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ABSTRACT

Title: Cloud Computing and the Innovation Process of Technology Consulting Services: the case of Accenture

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Cloud Computing is heralded as the next big thing in enterprise IT. It will likely have a growing impact on IT and business activities in many organizations. It is changing the way IT departments used to work in order to get competitive advantages and meet the needs of the global economy. Accenture consulting currently has an advantage because they are developing innovation inside and also bringing innovation from outside to its current offer. However, what is of particular interest in this research is the impact of new technology such as Cloud Computing to Accenture’s Business Model as a consequence of the maturation of the Internet as an IT platform. Accenture is opening its Business Model, using an approach of Open Innovation, accessing external knowledge in order to support their R&D processes. The firm is using both external and internal ideas to develop new technologies to take them faster to the market, according to the studies of Henry Chesbrough.

The intention of this thesis is to address the following questions; How Accenture focuses on new markets and new businesses (such as Cloud Computing), as well as their current business (such as SAP)? What kind of innovation process is Accenture BM with SAP, according to the description made by Henry Chesbrough? How Accenture by working on Cloud Computing is moving its BM from type 5 to 6 according to the description made by Chesbrough? To answer these questions an exploratory case study approach was taken with the intention to detect patterns and regularities that will help to precise the answers and capture the impact of Cloud Computing to Accenture technology consulting services.

Accenture is passing from a Business Model type 5 where integrates its innovation process connected to its Business Model and where is using IP as a financial asset; to a Business Model type 6 where Accenture is able to change, and is changed by the market, in other words, Accenture is creating a Business Model which is adaptive and where its innovation process identify new Business Models, using its IP as a strategic asset.

Even though Cloud Computing is at a nascent stage; to be successful organizations should take small, incremental steps toward this new environment so can obtain early benefits for applicable business situations, and learn how to deal with the associated issues and risks. While cloud computing still has a long way to go before proving its full value, Accenture is moving fast to make it a vital part of its value proposition and its Business Model.

Key words: Cloud Computing, Accenture Consulting, Business Model, Open Innovation and Alliances.
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Chapter 1 – Background and Research Context

1.1 Introduction

This thesis will discuss the capabilities of Cloud Computing, both today and into the future, and how Accenture consulting integrates its current activities like SAP implementations with new business activities and innovations like the cloud into its Business Model, offering new services to its clients.

Cloud Computing is heralded as the next big thing in enterprise IT. It will likely have a growing impact on IT and business activities in many organizations. CIO’s are looking beyond to see what opportunities and challenges lay in the cloud and how it can be use to promote the organization’s strategy. Cloud Computing is real now because of the maturation of the Internet as an IT platform. It allows companies to consider services such as, virtualization, standardization, and open source software to be integrated into their products or services. It allows not only enhancing their services, but it allows the users of those Internet based products to be brought into the ecosystem of a consulting company.

The research context will be based on Henry Chesbrough and his studies of Open Business Models and Open Innovation. The reasoning will be moving from specific observations of how Accenture operates its current business model like SAP in relation with new technologies like Cloud Computing in order to detect patterns and regularities that will help to precise the answers about the impact of the Cloud to Accenture technology consulting services in terms of new services for clients.

More specifically, interpret changes in how Accenture consulting is securing its business future with the entrance of new technologies. It is done by studying how Accenture is passing from a Business Model aware of externalities: consulting working for their own specific Business Model and partners (I will describe), toward integrating innovation process within its Business Model: working toward an Open Business Model and Open Innovation, taking new technology from outside its boundaries like Cloud Computing from software providers and delivering this technology to its clients.

I identify two possible models: a) one that built on the former Business Model where Cloud Computing works as a new extension without disrupting Accenture’s Business Model and b) Cloud Computing is part of a continuous and multi-directional innovation strategy where Accenture adapts to the market and is adapted by the market.

In efficiency terms, with the introduction of new technologies, Accenture is suppose to help software providers to reduce their costs of development by taking this technologies faster to the market; been able to offer the benefits of the cloud to its clients and gain competitive advantages.
1.2 Methodology

This thesis is a case study, which will investigate how Accenture consulting is offering current technology such as SAP and introducing innovation such as Cloud Computing to its Business Model by adapting it to innovations in the marketplace, in other words, how Accenture consulting is passing from a Business Model type 5 to a Business Model type 6 according to the description of Open Business Model and Open Innovation made by Henry Chesbrough.

