



Ubiquitous decision making processes in accounting outsourcing- Case study of four Finnish small and medium sized enterprises

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Abstract

This study focuses on the state-of the art of and decision making process in the outsourcing of accounting in Finnish firms. My aim is to explore what tools and criteria have been used, what has been the role of each stakeholder group, and what other factors could influence the decision making. Moreover I intend to discover how the new IT technology like cloud computing and social media has transformed the management style in this particular process. A research among 4 Finnish small and medium sized enterprises has been made in the form of interviews. All the results are collected and classified into 3 categories. The analysis of these results is made from 3 aspects: culture, technology and service. In the context of cultural dimensions, I find controversial intuitive results to the Finnish culture. According to the results, top management is generally the decision maker and employees are rarely involved in the process. New technologies and devices enable the evolution of IT outsourcing channel, hence transform the business management style. Most companies are active in deploying advanced IT systems by making outsourcing contracts instead of in-house development. When selecting the service provider, companies usually consider what are their own demands and requirements, how expertise the service provider is, and the capability of system updating. A general framework of the mechanisms of integration and coordination of service processes is used to describe the efficiency and development of case firms. The framework, which assume that the different type of services differ inherently by the delivery strategies, is adopted from the model of service and channels to show the efficiency of outsourcing of accounting services among the case firms. The research results could help managers of accounting service providers or consultants to identify the key issues, focus on the strategic solutions and achieve edges over the competitors in the decision making processes.

Keywords decision making, outsourcing, accounting

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1. Introduction

Outsourcing is to subcontract an existing business function or process of an organization to an independent and external supplier, usually ceasing to perform that function or process internally. In other words, it is purchasing the outsourced function as a service (Wikipedia). It is often happening from business to business (B2B). Information technology industry is the most active area in outsourcing in today's world economy. Most of the firms nowadays have outsourced at least part of their IT functions to one or several IT service providers. Due to the characteristics of information technology outsourcing (ITO), off-shoring or outsourcing to firms abroad (usually with lower labor and operation costs) is popular worldwide.

In competitive business environment, firms are confronted with the limited budget. They have no intention to waste huge expenditure in dealing with new systems including hardware, software and maintenance. The fast growing market of IT services provided them with the alternative of outsourcing, through which the firms could efficiently cut the costs. It resulted in the know-how or the expertise of the service providers who could give the best solution in a relative short period. On the other hand, the edge could also be achieved by the economy of scale, for instance, the service provider purchase the system and sell the accesses or using rights to different clients.

According to Hakansson et al. (2010), Outsourcing takes various forms, such as the breaking up of large hierarchically controlled companies into independent units, as well as the more commonly understood interpretation, that of outsourcing operations that were previously viewed as core operations. Differed from developing the system in-house, outsourcing involves buyer, service provider and technology provider. In the early stages, the buyer could merely purchase the software from the technology providers and install it in his own system. While nowadays firms are increasingly adopting business process outsourcing (BPO), such as accounting operation, that outsources non-core business processes as well as supporting information technology. This trend has been growing after the emerging of cloud computing technology.

The “cloud computing” could be considered as the more advanced or updated version of outsourcing, which is believed to be a future trend. With the advent of cloud computing, the finance and accounting outsourcing (FAO) has stepped to a new era. It is a consensus that the cloud computing could be considered as a kind of outsourcing channel, through which the BPO can be accomplished. The cloud services are provided to the customers via internet. Instead of paying the license fee of the software in the old days, the buyers now could merely pay for the access to the system, which is usually on the service providers’ servers. The cloud accounting service supports real-time modification, which allows the clients to see the data via internet accesses and making input or modifications if needed.

My thesis is based on a research concerning the decision making processes of FAO among four Finnish small and medium sized enterprises (SME). As I have mentioned, outsourcing is of increasing importance within companies because of the need to reduce costs, to focus on their own business, and to improve the development capabilities or expertise through closer collaboration with a chosen supplier. As one of the most common ITO, FAO has become an inevitable and fast-growing business. By analyzing the decision making processes of FAO in the Finnish SME settings, I could identify the internal motivation as well as external factors to provide an interesting insights into the phenomenon of FAO outsourcing.

The research was made in interviews with each of the four case firms. I asked sets of questions, the answers to which could be classified into three categories as follows.

- (1) The decision making process of FAO. What is the primary reason of the latest FAO? What had been the situation before the latest FAO? Who is the FAO decision initiator? Who is the FAO decision maker? Who else are involved in the decision making process? Why did the decision maker choose the service providers? What are the achievements of the FAO? What expectations or future plans for FAO?

- (2) Outsourcing operations (which have been outsourced?). The operations include payroll, accounts payable, purchase-to-pay/transactional purchasing, accounts receivable, general accounting, management reporting, analytics, logistics/supply chain management, financial planning and analysis, and direct procurement.
- (3) Technical and management features. Is the FAO system cloud-based? Who will have the access to the system? How does the case firm pay for the service package? Is the FAO system real-time? Can the case firm change the input data? Does the case firm use e-invoice? Is the service provider local or nearby (in the same region)?

On the other hand, cloud computing brings the new style of business life, or so called online channels, and the external and internal changes caused by the online channels may have big impacts over the decision making processes of ITO. We could presume that 1) the online channel tools such as searching engines and blogs etc. make the distance between buyers and service providers shorter and easier. Simultaneously, 2) the decision making process inside the buyer organization would be more involved with the lower ranking employees than earlier. The internal relationship actually reflects the changes of the hierarchy in the business organization.

In my thesis, the theoretical background of FAO is reviewed in chapter 2, including definitions of ITO, BPO, FAO, as well as 2 development trends. Chapter 3 focuses on the theoretical foundations of outsourcing decisions. Transaction Cost Economics (TCE) is the primary theory in the analysis of outsourcing. Furthermore, I will concentrate on the Model of Service Channel (MSC). Before entering the empirical parts, there will be chapter 4 that giving a brief description of methodology. Chapter 5 is about the empirical study, including introduction of the case firms, research results, and analysis. The final chapter of conclusion summarizes the whole research.

2. Financial and Accounting Outsourcing (FAO)

This part would start with the definitions of information systems outsourcing (ITO) and business process outsourcing (BPO), because FAO could be considered as part of both concepts (2.1). It is definitely helpful to get acquainted from them. What following afterwards is the basic facts of FAO (2.2). Then it would come to the topic of the trend of FAO, the era of cloud computing (2.3). In the final part, I would continue the discussion from the reverse perspective, the turn-back of FAO, or so called in-sourcing (2.4).

2.1 Some basic facts of ITO and BPO

According to Hirschheim et al. (2008), Information Technology Outsourcing (ITO) could be defined as an organizational policy that determines who is going to provide the IT needs an organization must have in order to run its daily business activities and to stay competitive on the market. Outsourcing opened a gate of opportunity for IT firms and the rapid speed of change in IT has been the foundation of the dynamism of the ITO market. Differed with the production tasks outsourcing, the ITO is service oriented.

Successful firms that practice outsourcing leverage their capabilities and investments of others by exploiting three areas such as functional activities performed in-house; complementary, integrative, or duplicative activities scattered throughout the firm; and disciplines, subsystems, or systems in which outsiders have greater expertise or capabilities for innovation. Hence, while leaving the non-core activities or functions to specialized third parties, firms can focus on their core competencies and improve overall performance (Maelah et al. 2010).

Diversified approaches of outsourcing practices have emerged ranging from short-term selective outsourcing deals to long-term strategic alliances and transformational outsourcing (Dibbern et al. 2004; Lee et al. 2003). Outsourcing arrangements have become more sophisticated not only with regard to the service itself, but also with

regard to the seemingly boundless global delivery of IT components (Rottman/Lacity 2004). The ITO nowadays hardly refers to the outsourcing of a physical devices or merely the hardware, in most of the cases, it includes providing a complete solution of IT services for the customers involving the business processes, or termed as business process outsourcing (BPO).

BPO was the result of the advent of Web services as IT architecture after the failure of the first phase of ASP in 2001, which can integrate software applications across heterogeneous technology platforms and business environments. It has solved many of the IT infrastructure and application problems associated with the first phase of the ASP market. This technical achievement extends outsourcing into the area of BPO (Currie, et al., 2003). BPO involves contracting with service provider(s) for the provision of execution of business process operations as per client's requirements (Youngdahl et al., 2008). BPO has occurred in many areas, including facility operations, finance, accounting, logistics, legal services, marketing, and customer care and functions outsourced are those considered non-income earner, such as payroll, human resources, call centers, and IT help desks (Kelly, 2007). Recent years have seen a rapid rise in BPO outsourcing deals as firms are increasingly outsourcing key business functions and their related IT operations (Shi, 2007).

Gewald (2010) did an empirical study on perceived benefits senior management of German banking industry associate with BPO. The study found that perceived benefits play an important role in intention to use BPO among senior management. In addition, senior management value cost programmability highly and does not score cost reduction as the top benefit of BPO. Business process management, relationship management, and outsourcing value propositions have been identified as the key dimensions for BPO success. Mahmoodzadeh et al. (2009) reviewed outsourcing models and frameworks to determine risks in accounting outsourcing. They found that business process management and knowledge management could reduce risks of outsourcing and enable a BPO life cycle.

2.2 Definitions and Contents of FAO

One of the BPO functions that are most commonly being outsourced is finance and accounting outsourcing (FAO). Here, FAO refers to transferring part of accounting functions to a third party providers or fully owned subsidiaries in order to cut cost, gain access to scarce skills, or obtain competitiveness. A research made by accounting firm KPMG and HfS Research “Finance and Accounting BPO Market Landscape, 2013: Market Evaluation, Forecast and Competitive Analysis” has revealed that FAO services will exceed \$25 billion in 2013 and rise at an annual compound growth rate of 8 percent through 2017. More than 100 enterprise-level F&A BPO engagements are expected to be signed this year, which includes a review of 399 major global enterprises, 745 financial and accounting deals, and 17 leading services suppliers.

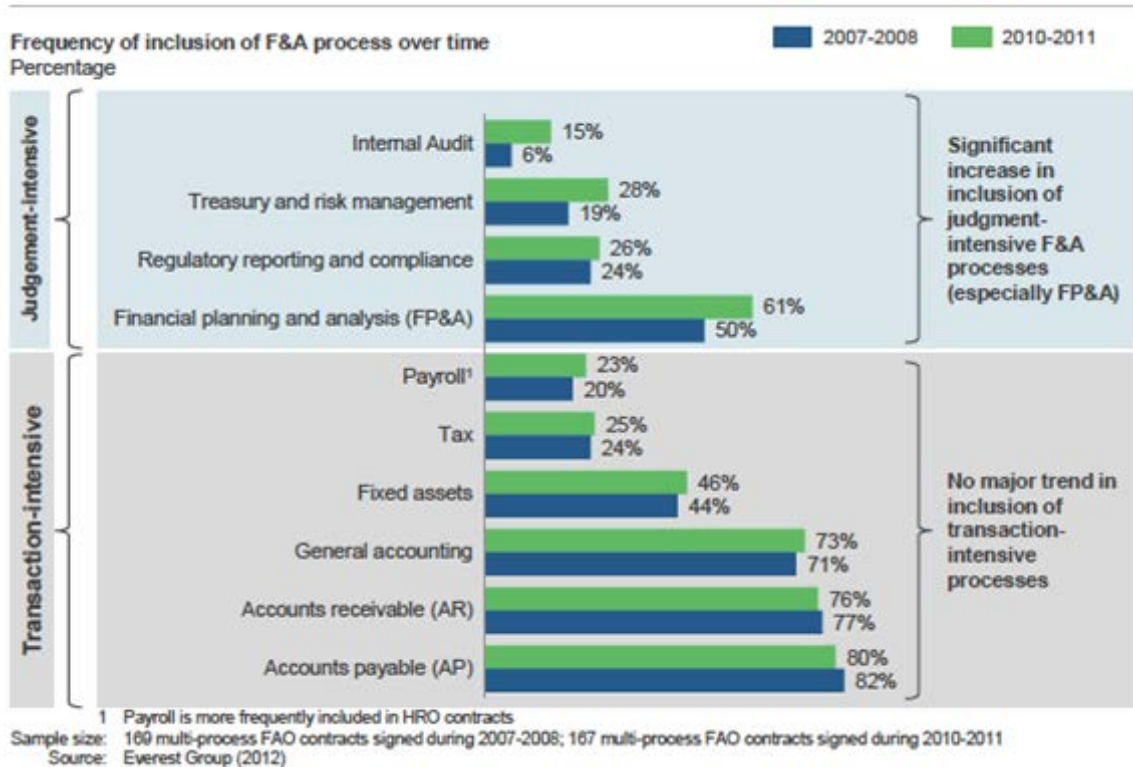
Table 1.

<p>Plans in 2013 to increase outsourcing activities in the following business operations:</p> <ul style="list-style-type: none"> ● Application development - 39 percent ● Finance and accounting - 32 percent ● IT infrastructure - 29 percent ● Human resources - 21 percent ● Document and print operations - 19 percent ● Procurement - 17 percent ● Industry-specific processes - 17 percent ● Analytics - 16 percent ● Customer relationship management - 13 percent ● Marketing operations - 11 percent 	<p>Mid-market enterprises said they are planning to start the following F&S BPO initiatives in 2013:</p> <ul style="list-style-type: none"> ● Document and print operations - 15 percent ● Finance and accounting - 13 percent ● Procurement - 9 percent ● Application development and maintenance - 9 percent ● Human resources - 7 percent ● IT infrastructure - 6 percent ● Analytics - 6 percent ● Marketing operations - 2 percent ● Customer relationship management - 2 percent
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(Frank Byrt, 2013. “Financial Outsourcing Services Seen Growing 8 Percent Annually Through 2017”, source online: <http://www.accountingweb.com/article/financial-outsourcing-services-seen-growing-8-percent-annually-through-2017/221538>)

The same report concluded that key market dynamics fueling global growth came from the proven performance: 90 percent of F&A BPO engagements have been consistently meeting their cost-reduction targets and initial delivery performance, making it difficult for finance leaders to avoid evaluating its potential. Enterprises overwhelmingly want to look at new ways to take advantage of lower-cost operations and standardized financial processes, where there is little competitive differentiation to be achieved by operating in-house. In addition, the lethargy of the 2008-2010 recessions has slowly lifted: More enterprise leaders are now looking at more radical strategies to increase productivity and global business effectiveness. Recent activity shows an increasing number of enterprises getting more aggressive with globalizing their finance operating models to include outsourcing services.

Figure 1. Frequency of inclusion of Financial and accounting process over time



(Everest Group 2012, source online: <http://clarity.sutherlandglobal.com/blog/accounting-minute/finance-accounting-outsourcing-value-and-maturity/>)

According to another report, the “Finance and Accounting Outsourcing (FAO) - Annual Report 2013” made by the Everest Group, the global multi-process FAO market

witnessed a moderate growth of 10% in 2012 to reach ACV (actual cash value) US \$ 4,3 billion, showing signs of a mature and stable market. Over 65% of the ACV growth in 2012 was contributed by contract extensions/renewals. Europe witnessed the maximum increase in FAO adoption. The increasing workload of accounting processes is an important motive of FAO. Figure 1 reveals the frequency of inclusion of Financial and accounting process over time.

