THE BENEFITS FOR CANADIAN BUSINESSES TO OUTSOURCE E-INVOICING TO A MANAGED SERVICE PROVIDER

by

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ABSTRACT

Invoicing is one of an organization's business critical processes (BCP) functioning directly between two parties — a buyer and supplier. Over the last ten years organizations within the public and private sectors of the European Union (EU) and Latin & South America (S.America) identified the manual invoicing process as an opportunity to save money and increase productivity simply by outsourcing this function to a qualified Managed Service Provider (MSP) (Kivijärvi et al, 2012). By working together, governments in the EU created consortia focused on research and development with groups such as Research on Advanced Communications in Europe (RACE), which provided support to organizations who adopted new technologies like E-Invoicing (Rugman & Collison 2012). As a result, the European Association of Corporate Treasurers (EACT) claim that, since 2005, the measurable cost savings related to outsourcing processes, such as invoicing, has exceeded £243 billion euro per annum across Europe (Kivijärvi et al, 2012; UNECE 2012). Similar cost savings benefits will be appreciated by Canadian business upon implementation; however, the adoption rate within Canada is still quite low as E-Invoicing industry is still in its infancy stages.

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Abbreviations of Terms

ANP	Analytic Network Process
AP	Accounts Payable
AR	Accounts Receivable
B2B	Business To Business
B2C	Business to Consumer
BCP	Business Critical Process
BCP	Business Continuity Process
BPO	Business Process Outsourcing
BPaaS	Business Process-as-a-Service
BRIC	Brazil, Russia, India and China
CRM	Customer Relations Management
CSAE 3416	Canadian Standards on Assurance Engagements CSAE-3416
CSV	Comma-Separated Values
DC	Developed Countries
EACT	European Association of Corporate Treasurers
EDI	Electronic Data Interchange
EESPA	European E-Invoicing Service Providers Association
E-Invoicing	Electronic Invoicing
EIP	Electronic Invoice Payment
ERP	Enterprise Resource Platform
EU	European Union
GST	Goods and Services Tax
HVAC	Heating/ Ventilation/ Air Conditioning
IT	Information Technology
ISO	International Organization of Standardization
KPI	Key Performance Indicators
LDC	Less Developed Countries
LE	Large Enterprise
MESP	Managed E-Invoicing Service Provider
MIT	Massachusetts Institute of Technology

MNC	Multi National Corporation
MSP	Managed Services Provider
NA	North America
NOM	Network Operator Model
OTC	Order To Cash
PDF	Portable Document Format
PEPPOL	Pan-European Public Procurement On-Line
PO	Purchase Order
RFI	Request For Information
RFP	Request For Proposal
ROI	Return On Investments
SaaS	Software-as-a-Service
S.America	South America
SLA	Service Level Agreement
SMB	Small and Midsize Business
SME	Small and Midsize Enterprise
SFL	Stena Freight Line
SSAE	Statement on Standards for Attestation Engagements (SSAE) No. 16
TFPSR	Task Force for the Payments System Review
UKNeF	UK National E-Invoicing Forum
UN/EDIFACT	United Nations Rules for Electronic Data Interchange for Administration, Commerce and Transport
U.S.	United States of America
VAT	Value Added Tax

CHAPTER 1

1.1 Introduction

"Electronic invoicing (E-Invoicing) is the exchange of the invoice document between a supplier and a buyer in an integrated electronic format. Traditionally, invoicing, like any heavily paper-based process, is manually intensive and is prone to human error resulting in increased costs and processing lifecycles for companies (GSX 2013)."

Billions of dollars of invoices are processed each month using traditional paper-based methods that are characterized as inefficient deployment of resources and human errors, leading to increased costs and processing times (Subramanian et al 2009). Coupled with the advancement of technology and the global economy slowly recovering from the 2008/2009 recession, the automation of the accounting departments, Accounts Payable (AP) and Accounts Receivables (AR), has been identified as an opportunity to save money and improve productivity (Controller's Report 2010; Subramanian et al 2009). More and more organizations, especially Large Enterprises (LE), are recognizing this portion of their business as a Business Process Outsourcing (BPO) opportunity with qualified MSP (Koch 2013).

The purpose of this study is to provide an overall perspective as to the potential benefits Canadian businesses will appreciate upon partnering with a Managed Service Provider (MSP) to outsource an E-Invoicing solution. This will be established in five parts. The first part will summarize the research related to traditional invoicing, E-Invoicing, BPO as a whole and briefly describe the adoption rate of E-Invoicing in Europe and North America (NA), with focused emphasis on the Canadian economy. The second part will evaluate the research conducted with particular focus on the benefits and challenges related to E-Invoicing and the different stages of

E-Invoicing evolution organizations are in. The third part consists of three case studies of organizations that have implemented this solution, and the measurable benefits they have since appreciated. The fourth part will illustrate how a business should select a MSP to outsource this process to. Finally, this study will conclude its findings and suggest further research.

It is important to note that the primary focus of this project was to provide a high level perspective outlining the benefits of a complex and emerging industry within NA and Canada, thus certain aspects were deliberately not included within the scope of this project. Some of these include the role of technology, with respect to Cloud services, Electronic Invoice Payments (EIP), the process of completely automating an organizations supply chain, and finally, the precise costs related to implementing this solution through a MSP.

CHAPTER TWO

Methodology

The information presented in this study is based on relevant secondary information gathered by researching and evaluating literature. Given time constraints and more importantly the limited knowledge base of Canadian businesses on the topic of E-Invoicing, the author did not use surveys or questionnaires as an investigation method. Instead, to obtain the necessary information, a search for primary and gray literature was conducted utilizing the following online library databases: Business Source Complete, Ebscohost, and Google Scholar. Key terms employed included invoice; invoicing; (benefits of) e-invoicing; business process outsourcing; e-invoicing in Canada (and US); security, costs of e-invoicing, e-invoicing workflow. Additional search key search terms consisted of various industry experts and MSP's that offered E-Invoicing as business service.

From these queries, quantitative, qualitative information was found from various academic and business sources including, but not limited to, *government agencies, industry experts, universities (academic), business and research groups, and journals.* The information presented by these academic and business sources was compiled by engaging and interviewing key stakeholders and industry experts, analyzing statistical (quantitative) data available from the Europe Union, Latin and South America, and case studies of organizations who have adopted the E-Invoicing solution over the last decade. As such, we can classify our approach to this research as Delphi method. The Delphi method is a research method that uses a selected panel of experts

in a systematic, interactive manner, and we have analyzed their findings (Sekaran & Bougie, 2010).

A literature review is an account of what has been previously published on a specific topic by accredited scholars and researchers. The literature throughout the entire study is intended to provide a high level overview as to the concept of invoicing, e-invoicing, and the pros and cons of implementing a solution through a MSP. Upon analyzing this research, we were able to clearly identify benefits organizations within the EU gained and are confident Canadian businesses will have similar experiences.

There is significant interest in and focus on E-Invoicing within the European Union thus, a substantial amount of research has already been undertaken allowing the author to adequately explore the concept and evaluate the impact the solution would have on Canadian businesses. Furthermore, with the author being a consultant with a MSP that is currently providing this service throughout Europe and in North America (2014) provides true hands on perspective as to this overall service offering.

CHAPTER THREE

Invoicing, E-Invoicing & Outsourcing

3.1 Literature Review

A literature review is an account of what has been previously published on a specific topic by accredited scholars and researchers. The literature throughout the entire project provides a high level overview as to the benefits Canadian businesses will appreciate by implementing an E-Invoice solution by partnering with a MSP.

3.2 Manual versus Automatic Processes

Chapter Three will illustrate the processes involved with traditional and electronic invoices and provide a brief description as to why businesses seeking to implement this solution should consider this portion of their business as a BPO opportunity.

3.3 The Traditional Invoicing Process

An invoice is a document that identifies the goods and/or services provided by one party, the seller (issuer), for another, a buyer, that has yet to be paid for (University of California, 2013). The information contained on the invoice generally includes the contact details of both parties, agreed upon price, quantities of the goods and/or services sold, terms of sale (when the payment is due), and usually a purchase order (PO) number supplied by the buyer (Brigham et al, 2011). The traditional manual process is becoming archaic and obsolete as the world moves

toward a digital automation, wherein online communication and transactions are made instantaneously. This subsection looks at two of the challenges associated with traditional invoicing, costs and time.

Manual invoice processing takes a tremendous amount of time. For instance, many organizations have clear, step-by-step processes related to the handling of their invoicing. For example, Massachusetts Institute of Technology's (MIT) Accounts Payable (AP) invoicing procedures contain upwards of 19 steps (MIT 1999). The invoicing process begins when one of MIT's suppliers issues a paper-based invoice and mails it to MIT through the post-office, and it eventually arrives at MIT's AP department (MIT 1999). The invoice is then organized by the AP department into various categories and, according to the issued PO, is then sent to the appropriate division for verification (MIT 1999). If everything related to the invoice is correct, it is approved by the division who issued the PO via signature, at which point it is returned back to the AP department where it is manually entered (posted) into their accounting system and prepared for payment processing (MIT 1999).

The timelines for a step-by-step process like the one described above can take several weeks, commencing when the supplier mails the paper invoice to their client's AP department and the client actually makes the payment and does not take into account discrepancies or errors related to the invoice, all of which further prolong the invoicing processes (Koch 2013). Delays negatively impact the supplier's cash flow as their Accounts Receivable (AR) turnover rate decreases as cash reserves diminish while increasing the buyers AP liabilities amount with inflated numbers (Brigham et al, 2011; Kothari & Barone, 2006).

This leads into another problem associated with traditional paper based invoicing processes which is costs. Various reports have identified the costs of manually processing a supplier's invoices ranging anywhere between US $10 to US $35 per invoice or higher (Controllers Report 2013; Rauen 2013; Subramanian et al 2009). For example, manual entry associated with key stroking critical information from the hardcopy (paper) invoices into the company's accounting system is the most labour intensive component, yet it yields the least value throughout the entire process. The other steps that have significant costs are related to the verification of invoices, the actual printing of the invoices, dealing with discrepancies, and processing the invoice for payment—printing cheques, envelopes and applying postage for mailing the payment. These aspects of the manual invoicing processes are reasons why companies are searching for ways in which they can drive efficiencies within the accounting departments (Rauen 2013; Subramanian et al 2009).

3.5 Electronic Invoicing (E-Invoicing) Process

Surveys conducted by the Aberdeen Group have discovered, not surprisingly, that the majority of pain points within accounting departments revolve around their heavy paper-based processes (Controllers Report 2013). Among these were:

- Inability to thoroughly view invoices and AP documents (45 percent of respondents);
- Difficulty finding or managing paper-based documents (39 percent);
- Inability to effectively manage case according to current business needs (19 percent);
- Risk of payment-related fraud (13 percent); and
- Challenges in handling high amounts of supplier inquiries (12 percent) (Controllers Report 2013).

