷. (Refer Figure 11.4.2.2 The e-Tax invoice and e-Receipt system).

There are 3 ways in which a VAT registrant can send the e-Tax invoice to the RD.

- i) Direct upload. VAT registrants have to log in to the RD's website and submit the e-Tax invoice by uploading the file to the RD's website. This is suitable for small businesses with a low volume of invoices.
- ii) Host-to-host. Only qualified VAT registrants are allowed to use this method. VAT registrants who are using the host-to-host method will have a direct connection between their data transmission system and the RD's system.
- iii) Service provider. VAT registrants appoint a service provider to transmit their data on behalf of them to the RD.

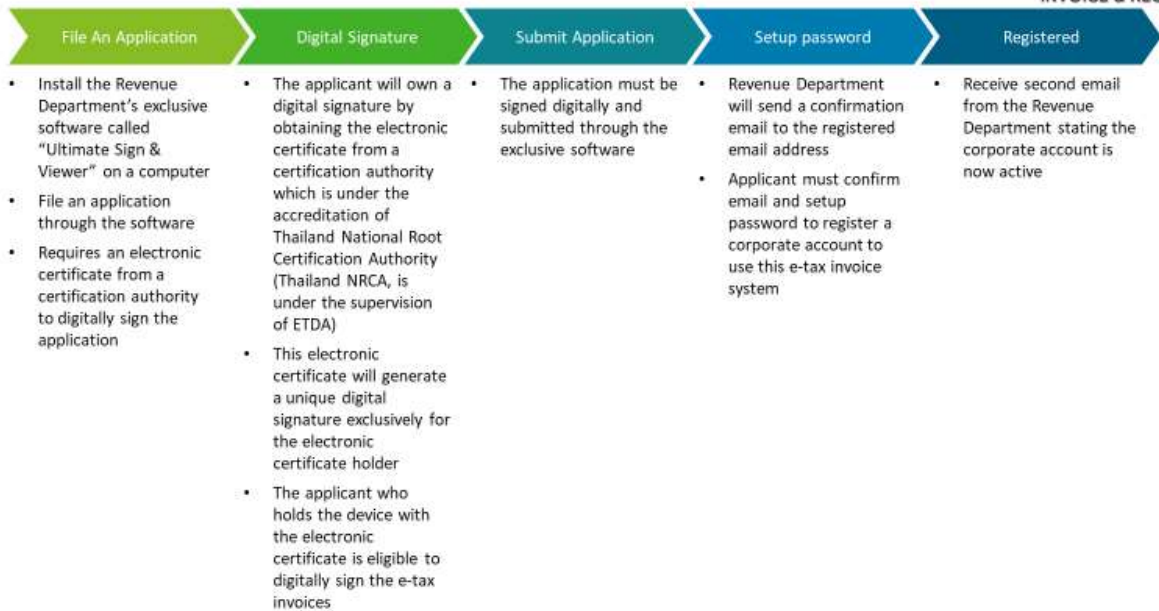
Initially, the RD intended to fully implement this e-Tax system by January 2018, but it has been postponed¹⁸⁸. Therefore, this e-Tax system is not compulsory for all VAT-liable businesses, but firms can choose to adopt this system voluntarily. However, if the buyer request to receive the e-Tax invoice in a hardcopy version, the seller will need to print the e-Tax invoice with the message *"This document has been prepared and submitted to the Revenue Department by electronic means"* according to the Notification of the Director-General of the RD (No. 15)¹⁸⁹.

¹⁸⁷ Tax digitization in Thailand: The new change of e-tax invoice from 'analog' to 'digital' – Available at <https://www.itax.in.th/media/tax-digitization-in-thailand-the-new-change-of-e-tax-invoice-from-analog-to-digital/>

¹⁸⁸ Thailand 4.0 – Implementation of e-Tax Invoice and e-Receipt – Available at <https://www.roedl.com/insights/thailand-4-0-digital-economy-implementation-e-tax-invoice-e-receipt>

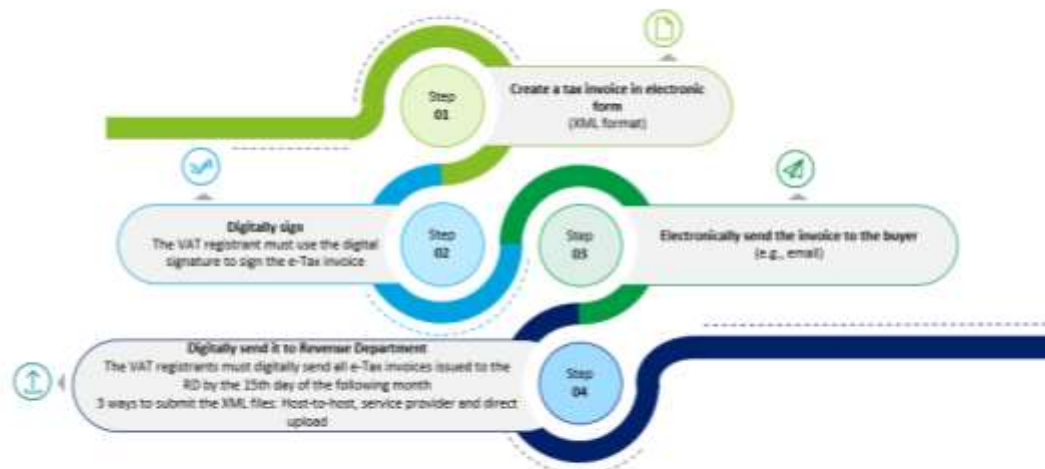
¹⁸⁹ Revenue Department website

E-Tax Invoice & E-Receipt Registration Process



The registrant is now ready to legally issue an e-tax invoice.

How To Issue E-Tax Invoice?



Note: For Step 3, if the buyer request the e-tax invoice in paper form, seller will need to print it out with "This document has been prepared and submitted to the Revenue Department by electronic means" stated on the document.

Requirements:

- A VAT registrant under Section 77/1 (6) of the Revenue Code or being a person responsible for issuing receipts under Section 105 (1) of the Revenue Code
- Have an electronic certificate issued by the certification authority
- Reliable controlling system on generating, sending and storing data
- Not using e-tax invoice by email system

Source: Revenue Department & desk research

Figure 11.4.2.2 The e-Tax invoice and e-Receipt system

National Payment Message Standard (NPMS)

The National Payment Message Standard (NPMS) was established to provide nationwide standardised payment data messaging between users (provide operators or government agencies) and service providers (commercial banks or financial institutions). According to NPMS, business data in Thailand are being transferred in XML format. Moreover, XML is applied as a common standard for E-Invoicing in Thailand because it is easy to understand, flexible, widely accepted internationally and most Thai businesses are familiar with XML which is currently used in the NPMS¹⁹⁰. In addition, all invoice submissions must comply with the ETDA Recommendation on ICT Standard for Electronic Transactions. According to the standard, the e-Tax invoice message follows the UN/CEFACT CII (Cross Industry Invoice) message specification¹⁹¹.

11.4.3 Financing & Funding

Tax Incentive on Investments in e-Tax System

To further encourage corporate income taxpayers to engage with the e-Tax invoice system, the RD issued Royal Decree No. 683 to allow additional deduction of expenses paid by corporate income taxpayers in developing such a system. This decree allows corporate income taxpayers to claim an additional 100% deduction on expenses paid for investment between 30 April 2019 to 31 December 2019 according to the following rules:

- Companies can claim a double deduction for amounts paid for
 - (i) Investments in an e-documents system including payment for software and computers to be used, for preparing, sending or storing e-Tax invoices or e-Receipts and for electronic storage for tax certificates
 - (ii) Service charge for electronic storage space and e-Tax certificates
 - (iii) Investments in a tax remittance system.

The system must be for the benefit of the firm and not for sale or the provision of services to third parties.

- The acquired assets must never have been used, must have a useful life of at least three accounting periods and must not benefit from other tax incentives in Thailand

On 26 May 2021, RD issued Royal Decree No. 718 to extend the period to claim the additional 100% deduction to 31 December 2022 with the similar rules as applied on Royal Decree 683¹⁹².

¹⁹⁰ Payment Systems Report 2013

¹⁹¹ ETDA Recommendation on ICT Standard for Electronic Transactions

¹⁹² Deloitte Newsletter

11.5 OVERVIEW OF E-INVOICING IN THAILAND

Although Thailand has started its e-Tax invoice system back in 2012 and a new system in 2017, the popularity and adoption rate in 2017 is still limited¹⁹³. This is because the e-Tax invoice system is still working on a voluntary basis. In addition, if a buyer requests the e-Tax invoice to be in paper form, the seller will need to print it out and deliver it to the buyer. This gives additional work for the seller and might discourage them to issue e-Tax invoices. However, this is the first step for Thailand to transform from paper invoices into PDF invoices then towards the full form of E-Invoicing. This is because, with the Covid-19 pandemic as a catalyst towards digital adoption, companies are investing more in digital transformation which will drive up the usage of this e-Tax invoice system in Thailand. Other than that, the national strategy and economic model to transform Thailand into an entirely digitized economy can further scale up the usage of the e-Tax invoice system. This is because the government believes this e-Tax invoice system is supporting the e-payment system and will help to facilitate digital businesses. Large corporates who are digitalising their business processes are perceived as good role models for smaller firms to embark on the e-Tax invoice system.

¹⁹³ Tax digitization in Thailand: The new change of e-tax invoice from ‘analog’ to ‘digital’ – Available at <https://www.itax.in.th/media/tax-digitization-in-thailand-the-new-change-of-e-tax-invoice-from-analog-to-digital/>

12. VIET NAM



12.1 BACKGROUND/BUSINESS LANDSCAPE

Viet Nam is one of the fastest-growing digital economies in Southeast Asia, with an expected gross merchandise value (GMV) of US\$21 billion in 2021, ranking the 3rd after Indonesia and Thailand¹⁹⁴. The country GDP in 2020 is US\$271 billion and is expected to grow by 3%¹⁹⁵. Viet Nam is the 3rd most populous country in the Southeast Asia region with 97 million people¹⁹⁶; and with a young population, there are ample opportunities for digital economy to thrive in the country. Viet Nam aims to be among the top 50 countries in the ICT Development Index as early as 2025, and its digital economy is hoped to account for one-third of the country's GDP by the end of the decade¹⁹⁷.