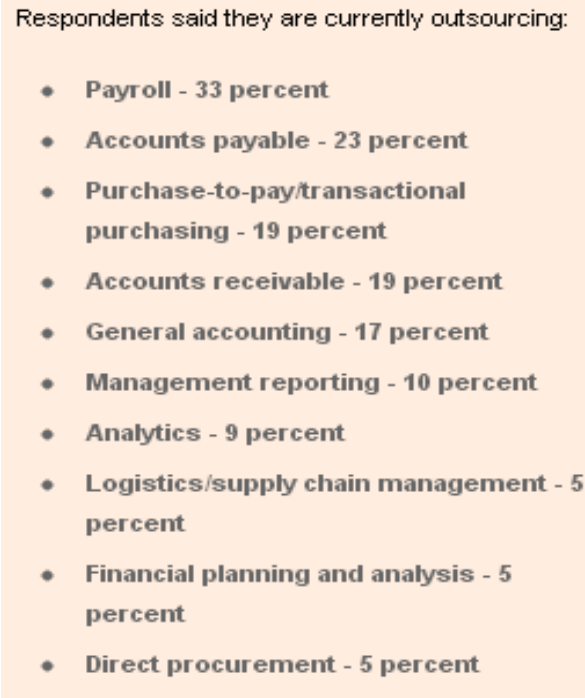
Everaert et al. pointed out that the annual accounting process in a company is composed of four main tasks: (1) entry of invoices and financial transactions; (2) preparation of an interim profit and loss account (e.g., monthly profit calculation); (3) period end accounting (e.g., depreciations, interest accruals); (4) preparation of financial statements (balance sheets, profit and loss account, notes). These four tasks are interconnected and all are necessary to produce complete financial statements (Everaert et al. 2008).

Similar to the internal auditing function, we may distinguish between routine and non-routine tasks. The entry of invoices and preparation of interim reports are routine tasks, whereas period end accounting and the preparation of financial statements can be considered non-routine tasks. Routine tasks are those tasks for which the output is relatively straightforward and standardized, which require less judgment on the part of the accountant, whether internal or external (Abbott et al. 2007).

In a similar vein, non-routine tasks require more judgment from the accountant, so that the decisions are less standardized and require valuable opinions. Since the accounting tasks are interconnected, the decision to outsource non-routine tasks depends, in a sense, on the outsourcing decision regarding routine tasks. For instance, firms that decide to fully outsource routine tasks also will need to rely on full outsourcing for non-routine tasks, since the firm will no longer possess the information that is required to perform the non-routine tasks internally. In other words, only firms that retain at least some part of the routine tasks internally can make a genuine make-or-buy decision concerning the subsequent non-routine tasks.

In a research made by KPMG and HfS Research, named as *Finance and Accounting BPO Market Landscape, 2013: Market Evaluation, Forecast and Competitive Analysis*, the following contents of FAO are revealed as in Table 2:

Table 2. What have been most popular FAO activities



(Frank Byrt, 2013. “Financial Outsourcing Services Seen Growing 8 Percent Annually Through 2017”, source online: <http://www.accountingweb.com/article/financial-outsourcing-services-seen-growing-8-percent-annually-through-2017/221538>)

Initially, organizations outsourced only non-core peripheral activities to reduce cost and improve performance. This type of outsourcing did not help them in impacting their competitive position (Bharadwaj et al. 2009). Recently, BPO is extended to non-core yet mission critical processes such as finance and accounting, human resources, and customer support (Linder, 2004). The market situation also stimulates the fast growing of the finance and accounting outsourcing. FAO covers a wide variety of processes, ranging from highly transactional activities such as accounts payable, accounts receivable, and payroll, to processes that require greater and more complex

degrees of knowledge and analysis such as treasury, tax strategy, or financial planning and analysis (Krell, 2007).

According to Reddy et al. (2008), approximately 30-35 percent of time in accounting works is spent in low-end transaction processing activities. Outsourcing of such repetitive and non-value adding activities allow firms to focus more on strategic activities like financial planning. In addition, it provides advantages such as economies of scale, process expertise, access to capital, and access to expensive technology. Cost reduction and focus on strategic activities are often offered as internal reasons for outsourcing (Bendor-Samuel, 1998).

Ling et al. (2013) stated the advantages and disadvantages of FOB for clients. I combined part of the contents with my own and summarized as following. The advantages include:

- ***Cost efficiency:*** This is primary thought of FAO. First, FAO could help firms avoid purchasing the corresponding software and hardware, which can reduce high expenditures and save the cost of software debugging. Second, FAO can cut the cost of the daily maintenance and upgrade of system, enabling enterprises to adjust their budget according to the real situation, which could balance the cash flow. Finally, FAO reduces labor costs, for instance, the salaries and social welfare to IT technicians.
- ***Expertise service:*** FAO vendors or service providers have more expertise in the accounting functions. By asking them to provide the service, firms could lower the risk of making mistakes. On the other hand, even some mistakes have been made by the vendor; and the client firm would not be responsible for that false behavior in the potential legal issues or penalties.
- ***Real time effect:*** FAO could break the limitation of time and space of financial management. It can be achieved with the cloud, or so called real-time effect. The client firm could input their data into the system in her office, meanwhile the

external accountancy (vendor) could see the new modification in real time. It improves the working efficiency drastically. The accurate and timely financial information are of more importance in the fast-changing market today.

- ***Management improvement:*** FAO vendors provide not only services but also the advanced management ideas and technical skills. Some service providers are the leaders of financial management in the field. In this sense, the clients could learn more during the daily communication and improve their management level.

The disadvantages of FAO are as following:

- ***Resistance of outsourcing the core business function:*** We are here talking about the phenomenon in certain area, for instance, China. Although it is the second largest economy currently, most Chinese enterprises still regard financial department as an important and confidential branch due to lack of political transparency and tax evasion needs. The leak of financial information could cause serious influences.
- ***Obstacles in communication:*** During FAO there could exist communication difficulties, for instance, client firms may hide important information and data from the contracting vendors. It will prevent the vendor to provide high quality services, which could sometimes lead to the failure of cooperation. The obstacles could also be caused during the data transferring process, such as system breakdowns.
- ***Weakening of financial and accounting management skills.*** FAO would definitely make employees of the firms lose accounting skills gradually. The financial management requires specialized knowledge and skills. One of its role is to provide strategic plans for the firm and the strain capacity to integrate funds and sources dynamically. Some even argue that FAO can achieve short-term competition advantage with the price of losing necessary skills and opportunities to innovate and build the core competence for the future.

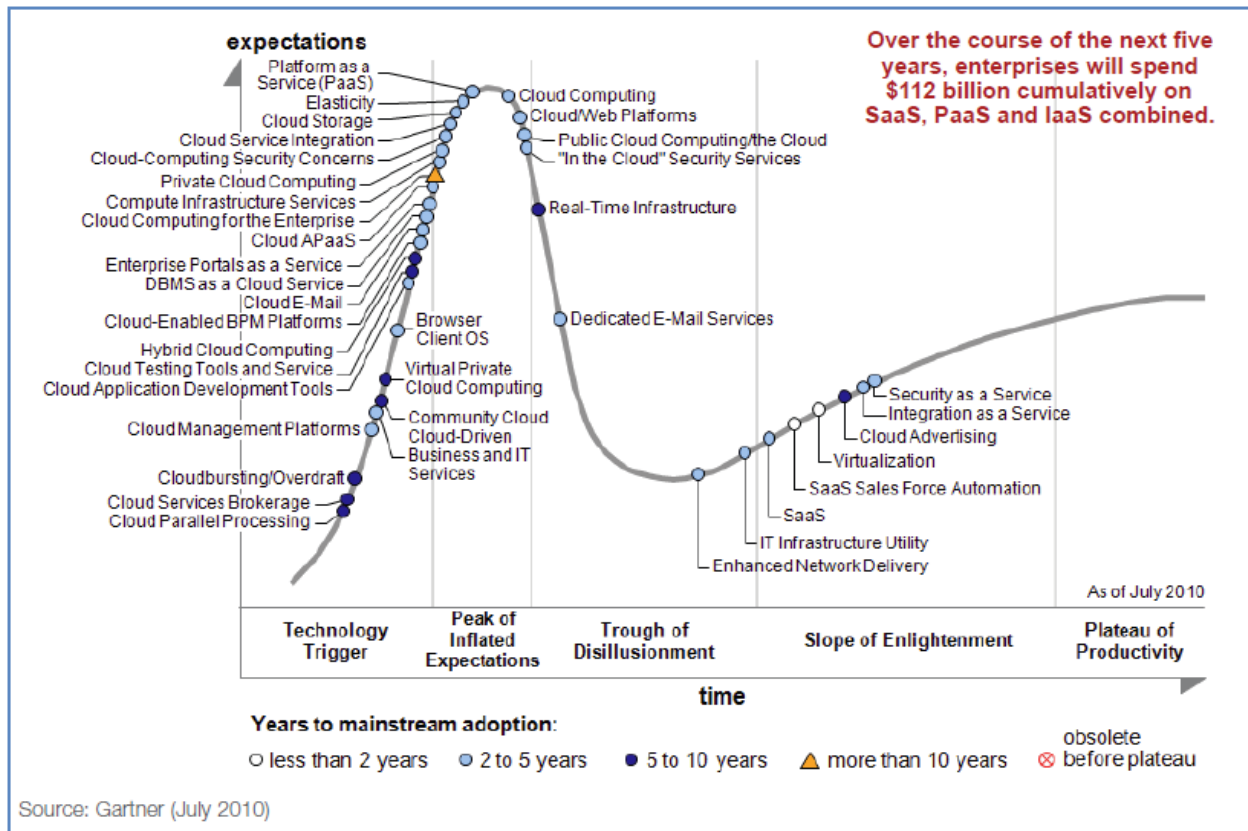
2.3 Cloud accounting, the trend of FAO

Up until recently, outsourced services were not necessarily fulfilled online. BPO has become attractive to both large and small businesses with the advent of service oriented computing and specifically Web services and Web 2.0 technologies. This has enabled offering of business process functions as online Web services and actively engaging customers via the Web. It is estimated that BPO represents around 25% of the overall services market. The next evolutionary wave in this space is cloud computing. Cloud computing refers to the offering of hardware and software resources as services across (distributed) IT resources (Motahari et al. 2009).

In 2007, IBM unveiled a new IT sourcing model, known as cloud computing when it bundled several of its technologies to help corporate data centers run large-scale Web applications in a "cloud computing" model or "cloud-sourcing" (Brodkin, 2007). The term "cloud" is a metaphor for the Internet. By 2008, not only software could be provided as a service (SaaS), but also other aspects of IT including platform (PaaS), testing (TaaS), etc. Truong (2010) describes this new IT sourcing model as an arrangement in which firms run their business on virtualized computer systems while their service providers are responsible for installation, upgrade, maintenance, backups, failover functions, and security. In other words, information, software, and other IT services are stored and accessed via third party servers which are connected to the Internet (Joint et al. 2009).

Hamm (2008) points out that cloud computing is not an entirely new concept because anyone who has a web-based email account, such as "Gmail," is using a simple form of cloud-computing. He states that the big difference lies in the unprecedented, tremendous computing power that service providers, such as IBM, Google, Yahoo!, and Amazon, are now able to offer to firm users. Cloud computing gather all resources in the cloud storage center, users can enjoy unlimited resources and computing power as long as they use simple terminal to attach the Internet (Peng et al. 2010). The following figure shows the growth of cloud computing in lifecycle.

Figure 2. Hype cycle for cloud computing, 2011



(Gartner 2010, "Hype Cycle for Cloud Computing, 2011", research ID Number: G00214915; source online: http://cmapsconverted.ihmc.us/rid=1JZJKBR35-2C5G28T-ZNM/hype_cycle_for_cloud_computi_214915.pdf)

Motahari et al. (2009) claims that using cloud services provides the following benefits: 1) avoiding huge initial investment in hardware resources and software, 2) reducing ongoing operational, upgrade and maintenance costs, 3) scaling up and down hardware, network capacity and cost based on demand, 4) higher availability compared to in-house solutions for small businesses and individual-consumer maintained resources, and 5) access to a variety of software applications and features offered as SaaS that otherwise would be purchased separately.

Each coin has two sides – many experts also observe skepticism from executives and managers in IT and business perspective. While industry recognizes the huge cost saving of cloud computing technology, the computing community is still evaluating cloud services as reluctant because they are concerned about not getting the support,

data security, and stability (Truong, 2010). In addition to the many problems shared with previous IT outsourcing models, cloud-sourcing arrangements raise a variety of unique legal and safety issues, including the ownership of users' data stored on service providers' servers.

Motahari et al. (2009) also point out that the potential risks of using cloud services: 1) loss of direct control of resources and software, e.g. website infrastructure and operations staff, 2) increased liability risk due to security breaches and data leaks as a result of using shared external resources, 3) decreased reliability since the service providers may go out of business, causing business continuity and data recovery issues, and 4) SaaS solutions are mainly built as one-size-fits-all customers, although there are sometimes add-ons to complement the functionality. The service providers are usually limited to the functionality offered by the SaaS providers and it is hard to customize solutions based on its needs.

Besides considering the above trade-offs, the difficult questions to answer for cloud service providers are 1) which functions to move to the cloud in what order, 2) how to ensure a smooth migration process given legacy applications in their environment, and 3) how to find and select service offerings that meet their requirements and establish seamless interoperation between services. For instance, assume they would like to move their website operations, CRM, accounting, and HR systems to cloud services. Customer behavior information from the Web site has to be sent to CRM system and the accounting function needs information from the Web site on sales and taxes. There is a need also for data integration solutions to migrate data from cloud service providers' legacy applications to cloud services (Motahari et al. 2009).

The technical advances have provided the possibility of a fundamental shift and evolution in outsourcing industry in the coming few years, as more enterprises start to use services enabled by cloud technologies. This would transform the market of IT services. IT service providers who could evolve with the changes will survive;

otherwise they will be left behind. Meanwhile, for the customers, the situation is similar to the earliest forms of power generation, telephone services and courier services were all things that enterprises had to undertake themselves, while nowadays, we could think it odd if any of those activities were described as “outsourced”. They are simply services offered by external providers. In this sense, IT outsourcing industry is stepping into a similar era and we are in the midst of a fundamental shift (Ben, 2010).

Another change or impact of IT industry brought by the cloud computing is the new generation of mobile and social media, or we could say “the online channel”. According to a report made by Oracle Cloud Computing on Facebook (14.02.2013), social media platforms are a subset of a larger category of applications of as cloud computing. The popularity of smart phones and tablets have promoted a highly availability of internet lifestyle, which has emerged as the new business imperatives that make the web a primary channel for conducting business and even managing our lives today. And during this whole process or evolution, the relationship management of the business organization has grown increasingly complex both internally and externally.

Externally, the customers themselves have assumed increasing power and influence over the purchase process and for setting the tone and pace of the relationships they have with brands and you see the evidence of this in the really high expectations that customers have today. They expect brand experiences that are personalized and relevant -- In other words they want experiences that demonstrate that the brand understands their interests, preferences and past interactions with them. Therefore, the customers also expect their experience with a brand and the community surrounding it to be social and interactive– it’s no longer acceptable to have a static, one-way dialogue with your customer base or to fail to connect your customers with fellow customers, or with your employees and partners. And on top of all this, customers expect us to deliver this rich and engaging, personalized, interactive and cloud-based experience, in a consistent way cross a variety of channels including web, mobile and social channels, in the cloud or even in offline ones such as in-store or via a call center. And as a result,

we see that deliver on these expectations and successfully engaging your customers is a great challenge today.

Moreover, social media and cloud computing are widely used internally by firms and their employees. Firms increasingly utilize social networking sites to advertise, communicate with the public and recruit new employees. Furthermore, other users may create profiles or pages for a firm without that firm's knowledge or control. Even if firms themselves are not utilizing social networking sites, many employees are accessing these sites at work for personal purposes. Employers risk exposure to liability as a result of their own or their employees' online conduct regarding social media sites. By sending messages through social networking sites, employees may potentially misappropriate intellectual property or other confidential information. Additionally, employees may distribute materials, photographs or messages through these sites that could expose their employers to harassment or other charges (Oracle Cloud Computing, Facebook).