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The solution that addresses many of the above mentioned pain points is E-Invoicing, "the sending, receipt and storage of invoices in an electronic, [tax compliant,] format without the use of paper-based invoices" (Koch 2013). This electronic format is essentially a data stream containing all the relevant information found on a traditional paper-based invoice, such as the agreed upon price, quantities, terms of sale surrounding the goods or services acquired and PO. The information is automatically transferred in a format, such as .xml, from the issuer's (the seller) AR system seamlessly into the receiver's (the buyer) AP system making the invoice ready for payment with virtually no manual steps being required (Harold & Salmony, 2010; Kivijärvi et al, 2012; Koch 2013).

E-invoicing eliminates several steps and costs found in the traditional paper-based invoicing process, including manual entry, time delays with approval from appropriate departments, PO verification, discrepancy resolution and printing and mailing (Exhibit 3). Moreover, at the conclusion of the data transfer, confirmation and approval from the receiver, E-invoicing enables the buyers AR department to issue a payment through electronic funds—known as Electronic Invoice Payment (EIP). Electronic information is processed automatically because of a series of approval processes that are programmed into the software enabling data to be processed quickly with little, if any, manual intervention required. Though this plays an integral part of the E-Invoicing solution, this area falls outside of the scope of this project.

The first type of E-Invoicing goes back to the 1970s when organizations exchanged data by a point-to-point system. The infrastructure to support the transmission required a significant

investment by both parties and thus was generally used by government organizations or large, global enterprises (Hallikainen et al, 2009; Kivijärvi et al, 2012). As the industry began to grow throughout the 1980s, the United Nations rules for Electronic Data Interchange for Administration, Commerce and Transport (UN/EDIFACT) established the International Organization of Standardization (ISO) 9735 which created benchmarks and provided support for Large Enterprises (LE), to adopt this expensive technology (Hallikainen et al, 2009; Kivijärvi et al, 2012; UNECE 2012). The push for e-invoicing solutions in the new millennium started with a handful of organizations, primarily from the government/public sector, in the European Union (EU). Rapid adoption was triggered by government legislation and played a critical role with respect to how quickly E-Invoicing was embraced by the private sector which allowed new businesses to emerge that brought with them innovation through technologies to support this new industry (Koch 2013).

Since 2000 E-Invoicing has gained tremendous popularity and is viewed as necessary technology, especially with the countries within the EU, Latin and S.America and emerging countries such as BRIC (Brazil, Russia, India and China). In contrast, the vast majority of organizations in North America had not fully embraced an E-Invoicing solution for themselves until recently for a number of reasons (Koch 2013). A brief description of a typical E-Invoicing workflow is provided below with a more detailed version demonstrated in Chapter 8.

1. The supplier uploaded an invoice to the secure portal managed by the MSP, using a choice of transmission methods.

2. The buyer is alerted as the portal automatically sends an e-mail informing them that a new invoice has been posted and requires action

3. Data interchange enables the buyer to export data into their accounting system; while available reports allow the supplier to see if the buyer has viewed or processed the invoice.

   - Administrative checks – to confirm the presence of standard details required to approve the invoice

4. Workflow functions are completely customizable and will alert appropriate users when an invoice is ready for review or approval.

   - Disputes are avoided as the portal enables automated and free format exchange of information between buyers and suppliers streamlining the approval process even with situations where two or more approvals are required for large invoices.

5. Portal allows the buyer and supplier to exchange additional financial information through secure messaging - including purchase orders, statements, order confirmations, quotations and remittances

   - Matching and reconciliation – if your system generates a purchase order, this matches the order to the invoice and highlights any discrepancies

6. A complete historical record of every transaction and user-event creates a clear audit trail

7. Portal provides up-to-date accurate data designed to give both the buyer and supplier clear visibility to financial records – assets and liabilities

8. Digital Archiving occurs automatically as all data sent to the portal is stored for the minimum period to satisfy regulatory/ legal requirements (RBS, 2013).

3.6 Levels of E-Invoicing Within a Business

There are different levels (or stages) that describe where a business is at with respect to E-Invoicing scale (Exhibit 1):

Level 1 – Manual:

An organization at this stage of the evolution has not adopted any form of E-Invoicing processes. All steps for processing an invoice are manual and take a significant amount of time (up to five weeks) as POs need to be confirmed and mistakes are made often (Capgemini 2012).

Level 2 – Scanning:

The next step on the invoicing evolution path is when a business begins scanning hard copy invoices into digital files enabling easy viewing and reprinting. Similar to the manual process required when receiving an invoice attached in an email. The PDFs are often printed and then rescanned into an OCR format (Capgemini 2012).

Level 3– Portal

The process wherein a website is set up by 'Company A' that provides clients and suppliers access to log on to view all invoices and download accordingly. The invoice is entered by the supplier in the portal and from there it gets imported into 'Company A''s accounting (AP) software (Capgemini 2012).

Level 4– Electronic Data Interchange

This step is where a business begins appreciating the benefits from an automated E-Invoicing solution. Each supplier creates the invoice in their own system and sends the information electronically to 'Company A''s system without any manual intervention. It is ideal for processing high volumes of supplier invoices and data transfer can be done in a variety of formats, Comma-Separated Values (CSV), Electronic Data Interchange (EDI), XML, iDOS, etc. The down side with this step is that it requires 'Company A' to have a precise connection set up directly with each supplier which convolutes the IT landscape (Capgemini 2012).

Level 5– Managed Service Provider Platform

This is the step in which a hub (platform), managed by a third-party, is established between 'Company A' and each of its suppliers. 'Company A' does not require the direct connections with each of its suppliers as it does in Level 4; rather it requires one secure connection with the MSP. This step provides flexibility to both parties as suppliers are able to send invoices in a variety of formats and the system automatically processes the invoices to the payment stage. If a supplier, however, has multiple customers using different MSPs, the supplier needs to create a secure connection to each hub/ platform (Capgemini 2012).

Level 6– 4-Party Model

This is the step where the supplier to 'Company A' is also using a MSP to manage its own E-Invoicing solution. Thus, the two MSPs create secure connections with one another and based on the SLAs created; handle any issues that may arise with conflicting data delivery formats. This

step ensures both 'Company A' and its supplier require one secure connection—to their own designated MSP (Capgemini 2012).

Level 7– Self Billing

The ultimate solution for a 'Company A' would be to create the invoice on behalf of its supplier. An example of this would be when 'Company A' and its supplier have made agreements with respect to the cost of the goods and services received each month. 'Company A' would essentially inform the supplier of the goods and services it delivered and what payment the supplier will receive. This step benefits the supplier because the payment is received very quickly with very little month-end reconciliation required. This solution requires strict compliance by both parties and requires additional rules and proper control mechanisms be established (Capgemini 2012).

It is important, to note that most companies may not use only one solution; rather it may use a variety based on several internal factors such as AP size and overall evolution plans. It is evident that the higher level 'Company A' is at, the more automated their AP/AR invoicing process is, and the greater cost savings and higher efficiencies they are appreciating (Capgemini 2012).

3.6 Business Process Outsourcing

Business Process Outsourcing (BPO) the contracting of non-core yet, critical internal business functions, to a MSP either domestically or internationally, has been around for over 50 years and has gained additional traction over the last ten to fifteen years (Dessler, 2011; Namasivayam, 2004). This growth is evident by the fact that in 2012 alone, businesses invested over $309 billion on Managed Services activities including, but not limited to, finance and accounting, human resource management, customer services (call centres), print and document management services and outside legal counsel. This number is expected to increase by 25% in 2014 (Lacity & Wilcocks, 2013).

Organizations outsource business-critical processes to MSPs to appreciate potential, long term cost savings and higher efficiencies brought out by the MSPs established best practices and expertise (Exhibit 2). Moreover, by freeing the company from otherwise non-core business processes, resources can be deployed to generate additional revenue streams/opportunities that otherwise may not have been discovered due to previously inefficient deployment of resources (Keogh 2012, pg 3). Less than a decade ago, the thought of outsourcing E-Invoicing solutions to a MSP was considered to be a "nice to have" option reserved for LE, and not something SME's could do (Koch 2013). However, with increased competition, the significant growth (and ease of use) of technology, and an unstable global economy, this "nice-to-have" option is becoming more and more of a mandatory requirement for all businesses alike to drive cost savings in order to stay competitive and retain customers (Koch 2013).

With respect to implementing an E-Invoicing by partnering with a MSP, this study takes the perspective that the service offering will be provided to the outsourcing business through a concept known as Software as a Service (SaaS). According to the global IT research firm Gartner, SaaS solutions are becoming attractive alternative to in-house applications as SaaS solutions provide the same functions as an in-house system, but are accessed remotely by the customer as the systems are owned and maintained by the MSP. SaaS solutions are becoming more popular because of 1) the lower total cost of ownership as business are charged on a per use basis along with a minimal monthly management fee and 2) the rapid deployment, as a SaaS solution, depending on the required customization, can be accessible to the end users within a matter of days, with little or no client-side software installation or configuration required (Ricoh, 2013). SaaS solutions provide data centre facilities and services. MSP data centres (data warehouses) are typically designed and built for the purpose of running large computer systems and storing vast amounts of data for a large number of customers. As will be discussed further in Chapter 7, the MSP is responsible for maintaining systems and protecting the data from loss, corruption, or unauthorized access while ensuring that the data storage remains safe and secure by providing both physical and data/network security.

CHAPTER FOUR

E-Invoicing Around the World

Chapter Four will illustrate how the E-Invoicing trend has emerged in the Europe over the last decade and where the adoption rate is within Canada and the US today.

4.1 E-Invoicing in Europe

"With less than 10% of the invoice market having been converted to E-Invoicing, replacing the majority of paper-based (inbound and outbound) invoices with an E-Invoicing solution, the saving potential for the EU's public sector would be at the very least, 40 billion euro (Koch 2013)."

In most developed countries (DC), paper/hardcopy invoices represent approximately 16–30% of all addressed letter-mail volume, whereas, in less developed countries (LDC) this number is only 8 – 15% (Koch 2013). Experts, like Koch, believe that the number of paper/hardcopy invoices will increase globally, each year by 2–3% for three reasons:

1. Growing population – increases the number of households and businesses within a country;
2. Supply side strength – suppliers issue invoices immediately after a delivery eliminating the processes in which monthly or bi-monthly invoices are issued;
3. Local law requirements – governments mandate invoices be issued within 15-30 days of goods or services being delivered/performed.

The largest EU producer of invoices is the public sector, as 45–65% of all companies are "… a supplier to the public sector and thus issue invoices to it, while 100% of all enterprises and households receive invoices from at least one organization of the public sector (Koch 2013)." Traditionally, public sector organizations are usually laggards when it comes to technology, yet the high adoption rate of E-Invoicing within the EU, was a result of the high level of engagement brought on by the public sector (Koch 2013). Initiatives taken by members of the EU have included the European Commission which has launched the PEPPOL (Pan-European Public Procurement On-Line) initiative, in which public administrations of multiple member states participate to promote electronic communication between enterprises and public authorities (Harold and Salmony 2010). PEPPOL includes a work stream on electronic invoicing which aims to enable economic operators, with special attention to SMEs, in any European country to send invoices electronically to any European awarding entity (Harold and Salmony 2010).