1.2.1 Data Collection

The information will be collected from relevant sources in the field of SAP, Cloud Computing, Business Models, Alliances, Open Innovation and Accenture Consulting. I am an ex-employee of Accenture Consulting, and that gives me a pre-understanding of the industry in question. This allows me to have access to good sources of information and create an informed assessment of Accenture’s Business Model. Even though this has benefit it can have negative consequences as well. One possible weakness is that because I used to be part of the organization, it may be difficult to preserve a neutral view. However, this will be regulated because the information coming directly from Accenture sources and personal experiences will be utilized in conjunction with other relevant sources.

1.2.2 Secondary Data

The data will be collected from secondary sources: The data will be obtained from a survey developed by Kelton Research between December 15, 2008, and January 8, 2009, where the target population was the 502 respondents include C-level executives (e.g. CEO, CFO, CIO, CTO), business leaders (GMs, heads of departments and functions, etc.) and IT decision-makers from 17 regions, including Austria, Australia, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Singapore, Spain, Sweden, Switzerland, the United Kingdom and the United States. (See Appendix # 1 for more detailed information) and also the secondary data will be a multitude of literature and research collected from: books (Henry Chesbrough), journals, articles, panel study, current surveys, financial reports and white papers (Accenture, SAP, Sun Microsystems, Amazon EC2, Force.com, etc.)

1.2.3 Research Questions

General

• How Accenture focuses on new markets and new businesses (such as Cloud Computing), as well as their current business (such as SAP)?

Accenture’s Business Model described with SAP:

• How Accenture integrates internal and external development activities in their Business Model?
• How Accenture proceed with its Innovation process in relation to its business model?
• What kind of innovation process is Accenture BM with SAP, according to the description made by Henry Chesbrough?

Accenture’s Business Model described with Cloud Computing:

• How Accenture is taking advantage of Cloud Computing and integrate it into its Business Model?
• How Accenture by working on Cloud Computing is moving its BM from type 5 to 6 according to the description made by Chesbrough?

1.2.4 Thesis Limitations

• This case study is limited to one Consulting Company, so it will be difficult to use it to make generalizations about the Consulting Industry, however, it is possible that the conclusion resulted from this analysis may be of interest and have some relevance to other Consulting companies and Technology providers.
• The research will not focus on every type of service offered by Accenture, as the scope would be too large, it will only focus on the general concept of two technologies (SAP and Cloud Computing)
• The research will not describe in detail SAP technology but only use it as general concept in order to exemplify Accenture’s current offer.
• The research will not describe in detail every type of clouds, as the scope would be too large, but it will focus on the main concepts of Cloud Computing in order to exemplify the introduction of innovation to Accenture’s Business Model.
• The research will not describe if Cloud Computing is a secure technology but will give a general idea of the current benefits and issues.
1.3 Overview of Consulting Services: the case of Accenture

Accenture's history\(^1\) began with the birth of Arthur Edward Andersen (1885-1947) in Plano, Illinois. He was a son of a Norwegian couple immigrated to the United States. Andersen at the age of 23 became the youngest certified public accountant in Illinois and started working in 1907 for 4 years in Price Waterhouse and 1 year as a controller in Joseph Schlitz Brewing Company based in Milwaukee, Wisconsin. During 1913 at the age of 28, Andersen together with Clarence DeLany decided to found the accounting firm Andersen, DeLany & Company in Chicago.

Their first client was Schlitz Brewing, and soon expanded to include International Telephone & Telegraph, Colgate-Palmolive, Parker Pen, and Briggs & Stratton, although their primary business was with utility companies like Cincinnati Gas & Electric Company, Detroit Natural Gas Company, Milwaukee Gas Light Company, and Kansas City Power & Light Company. In 1918 DeLany left the partnership and the company was named Arthur Andersen & Company, it started growing fast in many states across the country, providing licensed accountants and auditors with services like financial and industrial investigation services for many large industrial enterprises.

Andersen had a great aptitude of hiring talented accountants; in 1928 the company employed approximately 400 people and by 1940 it increased to 700. He created several literatures on accounting, including "Duties and Responsibilities of the Comptroller" and "Present Day Problems Affecting the Presentation and Interpretation of Financial Statements" which gave him an increasing appreciation and respect in financial, industrial, and academic circles.