According to Ling et al. (2012), that FAO with cloud computing solutions, or so called "cloud accounting", is defined as the use of cloud computing technology to build a virtual accounting information system. The cloud accounting is quite popular among small and medium sized enterprises (SME). With this solution, enterprises are now capable of getting their accounting information at real time via internet, modifying data when necessary, sharing more expertise financial and accounting services provided by the professionals and making the relative business processes simplified. The rising of cloud accounting has tremendous impact on financial outsourcing. Lots of firms with FAO are now planning to initiate cloud accounting. Cloud accounting could resolve some defects of traditional FAO, such as:

- *To Enable the client firms to react quickly to changes:* the traditional FAO has not real time effect, while FAO in cloud computing mode provide appropriate

services to the enterprises with the flexibility to react to business changes. Meanwhile the service quality remains at the same level after the adjustments.

- *To Make the information transfer more convenient:* Once business occurred under the cloud computing mode, the information or data can be transferred and recorded to cloud in real time through any networked terminal equipment. Meanwhile cloud accounting can process budget control, cost accounting and other accounting functions.
- *To strengthen the accounting control:* Cloud computing will provide not only new innovations on enterprises' business operation methods but also on the environment, the tool and the mode of data collection. Under cloud computing mode, the information system of the enterprise is no longer an isolated island. Enterprises can easily obtain the general information and analysis from online channel, which is helpful to strengthen the accounting control.
- *To reduce the communication barriers:* With cloud computing, the communication becomes much easier and more efficient due to the real time effect. Cloud accounting also makes online taxation, bank reconciliation, audit etc, which means that the integration of the upstream and downstream enterprises' accounting information system become possible. This has made the communication between banks, tax insinuations and accounting firms much more simplified and convenient.
- *To promote client firms to rebuild its financial process:* The application of cloud accounting can reduce the unnecessary and complex financial processes. As a result, the client firm could improve its efficiency and accuracy, enlarge the information transmission and promote the client firms to build the new financial processes.

2.4 In-sourcing, the turn-back of FAO

Although the importance of FAO has been highlighted in many studies, some research has revealed a reverse phenomenon — the turn-back process of accounting outsourcing. Outsourcing turn-back refers to the process of moving outsourced activities to in-house role (Elliot, 1998). Other terms used to describe outsourcing turn-back include in-sourcing, reverse transitioning, and disentanglement. Even though outsourcing has increased in popularity over the past decade, there are also claims that the failure rate of outsourcing relationship is high due to the high risk associated with it (Das and Teng, 2001). Dissatisfaction has remained surprisingly high among clients, according to numerous surveys of business executives involved in outsourcing relationships. A total of 54 percent of a group of 228 global CFOs (two-thirds of who work for companies with more than \$ 1 billion in annual revenue) indicated that outsourcing does not deliver the benefits promised by the media and outsourcing vendors (Maelah et al. 2010).

Outsourcing can be difficult but beneficial to parties involved if properly managed (Inkpen, 2001). McIvor's (2000) four stages outsourcing framework considers the value chain perspective, core competency thinking, and the impact of supply base aspects in outsourcing decision process. His four stages framework includes:

- (1) define core activities of the business and non-core activities that can be outsourced or performed internally due to political considerations;
- (2) evaluate relevant value chain analysis by analyzing the competencies of the company core activities in relation to potential external sources;
- (3) perform total cost analysis of core activities in which two types of costs are identified: cost estimation of carrying out the activity internally, and cost estimations associated with potential suppliers; and
- (4) perform relationship analysis if it wishes to consider outsourcing core activity.

A study by Barthelemy (2003) shows that successful companies in outsourcing work often have clear understanding of their core activities, have done adequate research and planning and most importantly have developed clear objectives, goals, and expectations of outsourcing activities. Basically, managing the relationship with accounting outsourcing vendors technically begins during the provider selection process, when a request for proposal initiates communications with the eventual provider (Krell, 2007).

Turn-back has become a common way to describe moving outsourced activities to in-house role (Elliot, 1998). Elliot (1998) suggests a six-stage process for handling turn-back situation:

- (1) assessment of the existing outsourced arrangement;
- (2) decision to terminate, reduce, or turn-back;
- (3) development of a turn-back plan;
- (4) turn-back transition;
- (5) turn-back completion; and
- (6) ongoing re-evaluation of outsourcing or in-house mix.

Only the first two stages of Elliot (1998) turn-back model have been discussed in other literatures. Lee and Kim (1997, 1999) suggest that the assessment stage is where outcome of the outsourcing decision is measured against contract clauses such as service level or performance goals. According to them, the common measurements are based on service satisfaction, system satisfaction, user satisfaction, service quality, cost-reduction, financial, or technical performance. The second stage which is the decision to terminate, reduce, or turn-back need to be made after the assessment of the existing outsourced arrangement. Lacity and Willcocks (1998) identify three types of decision to be made but provide no elaboration on those decisions.

Assessment of the existing outsourced arrangement includes a careful analysis of the outsourcing contract. Outsourcing clients that decide to turn-back must also be

prepared to face the vendors that will find loopholes to delay, prevent, or demand substantial payment for the turn-back. Therefore, to develop a turn-back plan is important. Commitment from top management is extremely important at this stage. The plan should cover areas such as transfer and ownership of data systems, hiring of staffs, purchase of hardware and software, and allocation of space. Implementation of turn-back plan is known as turn-back transition. Timelines and milestones can be used as guidelines to review the turn-back effort. At the turn-back completion, the activity began to run in-house but has not yet reached its mature stage. Finally, organizations should have an ongoing re-evaluation of outsourcing or in-house mix.

After the case study of a Malaysia firm, Maelah et al. (2010) summarized their findings in Table 3.

Table 3.

Turnback process (stages)	Problems	Action to overcome problems
Assessment of the existing outsourced arrangement	Errors information security	Terminate outsourcing contract
Decision to terminate, reduce, or turnback	Vendors reluctant to release the work back to client	Reduce the amount of work outsourced
Development of turnback plan	No accounting system	Develop own accounting system or rent the system from vendor
Turnback transition	No in-house expertise Limited budget	Hire more accounting staffs Management support
	New accounting system not appropriate/compatible Volume increasing and number of staffs not sufficient	Extending contract with vendors for few more months Hire temporary staffs
Turnback completion	Use excel instead of new accounting information system package	Search for better accounting system
On-going reevaluation or in-house mix	Not available	Not available

(Maelah et al. 2010)

3. Theoretical framework

The studies above mentioned have revealed a sophisticated situation of the FAO in the real business world. As we can see, the FAO involves not only “make or buy” decisions but also the selection processes between internal or external partnership, the strategic plan of the IT system tools, and the decision making processes themselves, for instance, who should make the final decision based on what considerations. Since I target on the decision making processes in FAO, I will concentrate on the process of partner selection. I try to explore the basic criteria of the selection and discuss the new changes brought by the advent of technologies such as cloud computing and online channels.

The basic tools for inter-firm relationship study are the agent theory and the transaction cost economy theory (TCE). Under TCE assumptions, only when the transaction cost of an IT activity is lower than its production cost, should that activity be outsourced. Based on TCE, Kemppainen and Vepsalainen (2003) developed the model of Services and Channels, which is used to illustrate the premises of a balanced diffusion of IT into different services. The main message is that the application of IT creates opportunities to diverge the existing services into new types of channels. By this model, we could identify the new generations of services, some of which add value to the customers and some destroy the profits of more conventional competitors.

3.1 Agency Theory

The agency theory (AT) focuses on principal-agent relationships and the problems inherent in them. The principal delegates work to the agent and the agent commits himself to completing the work for a previous mutually agreed compensation (Eisenhardt, 1989). This relationship is delineated in a contract. The cost of the principal-agent relationship, or the agency cost, rises as the need to enforce the contract increases. AT assumes that the principal, through an appropriate contract, can lower the agency cost.

An appropriate contract is, ideally, a complete contract, the antecedent of which is the principal's capability to reason rationally to make sensible choices. However, human rationality is bounded by the available information, the cognitive limitations of human minds, and the finite amount of time before the decision has to be made. This bounded rationality (Simon, 1972) explains why contracts are always incomplete. AT assumes that the two parties, as human beings, pursue their own interest and their goals are often divergent. Three attributes in principal-agent relationships that can increase agency cost are adverse selection, moral hazard, and poaching. Adverse selection occurs when the agent pretends having a skill he does not possess. Moral hazard or shirking happens when the agent claims full payment while not fully performing his duty (Eisenhardt, 1989).

Therefore, according to AT, appropriate outsourcing contracts can lower these risks, thus lower the cost of delegation. AT suggests different types of contracts depending on the situation. Firms should choose behavior-based contracts (such as time and materials) if the agent's risk aversion is serious, the principal cannot easily measure outcomes, and the uncertainty is high. On the other hand, when the principal's risk aversion is high, outcomes are measurable, and tasks are programmable, then outcome-based contracts (such as fixed price) are more appropriate. Although AT is not about outsourcing decision-making, it shares with TCE several concepts, including opportunism, bounded rationality, and uncertainty (Eisenhardt, 1989).

3.2 Transaction Cost Economy theory

According to Williamson (1986), the total cost incurred by a firm can be grouped largely into two components – transaction costs and production costs. Transaction costs, often known as coordination costs, are well defined as the costs of "all the information processing necessary to coordinate the work of people and machines that perform the primary processes," whereas production costs include the costs incurred from "the

physical or other primary processes necessary to create and distribute the goods or services being produced" .

A number of different kinds of transaction costs exist. *Search and information costs* are costs such as those incurred in determining that the required good is available on the market, which has the lowest price, etc. *Bargaining costs* are the costs required to come to an acceptable agreement with the other party to the transaction, drawing up an appropriate contract, etc. *Policing and enforcement costs* are the costs of making sure the other party sticks to the terms of the contract, and taking appropriate action (often through the legal system) if this turns out not to be the case.

Most empirical studies assume that both parties can produce at nearly identical production costs and focus on transaction costs, that is, the costs of running the service, including the *ex-ante costs* of negotiating a contract and the *ex-post costs* of monitoring performance and providing feedback (Williamson 1986). Outsourcing is favored in situations in which markets are competitive (i.e., where many potential suppliers are available). Market pressures minimize the need to monitor supplier behavior (Hennart 1989).

When markets fail and the range of suppliers available to a firm is restricted, a supplier has a tendency to behave opportunistically. This opportunistic behavior only can be reduced through stringent negotiations and extensive supervision of contractual relationships, thereby increasing transaction costs (Dwyer and Oh 1988). In such circumstances, the firm can reduce its transaction costs significantly by replacing external suppliers with its own employees, whose behavior can be monitored and controlled more effectively (Hennart 1989).

TCE is built on two fundamental behavioral assumptions: bounded rationality (Simon, 1957b) and opportunistic behavior. First, rationality is limited because the human mind is not able to realize and process all information that is necessary for entering a complete contract; therefore, contracts are always incomplete. Second, opportunism, defined by Williamson (1989) as "self-interest seeking with guile," often

occurs in contracting because the parties in a transaction tend to take advantage of opportunities at the expense of others by behaving opportunistically (Williamson, 1981).

In TCE, the attributes of a transaction are asset specificity, uncertainty, frequency, and measurement. These attributes indicate the level of opportunism; they signify how opportunistically the vendors can behave in a transaction. Since opportunism invokes the need to prepare detailed contracts and to monitor vendors more closely and more frequently, it increases transaction costs. Therefore, asset specificity, uncertainty, frequency, and measurement related to a transaction are the determinants of its transaction cost.

In addition to the transaction costs and the characteristics of human decision makers, the make-buy-ally decision is also influenced by characteristics of the firms involved in the transactions. Key exchange partners characteristics that influence decisions about governance mode derive from Porter's (1980) on competitive advantage and include features such as partner's competitive position in their respective industries, bilateral power in negotiations, and each partner's alternatives to the transaction at hand (i.e, the opportunity cost of foregoing other transactions).

Asset specificity is the key cause of appropriation concerns and refers to the degree to which investments that have little alternative use outside the relationship are made specifically for the inter-firm relationship. TCE recognize different types of asset specificity as determined by the object of investments, including physical assets (e.g. specialized equipment), human assets (e.g., specialized knowledge, experience, training), dedicated assets (tools and dies for car models), good will assets (e.g., brand name), and location (e.g., collocation for just-in-time production) (Williamson 1991). High asset specificity causes parties involved in a transaction to have few alternatives in which the asset can be employed without loss of value, with the result that they become locked in to their relationship.

TCE identifies two additional characteristics that interact with asset specificity in determining exchange hazards: uncertainty and frequency. Uncertainty includes

environmental uncertainty and behavioral uncertainty (Geyskens et al. 2006). The first type of uncertainty reflects the predictability of the environment in which the transaction is executed and the degree to which intended performance can be specified up front. The second arises from the difficulties that exchange partners experience in monitoring performance ex post (Anderson & Dekker, 2010).

According to Williamson (1985), the frequency or duration of transactions reflects the volume and value of the transactions over time. This transaction characteristic influences exchange hazards and governance choices because specific transactions that take place frequently in a market setting would require the effort of constant monitoring. Transactions that occur only occasionally require less monitoring and therefore do not merit the costs of establishing a hierarchy. Therefore, with the presence of asset specificity, an increase in frequency makes hierarchical governance relatively more attractive to market governance.

Figure 3. The choice between make, buy and ally (adapted from Gulati and Nickerson 2008)

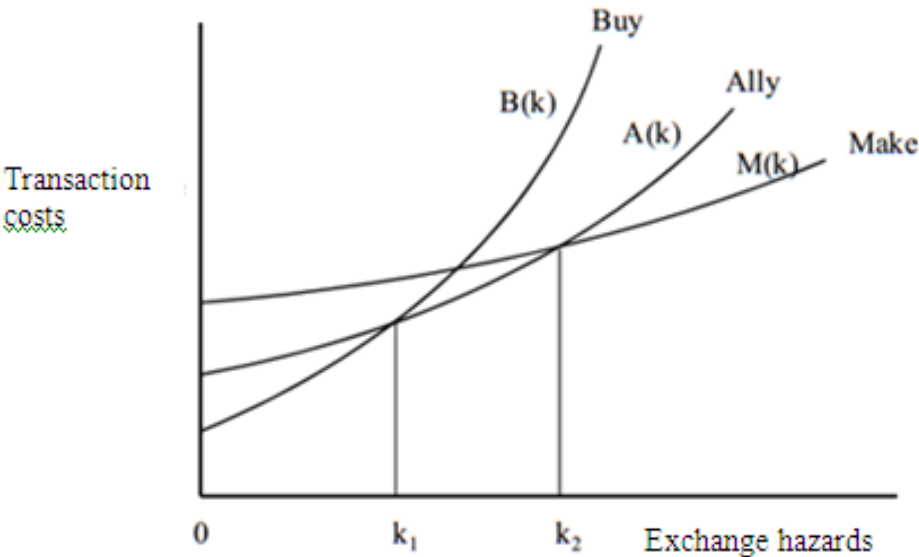


Figure 3 illustrates the basic TCE predictions on choice of governance mode. The figure illustrates that, for low exchange hazards, transaction costs favor the buy mode until exchange hazards reach a level, k_1 , beyond which they favor the hybrid or ally mode of governance. When exchange hazards shift further to the level of k_2 , governance costs reach a level favoring vertical integration. Thus, hybrid governance modes are anticipated when transaction hazards cause pure market exchanges to be insufficient (i.e., “market failures”) but are not sufficiently large to warrant vertical integration (Williamson 1991).

3.3 The Service Channel Strategies

Apte and Vepsalainen (1993) have developed the model of service channel strategies (SCS), to describe the efficiency and development of services, delivery channels and information systems in financial services. The model made the assumption that the different types of services differ inherently by the integration and coordination of the service relationships. A framework was proposed for analyzing the mechanisms of integration and coordination of service processes, including different scope (the parties involved) and media (joint routines, shared resources, and common interests) that contribute to such mechanisms.