The EU's public sector is leading the way with respect to adopting E-Invoicing; since 2005 paper invoices have been becoming less prevalent as governments have begun requesting invoices be delivered through E-Invoicing. Though exact numbers illustrating the actual reduction of paper based invoices were not able to be confirmed, the cost savings reported by EACT supports this statement;. both the governments of Denmark and Finland have reported savings of at least €3.2 billion since 2007 (European Commission, 2007; Graham 2013; Harold and Salmony 2010; Koch 2013). The governments of Italy and Spain have followed suit and have also mandated that they would only accept E-Invoices from their suppliers and will be issuing E-Invoices to their clients as of 2012 (Harold and Salmony 2010). This demand has opened the door for businesses to begin providing E-Invoicing services to both the public and

private sector; as of 2013, there were over 550 E-Invoicing MSP in Europe, up from 400 in 2010. Most of these MSPs specialize as either E-Invoicing MSP for either inbound (AP) or outbound (AR) services, or target either the B2B or the B2C market segment. Some of these, like Ricoh Europe, a division of Ricoh LLC, are bridging their technology from Europe to support growth within Canada and the US (Harold and Salmony, 2010; Koch 2013).

Though the benefits of implementing an E-Invoicing solution are plentiful, as discussed above however, as with any new technology or service the adoption rate has been slow due to a lack of standardization over the last few years (Dessler, 2010). To mitigate this, agencies such as EESPA (European E-Invoicing Service Providers Association), the UK National E-Invoicing Forum (UKNeF) and the PEPPOL were created to make it easier for European businesses to transition to E-Invoicing solutions and to work more efficiently with the EU's public sector (Caldwell 2012). The success within the EU governments points to the idea that both Canadian businesses and government will save money by implementing an E-Invoicing workflow solution into their accounting department. This savings will contribute positively towards helping public and private sector organizations balance their budgets (Cohen 2009).

4.2 E-Invoicing Surveys in North America (US & Canada)

To date, research on the global E-Invoicing market is limited, and is even more scarce with respect to North America (NA), which lags behind the EU and S. America who adopted the solution over a decade ago (Paystream 2013). The good news is, however, that the NA adoption rate for E-Invoicing solutions is increasing as companies continue searching for ways to transition from manual paper-based (including PDF) workflows to automated solutions that will

result in cost savings and increase productivity (Canadian Manufacturing 2011; Paystream 2013). Surveys conducted with executives from the private sector have shown a growing interest in automating the workflows within their accounting department by partnering with a MSP as a SaaS solution (Paystream 2013; Turban et al 2013).

One such survey, aptly named The E-Invoicing (2011) Survey, illustrated increased adoption rate in which, of the 355 businesses from NA surveyed, only one-third had not used E-Invoicing, down from the 58% reported in 2010 (Canadian Manufacturing 2011). The majority of respondents revealed that there existed challenges in sending and receiving paper-based invoices related to time spent for data entry, scanning invoices, dealing with discrepancies, getting approvals, and tracking misplaced invoices (Canadian Manufacturing, 2011). In fact, 76% of the respondents who have used the very basic form of E-Invoicing, PDF based invoices, indicated that they open the PDF and then print it onto a paper in order to process them (Canadian Manufacturing, 2011).

All companies surveyed agreed that speeding up the invoicing process and reducing costs were the main reasons they would adopt an E-Invoicing solution. Others indicated that the true benefit is that E-Invoicing allows for relevant information (metadata) to be captured electronically from invoices and be imported into an organization's accounting and management systems, which enables the management team to have clear line of sight to their financial position leading to improved cash flow management (Brigham 2009; PayStream 2013). Therefore it is clear that Canadian businesses would definitely benefit from implementing an E-

Invoicing workflow solution from both efficiency and cost saving stand points, and that the implementation represents an opportunity that will directly impact the business's bottom line.

Moreover, the findings from these surveys signifies that that the U.S. may no longer considered be in the "early adoption phase" of E-Invoicing as the market has grew 13 percent a from $280 million in 2012 as over 70 percent of the companies surveyed have begun having serious discussions as to how best to implement it (Graham 2013; Koch 2013). This trend is a very good sign, as this will help support the adoption rate within Canada, especially with multi-national corporations. For instance, if a MNC like McDonald's begins using E-Invoicing in their headquarters in the US, it will be only a matter of time before the same technology will be launched at McDonald's headquarters in Canada, albeit through a Canadian MSP.

One major consideration that must be taken into account when analyzing the survey results from the US is the fact that the US does not have a nationwide VAT (Value Added Tax). Instead it still relies on the state sales tax system (Koch 2013). The US is presently one of only eleven countries in the world that has yet to adopt some form of VAT, thus businesses in the U.S. do not consider supplier invoices to be any different from other documents and therefore, they are not concerned about paying/tracking taxes that must be paid to the government (Koch 2013; O'Brien 2009). Canada's VAT, the Goods and Services Tax (GST), and was introduced by the Federal Government in 1991 at 7%. This lack of need to track taxes has negatively impacted the adoption rate within the US therefore, the adoption rate within Canada should be higher than the US in the years ahead (Government of Canada, 2012; Koch 2013).

Research from the EU and SA continents have shown that in order to have successful implementation of digital payment processes, including the adoption of E-Invoicing, government involvement from a leadership and champion perspective is critical (Government of Canada, 2012). The billions of Euros saved by the EU are not isolated to that continent, countries such as Brazil, Chile and Mexico have experienced similar cost savings since implementing E-Invoicing within their government organizations, and then rolling it out to the private sector (Graham 2013; Paystream; 2013). An interesting observation is that in the EU, the European commission is pushing public sectors to embrace E-Invoicing for efficiency gains whereas, in parts of S. America, E-Invoicing is being mandated to maximize tax collection because of the simplicity E-Invoicing has on VAT collection (Paystream 2013).

4.3 Present Invoicing and Payment Methods in Canada

Canadians have a tendency to quickly accept and utilize online services. 80% of Canadians have had access to the internet since 2011, and by 2015 broadband will be available to all Canadians (Government of Canada, 2012). In 2010, the Canadian government established the Task Force for the Payments System Review (TFPSR) to evaluate Canada's present payment system, including E-Invoicing, to understand how it compared on a global level with respect to efficiency and innovation (http://www.fin.gc.ca). TFPSR drew knowledge from citizens, payments experts, consumer, retail and small business groups from the private sector and organizations from all levels government.

TFPSR concluded that unless the system changes quickly and dramatically, Canadians may succumb to a lower standard of living as they may not be able engage in a global "digital" economy (Government of Canada, 2012). The main reason why we still rely on old-fashioned methods of payment such as cash and cheques is "because no viable alternative has been priced and promoted in such a way making it attractive to use (Government of Canada, 2012)." Canadians are forced into using an archaic system because the major banks and other key institutions have developed their infrastructure built around a cheque-based payment system. This system not only requires manual processing, it also excludes new entrants with innovative technologies from the market (Government of Canada, 2012). Nearly 60% of the one billion cheques that are written and processed annually in Canada are issued by the government and businesses. It is important to note, that financial institutions do offer electronic payments/funds transfers however, they charge users upwards of $1.50 per transaction which inhibits people from using this technology service more (Government of Canada, 2012).

Canada's financial institutions are hesitant to invest in digital processes because they are unsure of the benefits of a digital process, even though studies indicate that by shifting from the manual paper (cheque) based system to a digital one, the financial sector, will save over $600 million annually by 2020. One example of this is seen with the Nordea Bank in Finland where they reported that by implementing a digital process, like E-Invoicing, it dramatically reduced its costs while discovering additional revenue streams (Government of Canada, 2012). Moreover, the findings also illustrated how a modern digital payment system, encompassing E-Invoicing, would help Canadian businesses (and government) save over $32 billion, 2% of Canada's GDP

(2012), through productivity gains alone while increasing security for consumers and businesses alike (Government of Canada, 2012).

4.4 Canadian Government and E-Invoicing Adoption

Research published by Capgemini based on findings from the EU members, demonstrates that all levels of government benefit from the implementation of E-Invoicing solutions as some EU members have reduced costs by as much 75% by simply removing paper invoicing from government services (Government of Canada, 2012). With push for balanced budgets, investing in E-Invoicing solutions across all branches of government will lead to long term, measurable cost savings that can be then allocated to other social programs while reducing taxes. Experts caution however, that implementing an E-Invoicing solution into any LE or government organization is an elaborate undertaking as no two businesses are alike, nor is the public sector a homogenous system with no road blocks (Koch 2013). Examples from the EU and S. America have proven that though E-Invoicing implementation is challenging but government involvement is the most critical component.

Therefore, the Canadian government needs to follow the examples of governments in the EU and S. America by mandating through legislation, that all suppliers and benefit recipients adopt an E-Invoicing and payments (EIP) solution (Government of Canada, 2012; Koch 2013). To ensure a successful deployment should definitely leverage and follow a similar model to the E-Invoicing model used by Canada Post, and described in chapter 8, which as of this writing, has over 8 million users registered for E-Invoicing, whether they are a supplier of goods and services

or if they are a customer using the various services. This should not come as much of a surprise as the recent letter mail rate increases incentivized users to register (Koch 2013).

Though it is clear that there are several immediate benefits that businesses within Canada will appreciate by implementing an E-Invoice strategy, the behaviours of Canadian consumers and businesses need to change vis-a-vis the traditional AP/AR processes (Government of Canada, 2012). Canadians are technology savvy, as evidenced by their rapid adoption of online shopping through smart phones and tablets, along with near-field communication payments (tap, or proximity) therefore, adoption by Canadian businesses will happen quickly.

Of the many reasons why the Canadian government should being advocating an E-Invoicing solution is because of the potential impact it has on present and future international trade agreements. By the year 2020, all EU countries will have been mandated to have implemented E-Invoicing and will be expecting all partners to have the same capabilities (Chatfield 2013; Koch 2013). This should concern Canadian businesses, especially for those businesses looking to secure contracts in the EU (or S. America), because if 'Company A' is awarded a contract with a business in the EU and subsequently issues an invoice without using E-Invoicing, there is a serious risk of not being paid in a timely manner (Chatfield 2013). For instance, if the invoice, from Company A is received as a PDF or as a paper document, it can only be processed manually by the AP department and will take more time to be processed (Chatfield 2013; Koch 2013). With Canada relying heavily on exporting its abundance of natural resources, such as oil, it is critical that the Canadian government begin investigating and investing into E-Invoicing platforms to ensure it does not fall behind other international

countries. This is one example of the many ways Canadian businesses may be left behind if an E-Invoicing platform, directed and led by the Canadian government, is not created sooner rather than later.

CHAPTER FIVE

E-Invoicing In Action

5.1 Examples of Successful E-Invoicing Solutions in the Market

Since E-Invoicing is an emerging trend with only 20% market share in some countries, in a globalized market, it is still in its infancy stage (Koch 2013; Kotler 2008). Countries within the EU, S. America and emerging markets like India, have quickly embraced this new technology. The following section consists of three case studies that demonstrate the benefits the company's gained from implementing an E-Invoicing solution through a MSP.