In an effort to create an attractive business environment for foreign investors and to reduce the complexity of tax-related bureaucracy, Viet Nam has mandated a nationwide B2B and B2G E-Invoicing system, as outlined in Decree 119/2018 and Decree 123/2020.

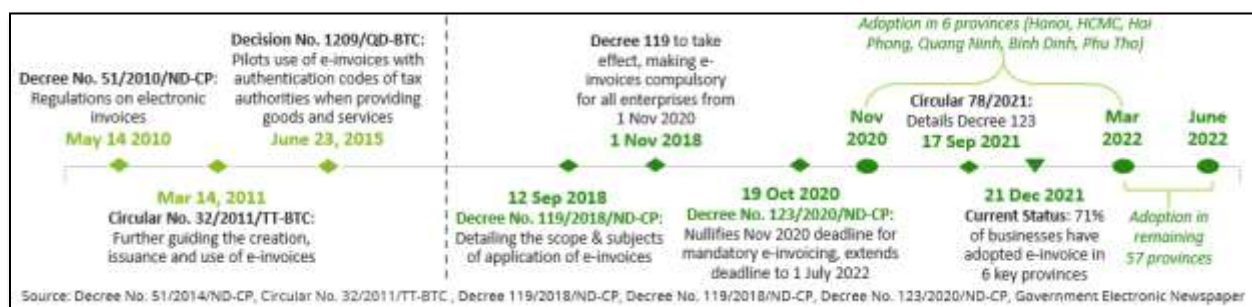


Figure 12.1.1 Timeline of E-Invoice roll out in Viet Nam

E-Invoicing is not a novel concept in Viet Nam as the country had begun to incubate the ideas for E-Invoicing as early as 2010. From 2010 to 2015, the government released several legislations to implement guidelines and frameworks for E-Invoicing. However, E-Invoicing was not mandatory and was only launched as a pilot test among certain businesses. In 2018, with the launch of Decree 119/2018, the government aimed to speed up and mandate E-Invoicing in Viet Nam¹⁹⁸.

Subsequent release of Decree 123/2020 in October 2020 and Circular 78/2021/TT-BTC details two important phases for E-Invoice rollout in Viet Nam. The first phase is from November 2021 to March 2022, in which E-Invoice rollout

¹⁹⁴ e-Economy report SEA 2021 (Google, Temasek, and Bain)

¹⁹⁵ World Bank

¹⁹⁶ World Bank

¹⁹⁷ Viet Nam advised to speed up digital transformation for socio-economic development - Available at <https://moc.gov.vn/en/news/68670/Viet-Nam-advised-to-speed-up-digital-transformation-for-socio-economic-development.aspx>

¹⁹⁸ Decree No. 119/2018/ND-CP dated September 12, 2018 of the Government on prescribing electronic invoices for sale of goods and provision of services

is implemented in 6 provinces (Hanoi, HCMC, Hai Phong, Quang Ninh, Binh Dinh, Phu Tho). These 6 provinces are selected for phase 1 because they represent 60% of taxpayers and 70% of invoices issued nationwide¹⁹⁹. As of 21 December 2021, these 6 provinces had already achieved 71% E-Invoice coverage²⁰⁰.

Phase 2 starts from March 2022 and aims to achieve 100% E-Invoice coverage in the remaining 57 provinces in Viet Nam. From July 2022 onwards, Viet Nam targets to have 100% E-Invoice rollout nationwide. Viet Nam’s E-Invoice with tax authority’s authentication code follows the Clearance Model as sellers need to obtain the GDT’s authentication code before they can send it to the buyers. On the other hand, E-Invoice without tax authority’s authentication code follows the Real-time Reporting Model where the sellers shall concurrently send their E-Invoices to the buyers and the tax authority or for some certain cases (business in postal and telecommunications, insurance, finance and banking, air transport and securities; electricity, clean water), the seller send E-Invoice data to GDT by using datasheet. The sellers must send E-Invoice to the buyers in XML format. (Refer Figure 12.1.2 Schematic diagram of the E-Invoicing process in Viet Nam).

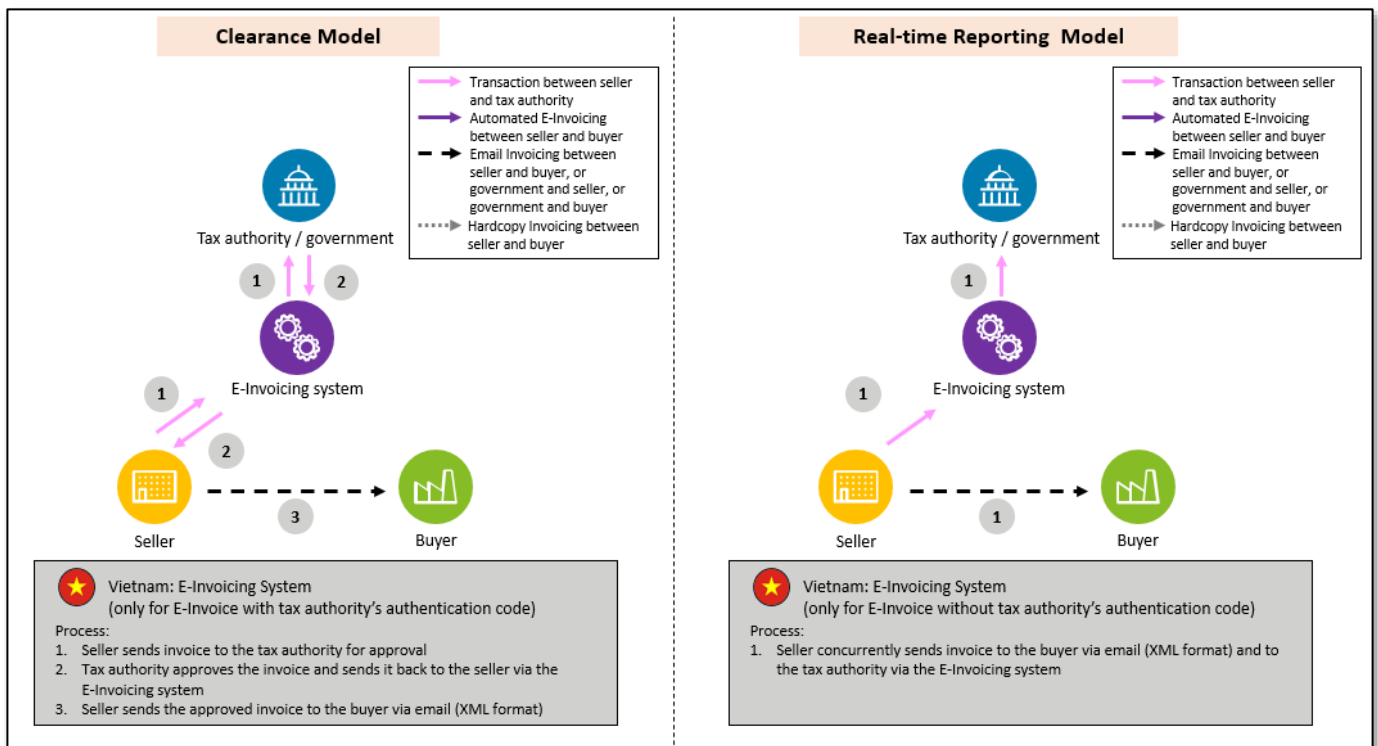


Figure 12.1.2 Schematic diagram of the E-Invoicing process in Viet Nam

¹⁹⁹ GDT announcement from <https://baotintuc.vn/tai-chinh-ngan-hang/hon-263000-doanh-nghiep-dung-hoa-don-dien-tu-sau-1-thang-trien-khai-20211221132026888.htm>

²⁰⁰ 71% of businesses in 6 provinces applied electronic invoices – Available at <https://qltt.vn/da-co-71-doanh-nghiep-tai-6-tinh-ap-dung-hoa-don-dien-tu-92709.html>

12.2 DEMAND SIDE ASSESSMENT

Benefits of E-Invoicing, tax management functions and the nation's push on tax digitalisation have been identified as significant demand side factors for E-Invoicing.

12.2.1 Benefits of E-Invoicing

Cost Savings

There are significant advantages of using E-Invoicing for businesses in Viet Nam. Firstly, businesses can look forward to a significant scaling down of operational costs upon the adoption of E-Invoicing. Transportation expenses, administration expenses and requirements for physical storage space will decrease significantly²⁰¹. To illustrate, the current system of sending paper invoices via post-delivery is expensive – Every 200 invoices cost a company US\$100 (US\$0.50 per invoice), with additional delivery charges of US\$100 to US\$200. On the other hand, the new E-Invoice system will only cost a company US\$15 for 300 pieces of E-Invoices (US\$0.05 per invoice), with zero cost in delivery or additional charges. As a result, businesses will be able to achieve up to a 90% cost-saving²⁰². Hence, the Viet Name government expects a VND 1 trillion (US\$43.9 million) saving if the projected 2.5 billion E-Invoices are issued annually²⁰³.

Increased Efficiency and Productivity

Secondly, with the adoption of a digital system to do E-Invoicing, businesses will become more efficient, increasing productivity in tax administrative procedures. Since data from the E-Invoice is also automatically connected to the value-added tax (VAT) declaration software, businesses do not have to spend extra time making VAT declarations²⁰⁴.