Subsequent to Andersen's death in January 1947, the partner Leonard Spacek\(^2\) took over the company, and grew it into an international organization, promoting a campaign to improve accounting methods and practices by emphasizing the value of implementing uniform accounting principles. He also creates the Andersen University; a training center located in St. Charles, Illinois; nowadays is called Q-Center and provides training, methodology and best practices in management and technology consulting for different companies. Spacek got retired in 1973, when Arthur Andersen & Company had opened 18 new offices in the United States and more than 25 offices around the globe.

Andersen had grown into one of the world's greatest accounting firms. The company also featured a profitable consulting service, helping large corporations install and use their first computer systems in the 1950s and branching out into production control, cost accounting, and operations research in the 1960s. In addition, with audit and accounting revenues, the company's consulting services began to represent an increasing share of Andersen's income. In the 1970s, Arthur Andersen became involved in a multitude of consulting activities, including

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systems integration services, strategic services, development of software application products, and a variety of additional technological services. By 1988, 40 percent of the company’s total revenues were generated from consulting fees, making Arthur Andersen the largest consulting firm in the world.

During this time, conflicts between the auditors and the consultants in the company came out, centering on discrepancies in the pay scale and disagreement over the control of consulting operations. As a result, Arthur Andersen was divided into two entities, an Auditing and Tax firm known as Arthur Andersen & Company and a Consulting firm named Andersen Consulting. Also the traditional management hierarchy, in which consultants reported to auditors, was changed, allowing consultants to report to managers in their field all the way up through the level of consulting partner.

In 1999 Andersen Worldwide continued managing its two operating units and continued to lead the world in Consulting Services. By 2000 had achieved more than a decade of incredible growth, with net revenues exceeding US$9.5 billion and more than 70,000 professionals in 46 countries delivering to clients a broad range of Consulting, Technology and Outsourcing Services and Solutions.

The dispute between the consultants and the accountants reached its conclusion when the International Court of Arbitration in Paris separated the two groups. And in January 2001, Andersen Consulting changed its name to Accenture Ltd. After a century of existence, the Arthur Andersen name was finished, ending with the corporate life of one of the largest and respected names in U.S. business. Accenture then commenced one of the largest and most successful re-branding campaigns in corporate history.

In April 2001, Accenture’s partners voted to pursue an initial public offering, and Accenture became a public company on July 19, 2001, when it listed on the New York Stock Exchange under the symbol ACN.

Today Accenture is a global Management Consulting, Technology Services and Outsourcing Company, who work in identifying new business and technology trends; developing solutions and offering services around the globe. According to Accenture’s Fact Sheet Q1 Fiscal 2010 (Nov. 30, 2009), Accenture has approximately 177,000 employees (including more than 4,600 senior executives) with offices and operations in more than 200 cities in 52 countries, divided in 3 Geographic Regions including Americas, Asia Pacific and Europe / Middle East / Africa (EMEA) with Net Revenues of US$21.58 billion for fiscal 2009 (12 months ended Aug. 31, 2009)
Chapter 2 – Key Concepts: Business Model, Open Innovation and Alliances

2.1 Business Model

In order to analyze Accenture’s Business Model, I would like to start by clarifying the concept of Business Model (BM). It describes how an organization creates, delivers, and captures value (economic, social, or other forms of value)\(^3\). It fulfills two critical functions: it creates value for the business offering to the value chain that the focal firm seeks to serve (the firm’s suppliers, customers, distribution, partners), and it enables the firm to capture a portion of the value created for itself\(^4\). In other words is “How a Company intends to make money out of their ideas, resources and technologies”\(^5\).

A BM forms the foundation for how executives make decisions about opportunities to pursue, business to launch or buy, activities to perform, talent to hire and ways to organize to deliver value to stakeholders. But, why to open the BM, according to Henry Chesbrough, one reason is that technology and useful knowledge is increasingly widespread and distributed across companies and industries around the globe, second because of the rising cost of technology development and third, because a shorter product life cycles, which makes R&D investment under the closed BM of innovation difficult to sustain.