5.2 Multinational Sportswear Manufacturer

A MNC manufacturing and distributing sportswear partnered with a MSP to support its invoicing process upon discovering that nearly $5 million of its annual operations budget was dedicated towards managing its world-wide paper-based invoicing and statement workflow (Keogh 2012). Upon being awarded the contract, the MSP evaluated the entire invoicing process in each of the countries the MNC was operating. At the conclusion of the discovery process, the MSP recommended outsourcing the entire invoicing process "…from receipt of transactional data … to the delivery of the invoices… (Keogh 2012)." As part of the agreed upon solution, the MSPs developed a web portal in which the sportswear manufacturer's clients would be able to download invoices directly into their own systems and issue payment (Keogh 2012).

The MSP also identified other areas in which the sportswear manufacturer would be able to appreciate additional value adds from implementing an E-Invoicing solution. One such benefit was by developing a system in which the sportswear manufacturer could to do cross-promotion within its client base simply by customizing (personalizing) messages found on the invoices, producing a true one-to-one marketing scenario with each of its 400,000 clients (Keogh 2012). This provided the sportswear manufacturer the opportunity to create additional revenue streams with little additional investment (Keogh 2012).

As a result of partnering with a MSP to implement this E-Invoicing solution, the sportswear manufacturer has had nearly 80 percent of its customers choose to receive invoices electronically (Keogh 2012). By reducing the billing cycle to two days, the company also benefited from improved cash flows as cost associated for the invoicing process reduced from $5 million down to $1.4 million annually, a savings of over 70% (Keogh 2012).

5.3 Stena Line Freight

Stena-Line Freight (SLF), a division of the Stena Group, is a pan-European sea freight company comprised of 34 ferries travelling through 18 routes (Whybrow 2007). Searching for cost saving solutions during the recession of the mid-1990s, SLF sought an established MSP to outsource its invoicing business processes. Working together as partners, SLF and the selected MSP found that in order to derive the most benefit from outsourcing invoicing processes while still being flexible in the future, E-Invoicing was the optimal solution. David Byrne, the sales

support and marketing head for SLF stated that '...we knew at the end of the day, what the customers really wanted was e-invoices' (Whybrow 2007).

In order to do this correctly the first time, SLF and MSP invested tremendous resources and upwards of twenty-four months to ensure the E-Invoicing platform was developed correctly, as the opportunity window to ensure customers saw the benefit of the solution was very tight. Byrne accurately illustrated that E-Invoicing is a type of solution "... that if you get it wrong in any way, they [the customers] will switch off completely and never go back" (Whybrow 2007). In order to ensure the system was developed correctly, part of the development process involved the MSP consulting directly with SLF's customer base to discover exactly what they required. Needless to say, because this particular system works by downloading an invoice from the SLF website directly into the customer's CSV spreadsheet (similar to files stored in Microsoft's Excel), it required testing to ensure each identified column of the spreadsheet was capturing the correct information (Whybrow 2007).

Once the system was ready for full scale system trials, a select group of customers of SLF were selected to pilot the system prior to the official launch. Though there was initial reluctance, as would be expected for a system change of this magnitude, feedback was positive (Whybrow 2007). At the end of first year, SLF reported that 46% of all of its invoices were submitted electronically, which is remarkable on its own, but also illustrates the appetite that exists in the market place for E-Invoicing. Moreover, Bryne explained how SLF has not had "...one single customer ask to go back to paper ... because we took our time with the product and didn't rush out something that was inferior" (Whybrow 2007).

Since the system's launch in late 2006, SLF customers have provided positive feedback about the benefits they have derived since adopting the E-Invoicing solution, from further efficiencies, to reduced workload resulting in administrative burden related to manual data entry errors. This is especially true when evaluating how quickly inquiries are being resolved. What would have historically taken days or weeks to resolve is now being answered in minutes, which means there is no delay in payment. This enables SLF to have a lower AR and provides additional savings if invoices are paid within "15 days" for instance (Whybrow 2007).

5.4 Dalkia Energy Service Provider Company

Dalkia, Europe's leading energy service provider, operates in 42 countries, employing 50,000 people, which collectively manage more than 100,000 energy facilities throughout the EU. In partnership, Dalkia develops a customized solution that lowers operation costs, cuts emissions and increases productivity for its clients. Dalkia's Spanish operation has grown significantly creating challenges within their accounting department due to the increased number of invoices being processed on a monthly basis.

As with most companies that grow quickly, the manual processes within the accounting department become a bottleneck in the overall workflow of an organization. On average, Dalkia was processing over 10,000 invoices on a monthly basis with each invoice requiring an average of 5 minutes to process — nearly 800 man hours — the equivalent of 3.5 full-time employees. Realizing the constraints this was putting on the accounting department, Dalkia searched for a

MSP partnership that would enable Dalkia to free up resources and save money by outsourcing this business critical process and that would be scalable for anticipated future growth.

Dalkia chose Ricoh Europe's i-Invoicing™ (E-Invoicing) solution. It provided a flexible approach that encompassed a customized solution that processed all invoices for Dalkia and converted them into "an easily managed electronic format" (Ricoh Europe 2012). Ricoh, a $26 billion, global technology company, has been providing a variety of outsourced managed services for companies throughout Europe for over 25 five years. With managed service facilities already in place, Ricoh was able to seamlessly accommodate the Dalkia requirements in its facility in Madrid, Spain.

Ricoh Europe's E-Invoicing solution begins with 'Company A' sending invoice data from their ERP systems to Ricoh's E-Invoicing (i-Invoicing) Cloud (Exhibit 5 & 6). Ricoh then processes the data into invoices that are sent to each of 'Company A's' customers in the format they prefer, xml, iDOCS, PDF, paper (letter mail), email, etc. The process also works in reverse, in which Ricoh captures invoice data issued by 'Company A's' suppliers, whether it is in paper (letter mail), fax, xml, PDF, etc and then uploads the electronic data back into 'Company A's' ERP or accounting software (Ricoh 2013).

Within the service centre, Ricoh implemented a workflow process specifically for Dalkia which included the following:

- Receive all supplier invoices;

- Scan invoices into digital format;
- Capture all relevant metadata information—supplier name, invoice number, data, value and PO;
- Recording all invoice data; with missing values manually verified;
- Original invoices are scanned and archived in Ricoh's E-Invoicing Cloud;
- Upon capturing the data, Ricoh then uploads the data to Dalkia's accounting software;
- Finally, an automated acknowledgement is sent to the supplier.

This end-to-end process increases productivity, as Dalkia employees are able to spend time on processes that are more in line with Dalkia's core competencies. Moreover, it also eliminates human errors and ensures invoices are accurately recorded within 24 hours of receipt. In addition this provides Dalkia management with a precise and up-to-date record of liabilities.

Furthermore, the automated acknowledgement of invoice receipt to the supplier has virtually eliminated all supplier calls, while digital copies hosted in Ricoh's E-Invoicing Cloud enables enquiries to be addressed quickly and efficiently. Ricoh is the only E-Invoicing MSP to be certified ISO27001, the highest standard for information security globally, thus the secure back up provides Dalkia instant business continuity in the event of disaster.

In short, upon outsourcing this manual business critical process, Ricoh helped Dalkia save upwards of €200,000 annually, equivalent to 3.5 full time employees. As Dalkia's business grows, Ricoh's solution is fully scalable and Ricoh can support the growth, thus eliminating the need for Dalkia to increase headcounts.

CHAPTER SIX

Discussions & Findings

6.1 Benefits of E-Invoicing

This chapter will further explore the main benefits Canadian business will appreciate when an E-Invoicing work flow solution by partnering with a MSP within their accounting department, in particular, savings and higher efficiencies and increased productivity.

6.2 Savings

The most important benefit E-Invoicing generates is savings. As mentioned in previous chapters, various studies have reported that the costs of processing an invoice manually can range anywhere from $10 to $35 (or higher) with the time taking to process being anywhere from two to five weeks (Controllers Report 2013; Rauen 2013). Essentially, the more paper and manual steps involved in the work flow, the higher the costs and the more time involved. Industry experts, such as Bruno Koch, the leading European expert and the key driver behind's the EU's rapid adoption rate of E-Invoicing, claims that businesses will lower processing costs of each invoice to $5 — a savings of nearly 50% to 85% by implementing an E-Invoicing solution with a MSP (Koch 2013; Subramanian et al 2009). From a cost outlay perspective, pricing will vary from each service provider but generally speaking, most MSPs will charge a per-transaction fee, along with a monthly fee depending on the size of the invoice data being processed along

with the size and length of time data is being stored *(See Exhibit 7 for a sample pricing model)*.

These costs may range anywhere from $2/ invoice (received/ sent) to $35/ month per Gigabyte of

storage/ digital archiving (OB10 & Tungsten, 2012; Ricoh 2013). Though pricing is a critical

component of BPO and thus must be taken into account when an organization implements an E-

Invoicing solution with a MSP, pricing and costs were outside the scope of this project.

A 2011 study conducted by the International Data Corp discovered that 42.5% of all

business-critical documents, including invoices, being stored in hard copy form only (Keogh

2012, pg 1). As a result, today's offices are littered with bankers boxes and filing cabinets

stuffed with hard copy documents, including invoices, all of which have a cost associated with

them (Rauen 2013). For instance, a typical four-drawer file on average contains 10,000 sheets of

paper (2500 sheets per drawer), and takes up 9 square feet of space. With present day lease/rent

in Vancouver, BC being at record highs, the cost of having these scattered throughout an office,

adds up very quickly (Rauen 2013; Sutherland 2013). This does not even take into account the

time associated with retrieving or filing the paper.

This is very concerning, as these businesses are exposing themselves to unnecessary risks

if these documents were to go missing, let alone if they are exposed to elements such as flood,

fire or simply misplaced, or if their legal/tax back-up is lost (Keogh 2012; Rauen 2013). By

adopting an E-Invoicing solution, Canadian businesses will benefit from eliminating unnecessary

filing cabinets and will increase the amount of floor space that can be used businesses expand, or

be provided a business the opportunity to explore smaller office space which further improves

the bottom line.

It takes the on average 18 minutes to locate each document and upwards of $125 for each file that has been filed incorrectly (Sutherland 2013). These numbers do not take into consideration the costs associated if the missing file contains critical information related to a discrepancy, or has legal or tax implications (Rauen 2013; Sutherland 2013). Whereas, with an E-Invoice workflow process system, authorized users can simply log in and search for a particular invoice saving thousands of dollars over the course of year. In fact, studies have found that managers in the U.S. spend nearly the equivalent of four weeks each year searching for misplaced or lost documents (Sutherland 2013). The cost and time savings derived from implementing E-Invoicing with a MSP further strengthens the reasons why Canadian businesses should E-Invoicing eliminate paper (invoice) storage.