According to Timo et al. (1994), the model makes a distinction between the contents and the delivery channel of a service. More specifically:

- *The type of the service* describes what the customer gets, how complex of customer-specific arrangements are needed and what kind of customer relationship is created. The service packages are classified as customized, standard and routine services.
- *The delivery channel* includes the specification of the organizations involved and the information systems supporting them. The delivery channels are classified as agent/ expert, field organization and self-service channels.

The efficiency of both the service and the channel can be analyzed separately. The SCS model also provides the guidelines for efficient matching of different services and channels that are called the service channel strategies as in Fig. 6. According to Makelin and Vepsalainen (1991), the generic service channel strategies located on the main diagonal of the Service Channel Strategy matrix are:

- 1 Focused special services – customized services through expert and agent channels. Services can normally be offered only selectively and in small scale
- 2 Flexible universal services – standard services through a well developed field organization. The flexibility of the services can be increased with a right degree of information systems support and personal service
- 3 Simple instant service – routine services through self-service channel. Cooperation is usually needed to lock in enough users to achieve economies of scale.

Figure 4. The Service Channel Strategy Matrix (Makelin and Vepsalainen 1991)

		Service package		
		Customized service	Standard service	Routine service
Delivery channel	Agent/expert Channel	Focused special service		“Exploiting the customer”
	Field organization		Flexible universal service	
	Self-service channel	“Overwhelming the customer”		Simple instant service

3.4 A Model for Efficient Sourcing of IT Services

Saarinen et al. (1995) further developed the framework of SCS into the efficient sourcing of IT services. The different IT functions are analyzed by their asset specificity, uncertainty and frequency of transactions. More issues of the service classification are further discussed by Makelin and Vepsalainen (1991), Saarinen and Vepsalainen (1994) and Tinnila and Vepsalainen (1995). The proposed typology of IT function is:

- *Contingent functions*, typically new systems design or IT management
- *Specific function*, typically software implementation or maintenance
- *Standard routine functions*, typically data center operations

There are different types of providers for the IT functions and services, classified as follows:

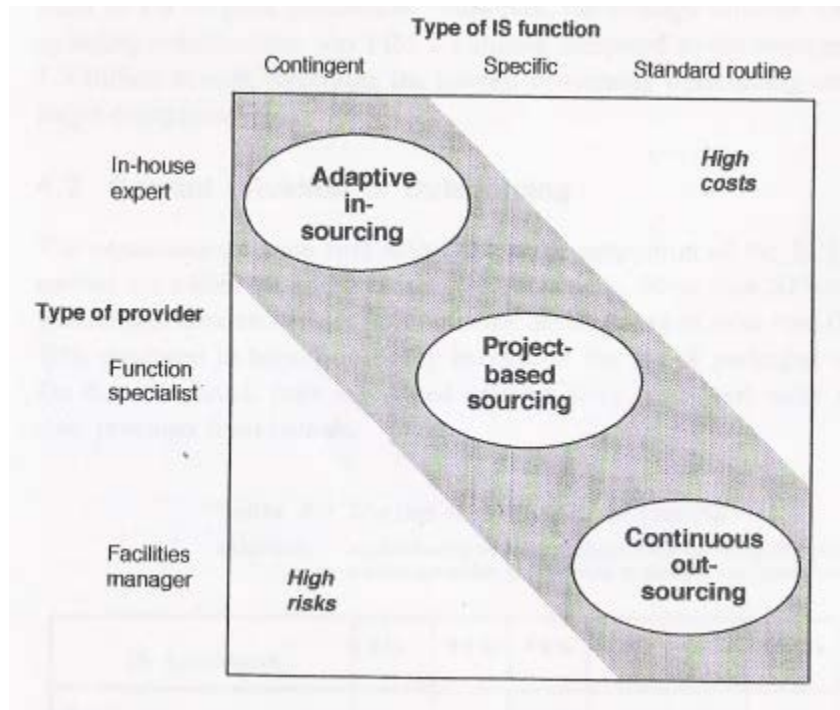
- *In-house experts* providing services under employment relationship
- *Functions specialists* from the company or service provider working in projects under short-term assignments or contracts
- *Facilities managers* providing continuous function support and operations under a long-term contract

Figure 7 below indicates the matrix which maps the different combinations of IT services providers and types of IT functions. The efficient IT sourcing strategies are found on the main diagonal as follows:

1. Adaptive in-sourcing – contingent functions should be procured under the responsibility of in-house experts.
2. Project-based sourcing – specific functions can be provided by internal or external specialists within project-based contracts
3. Continuous outsourcing – standard routine functions should be procured from outside facilities management firms with continuous contracts

According to the sourcing principles derived from the matrix, the use of internal resources in routine services (the options above the main diagonal) may result in unnecessarily high production costs as economies of scale cannot be utilized. Similarly, the use of facilities managers for contingent or company-specific functions (the options below the main diagonal) could involve risks of low strategic commitment and high uncertainty, leading to high contracting costs.

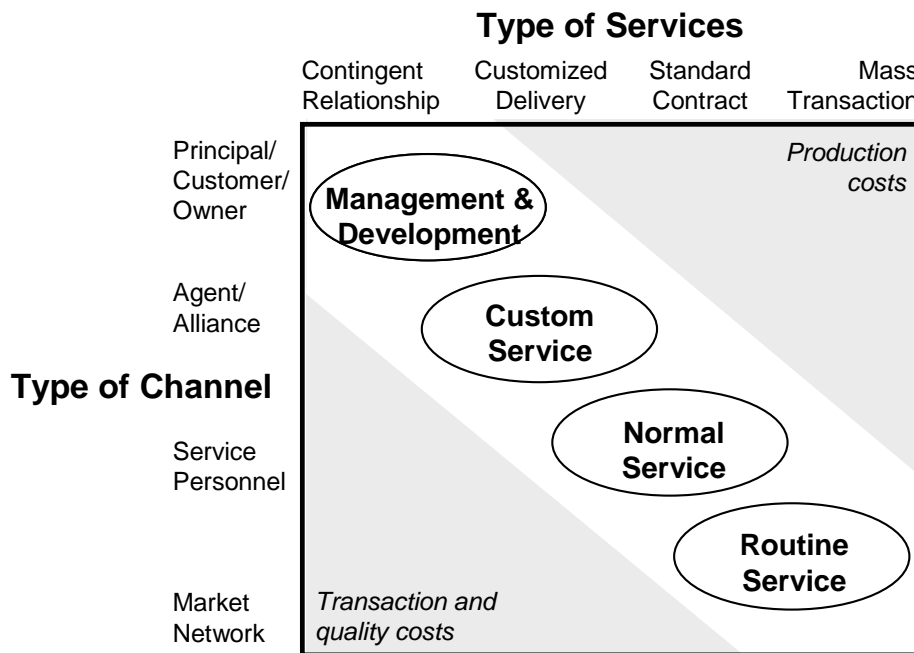
Figure 5. Efficient sourcing of IT functions



Later on, Kemppainen et al. (2003) used the same model as a normative framework in which the efficiency of different service capabilities can be evaluated. They developed a similar matrix as following figure 8. The matrix defines four types of channels organizations: 1) Principal, customer, or owner of the process, 2) Agent or alliance, including experts, consultants and representatives as parties cooperating in providing the service. 3) Service Personnel, a field organization such as sales office or manufacturer's service shops; and 4) Information Market or Network with customers relying on self-service.

In general, internal organization is the longest and most expensive channel since specialized external providers are not allowed to deliver the service. Cooperative arrangements represent long channels as well, in which the fees of the professionals add to channel costs. Short channels, field personnel or self-service, are usually most economical in terms of variable costs, but may involve considerable fixed costs and investments in service facilities, offices and information systems. Channel systems provide the linkages among the channel organizations. Typically, decision support systems would be used by principals, collaborative systems by networks of agents and clients, transaction systems by field organizations, and internet-based systems by individual customers.

Figure 6. The business model of Services and Channels



At one end of the matrix is the *contingent relationship*; the provider and customer could be cautious and has less intent to make a service contract. At the other end, there are *standardized mass transactions*: there are few options and absolute clauses with little discretion. The intermediate services indicated in Figure 2 are *customized delivery* and *standard contract* such as insurance policy with little adaptation for an individual customer. It had been emphasized that the type of service refers primarily to the pur-

pose or output of the service process. It does not measure the complications of the internal procedures involved in the service process.

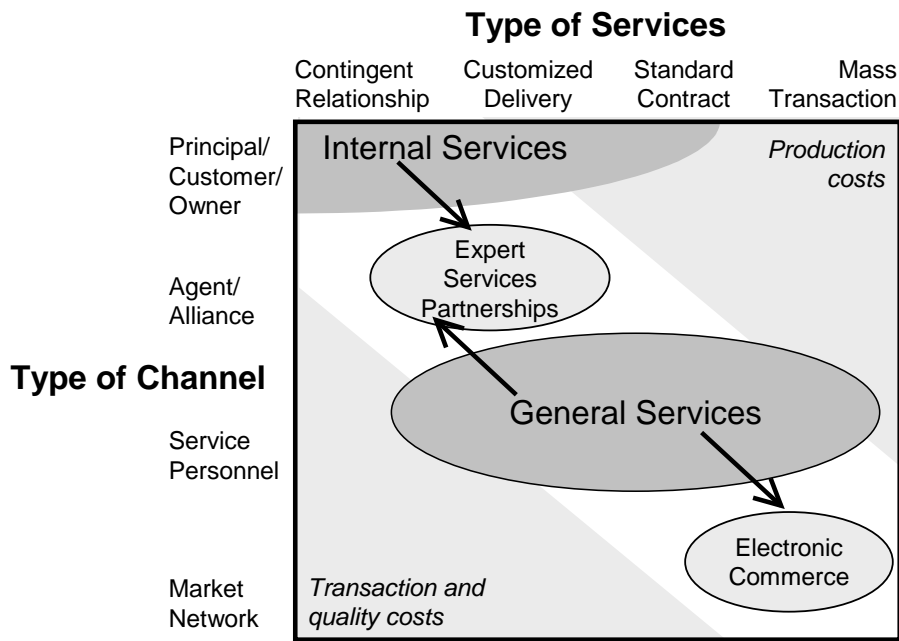
According to the model, the desired product or service should be delivered at the lowest cost - including both production costs and the costs of delivery to the provider and to the customer (i.e., transaction costs) - and to differentiate the quality of service based on the customer needs. The services should be located close to the main diagonal because of the trade-off between production costs and transaction costs. Excessive production costs result from handling simple transactions through a long channel, due to excessive paperwork and customer contacts (services above the diagonal). This strategy ignores potential economies of scale and leads to patronizing of users or customers. The problems with services below the diagonal of the matrix are different. There a complex service is offered in an uncertain situation without professional support and other relationship management leading to risks and errors: transaction costs are high due to the monitoring required and/or the loss because of the errors or fraud committed.

As in Figure 8, the services along the diagonal are efficient. There are four general types of service:

- 1) *Management and Development* - the principal or client manages a contingent service and the resources needed within the organizational hierarchy.
- 2) *Custom Service* - customized delivery of service supported by the expertise of outside professionals or agents, today increasingly by partnerships and alliances.
- 3) *Normal Service* - the field personnel of a manufacturer or a service organization provides diversified standard services, often supported by a network of integrated information systems.
- 4) *Routine Service* - simple mass transactions are provided to the customer or internal user through open information network. Low cost, easy access and convenience are the main criteria of service quality.

The model of Services and Channels has been instrumental in illustrating some of the fundamental problems and trends in the evolution of services. There are two major issues (Makelin et al. 1991): the prevalence of General Service, and the divergence of service strategies. General Service is the most common kind of organization - typically field personnel in a branch office supporting internal production. It has been dominant for the historical but it is emerging or in the process of an evolution to the E-Commerce (see Figure 9).

Figure 7. The divergence of services replacing the conventional General Services



According to Makelin et al. (1991), although General Service has its historical strengths, but it has problems turning it into strategic burden in deregulated and global markets. It is caused by the following reasons:

- First, the broad line of products and services cannot be delivered efficiently through one channel.
- Second, the large customer base is not segmented on the basis of service cost or profitability, leading to cross subsidies that hurt competitiveness.

- Third, the pursuit of economies of scale in organizational level creates a hierarchical bureaucracy that is too rigid to adapt to the new ways of service.
- Fourth, large size and diversified operations create problems with information systems development. The instinctive solution is a highly integrated systems architecture in which a service person could have access to the data on any product and any customer.

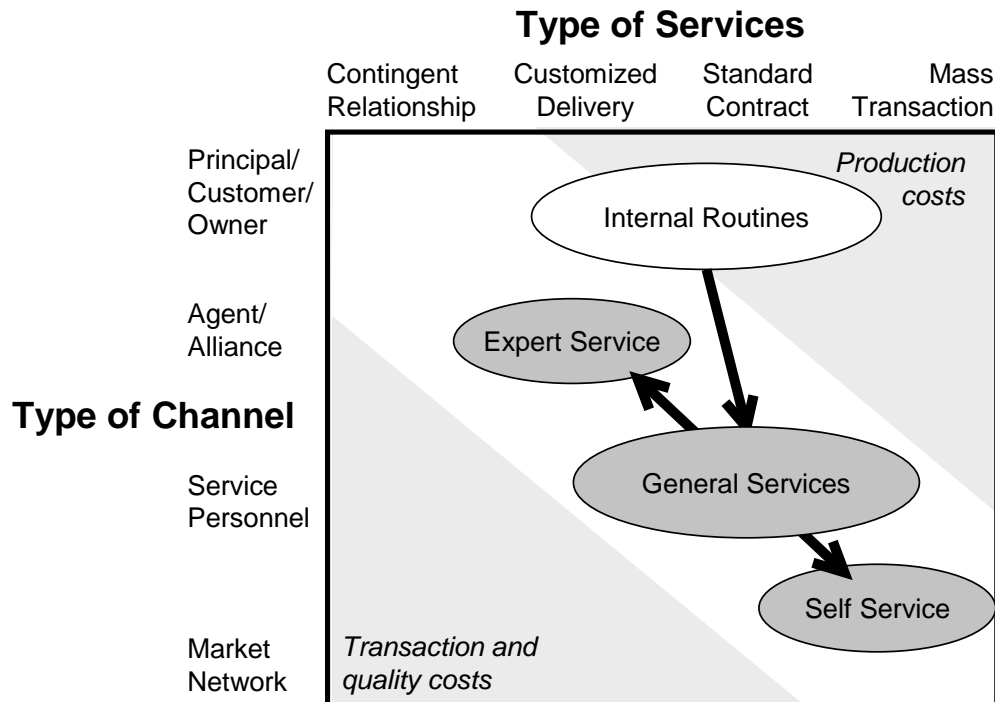
The problems of general service are being revealed by deregulation and by the threat of international competition especially in the neglected areas of service. There exists the need that new e-commerce services to be created for delivering convenient self services, on one hand, and advisory services using external experts and partnerships, on the other. In fact, this divergence of services has been seen taking off in most industries from financial service and distribution to utilities and manufacturing. Simultaneously, the organizations also have to adopt entirely new incentive systems and forms of ownership. It has brought a new trend for the internal service departments (such as information systems, transportation or other support services) that the functional "division of labor", inherent in general service, has to be replaced with "division of service" built on new kinds of customer relations and channel structures with different management styles.

What is needed is a new kind of network culture helping user and provider of service relate to one another. For routine services, joint efforts are needed to establish industry-wide value-added networks (such as internet) or third-party provider solutions for several industries (i.e., electronic markets). Similarly in custom services, independent consultants, financial advisors and engineering companies are winning ground from internal staff departments. So, the expertise is accumulated but the costs of learning and overhead is distributed over several users of the services. This will improve not only the efficiency and quality of service but also the cost allocation according to the actual use of service. The division of customer service also extends the

generic competitive strategies from low cost in electronic markets and differentiation in sales/service offices to customer focus for advisory and engineering units.