12.2.2 Tax Management Purposes

Tax Administration

Employing the use of a digital system promotes accountability amongst all stakeholders of the transaction and contributes to better tax administration. Utilizing an E-Invoice system prevents business invoices from going missing. Data from the E-Invoice is automatically connected to the VAT declaration software which helps to improve tax administration. E-Invoices are more secure as compared to paper invoices as they use the seller's digital signature, making it more difficult to forge invoices. Therefore, the use of E-Invoices to replace paper invoices

²⁰¹ Viet Nam E-Invoice Services – Available at [https://www.ckindo.vn/services/e-invoices-Viet Nam](https://www.ckindo.vn/services/e-invoices-Viet-Nam)

²⁰² Understand and Comply with E-Invoicing in Viet Nam – Available at [https://www.ckindo.com/blog/e-invoicing-in-Viet Nam](https://www.ckindo.com/blog/e-invoicing-in-Viet-Nam)

²⁰³ Viet Nam's E-invoices: Decree 123 Delays Implementation Until July 2022 – Available at [https://www.Viet Nam-briefing.com/news/Viet Nam-e-invoices-decree-123-delays-implementation-july-2022.html/](https://www.Viet-Nam-briefing.com/news/Viet-Nam-e-invoices-decree-123-delays-implementation-july-2022.html/)

²⁰⁴ Deploying electronic invoices: "Arrow" hits multiple targets – Available at <https://baochinhphu.vn/trien-khai-hoa-don-dien-tu-mui-ten-trung-nhieu-dich-102304190.htm>

(order-printed invoices, self-printed invoices) will contribute to lowering non-compliance tax invoices. After receiving an E-Invoice, buyers can also check on the tax authority's system to confirm the veracity of the information of the invoice the seller declares to the tax authority against the information the seller provides to the buyer²⁰⁵.

Information Analysis

Adopting the use of an E-Invoice system would enable the government to build a database of E-Invoices. When combined with other tax management information, this comprehensive set of information can be used for forecasting and analysis purposes²⁰⁶. This will help with facilitating tax compliance amongst taxpayers, and risk management in tax administration, among many other benefits.

12.2.3 Promote Digitalisation of Business Processes

For Viet Nam, launching and mandating the E-Invoice system is a big step in building the country's digital tax database and improving accuracy, security, and conformity in tax management. E-Invoicing helps promote the development of e-commerce and business on digital platforms. From the government's perspective, mandating E-Invoices is one of the important steps to promote digital transformation in enterprises, financial institutions, as well as in other state agencies. Businesses in Viet Nam have shown significant interest in adopting the digital tax system. By the end of October 2021, nearly 850,000 businesses had signed up for electronic tax filings²⁰⁷. The tax department has processed 16 million files in 2021 alone. Since 2014, over 837,000 or 99% of all businesses across the country have used the tax department's electronic system to pay their taxes. Since its implementation in 2017, the government's electronic tax return scheme has made payments to over 8,000 firms among 8,200 eligible firms. Mandating the use of E-Invoicing is another significant step in developing the digital tax ecosystem.

²⁰⁵ Deploying electronic invoices: "Arrow" hits multiple targets – Available at <https://baochinhphu.vn/trien-khai-hoa-don-dien-tu-mui-ten-trung-nhieu-dich-102304190.htm>

²⁰⁶ Deploying electronic invoices: "Arrow" hits multiple targets – Available at <https://baochinhphu.vn/trien-khai-hoa-don-dien-tu-mui-ten-trung-nhieu-dich-102304190.htm>

²⁰⁷ Viet Nam rolls out electronic invoices – Available at <https://en.VietNamplus.vn/Viet-Nam-rolls-out-electronic-invoices/215871.vnp>

12.3 SUPPLY SIDE ASSESSMENT

E-Invoicing in Viet Nam is handled by the General Department of Tax (GDT), the tax authority in Viet Nam under the Ministry of Finance. There are three ways to generate E-Invoice in Viet Nam; and there are two key types of players.

12.3.1 E-Invoicing Process

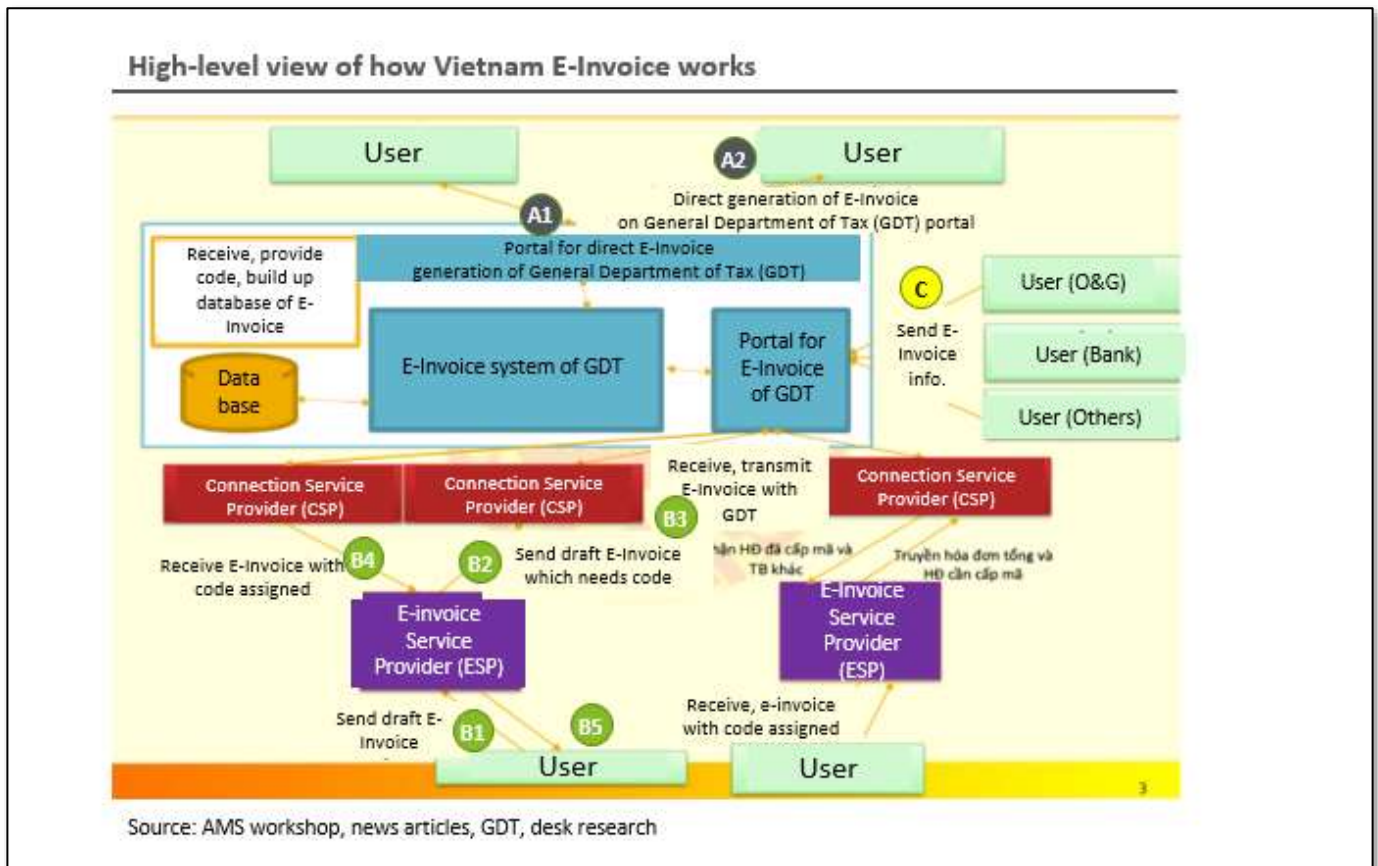


Figure 12.3.1.1 E-Invoice Process in Viet Nam

E-Invoicing in Viet Nam is handled by the General Department of Tax (GDT), the tax authority in Viet Nam under the Ministry of Finance. There are 2 different types of E-Invoice: E-Invoice with tax authority's authentication code and E-Invoice without tax authority's authentication code²⁰⁸. In terms of invoice issuers (or users), there are 3 different categories of users. Depending on the type of E-Invoices and type of users, there are 3 different ways that Viet Nam E-Invoice system works. (Refer Figure 12.3.1.2 Summary of 3 ways to generate E-Invoice).

²⁰⁸ Deploying electronic invoices: "Arrow" hits multiple targets – Available at <https://baochinhphu.vn/trien-khai-hoa-don-dien-tu-mui-ten-trung-nhieu-dich-102304190.htm>

Method of generating E-Invoice	A	B	C
Type of E-Invoice to be generated	Direct generation from GDT portal	Generation via ESP and CSP	Host-to-Host solution or via CSP
Applicable business	E-Invoice with tax authority's authentication code	E-Invoice with tax authority's authentication code	E-Invoice without tax authority's authentication code
	SMEs in difficulty areas	All businesses (including businesses in selected industries)	Businesses in selected industries

Source: AMS workshop, news articles, GDT, desk research

Figure 12.3.1.2 Summary of 3 ways to generate E-Invoice

- A: Generate E-Invoice with tax authority's authentication code directly from GDT portal for SMEs**
Only SMEs in areas with difficult socio-economic conditions or extremely difficult socio-economic conditions under Law on Investment and Decree 31/2021/ND-CP are allowed to directly generate E-Invoice from GDT portal. (Refer Figure 12.3.1.3 E-Invoice process for A).

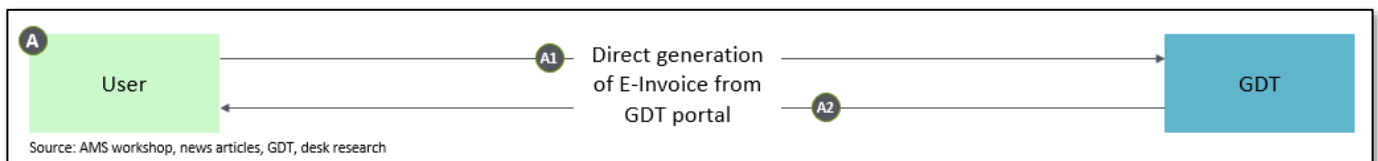


Figure 12.3.1.3 E-Invoice process for A

- B: Generate E-Invoice with tax authority's authentication code for all businesses via E-Invoice service providers**

Except for businesses in certain selected industries (which will be explained in more detail under C), all other businesses are required to generate E-Invoice with tax authority's authentication code. Even businesses in selected industries have the option to generate E-Invoice with tax authority's authentication code as well.