A third way Canadian businesses will save money by implementing an E-Invoicing solution by partnering with a MSP is related to faster invoice approval. With invoices approved for payment within one or two days businesses will benefit from early payment discounts such as "2% discount on Net 15 days," (Graham 2013; Koch 2013; PayStream 2013; Sutherland 2013). Conversely, a manual paper-based invoice workflow may take upwards of 5 weeks for an approval, meaning available discounts from early payments are seldom enjoyed, while being penalized for late payments can also occur. To put this into perspective, a 2% savings on $100 is only $2, but for a Canadian business whose AP department processes millions of dollars a year, that 2% savings will make a measurable impact on its profit margin and therefore its bottom line. In addition, by implementing an E-Invoicing solution for both its AP and AR department, businesses can also benefit from its customers who may also pay sooner which will improve its

AR turnover ratio (Brigham et al 2011; Graham 2013). Thus, Canadian businesses will appreciate savings from early payment discounts, while avoiding late payment penalties as, E-Invoicing will dramatically speed up their approval process.

Finally, by partnering with a MSP for an E-Invoicing solution, the outsourcing business is protected from the pitfalls related to a potentially costly, yet poor implementation. Businesses do not need to invest in systems that are not a true complement to their core business offering, as the MSP will shoulder this responsibility while ensuring continuous improvement based on agreed upon Key Performance Indicators (KPIs) and SLAs (Dessler 2011; Keogh 2012, pg 4). A MSP can accommodate conversion at the desired pace, with hybrid solutions that bridge the transformation from paper to electronic and the scalability required to respond to changing business conditions and an organizations budgetary constraints.

6.3 Higher Efficiency and Increased Productivity

Canadian businesses will also benefit from higher efficiency and increased productivity throughout their business by implementing an E-Invoicing solution through a MSP. Hannu Kivijärvi et al. al. categorize the benefits of E-Invoicing into two groups, 1) market opportunity, which are the developments occurring beyond the organization's control; and 2) unique opportunities that the organization of which has full control of (Kivijärvi et. al., 2012).

First off, by implementing an E-Invoicing solution by partnering with a MSP supports the concept of "Lean Thinking," whereby organizations seek to redesign workflow processes that

will lead to higher efficiencies and productivity by ability to reduce staff head counts within the accounting department (Dessler 2011; Harold and Salmony, 2010; Slack & Lewis 2011). The ability for an organization to operate with a smaller workforce while maintaining efficiency is critical particularly with an aging population within Canada and the US. Furthermore, by reducing headcount and becoming efficient when "times are good", layoffs may not be required during an economic downturn as the business will already be "lean" with respect to its operating costs such as labour (Dessler 2012).

Moreover, improving productivity requires working smarter with available resources and deploying them in such a way that will maximize the greatest return with the least amount of expenditure. E-Invoicing solutions supported by a MSP enable the outsourcing businesses to take advantage of information technology (IT) to perform BCP in more efficient ways as a partnership MSP supports a resource strapped IT and/or accounting departments while freeing up resources to be allocated towards the businesses' core competencies (Brynjolfsson, 1993; Lempinen & Penttinen 2009; Salerno, L. M, 1985; Subramanian et al 2009; Tallon 2000). An experienced MSP will help the outsourcing company overcome the roadblocks of inadequate time and resources while protecting ongoing revenue-generation and operational stability. One way this achieved is that with backups of all the data being archived on a portal, the outsourcing company has instantly has developed a Business Continuity Plan (BCP) whereby backups of all invoices are stored electronically in a secure facility and no longer only in hardcopy format. Thus, even the initial investment related to outsourcing this service can be justified as the benefits will be appreciated several times over (Aral et al. 2006; Dedrick et al. 2003; Netter & Pernul, 2010)

6.4 Additional Benefits Of E-Invoicing

Aside from cost savings and higher efficiency and increased productivity, Canadian businesses will also appreciate other benefits such as

- *Competitiveness* – The automation of the accounting processes improves the competitiveness of organizations by improving productivity and customer satisfaction (Harold and Salmony, 2010).

- *Improve Cash Flow* – Accurate financial view of outstanding payables and receivables provides the outsourcing company a true snapshot their business and use this information to plan short and long term cash-flow strategies. Reducing the "Days Sales Outstanding Ratio" (DSO), this is calculated by an organization's receivables divided by the average amount of daily sales. The higher the number, the longer the organization goes without receiving funds and reinvesting those funds elsewhere (Brigham et al, 2011).

- *Environment* – The adoption of E-Invoicing directly impacts the environment in a positive way by reducing the enterprise's carbon footprint by reducing the needs for printing, sending, storing and destroying paper (Harold and Salmony, 2010).

- *Organization Evolution* - Once adopted, organizations will move up the E-Invoicing evolution chart, as mentioned in the previous chapter, by partnering with a true MSP (Subramanian et al 2009). For example, companies that are at Level 2 Scanning of the evolution scale can leverage outsourcing and technology expertise of their BPO partners to move to, say a Level 5, a MSP Platform, very quickly (Subramanian et al 2009). By implementing an E-Invoicing solution, will be taking the first step in moving towards a completely automated (electronic) supply chain with processes called "Order-to-Cash" which drive further efficiencies and cost savings (Koch 2013; Lempinen & Penttinen 2009).

- *Cross Board Operations* – by choosing the right MSP, outsourcing companies can also have their subsidiaries and trading partners begin implementing this solution as well (Harold and Salmony, 2010; Subramanian et al 2009).

- *Real-time data delivery* – In addition to helping businesses appreciate improved payment terms from suppliers, outsourcing businesses will also have access to accurate data reflecting their invoice liabilities along with short term AR assets.

- *Eliminating errors and bottlenecks* – as per the infamous 80/20 rule, studies show that 20 per cent of invoices account for 80 per cent of the overall processing costs. With an automated workflow process, E-Invoicing seamlessly deals with issues such as invoices received with missing purchase order numbers.

- *VAT compliance* – domestic and international transactions processed through E-Invoicing solution will be VAT compliant enabling businesses to exchange financial documents electronically.

- *Security* – an experienced MSP's E-Invoicing solution uses the latest security measures (discussed in Chapter 7) such as encryption and digital signatures which ensures the outsourcing company that file was sent and not changed (Harold and Salmony, 2010; Subramanian et al 2009).

- **ERP Adaptability (AP/ AR)** – With over 10,000 accounting and ERP solutions available in Europe alone, very few providers, are able to integrate the E-Invoicing standards seamlessly with the clients ERP as a MSP can. From an AP Perspective, as invoices come in from suppliers (EDI, email, PDF, fax or letter mail) the MSP extracts the data and converts it into a table that will integrate with the clients ERP system with no additional formatting required. For AR solutions, the MSP will take a data feed

directly from the clients ERP system to produce an invoice (email link, PDF, EDI, or letter mail), and sent to their customer (Koch 2013, Ricoh 2012).

CHAPTER SEVEN

Concerns Users Have With E-Invoicing

7.1 Challenges of E-Invoicing Solutions

Though the benefits and reasons why Canadian businesses should implement an E-Invoicing solution with a MSP have been outlined and explained in previous chapters, it is important to understand some of the challenges that exist, and must be considered prior to implementing this solution. This chapter will illustrate some of the concerns users have when implementing this solution and have thus impacted the adoption rate.

7.2 Security

As mentioned in Chapter 3, many SME and LE's are turning to SaaS, like E-Invoicing, through a MSP, as they offer the same capabilities as an internal system, but at a fraction of the cost with virtually no internal IT involvement, minimal software requirements, capital, and on-going support costs incurred (Ricoh, 2013). However, it does not mean users do not have any reservations surrounding this solution. One of the biggest concerns companies have in regards to implementing an E-Invoicing solution with a MSP is around security (Yuan, 2013). Generally speaking, users are concerned about their data at three levels; is it safe, is it secure and is it accessible. Safe refers to the data being "physically protected from loss or corruption" from the creation point, transfer and resting spot (Ricoh, 2013). Secure means "only authorized personnel

inside or outside the customer's organization" access the data. Accessible means that the data "is available to authorized users whenever and wherever" they require it.

Furthermore, auditing standards such as the Statement on Standards for Attestation Engagements No. 16 (SSAE 16), and the Canadian Standards on Assurance Engagements (CSAE-3416) required the MSP to provide service reports on controls in addition to a written assertion by management describing its SaaS solution (Ricoh, 2013). Ricoh Inc, for example, is the only MSP that has achieved the highest level of security and data management with ISO27001 Information Security standard globally for their E-Invoicing solution (Ricoh, 2013). The following will illustrate five types of security MSP's provide.

First and foremost, the main characteristic of any SaaS solution, such as E-Invoicing, is that the application itself, the server hosting the portal, resides remotely away from the clients' site so data is continuously transmitted over a network, more often than not, the internet. Risks associated with the data being intercepted through transportation and used without the client's knowledge must be mitigated; one way is by encrypting the data. MSP's provide digital certificates ensuring strong encryption of all data as it is being transmitted back and forth between client and server. While encryption alone does not mitigate the risk of transmitted data from being intercepted, it does make the data unintelligible and unusable (Ricoh, 2013). In fact, Ricoh encrypts the data at the origin site at 128kb, converts to 256kb during transmission, and at the resting point is again at 128kb, indicating that there are three levels of encryption.

The second type of security relates to how the application itself ensures that data is accessible to only authorized users. For instance, any access to the application is restricted to individuals authorized by the client's administrator and must create a unique user name and password. Password policies will require a minimum number and combination of characters (upper/lower case, special characters, etc), will reject easily-guessed passwords and may force users to change their passwords after a given period of time. These policies reduce the likelihood of unwanted users accessing the system (Ricoh, 2013).

Thirdly, customizable options will be provided to define what levels of access each user has to any particular invoice or data. For instance, if invoices are being managed, everyone within the accounting department may have complete authority to create, read or edit the invoice while the director of accounting may be the only individual that can delete the invoices (Ricoh, 2013). Some advanced systems will provide multiple levels of access control to allow flexibility over each individual's level of access to each item of information being managed. In addition, Data and network security protect the stored data to prevent unauthorized access through network breaches or data corruption by viruses, worms, or other malicious means.

Fourthly, security from a physical aspect ensures that the data warehouse facility and the databases themselves are protected by providing power management, heating/ ventilation/ air-conditioning (HVAC), fire suppression, and Tier 1 (one) internet connectivity. In addition, security guards, cameras, biometric security with 24/7 surveillance prevents unauthorized access to the facility (Daya 2008; Ricoh, 2013; Turban et al 2013).

Finally, in addition to the encryption of the data through transmission, an MSP will have security around its Data and Network Security, which ensures each clients data will be protected from loss, corruption, and unauthorized access. Generally speaking, security protocols at this level include virus scanning, perimeter defense such as firewalls, detection/event logging systems, multi-tiered system that monitor potential threats and upon a security breach will take appropriate counter measures such as prohibiting access to the database and internal network.

7.3 Other Challenges of E-Invoicing Solutions

In addition to the challenges surrounding security, barriers around internal organization and supplier integration are two concerns that must be considered by Canadian businesses when implementing an E-Invoicing solution (Graham 2013; Puranam & Srikanth, 2005). With any process implementation that deviates from how things were done before, patience and strong communication between all parties is a necessary requirement and change management policies need to be applied as humans are creatures of habits (Dessler 2011; Freeman 2012; Krigsman 2008; Puranam & Srikanth, 2005). Realistically, this will cause immediate temporary setbacks as staff and suppliers get used to the new processes, especially with LEs who may have hundreds of employees within their AR/AP departments. It is critical that the MSP has experience and will be able to address these challenges to ensure minimal interruption from the first day of operation (Dessler 2011; Koch 2013).