Kemppainen et al. (2005) also declare that the service industry is evolving in the pattern as in Fig. 8.

Figure 8. The divergence of services and channels after the stage of decentralized field-based channel for general services



Initially most services have been provided, in some way, by the customers themselves as internal routines. The next step usually has been the establishment of general services based on a decentralized field organization for serving customers locally, in the name of a sales office, maintenance shop or logistics service center. Finally, the adoption of open web environment has fostered the divergence of services into customers' self service, on one hand, and intensive relationships with some expert advisory organization. Over time, the centralized model of service provision is expected to gain share and acceptance also among the global customers.

4. Methodology

My thesis is part of a study on accounting outsourcing in Finland. The whole study involves both surveys and case study. This article focuses on four Finnish SMEs which have outsourced at least part of their accounting functions. The four Finnish SMEs are of different industries and located in two cities. The case study was done by a one hour interview of each firm. The interview data were transcribed manually using the categories of the theoretical framework to guide the analysis. After transcription of interviews, issues were identified, interpreted, and themed through a process of multiple individual readings of the transcripts.

In **chapter 5**, I would introduce the detailed interview results, which include a brief introduction of the four case firms the time sequences of the interview and categorized summaries based on the interview questions. The three categorized comparison are I) the decision making process of FAO; II) the technical and management features of the FAO functions; and III) the contents of these functions. I will enlist the comparison among them in an excel table afterwards for an easy look. The categories cover the following topics of my interests in this study:

Category I: The decision making process of FAO

1. The primary reason of the latest FAO: usually could be generalized as cost efficiency, focusing on core business, lack of expertise;
2. What had been the situation before the latest FAO;
3. Who is the FAO decision initiator;
4. Who is the FAO decision maker;
5. Who else are involved in the decision making process;
6. Why did the decision maker choose the service providers;
7. What results have the case firms got after FAO;
8. What expectations or future plans for FAO;

Category II: What accounting functions have been outsourced?

The functions include payroll, accounts payable, purchase-to-pay/transactional purchasing, accounts receivable, general accounting, management reporting, analytics, logistics/supply chain management, financial planning and analysis, and direct procurement.

Category III: The technical and management features of the FAO functions.

- Is the FAO system cloud-based?
- Who will have the access to the system?
- How does the case firm pay for the service package?
- Is the FAO system real-time? Can the case firm change the input data?
- Does the case firm use e-invoice?
- Is the service provider local or nearby (in the same region)?

The questions of Category I are from Simon's decision making model. According to Simon (1972), the task of rational decision making is to select the alternative that results in the more preferred set of all the possible consequences. This task can be divided into three required stages, which he termed as Intelligence, Design and Choice. Intelligence involves identifying the need for a decision or as Simon put it, "searching the environment." Once the environment has been searched, i.e., the need for a decision identified, the design phase commences. This comprises investigating and developing the problem domain and alternatives. Simon's final phase is that of choice, which describes the activity of selecting the most appropriate course of action from the alternatives previously generated.

By analyzing the decision making process of FAO in Finnish SMEs, I hope to clarify the current criteria or tools used by the management when an ITO decision is made, analyze the cons and pros of the current strategy, hence to seek a solution. The advent of technology such as cloud computing has encouraged a new wave of outsourcing. To

initialize the new style of IT management requires business organizations to keep awakening and aware of its business strategies. Otherwise, the outsourcing strategy could fail and make the company suffer from the turn-back or in-sourcing situation, especially SMEs which are more fragile in its financial control. In this sense, the decision making process is a key factor for the success of the whole strategy.

Category II and III mainly concern the technical and management side. Category II is about the contents of the FAO functions, through which we could get a basic idea about which accounting functions have been outsourced among the case firms. Category III covers the features of the FAO system. These two categories could present us with an up-to-date picture of the FAO in Finnish SMEs. Combining with the questions in Category I, the trend of FAO in the near future could be presumed based on the model of Service Channel Strategy.

Chapter 6 is the analysis of the whole case study. The analysis would be made from three aspects: cultural (Hofstede’s cultural dimension model), technical and the efficient sourcing of IT services (Vepsalainen’s model), which could be shown as following:

Table 4. Methodology

Classification of the research results (category)	The decision making process of FAO	Simon’s model of decision making
	Outsourced accounting functions	KPMG and HfS Research, see table 2
	The technical and management features	Cloud, real time effect, e-invoice, online channels
Analysis	Cultural aspect	Hofstede’s cultural dimensions model
	Technical aspect	Cloud computing is the evolution of ITO
	Service aspect	Vepsalainen’s model of service and channels

By cultural aspects, I refer to the country knowledge of Finland as the background information. Saarinen et al. (1997) defines that Finland is small European country in its territory but with a well developed IS infrastructure and use of modern technology. With the small number and sizes of the companies in Finland, the market for IS services is relatively small. If we explore the Finnish culture through the lens of the 5-Dimension Model of Hofstede's, we can get a good overview of the deep drivers of Finnish culture relative to other world cultures. Apparently I am not going to discuss the cultural difference here, but just to use the model to provide an understanding of SMEs. The most common five dimension of Hofstede's national culture model are powder distance (PDI), individualism versus collectivism (IDV), masculinity versus femininity (MAS), uncertainty avoidance (UAI) and long-term versus short-term orientation (LTO).

Second analysis is from the technical aspects, which focuses on the background of technical development. Among our interviewed case firms, some terminology new technical functions had been discussed now and then, for instance "e-invoice", "real-time", "cloud-based" etc. These are not fashionable words used by the managers for showing off. On the contrary, companies are seriously considering how to implement their IT systems with these new technologies. There is a common view among the business management that the construction of the IT system is not only for the good of business but also an investment to increase the value of the company.

Finally, I will discuss our case study from the service aspect. Accounting is one of the most key business services for a company, which could be delivered internally, completed by the financial management department; or provided externally, outsourced to a service provider. Most SMEs choose to outsource it to an external service provider for the reasons such as lack of expertise and cost efficiency. IT technology has made the service delivery on-line a possible solution, hence we could now focus on the IT service itself. Vepsalainen's model of Service and Channels (MSC) is the ideal tool for this purpose.

5. The Empirical Study

This part is based on the case study of four Finnish firms, which have outsourced at least part of their finance and accounting functions to a third party accounting firm. Although the sizes are different, they all belong to the small and medium sized enterprises (SME), which has less than 250 employees with annual turnover not exceeding 50 million euro (EU definition, 2012). By analyzing and comparing their FAO behaviors, such as their initial motivation for outsourcing, criteria of selection of partners and the impacts brought by FAO, we could understand the current situation of FAO in the Finnish SMEs and discover the reasons underneath.

5.1 Description of the Case firms

Case A

The case firm A running 2 pharmacy stores in Helsinki with 15 employees and an annual turnover of 2,3 million euros. Firm A was founded in 2009. The owner is now running the business by herself. She has been in the business for over 30 years. Before she became an entrepreneur, she had been working in the pharmacy of her mother's. With the experiences and background education in this specific field, the owner made the decision to outsource part of the accounting processes to one accounting company in Vaasa (over 400 km from Helsinki). The accounting company is specialized in the field of pharmacy business and has been identified as one of the 3 biggest accounting companies in the pharmacy field in Finland.

For A, to outsource the accounting function is not only to pursue cost efficiency but also to achieve more expertise services. According to her, the accountancy of pharmacy requires specified accounting knowledge of the different regulations in this field. To make accounting in house, the financial controller also have to receive different training courses continuously which covers various parts, such as the improvements of book-keeping regulations, detailed payroll systems (such as social security policies to a single employee), taxation and relative IT skills. Even such a person could fulfill all the tasks,

the firm would still get stuck when some accidents happen to that person, for instance, illness or vacation. FAO solves these concerns, and the owner only need to send paper documents to the accountancy and could now focus on the other management issues and overall business operation.

The owner got the information of the service provider or external accounting company from her mother who is using the same one. The capability of system updating and development of the service provider is in her mind an advantage as the selection criteria. She also has other sources about FAO alternatives. She has joined some organizations that are for the pharmacists or entrepreneurs. As a member, she will receive emails about the new IT products and offers. She also got access to some social media websites (like a blog), where she could seek information, join a discussion and get consultation from others. The decision was made by the owner after casual discussions with her employees.

In 2013 after FAO, A got the access to a cloud-based system, which could be viewed via internet. The data is saved on the extranet server of that company for years and could be checked whenever needed after log in, but A is not authorized to change the data. Meanwhile A sends monthly all the financial documents, including payroll, payment (account payables and receivables) and financial reports (tax reports and financial statement) to the accounting company. In addition, the actual information of financial transactions are available from the records of A's bank account. The payroll is completely outsourced and charged by number of salary recipients. As a service package, the communication such as frequent phone calls of consultation and annual meetings are included.

Firm A has kept sales and purchasing in house. Most of the sales are done with private customers, only very few client companies need to be sent paper invoices based on the contracts. The owner thinks that making these few invoices in house would be easier and cost saving. She merely purchases from few big medicine wholesalers. The purchasing could be done via online shop and the payment would be transferred

between the bank accounts for this purpose only (both parties open a separate bank account just for the money transfer of the purchasing between them). She plans to outsource more processes to the company in the future, especially payment. By deploying e-invoices, she wished to get rid of all the paper works and make the accounting partner to take care of the payment in the future.

Case B

Case firm B is a subsidiary of a multinational, which provide electronic security and fire protection solutions. The Finnish subsidiary has no manufacturing, so the company needs to make importing and inventory for sales. It used to be owned by a huge US Group, and the ownership changed 2,5 years ago. The annual turnover of the subsidiary in Finland is below 5 million. There had been actually 2 FAO processes. The first FAO happened 6 years ago and only payroll was outsourced. The second FAO was soon after the change of ownership, B made a new outsourcing contract of almost all the financial and accounting functions. In this case, the decision maker is the general manager, who has worked in this firm over 20 years.

The reason of the first FAO mainly based on a mistake made of its own financial person, whose job was mainly making payroll and preparing documents of taxation. The mistake was about taxation and brought penalties for B. As a result, the financial person had to leave. After that, the general manager needed to make a quick decision to find the solution. Since hiring another person was not easy, the general manager decided to outsource the payroll. There could be other reasons, such as cost efficiency etc. The decision making process took only one month.

The second FAO happened after the change of ownership. During the US ownership, B was using an internal system which had been standardized in all the sub organizations of the group. There used to be one controller and one executive manager who were engaged working on the system and sending reports to the headquarters. When the ownership changed, nobody wanted to make the accounting in house. The general manager decided to outsource all of the finance, with now only one personnel

making purchasing. Because the contract of second FAO included payroll in the package, the payroll was transferred to the new service provider afterwards.

One criteria of the selection of the FAO partner was the compatibility of the old database with the new system. Since B had used the huge internal system from US for years, the general manager wanted to choose the system which could be integrated to the old database. The accounting service provider in Jyväskylä claimed that they could provide the solution and turned out to be selected. But according to the general manager, although the contract had been made, the integration of the old database to the new system was not going as fluently as promised. The new partner has provided the integration process to a third company.

After the second FAO, B got accesses to a cloud-based system, through which the executive management could read information but could not revise. The company has deployed e-invoices completely, and the invoices in paper will be scanned into the system. With e-invoices, the project managers working on site don't need to request the clients to sign papers any more. The new system also enables the employees to give their working hours through tablet computers instead of filling the paper forms. Firm B pays the license fee and accesses to the system, in addition a monthly fee would be collected. By outsourcing almost all the accounting processes, even the auditors now could accomplish auditing via accesses to the system without visiting the offices.

Case C

The 3rd case firm is located in the city of Tampere (200 km north from Helsinki, in the middle of Finland). Firm C was founded in 1998 and has been running clinics using laser for the eye surgeries. Firm C now owns 12 clinics around Finland and Tampere clinic is headquarter, where the decision of FAO was made in 2008 by the general manager. All the accounting and procurement processes of each clinic are done by a person in charge, usually a nurse in the local clinic. The procurement of the accessories of each clinic could be done via internet, and double checked by a superior person with the payable invoices before they are accepted.

According to the financial manager, the FAO was decided soon after the present general manager came into his position in 2008. The detail information of the selection process is unknown since she entered the company in the autumn of 2008 after the decision was made. But she knew that there used to be another FAO partner in Oulu, to which a folder with all the vouchers would be sent by post every week. In addition all the vouchers from the clinics would be sent to Tampere headquarters and the book-keeping would be handled there before 2008. There was a financial person in the Tampere office working on the payment and payroll. Although the number of clinics before 2008 was only 5, there were still too much to do by one person.

After the FAO, the payment, purchasing and payroll have been outsourced to a local accounting company in Tampere. The new system has transformed accounts receivable into e-invoices, and paper invoices would be scanned into electronic version. The system is more budget concentrated and supports cash flow forecasting. A copy of income statement would be sent to firm C every month, but the financial manager is not satisfied with the purchasing invoices (accounts receivable) system. It is difficult to follow the expenses of every clinic, and therefore she uses other tools to combine the costs of different clinics into the same basis. Other tasks such as reporting, payroll and payment could be completed with the services provided by the system.

Firm C is charged by the service providers by the amounts of vouchers. Since the business is going stable and predictable, there is no concern of explosion of the lack of resources caused by a drastic customer growth. The financial manager generally gets information of FBO through reading magazines and communication with service providers.

Case D

The last case firm D is also located near the city of Tampere. It is a retailer of building and home renovation materials, including wooden and stone products, electronic devices etc. The retailer shop is located next to a timber mill owned by the same owner. The firm was bought in 2010 by the owner who has managed the business

by himself. The owner had abundant working experiences in the financial management chapters in both the retail companies and accounting services.

After the transition of ownership in 2010, the new owner changed the accounting partner, because he was not satisfied with the former one. Both partners are local accounting companies. In addition to the book keeping (general accounting), he outsourced the payroll as well, which was decided by himself. The reason of outsourcing payroll was based on the consideration of getting more expertise services and making the human resources focusing on the core business. The owner used to work in the accounting service provider's, he knew the system and market so well that he was very confident about his choice.

The owner hasn't had any intention to outsource the other processes, while he is open-minded and ready to make changes when needed. As a retailer of home renovation hardware, D is more labor-intensive, especially the sales. The prices of commodities are presently found at the cashier with their bar codes, while during the former ownership it had to be done by only the specific salesman. The current owner has made great efforts in having all the commodities bar-coded, through which the cashier could record the sales data to the financial controller via the system. The financial controller in the back-office, who knows the purchasing, could also work as call center, and they would answer the phone calls of the commodities.

Unlike other cases, the decision making process of firm D had been more flexible. The owner's strong background of accounting services provided him with a clear vision and further understanding of this outsourcing strategy. For him, the only purpose of outsourcing is to enable the work done more efficiently. He also knows how the services should be built, therefore he would rather standardize the processes in house, for instance to code the commodities, than pay high cost to the accounting partners to do it. The outsourcing demanding of firm D is less than organizations of bigger sizes. Out of the same reason, firm D hasn't deployed e-invoices because there had been very few clients with such requests.

5.2 Classification of Case studies

As mentioned in the methodology, I will classify the case results into three different categories. Category I focus on the decision making processes of FAO, and I will present the results to the following questions. The detailed information could be found in the following table 5-1.