In this category, users can generate E-Invoice with tax authority's authentication code via E-Invoice service providers. There are 2 important types of players providing services for E-Invoice: E-Invoice Service Provider (ESP) and Connection Service Provider (CSP). (Refer Figure 12.3.1.4 E-Invoice process for B).

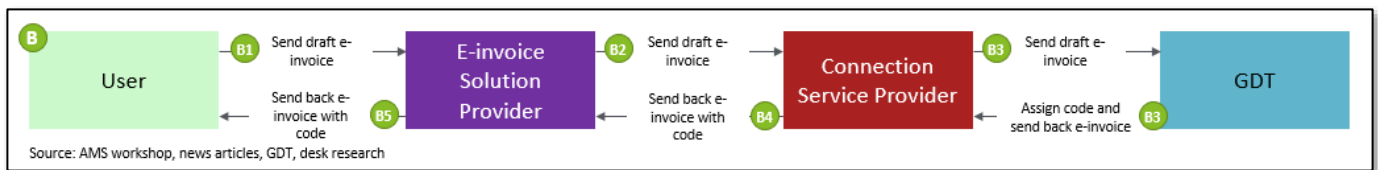


Figure 12.3.1.4 E-Invoice process for B

3. **C: Generate E-Invoice without tax authority’s authentication code for businesses in selected industries**

Selected industries are listed out in Decree 123/2020 and Article 91 of Law on Tax administration No. 38/2019/QH14, and include electricity, oil & gas, postal & telecommunications, transportation (air/road/marine/waterway), water, financial services (credit/insurance), healthcare, e-commerce, supermarket, commerce, other organizations with a direct transaction with tax authority via electronic means / have IT infrastructure / have accounting software / have software for E-Invoice purposes. This is the only category where businesses can choose whether they want to issue E-Invoices with or without tax authority’s authentication code.

If they choose to issue E-Invoice with tax authority’s authentication code, they can go through the process for B and engage with E-Invoice services providers (see B above). As for E-Invoice without tax authority’s authentication code, sellers issue the E-Invoice using the Host-to-Host solution where the seller’s ERP system is connected to the tax authority system or via a CSP. (Refer to Figure 12.3.1.5 E-Invoice process for C).

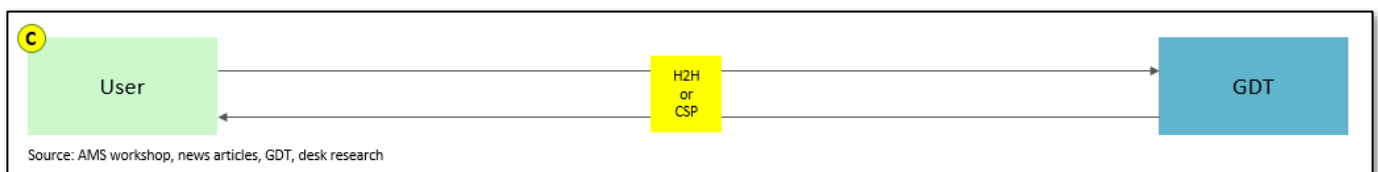


Figure 12.3.1.5 E-Invoice process for C

12.3.2 Key Types of E-Invoice Service Providers

As mentioned previously, there are 2 important types of players providing E-Invoice services in Viet Nam, namely E-Invoice Service Provider (ESP) and Connection Service Provider (CSP). Figure 12.3.2.1 illustrates how they work together to facilitate the E-Invoice generation for type B.

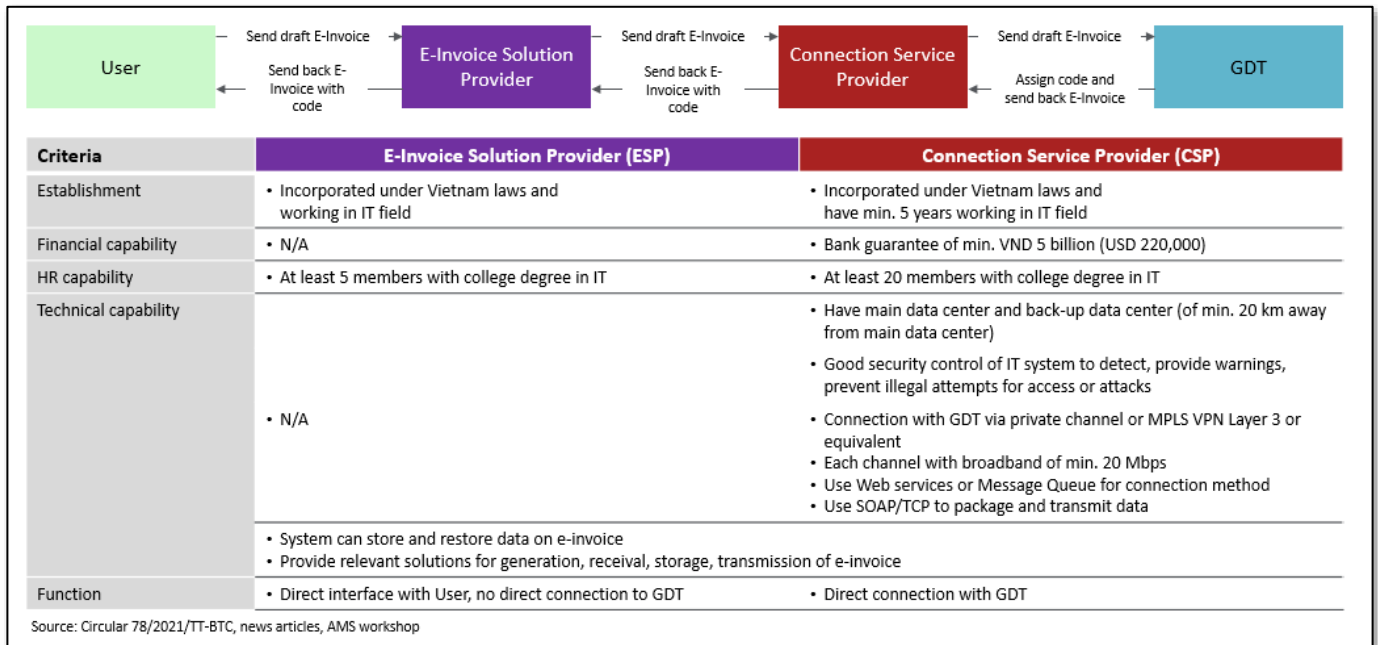


Figure 12.3.2.1 Comparison between ESP and CSP

ESP and CSPs serve different roles in the E-Invoice process: CSP has a direct connection with the GDT authorities, while ESP does not have a direct connection with GDT authorities and has a direct interface with business users instead. There are also more stringent requirements for CSPs. To be certified as a CSP provider, the firm must be more established with at least 5 years of working in the IT field. There are also stricter requirements on the financial, human resources and technical capabilities for CSPs.

Companies need to obtain approval from GDT to be qualified as ESP or CSP. For ESP, the GDT shall publish information about ESP if they send an application which meets above criteria and their commitments. For qualified CSP, after successful checking data transmission, the GDT and the service provider shall enter into a contract for provision of E-Invoice data receipt, transmission and storage services for tax authorities. Information about CSP shall be published on the website of the GDT. On 17 November 2021, GDT announced the list of 20 approved CSP players²⁰⁹. Notably, these 20 CSP companies also appear in the ESP list, which was announced one day after on 18

²⁰⁹ List Of Organizations That Have Signed Contracts To Provide E-Invoice Data Receipt, Transmission And Storage Services With The General Department Of Taxation – Announced on GDT website on 17 November 2021

November 2021²¹⁰. Thus, there are certain players (20 companies) who provide end-to-end services, covering both CSP and ESP space. Among CSP players, large telecommunication firms are spotted and are considered to be big players in the e-invoice market²¹¹ (Viettel, Mobifone and VNPT).

ESP & CSP Providers					
#	Company	#	Company	#	Company
1	Viettel	8	Mat Bao	15	BKAV
2	Mobifone	9	Nacencomm	16	Visnam
3	VNPT	10	Misa	17	Hilo Group
4	FPT	11	M-invoice	18	Smart Sign
5	EFY	12	Thai Son Soft	19	TS24
6	Soft Dreams	13	Seatech	20	Fast
7	Cyber Lotus	14	New-Invoice		

Source: Circular 78/2021/TT-BTC, GDT notification on CSP list (dated 17 November 2021) and ESP list (dated 18 November 2021), AMS workshop

Figure 12.3.2.2 List of Certified ESP and CSP Providers

ESP Providers					
#	Company	#	Company	#	Company
21	Vinh Hy	38	idocNet	55	Tri Viet Luat*
22	LCS	39	TCT	56	Hon Ngoc Viet
23	Software KK VAT	40	Viet lightning	57	Tri Viet Luat*
24	Ngo Gia Phat	41	ACC Online	58	Vietnam Digital
25	Megabiz	42	HT Company	59	NC9 Vietnam
26	LCD	43	ITT Technology	60	First Trust
27	Nguyen Minh	44	PA Vietnam	61	Nhan Hoa
28	E-hoadon	45	VNISC	62	VLC
29	Oinvoice	46	My-invoice	63	Tam Viet Group
30	Win Tech Solution	47	Safe invoice	64	AVSE
31	3A	48	SPC Technology	65	Ben Thanh Print
32	ASIA Software	49	Lien Son	66	ZAMO
33	Dinh Vi Bach Khoa	50	Online Vina	67	Vietinfo
34	Minh Khang Group	51	PTP	68	Bitware
35	E-invoice solutions	52	Tuan Chau	69	Rosy
36	VN Pay	53	Minh Thu	70	Tran Dinh Tung
37	Viet invoice	54	ACMAN	71	CMC