Another challenge associated with implementing an E-Invoice solution is the fact that no two organizations are alike with each being at a different stage of development and technology implementation. In particular, many organizations are currently operating out-dated ERP systems

and may require additional infrastructure to ensure that a secure connection with the MSPs portal

can be made. As such, part of the SLAs, MSPs are expected to bring along established best

practices and resources that will enable the buyer to gain more visibility (transparency) across

the enterprise while providing, where possible, improve technology infrastructure (Freeman

2012; Johnson et al 2005). Thereby eliminating the outsourcing company's need to continually

invest resources to develop and maintain an up-to-date E-Invoicing solution that meets the needs

of today, and that can be expanded on in the future, is critical. By partnering with a MSP, the

outsourcing company is able to provide additional technological support.

Finally, a factor related to security and risk is that automation removes traditional,

human/manual, check/authorization points along the AP/AR process (Yuan, 2013). This will

inevitably lead to users becoming accustomed to a "false sense of security" in regards to the

accuracy of the invoices. In other words, if the information has gone through the automated

checks in place, it will be assumed it is correct.

7.4 Challenges Impacting the Adoption Rate

"[E]-Invoicing adoption isn't what it could be in the UK," says Nigel Taylor, chair of
UKNeF and head of E-Invoicing at supplier GXS. "The public sector has made some
inroads but in general it has not been taken up as well as it should be (Caldwell 2012)."

For the last decade, many business small, SME, and LE organizations around the world

have been searching for ways to drive efficiencies in their critical back end office processes, like

their AP/AR. For many reasons however, a vast number of organizations have resisted electronic

invoicing and continue to operate utilizing cumbersome and time consuming paper invoices (Paystream 2013).

Other reasons for the slow adoption rate of E-Invoicing have been attributed to:

- Internal and external resistance to change - the time the changes takes;
- Software needs to be adjusted to handle E-Invoices – hence partnering with a MSP is much more effective
- Fear. Despite the availability to partner with a MSP thus requiring 'Zero IT skills', some businesses will inevitably consider E-Invoicing not to be an easy solution
- Communication today is difficult as key stakeholders are busy writing and have very little time to read (Harold and Salmony 2010, pg 4).

Research conducted on both consumers and MSPs demonstrated that consumers have uncertainty, due to their limited knowledge base towards the benefits of E-Invoicing. In other words, MSPs need to do a better job of educating potential consumers about the benefits of E-Invoicing, and of convincing consumers that they themselves are credible, and that the infrastructure surrounding the technology is sound and reliable (Yuan 2013. Multi-national corporations, like Ricoh Canada, who are providing E-Invoicing services in Europe (see case study 3), have the ability to attract customers because of their strong brand awareness as opposed to smaller, unrecognized organizations, giving them a very strong foothold in the market.

CHAPTER EIGHT

Implementation

8.1 How Should an Organization Implement this Solution?

As mentioned in the early chapters, despite the recent increase in BPO growth, questions will always arise when it comes to outsourcing any new activity. Management will look to the MSP to address questions like "How can we outsource this process that is currently performed onsite and yet still have control and clear visibility to its process (Puranam & Srikanth, 2005)? Management understands that large in-house systems can take many months or even years to deploy whereas, SaaS solution can often be made accessible to the user within a few days, with little or no client-side software installation or configuration required. E-Invoicing solutions are usually started for one of the following reasons:

- External pressure stemming from suppliers and or customers;
- Internal pressures to reduce or contain costs;
- Strategic initiatives to improve automation;
- Quality improvement;
- Government regulations to reduce fraud and increase tax income.

To ensure a successful implementation support from the top down goes without saying, but a champion, an individual who takes charge of the implementation is required and are generally found from one of these divisions:

- Middle management;
- Accounting or Finance department;

- IT;
- Procurement (Freeman 2012; Koch 2013).

Upon weighing the benefits and challenges, it is evident that Canadian businesses will appreciate significant gains by implementing an E-Invoice workflow solution by partnering with a MSP. The next question that must be considered is how should they implement the solution (Kivijärvi et al, 2012)? Koch explains that developing a complete in-house solution should not be considered as a viable option because the high costs, security risks and the time required to plan, develop, implement, test, train, launch and maintain such a solution is considerable. Hence, Canadian business should seek a MSP that provides this service within Canada as there is no reason to "reinvent the wheel" (Koch 2013).

8.2 How to Choose a Managed Service Provider

Choosing the right supplier starts by defining what exactly the organization hopes to achieve with the overall solution (Kivijärvi et al, 2012). Canada's market place is full of MSPs that specialize in BPO relating to print services, scanning services, Cloud hosting, and ERP services (Keogh 2012). As demand for less labour intensive solutions, like SaaS, continues to grow and technology further integrates with business processes, the number of E-Invoicing suppliers will increase as well (Freeman 2012). So the next question surrounds how should 'Company A' should choose the best E-Invoicing MSP?

One selection method that has helped organizations choose the best partner is known as the Analytic Network Process (ANP) which is a methodology used in allocating proper MSP

providers for verticals such as IT, investment/ financial and ERP systems evaluation. ANP

begins first with defining the goal and the criteria, the sub-criteria and then finally the

alternatives (Kivijärvi et al, 2012). Developed in the mid 1980s by LT Saaty, this method helps

select the best MSP by evaluating each supplier through a series of tools, such as Request for

Information (RFI) followed by a Request for Proposal (RFP), then presentations by the short-

listed suppliers and more formal discussions (Saaty 1987; Yilmaz et al, 2011). An E-Invoicing

MSP should be selected based on the potential business value that could be generated not only

today but that will drive value in the future—as a true vested partner (Dessler, 2011; Kivijärvi et

al, 2012).

Once the MSP has been chosen, an evaluation process needs to begin to better identify

the inefficiencies within the present workflow process (Schoonhoven et al 2013; Dessler 2011).

Implementing automated processes like E-Invoicing requires the MSP to fully understand

'Company A', the way information is processed and managed, the phase of technology evolution

'Company A' is at, and finally what will be done with the data upon receiving it (Keogh 2012,

pg 1). The MSP must evaluate 'Company A''s situation based on the following questions for

both the AR/AP perspective including (Subramanian et al 2009):

- Are 'Company A''s suppliers and customers regular or one-time?
- Are the invoices for customers and coming from 'Company A' suppliers' high or low volume?
- Are the purchases from the suppliers and for customers prepared against a PO or are they non-PO supplies?
- Are the transactions with the suppliers or customers simple or complex in nature?

Identifying which of 'Company A's' present vendors and customers would benefit the most from an E-Invoicing solution is also not a simple decision either as transitioning these vendors require significant resources. The MSP must provide administrative support, training/education and possible system changes, and the latter may be a cost that is absorbed solely by the supplier company (Kivijärvi et al, 2012).

8.3 The E-Invoice Work Flow with a MSP

Generally speaking the workflow for ''Company A'' associated with E-Invoicing with a MSP would be as follows (Exhibit 4):

1. If 'Company A' is starting from a pure paper-based format, upon commencement of the contract with the MSP, the MSP will work with all the vendors and inform them that all paper invoices that arrive should be addressed to a secure facility operated by the MSP, making 'Company A' essentially paperless. The MSP will ensure direct integration into a customized secure web portal for 'Company A' and all of its suppliers and suggest they also utilize the E-Invoicing solution for its own suppliers (for a fee) (Ricoh 2013; www.ironmountain.ca).

2. Upon receipt, the paper invoices are opened, sorted, scanned into capture software and converted into electronic images while extracting pre-determined metadata. The metadata will then be transferred to the portal workflow process that operates as a SaaS solution (Ricoh 2013; www.ironmountain.ca).

3. For invoices that require PO verification, rules are programmed into the software that automatically processes these invoices as all PO's will be have been provided by

'Company A' prior too. Only exceptions are re-directed to 'Company A's' AP staff for manual approval (Ricoh 2013; www.ironmountain.ca).

4. For invoices without POs or require (additional) approval, customized rules are programmed into the software to route invoices to the appropriate users at 'Company A' for review and approval (Ricoh 2013; www.ironmountain.ca).

5. When the approval process has been completed, the invoice is automatically uploaded into 'Company A's' ERP system, ready to be paid, with no data entry being required (Ricoh 2013; www.ironmountain.ca). Regardless of the ERP system 'Company A' is running, SAP, Oracle, JDE, Microsoft Dynamics or PeopleSoft, the MSP providing the NOM "offer any-to-any-data formatting services" (Koch, 2013).

6. Scanned images are available for access based on the Service Level Agreements (SLA), for a pre-determined time, based on 'Company A's' audit/retention requirements, within the MSP's workflow repository. After which the paper invoice can prepared for destruction through secure shredding (Ricoh 2013; Turban 2013; www.ironmountain.ca).

8.4 E-Invoicing Managed Service Providers in Canada

With E-Invoicing being a relatively new technology in Canada, the present number of E-Invoicing providers are limited for SME and LE's to partner with; however those who are presently providing this service have tremendous experience (Government of Canada, 2012; Koch 2013). Presently, the larger MSP providers offering E-Invoicing service in Canada are Ricoh, IBM, Canada Post, and Iron Mountain, all of which began by providing the following services as well (Koch 2013):

- Print shops (invoice printing as third party service);
- AR and collection service;
- Postal Services;
- Scanning & archiving services;
- Electronic marketplace, procurement platform;
- ERP integrators;
- Software houses;
- Consultants;
- Digital signature service provider (Koch 2013).

The largest financial institutions are also able to offer these service to various segments of the industry, however this project does not look at their capabilities, rather it focuses on the existing MSPs and how by leveraging their services, SMEs and LEs will benefit through the adoption of E-Invoicing.

8.5 Types of E-Invoicing Solutions Available in Canada

This section briefly illustrates current E-Invoicing solutions being offered in Canada, in particular, the Supplier Direct: Opt-In/Out Model and the Network model (MSP). Koch identifies the six types of E-Invoicing solutions available today:

- Supplier direct model (in-house);
- Buyer direct model (in-house);
- Outsourced direct model: Software as a Service (SaaS);
- Network model (MSP);
- Hybrid model;
- Total invoice management (in-house or outsourced).

The supplier direct model is the most utilized model in Canada thus far, especially for LE organizations that operate in the Business to Consumers (B2C) market segment and issue a large amount of invoices to because by sending emails with their invoices attached as PDFs (Exhibit 3). The Opt-Out model is a perfect solution for large enterprises and has been adopted by those operating with a steady stream of both suppliers and consumers such as telecom, utility, credit and customer cards, and online services (Koch 2013). The Opt-Out model is basically when a LE implements E-Invoicing processes for its AP/AR workflow and essentially informs the relevant stakeholders, suppliers and consumers that after a particular date, all invoices will be exchanged electronically (Koch 2013). The primary type of data transferred through E-Invoicing is PDF invoices which do not contain data and are usually sent to the client's email address. Alternatively, the LE provides E-Invoices on its own portal and then customers can log in to view and/or download their invoices (Koch 2013). Those that choose to "opt-out" must inform the LE prior to this deadline. Many of these companies help their clients choose not to "opt-out" by charging a fee if they refuse electronic statements emailed in lieu of electronic PDFs (Yuan 2013).