Category I: The decision making process of FAO

1. The primary reason of the latest FAO: usually could be generalized as cost efficiency, focusing on core business, lack of expertise;
2. What had been the situation before the latest FAO;
3. Who is the FAO decision initiator;
4. Who is the FAO decision maker;
5. Who else are involved in the decision making process;
6. Why did the decision maker choose the service providers;
7. What are the achievements of the FAO;
8. What expectations or future plans for FAO;

From the results of the 1st question, we could clearly see that the expertise has become the major FAO reason for Finnish SMEs. Due to the high labor costs in Finland, the SMEs are more eager to outsource the financial control and accounting operations to a third party service-provider rather than making it by itself in-house. One precondition of this phenomenon is a comprehensive and transparent taxation and legal system, which ensures the enterprises to follow the rules without concern of corruption and bribery to local authorities. Meanwhile in many developing areas and economies, the situation could be totally different due to the low level of labor costs and loose legal and taxation systems.

Table 5-1

Questions	A	B	C	D
1. The primary reason of FAO;	The owner used to do all accounting, but as an entrepreneur, she has to focus on the management issues.	Both FAO were results of cost efficiency. The 1 st was made after a mistake accounting action.	Too heavy workload for the financial controller to handle; as a strategy of the modernization.	By FAO, the owner could focus on other business processes.
2. What had been the situation before the latest FAO was made;	book-keeping was outsourced, others made by the owner	book-keeping and payroll outsourced; a big system was in use;	book-keeping was outsourced;	book-keeping was outsourced;
3. Who is the FAO initiator;	Owner	General Manager and financial controller	General Manager	General Manager
4. Who is the FAO decision maker;	Owner	General Manager	General Manager	General Manager
5. Who else are involved;	Other employees	Financial controller	Not known, see the reason below.	The owner
6. Why did the decision maker choose the service provider;	Expertise and reputation of the service provider; capability of system update; price level; consultation services; e-invoices	Compatibility of the system and integrate the old database into the new one, expertise of the service provider;	Not known, because the financial manager had not been in the company during the FAO happened.	working experiences; recommendations;
7. What are the achievements of FAO;	Workload reduced; owner could now focus on management issues, e-invoices	All accounting outsourced; system change; old system being integrated; e-invoices	All the procurement of the sub-clinics recorded; e-invoices; Financial analysis	Workload decreased; the new strategy enabled others to make sales after the arrangement
8. What expectation or future plans of FAO	Making more FAO, especially payment.	Integrating old database into new system.	To combine the data from different clinics into one platform.	With a clear picture of business strategy, no concrete plans.

Before the latest FAO, all the case firms had outsourced some accounting operations to an external accountancy. The new FAO strategy could reduce their workload and focus on their core business. Case B had experienced some trouble in its accounting operation with the custom in importing issues, which made it to outsource more accounting operations instead of hiring its own financial controller. Another reason for the change of FAO of case B firm is the change of the ownership, and the company wanted to get rid of the old in-house system which was huge in size and difficult to use.

This trend also appears clearer in the answers to the 2nd, 7th and 8th questions. The firms have had experiences of FAO and are willing to outsource more accounting operations. E-invoices enable the firms to achieve higher level of FAO, especially in B2B business. For instance, Case B is typical B2B business with almost everything outsourced, while case D, concentrating on B2C, has very limited demands for e-invoice. The real-time effect of FAO make some accounting operations simplified, such as the auditing process. Case B is one of the earliest Finnish firms which have made online auditing possible; therefore the tax institutions could get the accounting information from the system instead of visiting the sites.

Question 3rd, 4th and 5th have revealed the people who are involved in the decision making process and their roles. I have presumed that the wide use of online channels, for instance the social media and the use of tablets and mobiles, would involve lower ranking employees in the decision making process of FAO at a higher level. But according to the answers of question 5, it is noticed that this hypothesis is not obviously true. The decision makers of the SMEs usually know the business so well that they would make the decision by themselves or only with relative person such as in case B. On the other hand, even if the decision maker inquires the employees, the discussion usually happens at some casual occasions, such as coffee breaks, instead of in a formal meeting.

The answers to the 6th question have revealed the criteria of the selection process in the decision making. Majority of the entrepreneurs emphasize the efficiency of the

system to be the primary selection criteria, which covers both the present capability of the system and the development and upgrade potential. The expenses on FAO systems are usually considered to be an investment which would increase the value of the firm. Price level of the services is also important, since generally SMEs can't afford the huge costs. The other criteria also include reputation, which is quite important in Finland. Firm A has selected its service provider from the recommendation of her relatives and her own working experiences.

All the case firms have made achievements after FAO. One commonly mentioned issue is the decrease of workload, for instance, the reduction of mails and working time. In firm A and D, the owners used to focus more on the accounting operations, which was time consuming and exhausting. After FAO, both could concentrate now on other management issues. In firm B, there was a financial team with a financial manager before FAO. The payroll had increased the costs, and the firm had experienced the penalty accidents caused by some operation mistakes. By FAO, the decreased workload has improved the working efficiency and reduced the operation costs.

As mentioned before, firm A, B, C have initialized e-invoice. As part of their FAO package, the e-invoice service is now a routine daily job which was released to their FAO partners. Usually the paper-form invoices would be sent to a vendor for scanning and editing, or we could say, the FAO partners had outsourced the scanning and editing phase to another vendor. In the case of firm C, the scanning of invoices is finished in Estonia, which is the only vendor located abroad. The reason of that may result in the language barrier; and Estonian language is so similar to Finnish.

In the expectation part, all of the case firms have expressed the intention to strengthen FAO. They are all basically satisfied with the current achievements and have different demands for the next strategy. In the following category analysis, I will focus on the list of outsourced operations, which could also reveal the fact of the FAO demands and its potential.

Category II: What accounting operations have been outsourced?

In chapter 2, I introduced the most popular outsourced FAO operations worldwide in table 2. During this research, I will adopt the same list in our case companies for a persuasive comparison. The operations include payroll, accounts payable, purchase-to-pay/transactional purchasing, accounts receivable, general accounting, management reporting, analytics, logistics/supply chain management, financial planning and analysis, and direct procurement as in table 5-2:

Table 5-2

Accounting operations	A	B	C	D	%
Payroll	Y	Y	Y	Y	100
Purchase-to-pay / transactional purchasing*	N	N	N	N	0
Accounts receivable**	Y	Y	Y	N	75
General accounting***	Y	Y	Y	Y	100
Management reporting	Y	Y	Y	N	75
Analytics****	Y	Y	Y	N	75
Logistics / supply chain management	N	Y	Y	N	50
Financial planning and analysis	N	N	N	N	0
Direct procurement*****	N	N	N	N	0

* **Purchase-to-pay** or **transactional purchasing** is the administrative/processing side of purchasing, such as raising purchase orders, receipting invoices for payment etc, whether done manually by a purchasing officer, or automated (e.g. an online catalogue ordering/invoicing system). The procurement practice of finding new suppliers for products or services via Internet technology is called e-sourcing. (Source: <http://www.procurementcourse.com/2010/09/transactional-purchasing.html>)

**** Accounts receivable** are a legally enforceable claim for payment to a business by its customer/ clients for goods supplied and/or services rendered in execution of the customer's order. These are generally in the form of invoices raised by the business and delivered to the customer for payment within an agreed time frame. Accounts receivable represents money owed by entities to the firm on the sale of products or services on credit. In most business entities, accounts receivable is typically executed by generating an invoice and either mailing or electronically delivering it to the customer, who, in turn, must pay it within an established timeframe, called *credit terms or payment terms*. (Source: http://en.wikipedia.org/wiki/Account_receivable)

***** General accounting** is one of the several categories in which accounting are divided. The types of accounting show the standards associated with the collection, the type of activity done and the presentation and documentation of all financial statements. These types also basically operate under their specific principles, laws and regulations. As its name suggests, general accounting basically deals with both the collection and the ledger of general account activity. This may include debits and credits or account charges, along with the method used in documenting financial statements for the fiscal or the calendar year. A general account does not offer sub-category information that is about management. The activity included in general accounting is also related to the general activity that is associated with an entity, organization or a business account. (Source: <http://www.generalaccounting.com/what-is-general-accounting/>)

****** Analytics** is the discovery and communication of meaningful patterns in data. Especially valuable in areas rich with recorded information, analytics relies on the simultaneous application of statistics, computer programming and operations research to quantify performance. Analytics often favors data visualization to communicate insight. Firms may commonly apply analytics to business data, to describe, predict, and improve business performance. Specifically, arenas within analytics include enterprise decision management, retail analytics, store assortment and stock-keeping unit optimization, marketing optimization and marketing mix

analytics, web analytics, sales force sizing and optimization, price and promotion modeling, predictive science, credit risk analysis, and fraud analytics. Since analytics can require extensive computation (See Big Data), the algorithms and software used for analytics harness the most current methods in computer science, statistics, and mathematics. (Source: <http://en.wikipedia.org/wiki/Analytics>)

***** Procurement activities are often split into two categories: direct and indirect procurement. **Direct procurement** occurs in manufacturing settings only. It encompasses all items that are part of finished products, such as raw material, components and parts. In contrast, indirect procurement activities concern “operating resources” that a company purchases to enable its operations. It comprises a wide variety of goods and services, from standardized low value items like office supplies and machine lubricants to complex and costly products and services; like heavy equipment and consulting services.

(Source: <http://en.wikipedia.org/wiki/Procurement>)

In the accounting operations, payroll and general accounting is the most commonly outsourced (100%), followed by accounts receivable, general accounting, management reporting and analytics (75%). B and C outsourced part of the accounting of their supply chain management, but not A and D (50%). None of the case firms outsourced the accounting for financial planning and purchasing, including both transactional purchasing and direct procurement processes (0). Among the four case firms, B and C are similar to each other, with 6 out of 9 FAO operations, followed by A with 5 and D with 2 FAO operations.

Finnish SMEs has started outsourcing general accounting few decades ago for the complex and highly-requisite legal and taxation system. The same situation with the payroll regulations, since it is always involved with social security issues. That is why these 2 are the most common FAO in our case firms. The FAO partners usually provide their customers with the package which covers the other FAO operations. When the

customer company has built up a strategic relationship with its service provider, they could enjoy these services as part of their service package.

B and C have outsourced accounts receivable operations, and achieved e-invoicing strategies. A stated that it had got only very few customers who need to receive invoices, while A had planned to initialize e-invoicing system in the near future to get rid of all the documentation and paper work. D is a retailer and its customers generally prefer merchandising on site and paying in cash. D has not seen the intention or motivation of its customers for e-invoices, so D has not got any plan for neither the e-invoicing system nor FAO of accounts receivable.

Purchasing processes are of the most importance for the SMEs, but none of the case firms have released any of their purchasing operations to a third party service provider. For transactional purchasing, although most of the case firms could make orders online, or e-sourcing, they could let a third party company to do it, because an external service provider could not know what they need to buy for the business running. On the other hand, according the definition, direct procurement usually happens in the manufacturing settings, such as raw material and components. None of our case firms have a regular production line which requires certain amounts of same types of raw material or components. Their purchasing material varies according to the demand of the customer, which makes the outsourcing of this process impossible.

B and C also have part of their logistics FAO, based on the routine and regular delivery needs of their products or material. When a firm needs more detailed information on logistics, such as case C. it could either outsource or develop in-house another system, which could be a very small one, for its own purposes. A and D are mainly retailers with on-site visiting customers, therefore the demand of logistics is not strong accordingly. In this sense, I would clarify the points that the companies choose their own FAO strategies based on their true situation and demands. More FAO could not prove to be better or more advanced than less FAO.

Category III: The technical and management features of the FAO functions.

- Is the FAO system cloud-based?
- Who will have the access to the system?
- How does the case firm pay for the service package?
- Is the FAO system real-time? Can the case firm change the input data?
- Does the case firm use e-invoice?
- Is the service provider local or nearby (in the same region)?

In this category, the questions are more involved with the technical and management features of the FAO systems. From the results, we could see that three firms are using real time cloud-based systems and e-invoice service. Although the input data may not be capable of modification but they are available in real time. The case firms usually pay license fee for the system and its accesses. Case C firm had talked about the online auditing processes via the accesses to the system instead of visiting their offices. It is common that the real time cloud-based systems are usually not supporting modification from the client's side. It is reasonable in the sense that modification from both sides could cause confusing and mistake results. The clients usually could modify the input data via telephone or emails.

The payment and pricing usually depends on the amounts of documents such as invoices and reports, while A firm has made the package contract for annual payment. The FAO functions are not necessarily completed by the FAO partner alone. The third party could use other companies for certain operations as well. Case B firm has two FAO partners. In the other cases, the e-invoice scanning processes are outsourced to others. The location of the third party FAO partner is not considered as a key selection criteria in the decision making processes. The clients and their FAO partners could communicate with each other via internet and phone calls instead of often site visiting.

Table 5-3

The technical and management features	A	B	C	D
Is the FAO system cloud-based?	Y	Y	Y	N
Who will have the access to the system?	owner	Management team; auditors; the other FAO partner	Management team; subsidiary clinics	Management team;
How does the case firm pay for the service package?	Annually	Monthly	Monthly	Monthly
Is the FAO system real-time? Can the case firm change the input data?	Y/N	Y/N	Y/N	N/N
Does the case firm use e-invoices?	Y	Y	Y	N
Is the service provider local or nearby (in the same region)?	N	One of the two partners is local.	Y	Y

5.3 Case Analysis

The case analysis would be based on three different aspects: culture, technology and business operations. The cultural aspect roots from Hofstede's 5 dimension theory and its research on Finnish culture.

5.3.1 Analysis from cultural aspects

According to Hofstede (1993), when it comes to business, promoting cultural sensitivity will help people work more effectively when interacting with people from other countries, and will participate to make sure transactions are successful. The five most widely used 5 dimensions are power distance (PDI), individualism (IDV), masculinity (MAS), uncertainty avoidance index (UAI) and long term orientation (LTO).

- PDI: This dimension expresses the degree to which the less powerful members of a society accept and expect that power is distributed unequally. The fundamental issue here is how a society handles inequalities among people. People in societies exhibiting a large degree of power distance accept a hierarchical order in which everybody has a place and which needs no further justification. In societies with low power distance, people strive to equalize the distribution of power and demand justification for inequalities of power.
- IDV: The high side of this dimension, called Individualism, can be defined as a preference for a loosely-knit social framework in which individuals are expected to take care of themselves and their immediate families only. Its opposite, Collectivism, represents a preference for a tightly-knit framework in society in which individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestioning loyalty. A society's position on this dimension is reflected in whether people's self-image is defined in terms of "I" or "we."

- MAS: The masculinity side of this dimension represents a preference in society for achievement, heroism, assertiveness and material reward for success. Society at large is more competitive. Its opposite, femininity, stands for a preference for cooperation, modesty, caring for the weak and quality of life. Society at large is more consensus-oriented.
- UAI: The uncertainty avoidance dimension expresses the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. The fundamental issue here is how a society deals with the fact that the future can never be known: should we try to control the future or just let it happen? Countries exhibiting strong UAI maintain rigid codes of belief and behaviour and are intolerant of unorthodox behaviour and ideas. Weak UAI societies maintain a more relaxed attitude in which practice counts more than principles.
- LTO: The long-term orientation dimension can be interpreted as dealing with society's search for virtue. Societies with a short-term orientation generally have a strong concern with establishing the absolute Truth. They are normative in their thinking. They exhibit great respect for traditions, a relatively small propensity to save for the future, and a focus on achieving quick results. In societies with a long-term orientation, people believe that truth depends very much on situation, context and time. They show an ability to adapt traditions to changed conditions, a strong propensity to save and make investment, thriftiness, and perseverance in achieving results.

From the website of Hofstede, the research has revealed that Finland bears the following characteristics:

- **Power distance:** Finland scores low on this dimension (score of 33) which means that the following characterizes the Finnish style: Being independent, hierarchy for convenience only, equal rights, superiors accessible, coaching leader, management facilitates and empowers. Power is decentralized and managers count on the experience of their team members. Employees expect to be

consulted. Control is disliked and attitude towards managers are informal and on first name basis. Communication is direct and participative.