*Note: #55 and #57 are 2 different companies with the same names

Source: Circular 78/2021/TT-BTC, GDT notification on CSP list (dated 17 November 2021) and ESP list (dated 18 November 2021), AMS workshop

Figure 12.3.2.3 List of Certified ESP Providers Only

²¹⁰ List Of Organizations Providing E-Invoice Solutions That Fully Meet The Criteria Specified In Clause 1, Article 10 Of Circular No. 78/2021/Tt-Btc – Announced on GDT website on 18 November 2021

²¹¹ Expert interview

12.4 ENABLERS ASSESSMENT

Enablers	Initiatives
1) Government & Institutional Support	<ul style="list-style-type: none"> • Law on Tax Administration No. 38/2019/QH14 • Decision No. 749/QD-TTg: National digital transformation program by 2025 with orientation towards 2030 issued by Prime Minister • Decision No. 1813/QD-TTg: Scheme for development of non-cash payment in Vietnam for the period 2021-2025 issued by Prime Minister • Decision No. 12/QD-BKHDT: National program for supporting digital transformation for the period issued by Ministry of Planning and Investment • Decree 119/2018/ND-CP: Details on scope & subjects of application of e-invoice • Decree 123/2020/ND-CP and Circular 78/2021/TT-BTC: Details on mandatory e-invoice rollout in Vietnam
2) Nationwide Standards	<ul style="list-style-type: none"> • Circular 78/2021/TT-BTC on invoices and supporting documents • Decision No. 1450/QD-TCT on E-Invoices components and method of transmission and reception with the tax authorities
3) Financing & Funding	<ul style="list-style-type: none"> • Decision No. 12/QD-BKHDT: Funding scheme for businesses under MPI Decision 12 • Discount scheme provided by e-invoice service providers (ESP and CSP)
4) Push from Large Enterprises	<ul style="list-style-type: none"> • Large local conglomerates (Vingroup, Masan, etc.) • Large state-owned enterprises (Petrolimex, etc.) • Foreign direct investment enterprises (AEON)

Source: Desk research

Figure 12.4.1 Key initiatives to drive the adoption of E-Invoicing in Viet Nam

12.4.1 Government & Institutional Support

Law on Tax Administration No. 38/2019/QH14

The law on Tax Administration No. 38/2019/QH14 was issued on June 13, 2019²¹². Chapter X of this law explains the application of electronic invoices and documents. Chapter X consists of Article 89 to Article 94 which specify (i) the definition of electronic invoices, (ii) rules for issuance, management and use of electronic invoices, (iii) the use of electronic invoices in sale of goods and services, (iv) electronic invoice-related services, (v) electronic invoice database and (vi) electronic documents.

National Digital Transformation Program by 2025 with Orientation Towards 2030 (PM Decision 749)

On June 3, 2020, the Prime Minister of Viet Nam issued Decision No. 749/QD-TTg on approving the “National Digital Transformation Program until 2025, with a vision towards 2030”²¹³. The program aims to develop a digital government, economy, and society while establishing Viet Namese digital technology enterprises that can go

²¹² Viet Nam’s Tax Administration Law – 38_2019_QH14_425672 – Available at <https://vietanlaw.com/Viet-Nams-tax-administration-law-38-2019-qh14-425672/>

²¹³ Decision No. 749/QD-TTg 2020 national digital transformation program through 2025 – Available at <https://english.luatVietNam.vn/decision-no-749-qd-ttg-on-approving-the-national-digital-transformation-program-until-2025-with-a-vision-184241-Doc1.html>

global²¹⁴. To achieve the goal by 2025, the program requires 80% of level-4²¹⁵ online public services provided via different accessibility devices, and 90% of working files in ministerial and provincial-level offices, 80% of those in district-level offices, and 60% in commune-level offices to be processed digitally. Furthermore, in the next five years, all national databases serving as the foundation for e-government, including databases on population, land, business registration, finance and insurance will be completely developed, interconnected and shared nationwide. The push for complete digitalisation in all aspects of the government will potentially contribute to the enhancement and further development of the E-Invoicing system as well.

Scheme for Development of Non-cash Payment in Viet Nam for the Period 2021-2025 (PM Decision 1813)

Issued by the Prime Minister on October 28, 2021, Decision No. 1813/QD-TTg aims to develop solutions for enhancing cashless payment facilities in Viet Nam²¹⁶. By the end of 2025, the government aims to have value of non-cash payments being 25 times higher than the Gross Domestic Product (GDP) and non-cash payments accounting for 50% of e-commerce transactions. To achieve these targets, the government has planned to develop some non-cash payment facilities, including improving the legal framework behind cashless payments; upgrading modern payment infrastructure that operates in a safe and effective manner; promoting e-payment in the governmental sector and public administrative services, etc²¹⁷. With the development of the digital payment ecosystem, E-Invoicing, which contributes to added security and transparency of transactions, might also potentially enjoy further developments.

National Program for Supporting Digital Transformation for the Period 2021-2025 (MPI Decision 12)

On January 7, 2021, the Ministry of Planning and Investment (MPI) issued Decision No. 12/QD-BKHDT, in support of Prime Minister's Decision No. 749/QD-TTg on the National Digital Transformation Program. The aim is to have 100% of enterprises aware of digital transformation opportunities, and at least 100,000 enterprises receiving support from the program²¹⁸. Under this program, efforts to drive digital transformation includes building digital tools and digital transformation databases for enterprises and the development and implementation of digital transformation training programs for enterprises. This decision ensures that the MPI will work in tandem with enterprises to ensure digitisation opportunities are provided to them and the National Digital Transformation by 2030 goal (under Decision No. 749/QD-TTg) will be successfully achieved.

²¹⁴ Decision No. 749/QD-TTg on approving the “National Digital Transformation Program until 2025, with a vision towards 2030.

²¹⁵ Level 4 is the highest level of online public services, which allows users to fill and submit forms, and pay fees online.

²¹⁶ Decision 1813/QD-TTg 2021 approving the Scheme on development of non-cash payment in Viet Nam during 2021-2025

²¹⁷ Solutions for developing modern payment services are now available – Available at <https://thuvienphapluat.vn/news/headlines/38265/solutions-for-developing-modern-payment-services-are-now-available>

²¹⁸ Decision No. 12/QD-BKHDT Program to support digital transformation enterprises in the period of 2021-2025 –

12.4.2 Nationwide Standards

Viet Nam has standards issued via decree, circular and decision. The two main documents to refer for the E-Invoicing standards are Circular 78 and Decision No. 1450.

Circular 78/2021/TT-BTC

Issued by the Ministry of Finance, Circular No. 78/2021/TT-BTC offers a comprehensive set of guidelines on how to implement E-Invoicing, as mandated by the Government's Decree No. 123/2000/ND-CP. The circular stipulates several provisions and clarifications on E-Invoices, including authorization to issue E-Invoices, sample display of various types of E-Invoices, form number & serial number, instruction for handling mistakes on E-Invoices, as well as E-Invoice application to other cases. The circular also highlights detailed instructions on symbol number, serial number of the invoice and name of invoice's copy; guidance for correction of the issued E-Invoices or correction of the transmitted data of E-Invoices to the tax authority; guidance for implementing E-Invoices which are generated from cash register with data linked with tax authority's data.

Furthermore, the circular also states that Extensible Markup Language (XML) is the official format of E-Invoice²¹⁹. XML format consists of two components: (1) data for the E-Invoice and (2) data for electronic signature. Both E-Invoice with and without tax authority's authentication code and data of E-Invoice will be included in the format.

Decision No. 1450/QD-TCT

This decision was issued on 7 October 2021 by the Director General of the GDT as a supplement for Circular 78. The decision describes the technical specifications, structure format, data components and methods of transmitting and receiving E-Invoices between businesses and the tax authorities.

The E-Invoice data components consist of 5 parts:

- I) Components applicable to the service registration/change of information using E-Invoices, and request for issuance of E-Invoices with tax authority's code;
- II) Components applicable to creating and sending of E-Invoices to the tax authorities;
- III) Components applicable to E-Invoices with amendments;
- IV) Components applicable to the preparation and transmission of E-Invoices data to the tax authorities; and
- V) Components applicable to the service of sending declaration related data to the tax authorities

As for the methods of transmission and reception with tax authorities, it highlights the regulation on the transmission channels and as well as the protocols.

²¹⁹ New timelines on mandatory e-invoicing in Viet Nam – Available at <https://www.pagero.com/news/mandatory-e-invoicing-in-Viet-Nam/>

12.4.3 Financing & Funding

Funding Scheme for Businesses under MPI Decision 12

In line with the Ministry of Planning and Investment (MPI) National Program for Supporting Digital Transformation (MPI Decision 12), there will be three digital transformation support packages for businesses in 2022. The first package provides VND 20-50 million per year (US\$800 to 2,200 per year) for each small-sized business or businesses that are just beginning their digitalization journey. The second package provides up to VND 100 million per year (US\$4,400 per year) for medium-sized businesses. Finally, the last package targets companies in the export business and covers up to 50% of their establishment and maintenance costs for the development of cross-border e-commerce platforms²²⁰. There are still some barriers to the digital transformation of businesses in Viet Nam as investment or setup costs are high. The provision of financial support will bring enterprises in Viet Nam one step closer to complete digitization.

Discount Scheme Provided by E-Invoice Service Providers (ESP and CSP)

There are also a few ESPs providing discount packages for businesses when purchasing their E-Invoice software. FAST, a certified ESP and CSP, is offering customers free Fast E-Invoice software with every purchase of Fast Accounting Online accounting software²²¹. Thai Son Soft, another certified ESP and CSP, launched an E-100 package, where free 100 E-Invoice numbers will be awarded to all businesses registering with them to do E-Invoicing. Under the package, design of invoice templates, annual subscription fees and E-Invoice storage fee for up to 10 years will also be free of charge²²². With attractive discount schemes provided by ESPs and CSPs, the transition from paper invoice to E-Invoice will be smoother, ensuring the July 2022 deadline can be met.