Some of the Canadian businesses utilizing this format of E-Invoicing are Rogers Communications, Shaw, BC Hydro, Canada Post, Telus and Treo to name a few (Koch 2013). These LEs receive high volumes of invoices from their suppliers and thus by implementing an E-Invoicing solution through a MSP, they do not have the capital expenses related to implementing a solution internally, while their suppliers are able to exchange invoices electronically and not have to worry about delays associated with manual invoicing processing (Koch 2013).

For example, Rogers Communications, utilizes an "opt-out" option for its customers through its A/R department, as it transitions towards E-Invoicing as well. The option for its customers is simple in that Rogers will continue to send paper invoices on a monthly basis, but will charge the client $2/ month. Coupled with the 2013/ 2014 postage rate hikes by Canada Post, most companies like Rogers will not absorb this cost, but instead pass it on to its customers who will ultimately increase the number of clients receiving invoices in an electronic format (Kelly 2013; Koch 2013). BC Hydro also incorporates this model for its customers however; it does not charge a fee for customers that request a paper invoice to be mailed to them. This is related to the fact that it is a Crown Corporation, while Rogers Communications is publicly traded on the stock market and thus a for-profit corporation (Brigham et al, 2011).

A good example of E-Invoicing being used for A/P would be that of Canada Post, which has mandated that all suppliers submit invoices electronically in a format that is explained on their website (http://www.canadapost.ca/cpo/mc/aboutus/suppliers/eprocurement.jsf). This website explains how, after a certain deadline, invoices will only be exchanged electronically. If anybody wants to "opt-out", they have to give notice which may result in the business relationship be severed (www.canadapost.ca). This demonstrates that some Canadian businesses, like Rogers Communications, BC Hydro, and Canada Post are utilizing E-Invoice workflow solutions to gain efficiencies and cost savings, but are managing the solution themselves and for the most part are only utilizing PDFs for their customers.

Another model that is being offered in Canada and is the most popular form of a MSP E-Invoicing solution called the Network Operator Model (NOM). It is the most popular model for

SME and LE. The NOM is VAT compliant and allows the issuer to send the invoice data in any format, such as a CSV, XTML, iDOCS or even a flat file, to the MSP's Network Operator, who will then convert the information to the a format preferred by the recipient (Exhibit 3). This model also meets the client's legal requirements for tax purposes and long term archiving by maintaining a chain of custody from end-to-end data integrity (Koch 2013; Ricoh 2012).

A good example of a company offering this type of an E-Invoicing solution in Canada is Ricoh Canada, which uses infrastructure developed by Ricoh Europe. Ricoh offers this service in the market place as a SaaS in a format that is acceptable across all of Europe and is customizable to suit small, medium and even MNCs (Ricoh Europe 2012). More importantly, this system allows them to accept virtually all existing formats that new and potential clients may seek, thereby minimizing any perceived customer risk (Ricoh Europe 2012). Though there some challenges that exist with implementing an E-Invoicing solution, it is clear that Canadian businesses, like Rogers Communications and Canada Post, are benefiting from E-Invoicing.

Advantages SMEs and LEs derive by adopting the Network Model provided by a MSP are:

- Simple and efficient integration to a single experienced MSP;
- More economical, as costs typically related to development and on-going maintenance are virtually zero because it will be share amongst all companies who have outsourced to the MSP;
- Negotiated SLAs and fees offer the outsourcing company nearly a fixed cost based on the estimated number of invoices processed (transactions) and a one-time on-boarding fee;
- Most MSP solutions are VAT compliant for both processing and (optional) archiving;
- Easy to use: minimal investment required for training staff;

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- IT and legal requirements are all managed by MSP;
- Authorized suppliers and customers can simply log in to the MSP hosted website at any time to access invoices with no requirement from outsourcing company's staff;
- MSP will have ability to provide suppliers and customers with all necessary formats such as a CSV, XML, iDOS, PDFs etc (Koch 2013).

Many small companies have begun adopting E-Invoicing solutions via website from smaller providers with minimal implementation and ongoing running costs (Koch 2013). Many small businesses tend to issue PDF invoices to their customers, which can be opened by virtually all operating systems and are very inexpensive, but contain no data transfer. As mentioned in the previous chapter, upon opening the PDF, all data must be manually keyed into the accounting software and go through the manual approval process (Koch 2013).

CHAPTER NINE

Final Thoughts

9.1 Conclusions & Directions for Future Research

The purpose of this study was to evaluate published literature including studies and surveys from academic and government agencies, primarily from the EU, to provide an overall perspective as to the potential benefits Canadian businesses would appreciate by outsourcing their paper-based invoicing processes to a MSP (in full). It is clear that adopting E-Invoicing solutions, through a MSP, members of the EU alone have saved well over $243 billion thus far while increasing productivity (Kivijärvi et al, 2012). This study explains, using analytical arguments and qualitative analysis, that moving away from traditional invoicing work-flow practices, which are heavily dependent on paper-based business processes, to E-Invoicing has tremendous benefits in terms of productivity gains and considerable reduction in operational costs. Recent surveys and interviews of top executives conducted in Europe and in North America reinforce this conclusion (Canadian Manufacturing 2013; Koch 2013; Paystream 2013).

These benefits can only be harvested if obstacles to E-Invoicing in the form of resistance by sections of employees and management are removed. To achieving this, dialogue and education with these groups on an ongoing basis is required so that businesses in North America truly adopt this emerging technology and workflow solution which can have labour resources deployed in a more efficient manner. Businesses across North America ranked E-Invoicing as

their top automation goal for 2013 and this will likely be the scenario for 2014 as they recognize the negative consequences of relying on manual processes (Canadian Manufacturing 2011).

Given the constraints of time, we could not undertake a full quantitative assessment in monetary terms of the gains of implementing E-Invoicing. Moreover, the lack of real numbers used to quantify costs were not available at the time of this writing and therefore should be used in the future to demonstrate the costs of implementing an E-Invoicing solution with a MSP from start to finish. Such quantitative assessment can supplement the analytical and qualitative assessment undertaken in this study. The author is looking for such an opportunity in the future.

Exhibit 1

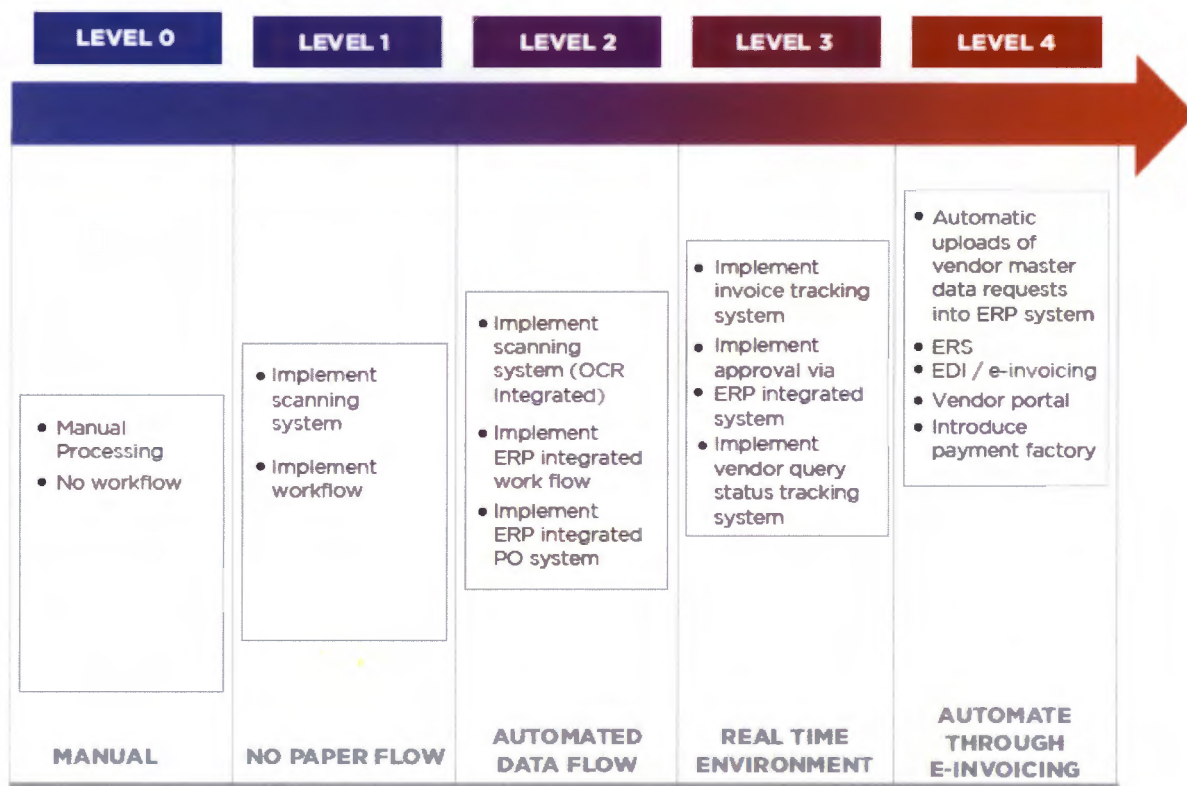| LEVEL 0	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
• Manual Processing • No workflow	• Implement scanning system • Implement workflow	• Implement scanning system (OCR Integrated) • Implement ERP integrated work flow • Implement ERP integrated PO system	• Implement invoice tracking system • Implement approval via • ERP integrated system • Implement vendor query status tracking system	• Automatic uploads of vendor master data requests into ERP system • ERS • EDI / e-invoicing • Vendor portal • Introduce payment factory
MANUAL	**NO PAPER FLOW**	**AUTOMATED DATA FLOW**	**REAL TIME ENVIRONMENT**	**AUTOMATE THROUGH E-INVOICING**

Table 1: AP Technology Maturity Model

(Subramanian et al 2009)