- **Individualism:** Finland, with a score of 63 is an Individualistic society. This means there is a high preference for a loosely-knit social framework in which individuals are expected to take care of themselves and their immediate families only. In individualistic societies offence causes guilt and a loss of self-esteem, the employer/employee relationship is a contract based on mutual advantage, hiring and promotion decisions are supposed to be based on merit only, management is the management of individuals.
- **Masculinity / Femininity:** Finland scores 26 on this dimension and is thus considered a feminine society. In feminine countries the focus is on “working in order to live”, managers strive for consensus, people value equality, solidarity and quality in their working lives. Conflicts are resolved by compromise and negotiation. Incentives such as free time and flexibility are favored. Focus is on well-being, status is not shown. An effective manager is a supportive one, and decision making is achieved through involvement.
- **Uncertainty avoidance:** Finland scores 59 on this dimension and thus has a medium high preference for avoiding uncertainty. Countries exhibiting high uncertainty avoidance maintain rigid codes of belief and behavior and are intolerant of unorthodox behavior and ideas. In these cultures there is an emotional need for rules (even if the rules never seem to work) time is money, people have an inner urge to be busy and work hard, precision and punctuality are the norm, innovation may be resisted, security is an important element in individual motivation.
- **Long term orientation:** The Finns score 45, making it a short term orientation culture. Societies with a short-term orientation generally exhibit great respect for traditions, a relatively small propensity to save, strong social pressure to “keep up with the Joneses”, impatience for achieving quick results, and a strong

concern with establishing the Truth i.e. normative. Western societies are typically found at the short-term end of this dimension, as are the countries of the Middle East.

It could be summarized in table 5-4.

PDI	IDV	MAS	UAI	LTO
Being independent hierarchy for convenience only. Power decentralized. Employees expect to be consulted. Communication is direct and participative.	The employer / employee relationship is a contract based on mutual advantage.	“Working in order to live”, managers strive for consensus, people value equality, solidarity and quality in their working lives. Decision making is achieved through involvement.	There is an emotional need for rules; people have an inner urge to be busy and work hard, precision and punctuality are the norm, innovation may be resisted.	Exhibiting great respect for traditions; strong social pressure to “keep up with the Joneses”, impatience for achieving quick results, and a strong concern with establishing the Truth

(Source: <http://geert-hofstede.com/finland.html>)

The relationship between employers and employees in Finnish companies should be less hierarchical than in other areas and is based on mutual advantage. Employees expect to be consulted if the decision is concerning them. The communication is direct and participative. Decision making is achieved through involvement of employees. While in our case studies of the decision making processes of FAO, the employees are less involved in the process than expected. I presume that in SMEs, the structure or hierarchy of the organization is relatively simple and small-sized, as well as the FAO budgets; therefore it is easier and more efficient to be solved at the management level rather than among employees.

FAO usually involves redundancy. The transition of a business operation from tradition or old school to modernization may cause layoff in that department, although it seems less radical than in the big companies. The layoff processes are usually conceived to be suffering both for the decision makers and the people who lose their

jobs. Among our case companies, B has obviously encountered this problem. It is clearly against the “mutual advantage”, while the involved employee in B company had shown his/her kindness and understanding in assisting the FAO process with his/her specialty and skills. It has on the other hand proved that Finns “value equality, solidarity and quality in their working lives” and decision making is achieved through involvement.

We have not seen any signs of “exhibiting great respect for traditions and resist innovation” in our case companies. The fact is that almost all the case companies have shown great enthusiasm in FAO and other IT operations, for instance the e-invoices. Most of the case companies have realized that the investment on FAO and other IT operations would be a strategic improvement and could efficiently cut the costs. On the other hand, companies are forced to do so for the lack of expertise and skills in the accounting operations.

5.3.2 Analysis from technical aspects

The application of online channels also paves the progress. An enrichment brought by the online channels is the resource of information. The decision maker of firm A uses email lists, blogs and other social media for the update of her knowledge of the FAO alternatives. She/he could send her questions via online channels as well as give her/his own experiences. Meanwhile, the traditional way of merchandising is still dominant for the service providers. There are various organizations or unions in different industries of Finland. The decision makers usually belong to their own union, where they would get all kinds of information including FAO suppliers and products. Other sources of information range from recommendation, IT exhibition and personal experiences etc.

Cloud based technology enables the long-distance service providers into the competing arena. The location of the third party company is no longer a limitation. Case firms are free to choose the partners from other cities or another country. Although barriers still exist such as language skills etc, the firms nowadays have more choices

and alternatives when making the decision. On the side of the service providers', the technological advancement has provided the opportunity to enter bigger markets price advantages (the costs for companies located in rural areas may be lower than in the downtown areas). It has been a common phenomenon in global business in last 30 years concerning manufacturing outsourcing.

E-invoices remain one of the most popular issues in our case companies. More and more enterprises have come to realize that e-invoice is the new generation of business operation, especially in B2B transactions. It is an efficient way to cut off the workload and costs, which eliminates the costs of sending posts, making copies and keeping piles of document folders on shelves. It has been mentioned often during our case interviews that there used to be hundreds of mails need to be posted every week while after the application of e-invoices, the clients could now focus on other management issues.

Other technical factors include the compatibility between the old and new system, especially for case B firm. It is the main reason why choosing the current partner. Meanwhile, the general manager of case B firm admits by himself that the transferring of the data from the old system to the new one is not going as fluently as promised. Therefore, we could see that even the service provider sometimes consider that they are capable of solving the technical issues, the result could turn out to be much more complicated.

The final technical issue is also about cloud-based system. The normal way of service for our case firms is through accesses to an external system of the client firm. By paying the accesses, the management of the firm could see all the inputted data but without modification. The data input is usually initialized by the service provider. By accessing to the system, the firm could fulfill its financial management online, for instance, case B firm has requested all its employees to fill their salary forms via tablet pads, and its FAO partner would collect the information and make the payroll operations directly according to these notices. It also enables the online auditing process by giving the auditors the access to its system.

C firm apply the cloud-based system in its supply chain management. C owns many subsidiaries in different cities around Finland. The subsidiaries used to make purchasing separately, which was difficult to control and could cause extra costs. After the application of the new system, all the subsidiary clinics are now be capable to make orders in the unified platform and all the records are collected and reported to the headquarters automatically. Similar operations have been found in B firm as well.

From the selection criteria, we could also figure out that some of the accounting services are specified for clients from different industries, for instance, firm A's service provider is focusing on the pharmacy. It is a proof of the Vepsalainen's "division of services" assumption. "There exists the need that new e-commerce services to be created for delivering convenient self services, on one hand, and advisory services using external experts and partnerships, on the other." The third-party provider solutions with expertise are accumulated but the costs of learning and overhead is distributed over several users of the services. This will improve not only the efficiency and quality of service but also the cost allocation according to the actual use of service.

5.3.3 Analysis from service aspects

Although we are discussing about the accounting operations in the case companies, the business models in these companies differ from each other for many reasons, including different industries, size of the company, different service contents etc. Combining with the Model of Efficient Sourcing of IT Services (MESIS) and the Model of Service and Channels (MSC), we could roughly summarize their accounting services in the form of matrixes, especially in the matrix of service and channels. As we have introduced in previous chapters, the matrix could locate the case companies for us to see what has been achieved and how it will go.

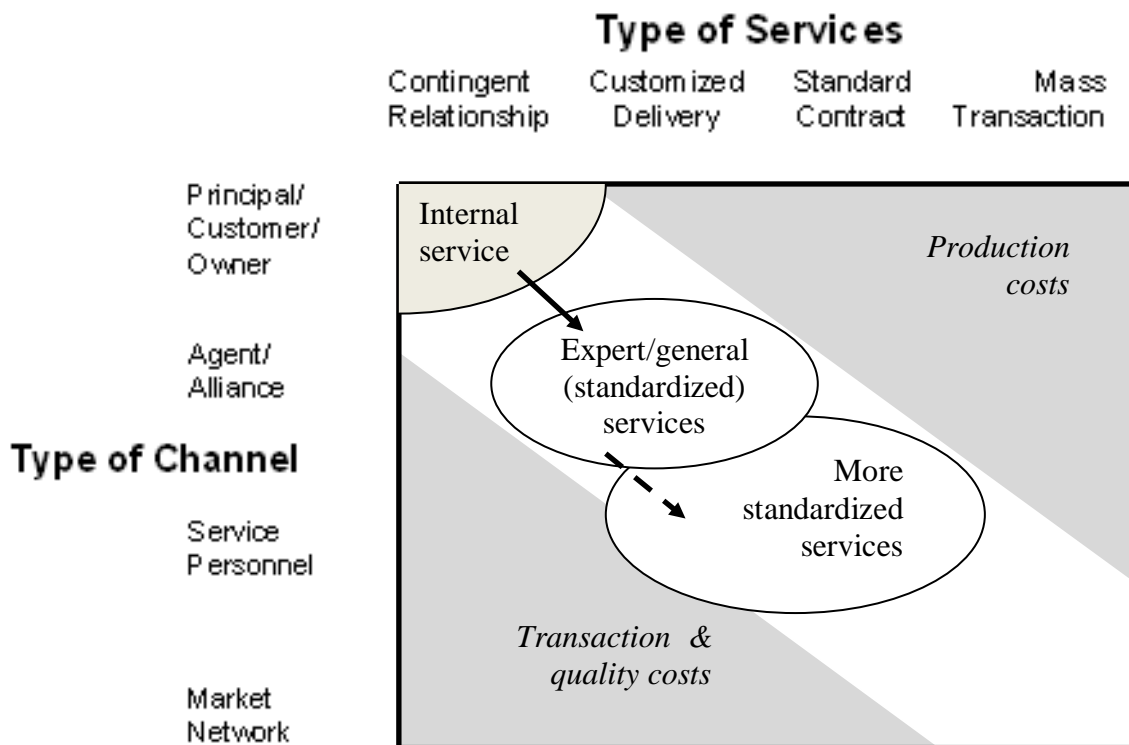
Case A

The pharmacy shop sells its products mainly by retailing and making contracts with organizational customers. The Finnish social security system has very strict and

complex regulations in medical subsidies for patients. Therefore, not every accountancy is competent for the accounting job of a pharmacy. According to the owner of A firm, we get to know that there are three big accounting companies in Finland that are qualified to do this job and her service provider is right one of them.

Here I would define the accounting service of a pharmacy to be both an “expert” and general service, since on one hand, it requires specific knowledge and with limited competitors in the market; but on the other hand, the service provider has offered standardized packages including routine consultation and regular meeting services, as well as the access to a cloud-based system which allows her to see the data in real time. The owner has also expressed the intention to increase outsourcing functions, which would bring the service towards more standardized level. We could show this process in the matrix of the MSC in figure 11.

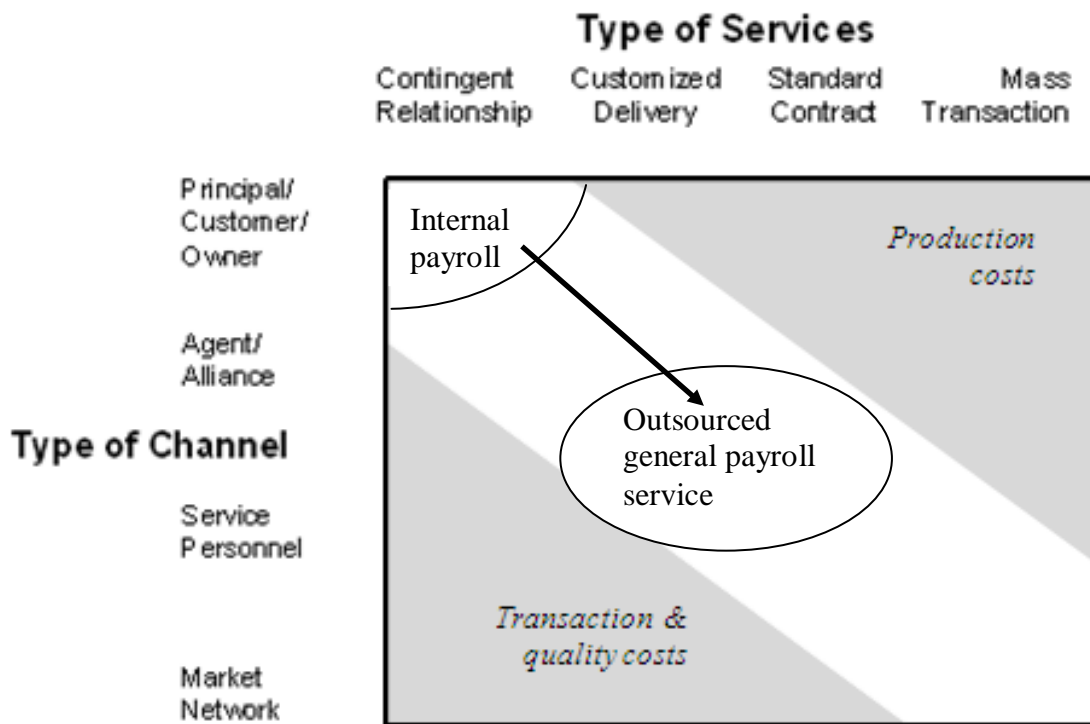
Figure 11. Case A in MSC



Case B

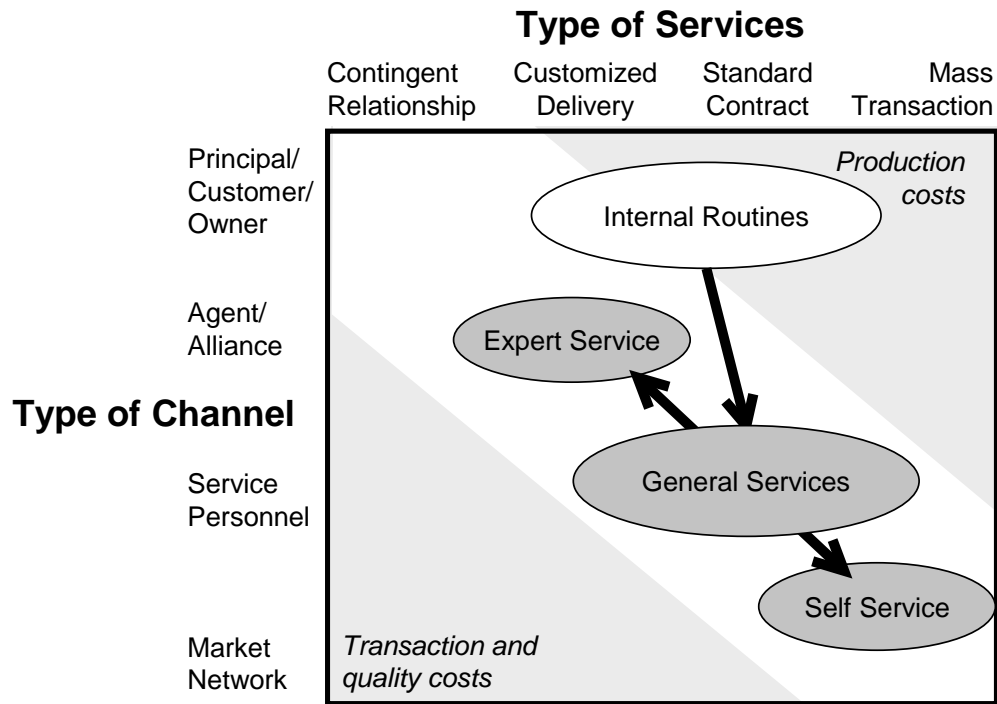
B firm has experienced two stages of F&A outsourcing processes. The first FAO was only the payroll part. Meanwhile B was still under the ownership of the US headquarter and was using an internal system which had been standardized in all the sub organizations of the group. The system was made in-house, and was operated by one controller and one executive manager. The accounting information must be closely reported to the US headquarter and the costs of keeping and maintaining the system are relatively high. The process could be shown as in Figure 12.