12.4.4 Push from Large Enterprises

Numerous large enterprises have already shown interest in transitioning from paper invoices to the new E-Invoice system. Large local conglomerates (Vingroup, Masan, etc.), large state-owned enterprises (Petrolimex, etc.)²²³ and foreign direct investment enterprises (AEON, Samsung, etc.)²²⁴ have already participated in the E-Invoice system. With large corporations taking the lead in transitioning to E-Invoicing, other small enterprises are likely to follow suit as well.

²²⁰ Three digital transformation business support packages in 2022 – Available at <https://www.VietNamplus.vn/ba-goi-ho-tro-doanh-nghiep-chuyen-doi-so-trong-nam-2022/761994.vnp>

²²¹ Fast promotion "Buy accounting software for e-invoice software" – Available at <https://invoice.fast.com.vn/tin-chi-tiet/40171/Fast-khuyen-mai-%E2%80%9CMua-phan-mem-ke-toan-tang-phan-mem-hoa-don-dien-tu%E2%80%9D.aspx>

²²² ThaisonSoft donates 100 electronic invoice numbers to businesses registering to use E-invoices – Available at <https://einvoice.vn/tin-tuc/tang-100-so-hoa-don-cho-doanh-nghiep-dang-ky-su-dung-e-invoice>

²²³ VNPT has been providing e-invoice services for some large local conglomerates like Vingroup/Masan, and some large state-owned enterprises like Petrolimex. Available at <https://haiquanonline.com.vn/san-sang-phu-song-hoa-don-dien-tu-154996-154996.html>

²²⁴ Thai Son Soft has been providing e-invoice services for some FDIs like AEON or Samsung. Available at <https://einvoice.vn/>

Besides implementing E-Invoice in their business operations, some large enterprises (especially telecommunications companies) also play an active role in the E-Invoice ecosystem in Viet Nam. As mentioned earlier, all three big telecommunications carriers in Viet Nam (Viettel, VNPT, Mobifone) provide end-to-end E-Invoice services, covering both CSP and ESP fields. Other than the big three telcos, there are other notable companies on the list such as FPT, BKAV (two of the big tech names in Viet Nam), Fast (a well-known accounting software company), and VN Pay (payment gateway company).

12.5 OVERVIEW OF E-INVOICING IN VIET NAM

E-Invoicing has been present in Viet Nam for a significant period of time, since 2010. With the recent decrees issued by the Prime Minister, the implementation of the nationwide E-Invoicing system will be expedited, leading Viet Nam towards its ambitious goal of 100% E-Invoicing by July 2022. With the nation's push on digitalisation and the presence of several established E-Invoice service providers, the E-Invoice landscape in Viet Nam can be considered relatively developed, with several businesses already within the E-Invoice ecosystem.

13. CONCLUSION

E-Invoicing in the ASEAN is still in the developing stage as not all countries have implemented E-Invoicing. AMS such as Indonesia and Viet Nam have mandated E-Invoicing while E-Invoicing in Singapore and Thailand is still optional. Philippines is launching a pilot program in July 2022 whereas the other five countries, Brunei, Cambodia, Laos, Malaysia and Myanmar do not have a national E-Invoicing system yet.

E-Invoicing benefits businesses and the ASEAN economy as it facilitates trade due to the interoperability among users. The advantages of E-Invoicing such as cost saving, higher productivity and efficiency, error reduction, faster payment cycle and improve tax administration are important drivers for the adoption of E-Invoicing. In addition, government digitalisation strategies and roadmaps can further scale up the usage of E-Invoicing. The presence of technology service provider as the supplier is crucial in setting up the E-Invoicing system or platform. On top of that, government and institutional support such as the local tax authority and government digitalisation department are the leading agencies in the E-Invoicing initiative in ASEAN. Laws and regulations such as mandating E-Invoicing and the legal framework in recognising electronic documents help to drive the adoption of E-Invoicing. From a financial perspective, financial grants can help businesses, especially SMEs to lower their financial burden and embark on E-Invoicing. However, a stronger effort is needed to increase the adoption and the awareness of E-Invoicing among the AMS as it represents a huge opportunity to drive interoperability for cross-border trade in the future.

APPENDIX

BIBLIOGRAPHY AND REFERENCES

4 Business Opportunities Emerging in Indonesia. Ministry of Investment Indonesia.

<https://www.investindonesia.go.id/en/article-investment/detail/4-business-opportunities-emerging-in-indonesia>

ABA Bank Internet Banking for Business website, available at <https://www.ababank.com/en/ibanking-for-business/>

ABA Bank well set for the next 25 years after extraordinary journey. (2021, October 26). The Phnom Penh Post.

<https://www.phnompenhpost.com/supplements/aba-bank-well-set-next-25-years-after-extraordinary-journey>

Active with Southeast Asia. (2019, March). OECD. <https://www.oecd.org/global-relations/Active-with-Southeast-Asia.pdf>

All information about e-Invoicing in the Philippines. Inposia. <https://www.inposia.com/en/all-information-about-e-invoicing-in-the-philippines/>

AlphaBeta. (2021, October). The Growing Digital Economy in the Philippines: Opportunities, Challenges and Google's Contributions. <https://alphabeta.com/wp-content/uploads/2021/10/philippines-economic-impact-report.pdf>

Asquith, R. (2021, March 8). Philippines Targets 2023 for E-Invoicing and E-Receipts.

<https://www.avalara.com/vatlive/en/vat-news/philippines-targets-2023-for-e-invoicing-and-e-receipts.html>

Autoriti Monetari Brunei Darussalam. (2018, December 21). News - Digital Payment Roadmap for Brunei Darussalam 2019-2025. [Press release].

<https://www.bdc.gov.bn/Lists/News/DisplayItem.aspx?ID=389&Source=https%3A%2F%2Fwww%2Ebdcb%2Egov%2Ebn%2Fambd%2Fnews%2Darchive%3FTermStoreId%3D2eb9f752%2Dcf4b%2D428b%2D8e41%2Defa9277ebba%26TermSetId%3Dc3fc816b%2Dab34%2D4835%2D88ee%2Df40ff388ad35%26TermId%3D7581eb8a%2D5148%2D4c34%2D82bd%2D1377d2aad65f&ContentTypeId=0x01040013E26435B72C28499D11105B93AD3652>

Baijal, A., Cannarsi, A., Hoppe, F., Chang, W., Davis, S., & Sipahimalani, R. (2021, November 10). e-Conomy SEA 2021. Bain. <https://www.bain.com/insights/e-conomy-sea-2021/>

Bangkok Industrial Gas Company Limited website, available at <https://www.biqth.com/en/>

Basware. (2019, March 22). How e-invoicing affects more than “just” invoicing. <https://www.basware.com/en-en/blog/march-2019/how-e-invoicing-affects-more-than-just%E2%80%9D-invoicing/>

Bhunja, P. (2018, February 28). ETDA Thailand initiates National Digital ID project to promote online transactions.

<https://opengovasia.com/etda-thailand-initiates-national-digital-id-project-to-promote-online-transactions/>

Brunei launches Go Digital Asean. (2020, July 17). The Star. <https://www.thestar.com.my/aseanplus/aseanplus-news/2020/07/17/brunei-launches-go-digital-asean>

Cañaverall, P. L. (2018, April 7). Supply chain financing in the digital era. *The Manila Times*. <https://www.manilatimes.net/2018/04/07/business/columnists-business/supply-chain-financing-in-the-digital-era/390975>

Chan, S. (2021, February 24). Use of tax e-filing system mandated from March onwards. *Khmer Times*. <https://www.khmertimeskh.com/50817426/use-of-tax-e-filing-system-mandated-from-march-onwards/>

Chantanusornsiri, W. (2019, June 5). Revenue Department pushes e-invoices. *Bangkok Post*. <https://www.bangkokpost.com/business/1689368/revenue-department-pushes-e-invoices>

Chee, K. (2021, November 30). Businesses can receive e-invoices from govt agencies on InvoiceNow network. *The Straits Times*. <https://www.straitstimes.com/tech/tech-news/businesses-can-receive-e-invoices-from-govt-for-1st-time-on-invoicenow-network>

Cirillo, V. (2021, November 26). E-invoicing in the ASEAN region: current state and future developments. *Comarch*. <https://www.comarch.com/trade-and-services/data-management/news/e-invoicing-in-the-asean-region-current-state-and-future-developments/>

Clearance Model – EESPA. European E-Invoicing Service Providers Association. <https://eespa.eu/glossary/clearance-model/>

DataPost website, available at <https://www.datapost.com.sg/>

Dejvitak, N. (2019, May 22). Thailand National Digital Trade Platform. https://standard.eta.or.th/afact2019/file/TNSC_20190522%20ND%20Slide%20for%20AFACT.pdf

Department of Finance Philippines, available at <https://www.dof.gov.ph/>

Department of Information and Communications Technology Philippines, available at <https://dict.gov.ph/>

Department of Statistics Malaysia, available at <https://www.dosm.gov.my/v1/>

Devanesan, J. (2020, July 23). Myanmar is an emerging market for the IT industry, says Huawei. <https://techwireasia.com/2020/07/myanmar-is-an-emerging-market-for-the-it-industry-says-huawei/>

DGT will adjust e-invoice, here's the reason. (2021, November 2). <https://atpetsi.or.id/djp-bakal-lakukan-penyesuaian-e-faktur-ini-alasannya>

Dharmaraj, S. (2020, September 16). Viet Nam support Laos' digital transformation. <https://openqovasia.com/Viet-Nam-supports-laos-digital-transformation/>

Digital Economy Council, Brunei Darussalam. Digital Economy Masterplan 2025. <https://www.mtic.gov.bn/de2025/index.html>

Digital Government Cooperation Centre launched. (2022, January 5). *Khmer Times*. <https://www.khmertimeskh.com/501001349/digital-government-cooperation-centre-launched/>