Exhibit 2

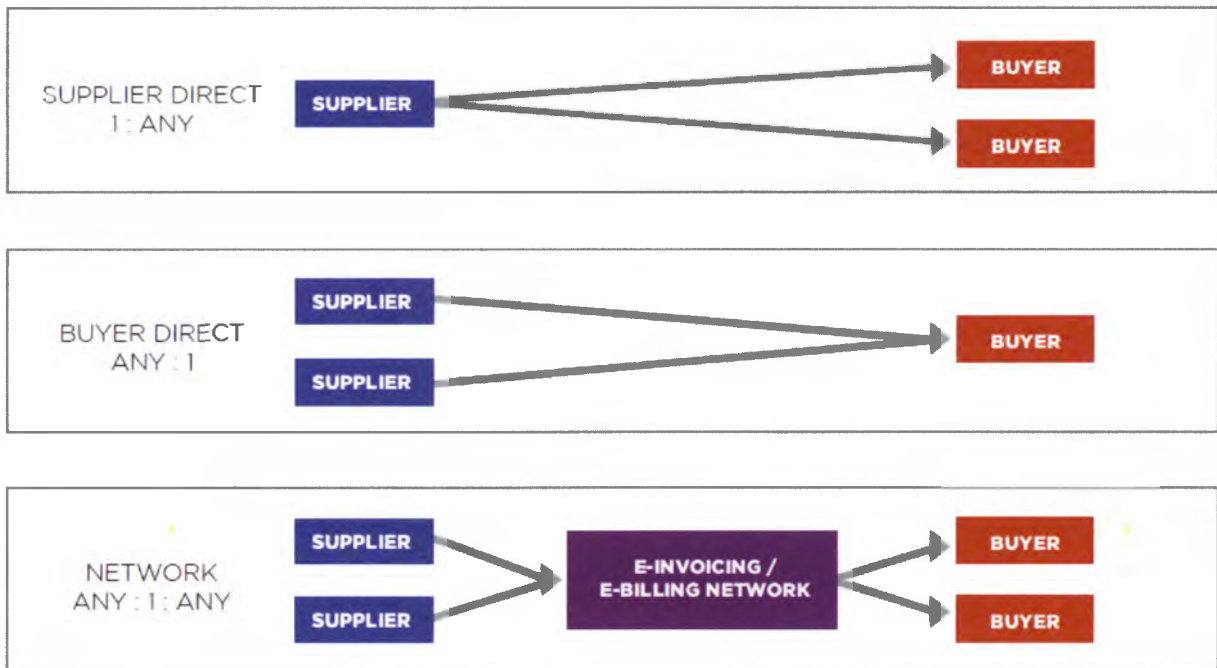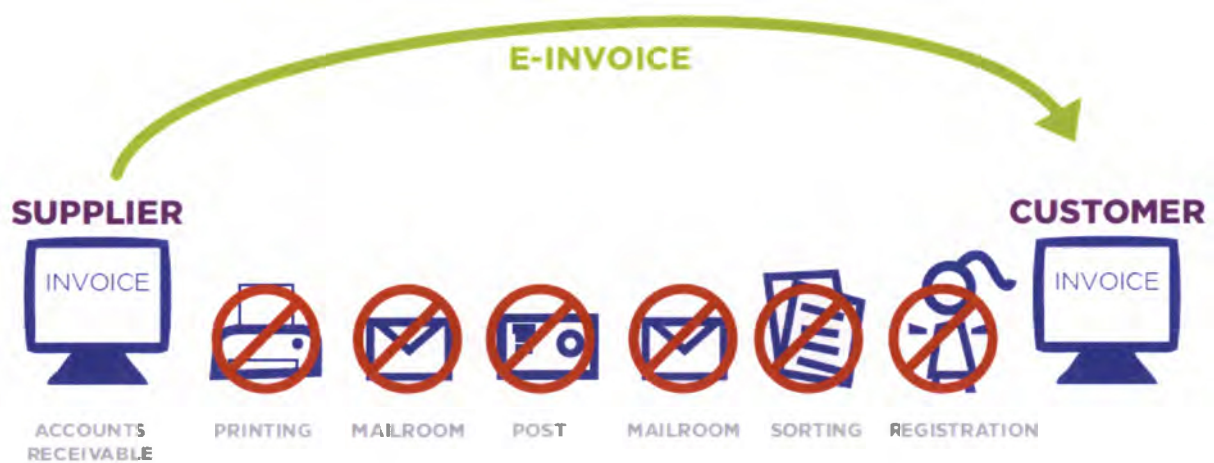|	OFFERINGS OF THE BPO SERVICE PROVIDER	BENEFITS TO CLIENTS
WORKING CAPITAL EFFICIENCY	• Reports and analysis	• Predictability of working capital requirements • Improved Discount Capture % • High Visibility on Payables outstanding • Unlock cash flows • Prevent late payments (& penalities)
COST OPTIMIZATION	• Outsourcing • Work Flow Tools • Special Handling of discount eligible invoices • Help in converting Paper based invoicing Supplier to electronic based (ERS, EDI or E-Invoicing)	• ~30% Cost savings, Labor arbitrage & shift in focus controls, Macro Management • Productivity and Cost Reduction • From Cost Center to Self Serving Model • Reduction of Manual invoice processing and cost of the same
OPERATIONAL EFFICIENCY	• Workflow tools • ERP Integration • Automation - OCR • Reports and analysis	• Improved Paud on time (PoT) capability • Productivity • Escalation and tracking • Well informed policy decisions
CONTINUOUS IMPROVEMENTS	• Drive Standardization and harmonization • Improced Accuracy • Innovation • Best Practices Sharing	• Consolidation - One process for all geography/entity • Leveraging the best talent across industries • Year on year reduction in TCO • Eliminate waste and non-value added activites
END USER SATISFACTION	• Supplier Portal (Self Help tool for suppliers)	• Minimal time spend on answering invoice status and payment queries • High visibility of supplier queries and higher supplier satisfaction on account of accurate and predictable payments.
CONTROLS & COMPLIANCE	• Audit Trail • Duplicate Processing Control	• Automated approval flow • Electronic audit trails • Revenue leak avoidance • Better enforcement of business and SOx controls

(Koch 2013)

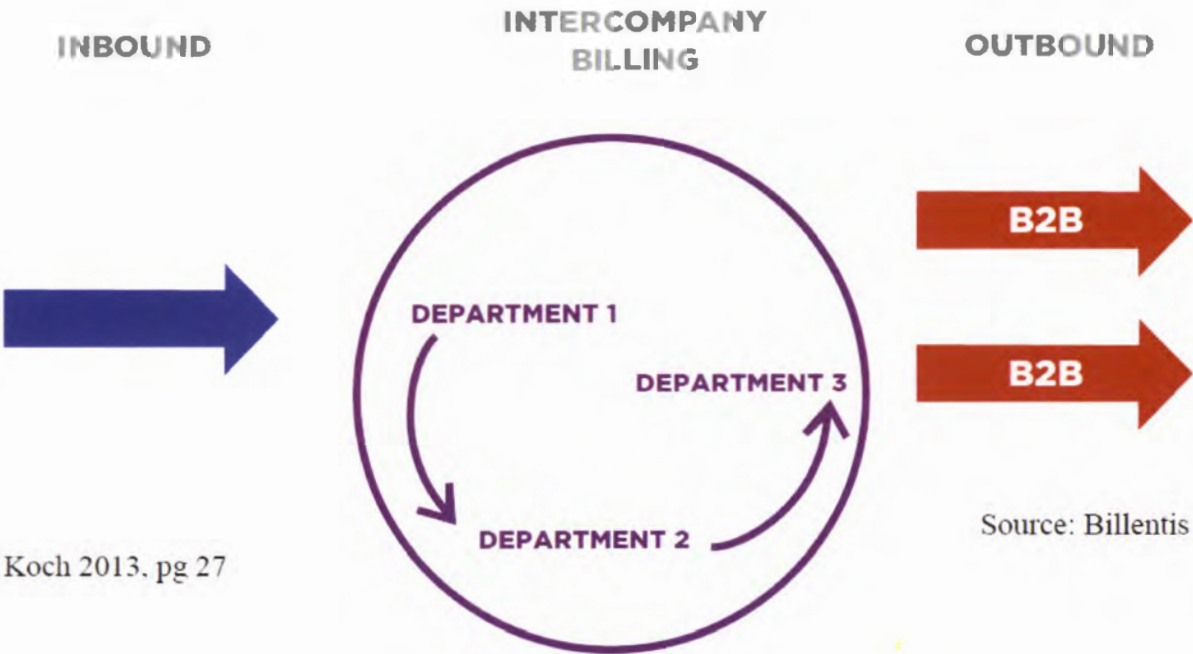# Exhibit 3

Figure 24: Overview about main market models

(Koch 2013)

Exhibit 4

E-INVOICING REMOVES MOST OF THE INVOICE HANDLING STEPS, BOTH FOR THE SUPPLIER AND THE CUSTOMER.
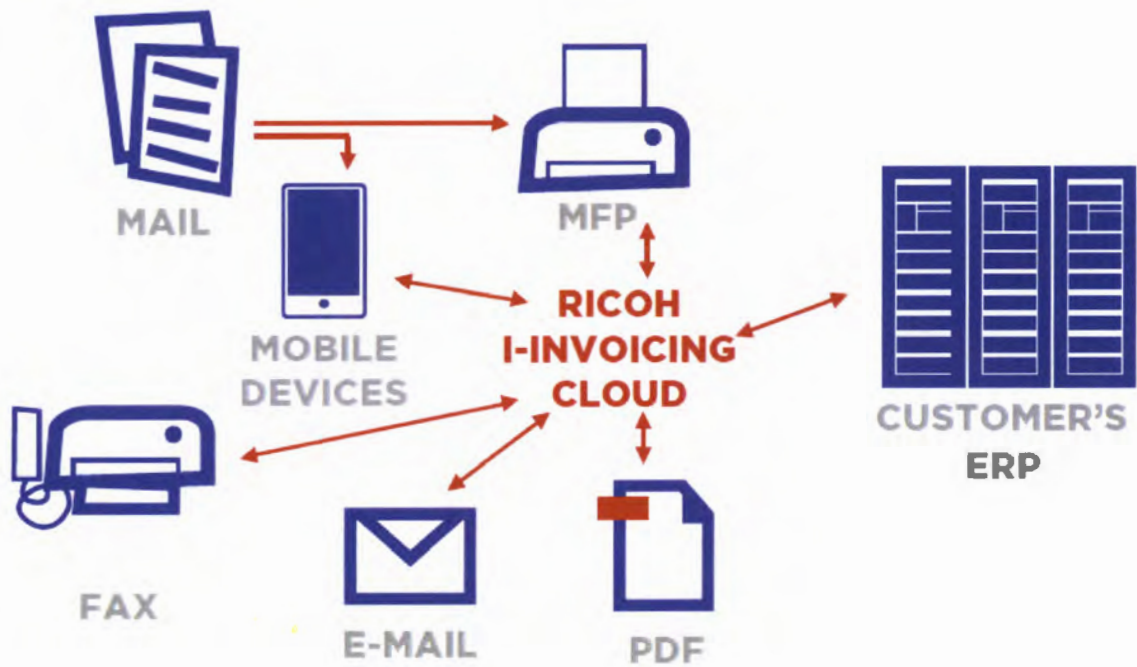
How E-Invoicing works http://www.cloudtradenetwork.com/en/home

Exhibit 5

INBOUND

INTERCOMPANY
BILLING

OUTBOUND

B2B

B2B

DEPARTMENT 1

DEPARTMENT 3

DEPARTMENT 2

Source: Billentis

Koch 2013, pg 27

(Koch 2013)

Exhibit 6

(Ricoh Europe, 2013)

http://ricoh.com/about/sustainability/overview/feature1/01.html

Exhibit 7

Per-invoice transaction costs	
1 – 20 invoices per month	$0.67
21 – 100 invoices per month	$0.55
101 – 500 invoices per month	$0.40
501 – 2,000 invoices per month	$0.30
2001 + invoices per month	$0.22

Source: http://www.ob10.com/us/en/registration-create-account-introduction/fees/.

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