Figure 12. The first FAO of case B firm in the matrix of MSC



When the ownership changed, the general manager decided to outsource all of the accounting and finance, with now only one personnel making purchasing. Because the contract of second FAO included payroll in the package, the payroll was transferred to the new service provider afterwards. Then we find that the matrix after the second FAO in case B looks the same as Vepsalainen's model in Figure 10.

Figure 13. After the second FAO in case B, matrix of MSC



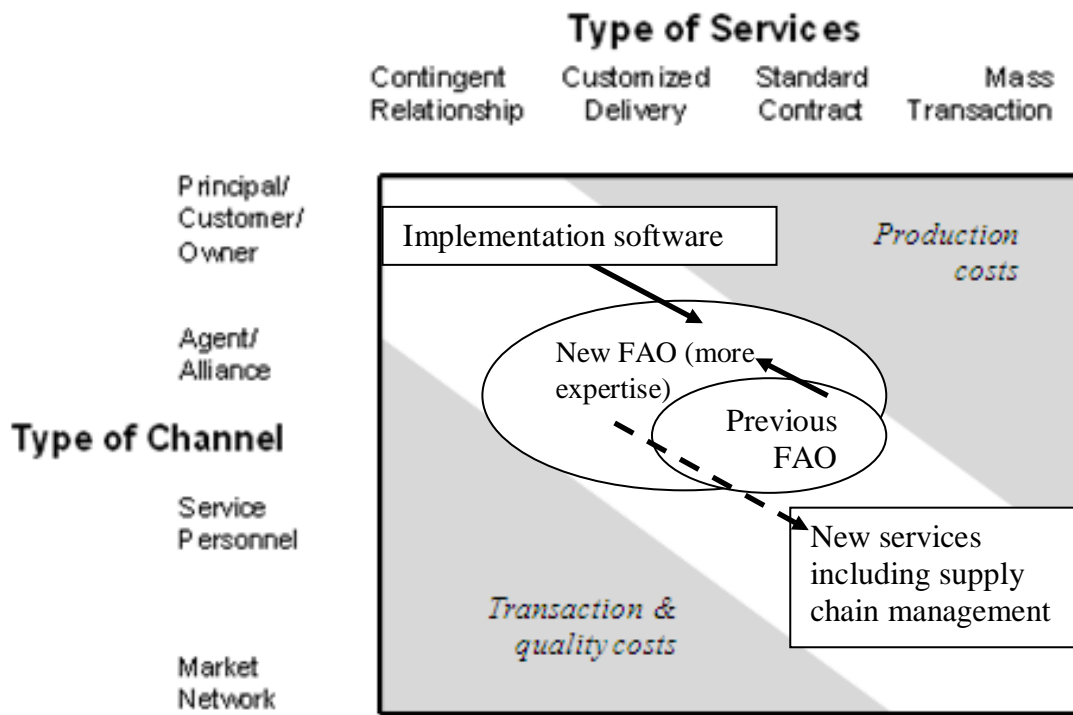
In the second FAO of case B firm, the outsourced services are general and standardized service packages, while the services system had been required to adapt the same system as before for the consideration of data input. Therefore the expert service here refers to the specific system for compatibility. The new service package covers different operational functions such as payroll. The new system provides firm B with the access to the data input, which is real time.

On the other hand, it also allows adoption of new online devices such as tablet computer being used in the payroll reporting processes. In addition, B is the only case company which has outsourced all the necessary accounting functions including auditing processes. The auditors could get all the accounting information through the access to the system without visiting B's office. All these processes could be considered as means of mass transaction in the market network, which has qualified the new model of self service.

Case C

C firm owns 12 eye clinics around Finland and Tampere clinic is the headquarter. All the accounting and procurement processes of each clinic are done by a person in charge, usually a nurse in the local clinic. Before the latest FAO, there had existed an outsourcing partner but there was still a financial person in the Tampere office working on the payment and payroll. The workload at that time was really heavy. After the FAO, the payment, purchasing and payroll have been outsourced. The new system is more budget concentrated and supports cash flow forecasting, making reports, dealing with payroll and payment etc. It seems that C had made outsourcing before the latest FAO while the previous FAO partner had not been competent to the fast growing business needs. By choosing new FAO partner, C could achieve some edges over its demands and realized so called “modernization” such as e-invoices. Meanwhile, C implemented the system with some software selected by its financial manager. Furthermore C plans to implement the supply chain management by outsourcing part of its operations.

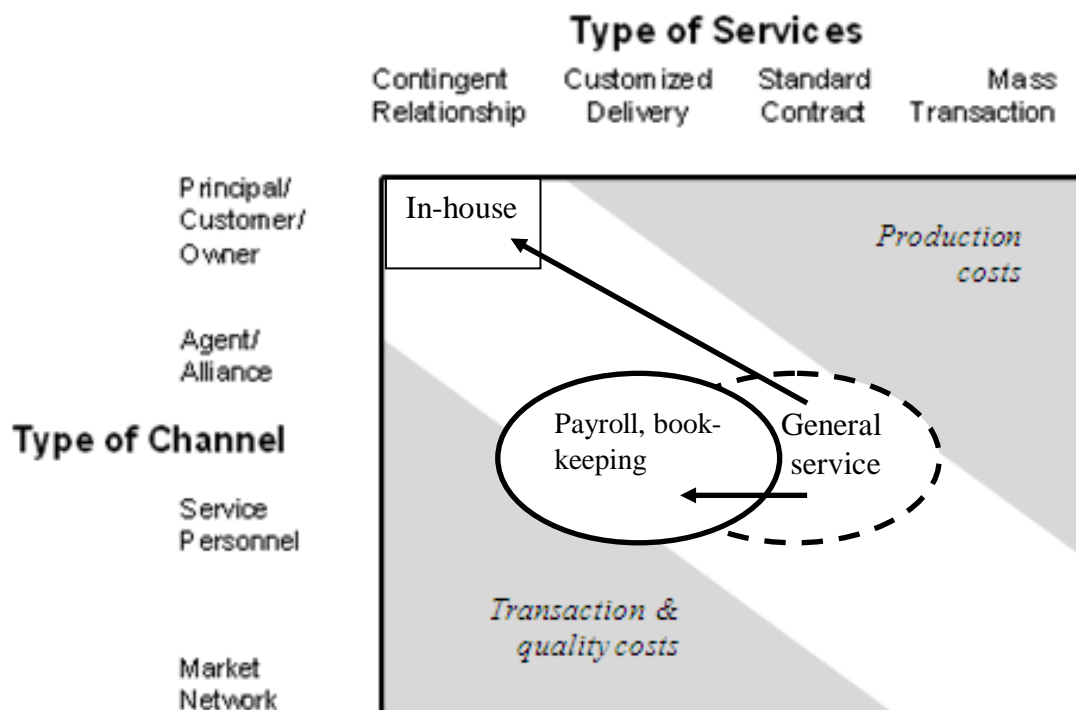
Figure 14. Case C in the matrix of MSC



Case D

Case D is a retail company of construction and home renovation products. Differentiated from other case firms, D has experienced a reverse process of in-house development, mainly the process of coding all the products. For a retailer, one of the challenges is to identify and label all the commodities in the shop, even every single small piece. Unlike big-sized chain stores, D firm does not have a logistics center or a group of experts, therefore the new owner has to figure out how the company could make it by themselves. This process is closely related to the daily accounting operations; hence the owner has to keep it in-house. Meanwhile, the owner has outsourced part of accounting operations to an external service provider, mainly the book-keeping and payroll. So here we could see two different development trends coexisted in firm D: one is to concentrate on how to develop the in-house system and the other is to outsource un-core parts and focus on the core businesses.

Figure 15. Case D in the model of MSC



One thing needs to be pointed out that the owner of D firm had worked in an FAO service company for a long time. He is an expert in this field by himself. As I understood, the owner must know the FAO market so well that he could absolutely find the best solutions for his own company. The in-house solution may be the most suitable strategy for D. It has turned out to be a success for this SME. This is also a typical example that companies should make their strategies based on their real needs and find the most suitable IT solutions, instead of building up too advanced or oversized IT constructions.

For the same reason, D firm has not yet employed some advanced IT applications such as e-invoices, real-time system etc. The company has made up its strategy from the real customer needs. Unlike the other case firms, D's customers are mostly inhabitants nearby and they would rather visit the shop by themselves and pay in cash. In B2C customer relationship, these applications such as e-invoices are less needed. In fact, most customers of D quite enjoy the traditional way of picking up commodities from the yards and bargaining with the salesmen for discounts.

5.3.4 Summary

In chapter 5, I have made the analysis of the case study in three different aspects: cultural, technical and service. The previous two aspects are somehow too big-ranged and vague to be discussed in detail. We know that even the cultural factors would be considered in the decision making process, there were still too many other elements which could change the results, such as personal character, emotions etc. The same situation could happen with the technical factors. Companies have to consider strategic losses when they adopt new and advanced systems, which would bring more investment and other costs including installation, personnel training, not mentioning the risks existed in the new system. Therefore, I have concentrated on the third aspect: service aspect.

I have adopted Vepsalainen's model of Service and Channels for a visual matrix analysis. From the limited interview discussions, I manage to position the case firms

into the matrixes although it is done in a really rough way. I hope that I could have shown the basic FAO situation in these figures, for it is much easier to tell the strategic FAO actions and the development trend of these firms.

With the analysis, we could generally understand what would be the factors influencing the decision makers in the IT outsourcing processes. These factors could be an accident which caused losses, or an organizational change inside the company etc. One thing in general in all our case firms concerning the FAO is that all the decisions are done with mature considerations and repeated consultations. The consultation may happen internally, among the employees or lower ranking personnel, or externally, from service providers, IT magazines, blogs etc.

Several concepts were often mentioned during the interviews: e-invoice, cloud computing, real-time etc. The new generation of technology, or so called online channels, has brought great challenges to the business management both internally and externally. The consciousness of employees is growing and there are more communication channels such as social media, where they could give their opinions. Therefore, I had assumed before the interviews that this trend could lead to the fact that the decision making process of FAO could involve more people, but it turned out that there had been no clear sign yet.

Moreover, the service providers are advancing towards the phase so called “division of service”, that are more specified and user-based. The client firms may have various demands due to the different accounting regulations within the industry or the compatibility of the old database etc. Hence the service providers make their services for those various marketing sections, in which they develop their expertise. Since their services are delivered by IT systems, they also need to keep up the maintenance and upgrading with regular charges. The clients avoid paying for the in house development and the license of the system, which are paid by the service provider. It is the achievement of economic scale.

6. Conclusion

This study based on the interviews with four Finnish SMEs has led to deep insights into the decision making processes of FAO. The results had confirmed our initial understanding that FAO had become the main trend of business operations across different industries. The executive managers are now thinking of how to achieve the edges over its competitors by designing the system and selecting strategic FAO partners rather than what should be outsourced. When making decisions of FAO partner selection, the executive managers usually consider the real working efficiency as the primary criteria rather than price level of the service system.

Meanwhile some conclusions are counter-intuitive with my presumptions. For example, I had presumed that with the widespread usage of social media would make employees more involved in the decision making processes of FAO, while it turned out to be less or even not affected. The decision makers were not so enthusiastic to inquire of their employees. On the other hand, the management usually uses more traditional means for the selection of their FAO partners rather than social media tools. The owner of case A confirmed that she had accounts in some blogs where she could share the FAO information, but she chose the FAO partner for the recommendation of others. The other case firms made the selection of their FAO partners either from their own working experiences and relationships or from magazine and exhibitions.

According to the results, the decision makers are usually the top management of the company, in most cases, the owner or general manager. There is no separate IT department or even IT engineers in our case firms, therefore I could assume that the internal consultation is very limited. Generally speaking, the decision making processes are relatively more straight and simplified than what I have predicted. In most cases, it is a "from top down" situation. There is also some internal communication in some cases, but the way and the place of this communication is pretty casual, for instance a casual discussion during the coffee breaks etc.

6.1 Theoretical implications

I analyzed the research results from three different aspects: cultural, technical and service. In the cultural aspect, I adopted the model of Hofstede's cultural dimensions as a basic setting, although the final conclusion may be distinct. For example, the above mentioned issue is obviously controversial intuitive. According to Hofstede, Finnish culture indicates that "decision making is achieved through involvement", while we have not seen the enthusiasm from neither the decision maker (management) nor the participants (employees). Then we have to assume that the employees may be so busy to finish their own jobs in the SMEs that nobody cares so much about the irrelevant FAO decisions, unless it is closely related to their own career lives.

Finnish companies usually choose domestic or local companies as their FAO partners. Each of our case firms has outsourced part of their financial and accounting operations to at least one or several external service providers. In Finland, IT service outsourcing has become popular several decades ago, especially with the booming of telecommunication industry. Since financial and accounting operations are usually involved with local language skills, customer companies used to select FAO service providers domestically. However, some FAO processes that have little language barriers have been outsourced or usually by their FAO partners to foreign companies, such as paper form invoices being scanned into e-invoices.

At the technical level, the emerge of cloud computing is leading to the FAO service evolution. Some academic school has proposed to definite the online services to be the new form of outsourcing, since the services are delivered by internet, using cloud-based techniques. Despite unperfect design and hidden security perils, the cloud-based computing technology is transforming the business world drastically. The cloud-based platform may be integrated with devices like smart phones, tablet computers etc. These devices and the online channel have transformed the business and management style. The case firms had generally initialized cloud-based systems with e-invoicing and real-

time effect. In some cases, the auditors could finish auditing processes through the access to the system instead of visiting the offices of the company.

FAO is the trade of service. To analyze FAO in the business respect, I adopted Vepsalainen's model of service and channels, which illustrates the premises of a balanced diffusion of IT into different services. The main message is that the application of IT creates opportunities to diverge the existing services into new types of channels. By using this model, we could identify the new generations of services, some of which could add value to the customers and some could destroy the profits of more conventional competitors. .

6.2 Managerial implications

One key issue of the thesis is to clarify the choice between outsourcing and insourcing. Despite the generally recognized advantages of outsourcing, companies would make their choices based on the real facts and practical factors. Case D firm has developed its own coding system to initialize a new working method. The data input into the system would be recorded to the accounting information. Such system is very useful but would be too expensive to be outsourced to a service provider. Case D has made an absolutely correct choice based on the real situation of its company.

Moreover, the initialization of a new FAO relationship could cause temporary damages to the customer company as well, for instance, education costs, lay off employees etc. These costs could be considered as the strategic loss for a future development. Case B has been involved with this situation, even a high ranking manager lost his job for the FAO. In a macro way, the service provider companies are getting stronger with more expertise. As result, the customer companies could achieve more specific and better services from the market.

6.3 Limitations and future research

The topics of this thesis are ranged within SMEs, of which the financial and accounting processes are relatively simple. In the big organizations, especially

international organizations, the things could be different. Therefore, our research may not be suitable to those big companies and international organizations. Our case firm B used to be a subsidiary of an US huge company, which had required all its subsidiaries to install the same accounting system with headquarter for a close control. Although the system had been quite expensive to operate and maintain, the subsidiary company still had to adopt it as a strategic policy of the whole group.

Meanwhile, for some SMEs which are ranked in some specific industries where FAO services are not easily adopted; these research results are also difficult to be replicated. Every industry has its own rules and regulations, which sometimes are hard for the outsiders to follow. The service providers are designing their services to a more general market section. If the industry is specific and there are few customers, there would be not business meaning for them at all. Case firm A is in the pharmacy retail industry, according to the owner, there are only three big accounting companies in Finland for the pharmacy firms. In this sense, the choices are relatively limited.

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