Digital Government Transformation Project (RFF) Project Kickoff and Digital Maturity Assessment Introduction. (2021, July 7). United Nations Development Programme. https://www.la.undp.org/content/lao_pdr/en/home/presscenter/pressreleases/2021/07/digital-government-transformation-project--rff--project-kickoff-.html

Directorate General of Taxes (Indonesia) website, available at <https://www.pajak.go.id/en>

e-Invoice Registration. MPT Myanmar. <https://www.mpt.com.mm/en/e-invoice-registration-en/>

E-Invoicing and digitization in Asia. Inposia. <https://www.inposia.com/en/e-invoicing-and-digitization-in-asia/#:~:text=South%20Korea%20is%20considered%20the,the%20digitization%20of%20VAT%20invoices.>

Electronic invoice to the future. CloudOffix. <https://www.cloudoffix.com/invoicing-cloud/features/e-invoice>

Esker website, available at <https://www.esker.com.my/>

E-tax Invoice & Receipt Thailand, available at https://etax.rd.go.th/etax_staticpage/app/#/index/main#top

Fast Forward To Thailand 4.0. (2019, August 28). South China Morning Post. <https://www.scmp.com/presented/business/topics/fast-forward-thailand-40/article/3021184/fast-forward-thailand-40>

Fast promotion “Buy accounting software, get free e-invoice software.” (2021, November 25). Fast e-Invoice. <https://invoice.fast.com.vn/tin-chi-tiet/40171/Fast-khuyen-mai-%E2%80%9CMua-phan-mem-ke-toan-tang-phan-mem-hoa-don-dien-tu%E2%80%9D.aspx>

Firn, M. (2021, June 21). Government launches new digital plan for its economic development. Khmer Times. <https://www.khmertimeskh.com/50877963/government-launches-new-digital-plan-for-its-economic-development/>

Fitriya. (2021, May 28). Klikpajak, Aplikasi Pajak ‘Online’ yang Terintegrasi dengan Laporan Keuangan. Klikpajak. <https://klikpajak.id/blog/klikpajak-aplikasi-pajak-online-yang-terintegrasi-dengan-laporan-keuangan/>

Gasapo, N. M. (2021, August 19). Taking tax evasion seriously. The Manila Times. <https://www.manilatimes.net/2021/08/19/business/top-business/taking-tax-evasion-seriously/1811508>

Govt, development partners push for technology, innovation department. (2016, November 17). The Laotian Times. <https://laotiantimes.com/2016/11/17/govt-development-partners-push-technology-innovation-development/#:~:text=The%20government%20and%20its%20development,move%20to%20drive%20national%20development.&text=The%20five%2Dyear%20science%20and,also%20approved%20at%20the%20meeting>

Ha L. (2021, December 22). Already 71% of businesses in 6 provinces have applied e-invoices. Market Management Journal. <https://qltt.vn/da-co-71-doanh-nghiep-tai-6-tinh-ap-dung-hoa-don-dien-tu-92709.html>

Hamit, R. (2019, March 13). National database to centralise gov’t data. The Scoop. <https://thescoop.co/2019/03/13/national-database-to-provide-govt-agencies-public-with-access-to-information/>

Hasniawati, A. P. (2015, October 6). Indikasi faktur pajak fiktif capai Rp 6,5 triliun. Kontan. <https://nasional.kontan.co.id/news/indikasi-faktur-pajak-fiktif-capai-rp-65-triliun>

Hayward, J. (2020, July 9). E-invoicing in Singapore: what you need to know. Tradeshift. <https://hub.tradeshift.com/accounts-payable/e-invoicing-in-singapore-what-you-need-to-know/>

Hew, L. (2021, April 27). MDEC targets 875,000 MSMEs to adopt e-commerce by 2025. The Edge Markets. <https://www.theedgemarkets.com/article/mdec-targets-875000-msmes-adopt-ecommerce-2025>

Hien T. (2021, December 20). Three packages to support businesses in digital transformation in 2022. Viet NamPlus. <https://www.VietNamplus.vn/ba-goi-ho-tro-doanh-nghiep-chuyen-doi-so-trong-nam-2022/761994.vnp>

Housing & Development Board. (2021, November 30). HDB, JTC and MPA, Which Issue Over Two-Thirds of Government Invoices, Offer E-Invoicing Through IMDA's InvoiceNow. <https://www.hdb.gov.sg/cs/infoweb/about-us/news-and-publications/press-releases/30112011-HDB-%20JTC-and-MPA-Offer-Einvoicing-Through-IMDAs-InvoiceNow>

HSBC merges Omni Collect with eZPay. (2021, January 25). Bangkok Post. <https://www.bangkokpost.com/business/2056531/hsbc-merges-omni-collect-with-ezpay>

IMDA's Nationwide E-Invoicing Network Initiative. (2020, August 14). IndSights. <https://www.insights.sg/research-finding/imdas-nationwide-e-invoicing-network-initiative/>

Indonesia e-Faktur. (2021, August 25). SNI Technology. <https://snitechnology.net/efaktur-indonesia/>

Indonesia embraces the next stage of tax digitisation: What can be expected? (2021, September 28). International Tax Review. <https://www.internationaltaxreview.com/article/b1trvqk6ndmngf/indonesia-embraces-the-next-stage-of-tax-digitisation-what-can-be-expected>

Infocomm Media Development Authority website, available at <https://www.imda.gov.sg/>

Inland Revenue Authority of Singapore, available at <https://www.iras.gov.sg/>

IT & communications in Cambodia. (2020, December). B2B Cambodia. <https://www.b2b-cambodia.com/industry-overviews/it-communications/#1464427173109-6271164d-cdb2>

Kemp, S. (2021, February 11). Digital 2021: Laos. <https://datareportal.com/reports/digital-2021-laos>

Khatri, Y. (2018, December 3). Thai Government Trials Blockchain in Fight Against Tax Fraud. <https://www.coindesk.com/markets/2018/12/03/thai-government-trials-blockchain-in-fight-against-tax-fraud/>

Ko, T. K. (2019, March 14). Govt draft roadmap to develop and support digital economy in Myanmar. The Myanmar Times. <https://www.mmtimes.com/news/govt-draft-roadmap-develop-and-support-digital-economy-myanmar.html>

Kon, J. (2021, March 18). New budget to focus on productivity using technology. Borneo Bulletin. <https://borneobulletin.com.bn/new-budget-to-focus-on-productivity-using-technology/>

Korea and Cambodia signed MOU on e-government. (2019, December 26). Ministry of the Interior and Safety. https://www.mois.go.kr/eng/bbs/type001/commonSelectBoardArticle.do?bbsId=BBSMSTR_00000000019&nttId=74942

Krukova, A. (2021, August 18). Laos Heads to E-Government with TrueConf Video Conferencing. TrueConf. <https://trueconf.com/blog/press-release/laos-heads-to-e-government-with-trueconf-video-conferencing.html#:~:text=The%20E-Government%20Center%2C%20under%20the%20Ministry%20of%20Technology,unified%20software%20framework%20for%20all%20Laotian%20government%20institutions.>

Kunmakara, M. (2018, March 30). South Korea offers tech boost for government. Khmer Times. <https://www.khmertimeskh.com/269395/south-korea-offers-tech-boost-for-government/>

Kunmakara, M. (2020, April 29). Ministry to prepare the country for digitalisation. Phnom Penh Post. <https://www.phnompenhpost.com/business/ministry-prepare-country-digitalisation>

Kunmakara, M. (2021, February 23). GDT: Income tax e-filing system online in March. Phnom Penh Post. <https://www.phnompenhpost.com/business/gdt-income-tax-e-filing-system-online-march>

Lai, L. (2021, July 13). New data-sharing platform for shipping industry aims to reduce inefficiency: Heng Swee Keat. The Straits Times. <https://www.straitstimes.com/singapore/politics/new-data-sharing-platform-for-shipping-industry-aims-to-reduce-inefficiency-heng>

Laos National Enterprise Database website, available at <http://erm.gov.la/index.php/en/explore-data-en/statistics>

Laos TaxRIS website, available at <http://taxservice.mof.gov.la/websquare/websquare.do>

Latest Laos mobile payments partnership with to target Chinese tourist. (2019, October 21). Fintechnews Singapore. <https://fintechnews.sg/34411/laos/latest-laos-mobile-payments-partnership-to-target-chinese-tourist/>

Linh T. (2021, November 5). Ready to cover “e-invoices.” Haiquan Online. <https://haiquanonline.com.vn/san-sang-phu-song-hoa-don-dien-tu-154996-154996.html>

Ministry of Construction Viet Nam, available at <https://moc.gov.vn/en/Pages/default.aspx>

Ministry of Finance and Economy website, available at <https://www.mofe.gov.bn/Treasury/Home.aspx>

Ministry of Finance of Republic of Indonesia, available at <https://www.kemenkeu.go.id/en>

More than 263,000 businesses use e-invoices after 1 month of implementation. (2021, December 21). Tin Tuc. <https://baotintuc.vn/tai-chinh-ngan-hang/hon-263000-doanh-nghiep-dung-hoa-don-dien-tu-sau-1-thang-trien-khai-20211221132026888.htm>

Myanmar Digital Economy Roadmap. Digital Economy Development Committee. <https://myanmar.gov.mm/documents/20143/9096339/2019-02-07+DEDC+RoadMap+for+Websites.pdf/>

Myanmar National Payments System Strategy (2020–2025). (2020, May). https://www.cbm.gov.mm/sites/default/files/nps_final1.pdf

Myanmar: IRD Introduces E-Filing System & Expands E-Payment Platforms to Taxpayers. (2020, September 10). DFDL. <https://www.dfdl.com/resources/legal-and-tax-updates/myanmar-ird-introduced-e-filing-system-expands-e-payment-platforms-to-taxpayers/#:%7E:text=As%20part%20of%20the%20implementation,file%20returns%20and%20pay%20taxes.>

National Centralised Database. (2019, March 13). BruDirect. <https://www.brudirect.com/news.php?id=64767>

New timelines on mandatory e-invoicing in Viet Nam. (2020, October 27). Pagero. <https://www.pagero.com/news/mandatory-e-invoicing-in-Viet-Nam/>

Noble, L. W. T. (2020, November 2). BSP exploring supply chain financing for MSMEs. BusinessWorld. <https://www.bworldonline.com/bsp-exploring-supply-chain-financing-for-msmes/>

Online Payment System for Taxpayer. Internal Revenue Department. <https://onlinepayment.ird.gov.mm/etax>

Ono, Y. (2018, March 20). Thailand’s leading banks to share blockchain platform. Nikkei Asia. <https://asia.nikkei.com/Asia300/Thailand-s-leading-banks-to-share-blockchain-platform>

PANTAS website, available at <https://pantas.com/>

Pat. (2016, July 14). New Thailand 4.0 Policy aims to turn country into a 'smart' nation. EcommerceIQ. <https://ecommerceiq.asia/thai-government-launches-thailand-4-0/>

PH eyes rolling out e-invoicing system in 2022. (2021, May 24). Philexport Cebu. <http://www.philexportcebu.org/ph-eyes-rolling-out-e-invoicing-system-in-2022/>

Philippines to implement e-invoicing program. (2019, August 29). Pagero. <https://www.pagero.com/news/philippines-to-implement-e-invoicing-program/>

Philippines: A step towards the mandatory electronic invoice. (2021, December 16). Edicom. <https://edicomgroup.com/blog/philippines-step-towards-mandatory-electronic-invoice#:~:text=The%20Bureau%20of%20Internal%20Revenue,taxpayers%20and%20the%20tax%20authority>

Propelling SMEs into the digital world. MDEC. <https://mdec.my/digital-economy-initiatives/for-the-industry/sme-digitalisation-grant/>

Ridvan, Y. (2020, November 19). Indonesia: E-Invoicing (E-Faktur Pajak). LinkedIn. <https://www.linkedin.com/pulse/indonesia-e-invoicing-e-faktur-pajak-ridvan-yiqit/>

SAP Ariba. What is Source to Pay. [https://www.ariba.com/solutions/business-needs/what-is-source-to-pay#:~:text=Source%20to%20pay%20\(S2P\)%20is%20a%20process%20that,networks%20to%20create%20procurement%20efficiency](https://www.ariba.com/solutions/business-needs/what-is-source-to-pay#:~:text=Source%20to%20pay%20(S2P)%20is%20a%20process%20that,networks%20to%20create%20procurement%20efficiency)

Sekretariat Tetap Wawasan Brunei 2035. Wawasan Brunei 2035. [http://www.wawasanbrunei.gov.bn/Downloads%20Files/Infopack%20WB35%20\(ENG\).pdf](http://www.wawasanbrunei.gov.bn/Downloads%20Files/Infopack%20WB35%20(ENG).pdf)

Setiawan, D. A. (2020, September 1). Facilitate Taxpayers, DGT Promises to Continue Developing E-Invoice Applications. DDTC News. <https://news.ddtc.co.id/mudahkan-wajib-pajak-djp-janji-terus-kembangkan-aplikasi-e-faktur-23574>

Sharon, A. (2019, December 13). Thai Government Gets Industry Help With Digital Platform. <https://opengovasia.com/thai-government-gets-industry-help-with-digital-platform/>

Sharon, A. (2019, June 11). ETDA and Revenue Department to develop electronic payment system infrastructure. <https://opengovasia.com/etda-and-revenue-department-to-develop-electronic-payment-system-infrastructure/>

Shepard, W. (2020, January). Smart Nation: Singapore is set to enter a brave new digital world. <https://www.dhl.com/global-en/home/about-us/delivered-magazine/articles/2020/issue-1-2020/inside-the-next-new-singapore.html>

Shira, D. (2022, January 28). Viet Nam's E-invoice Implementation: Prepare for July 2022. <https://www.Viet Nam-briefing.com/news/Viet Nam-e-invoice-implementation-prepare-for-july-2022.html/>

Singapore Green Plan 2030, available at <https://www.greenplan.gov.sg/>

Smart Automation Grant (SAG). MDEC. <https://mdec.my/grant/smart-automation-grant/>

Sopich, S. (2022, January 7). Digital Hub to Boost Governance. Cambodianess. <https://cambodianess.com/article/digital-hub-to-boost-governance>

Soulivong, K. ICT & e-Government in Laos. https://www.itu.int/en/ITU-D/Regional-Presence/AsiaPacific/Documents/Events/2017/Sep-SCEG2017/SESSION-1_Lao_Ms_Kesone_Soulivong.pdf

Statista website, available at <https://www.statista.com/>

Supply Chain Finance and Trade Finance Tools Support Global Relationships During Crisis. (2021, September 3). Union Bank. <https://www.unionbank.com/commercial/insights/middle-market-businesses/supply-chain-finance-solutions-tools-during-crisis>

Tafis website, available at <http://www.tafis.gov.bn/>

Tan, J. (2021, December 23). They returned from NYC to launch a free, enhanced e-invoicing solution for M'sian SMEs [Online Forum Post]. Vulcan Post. <https://vulcanpost.com/772975/pantas-free-e-invoice-accounting-software-malaysia-sme/>

Tax Digitization in Thailand: The New Change of e-Tax Invoice from 'Analog' to 'Digital'. iTAX. <https://www.itax.in.th/media/tax-digitization-in-thailand-the-new-change-of-e-tax-invoice-from-analog-to-digital/>

Tax Reform for Acceleration and Inclusion (TRAIN), available at https://www.bir.gov.ph/images/bir_files/internal_communications_1/TRAIN%20matters/RA-10963-RRD.pdf

TaxReform Department of Finance Philippines, available at <https://taxreform.dof.gov.ph/>

Thailand develops national digital trade platform. (2019, September 11). Viet NamPlus. <https://en.VietNamplus.vn/thailand-develops-national-digital-trade-platform/160284.vnp>

Thailand Revenue Department, available at <https://www.rd.go.th/english/index-eng.html>

ThaisonSoft offers 100 e-invoice number to business registered to use E-invoice. (2020, August 25). <https://einvoice.vn/tin-tuc/tang-100-so-hoa-don-cho-doanh-nghiep-dang-ky-su-dung-e-invoice>

Thang H. (2021, November 21). Deploying e-invoices: "Arrows" hit many targets. Government Electronic Newspaper. <https://baochinhphu.vn/trien-khai-hoa-don-dien-tu-mui-ten-trung-nhieu-dich-102304190.htm>

The Philippines launches an e-invoice pilot in 2022. (2021, March 8). Global Indirect Tax Management. <https://globalindirecttaxmanagement.com/482-the-philippines-launches-an-e-invoice-pilot-in-2022.html>

Tinarak, S. (2021, November 12). ONE Thailand Thrives on Digital Transformation with e-Tax Invoice/e-Receipt Service. <https://www.logistics-manager.com/one-thailand-thrives-on-digital-transformation-with-e-tax-invoice-e-receipt-service/>

Tirta, A. & Sarli, P. W. (2021, September 30). Indonesia's SMEs are key to development. How can they grow? World Economic Forum. <https://www.weforum.org/agenda/2021/09/how-can-indonesian-smes-scale-up/#:~:text=Indonesia%20is%20going%20through%20unprecedented,SME%20for%20every%20five%20Indonesia>

Tobias, L. (2020, July 11). The benefits of BIR registration. The Manila Times. <https://www.manilatimes.net/2020/07/11/business/columnists-business/the-benefits-of-bir-registration/740255>

Tran, B. (2021, November 6). Solutions for developing modern payment services are now available. <https://thuvienphapluat.vn/news/headlines/38265/solutions-for-developing-modern-payment-services-are-now-available>

Umali, T. (2019, June 5). Department of Finance to ease Filipino taxpayers experience via e-invoicing. <https://opengovasia.com/department-of-finance-to-ease-filipino-taxpayers-experience-via-e-invoicing/>

Understand and Comply with E-Invoicing in Viet Nam. (2020, May 19). Cekindo. [https://www.cekindo.com/blog/e-invoicing-in-Viet Nam](https://www.cekindo.com/blog/e-invoicing-in-Viet-Nam)

Vannaladsaysy, V. (2016, November 14). Strengthen existing Laos STI Policy initiatives in Priority Areas, including Sustainable Development Goals (SDGs). U.S. Mission to ASEAN. https://asean.usmission.gov/innovasean_20161114/

Vasinchayangkoon, O. (2018, April 24). Thailand 4.0 – Implementation of e-tax invoice and e-receipt. <https://www.roedl.com/insights/thailand-4-0-digital-economy-implementation-e-tax-invoice-e-receipt>

Viet Nam E-Invoice: A Comprehensive Guide for You. Cekindo. [https://www.cekindo.vn/services/e-invoices-Viet Nam](https://www.cekindo.vn/services/e-invoices-Viet-Nam)

Viet Nam General Department of Taxation, available at <https://www.gdt.gov.vn/wps/portal/english>

Viet Nam rolls out electronic invoices. (2021, November 22). Viet NamPlus. [https://en.Viet Namplus.vn/Viet Nam-rolls-out-electronic-invoices/215871.vnp](https://en.VietNamplus.vn/Viet-Nam-rolls-out-electronic-invoices/215871.vnp)

What is Supply Chain Finance? PrimeRevenue. <https://primerevenue.com/what-is-supply-chain-finance/#:%7E:text=Supply%20chain%20finance%2C%20also%20known,suppliers%20to%20get%20paid%20early.%20OECD%20Website>

What you should know about E-Invoicing. SEEBURGER. <https://www.seeburger.com/info/what-you-should-know-about-e-invoicing/>

World Bank website, available at <https://data.worldbank.org/>

World Economic Forum. (2017, October). Making Deals in Cyberspace: What's The Problem? [https://www3.weforum.org/docs/WEF White Paper Making Deals in Cyberspace.pdf](https://www3.weforum.org/docs/WEF_White_Paper_Making_Deals_in_Cyberspace.pdf)

Xero website, available at <https://www.xero.com/sq/>