On the other hand, an open BM confronts the cost side of the equation by pulling external R&D resources to save time and money in the innovation process. It also confronts the revenue side by enlargement the number of markets tackles by the innovation, in other words, leveraged cost and savings, combining with new revenue opportunities. When the company participates in other segments through licensing revenues and joint ventures, then the development cost of innovation are reduced by use of external technology, saving time and money, as a result the innovation process become attractive again even with a short product life cycle. Organizations by accessing to more ideas, and by using these ideas in more new products and services, can keep tempo and achieve and economically viable model of innovation.

One way to describe a BM is by identifying its basic core components. The company combines these components in order to complete the equation with the aim of gain competitive advantages and create value to its stakeholders. The basic components I would use in order to describe Accenture’s BM are infrastructure (capabilities, partners, key processes), offer (value proposition), customers

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3 Business Model Generation, A. Osterwalder, Yves Pigneur, Alan Smith, and 470 practitioners from 45 countries, self published, 2009
(relationships, segments, channels) and finances (cost, revenues, profits. In the next chapter I will define Accenture BM in a graphic and descriptive way.

2.2 Open Innovation

Chesbrough works on open innovation and provides a theoretical framework to understand how firms can access external knowledge in order to support their R&D processes. The author defines open innovation as a model that assumes that firms can and should use both external and internal ideas to develop new technologies to take them to the market.

In order to use the Open Innovation Model, a company needs to create an architecture, which integrates internal and external technologies to complement each other and creates the product or service to works toward an effective BM that will create the value proposition and will add value to the firm.

Chesbrough distinguishes 6 types of Business Models depending of its scale of Openness to Innovation:

Type 1: Company has an undifferentiated BM.  
Type 2: Company has some differentiation in BM.  
Type 3: Company with segmented BM.  
Type 4: Company with an externally aware BM.  
Type 5: Company integrates its innovation process with its BM.  
Type 6: Company’s Business Model is able to change, and is changed by the market.

The objective of this thesis is precisely to explain how Accenture is opening its BM and is disrupted or not by new technologies.

Open Innovation is relevant to Accenture because its services; with this model organizations are able to complement its offer, services and products, by the introduction of innovation from other sources than the portfolio of clients it already possess. In doing this, it does not only complements its offer; they also help technology providers by taking the innovation faster to the market creating a win-win situation.

On the one hand, organizations that creates innovation only inside their boundaries have high cost of development and the risk to become obsolete, on the other hand, organizations are getting benefits from open innovation by reducing the cost of research and development by making alliances and using its IP as strategic asset.

In the following chapters I will describe how Accenture is using an approach of Open Innovation in order to answer the complex question of how consulting technology providers (such as Accenture) are dealing with current services and also with innovations coming from inside and outside its boundaries, gaining

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competitive advantages by using and supporting technology trends and bringing new products to the market.

Accenture current offer is taking innovation from outside to improve its current services and products; this description can be classified as a Business Model type 5 according to Henry Chesbrough.

Accenture with the introduction of innovation such as Cloud Computing is taking new products to its offer, new clients, new strategies and new methodologies, trying to adapt its model to the market and also is adapted by the market itself; this description can be classified into a Business Model type 6 according to Henry Chesbrough.

The objective is to describe the Business Model type 5 and type 6 applied to Accenture and then analyzes how the transition is happening between the two types defined by Chesbrough. In other words, I will describe the impact of innovation such as Cloud Computing in consulting technology services by describing how Accenture BM is passing from type 5 to type 6 with the use of an open innovation model.

By the introduction of new technology in a firm is possible that this technology do not has an obvious BM to develop it, the idea is to find the appropriate one to create value from it or as Chesbrough mentioned, “a mediocre technology pursued with a great business model may be more valuable than a greater technology in a mediocre business model” (Chesbrough, 2006: 124).

With the introduction of new technology is possible the necessity to make changes to the current BM in some scale, with the aim to gain a better model, which adjust to the new requirements, new challenges and the new opportunities.

Chesbrough identified two concepts that render difficult for organizations to identify the right BM for new technology:

In first place, the manager biases, it is a cognitive trap where the management is not able to rethink its business. In consequence, the firm is unable to come up with a better model, which they see in conflict with the current BM.

In second place, the company’s dominant logic; this concept reflects the existing perception on how the organization’s environment works and how it compete to generate value, as a result when new technology comes into the market/organization, employees do not revaluate their logical approach, instead they search for ways to apply the dominant logic to interpret the new technology. The employee’s in the company are very accustomed to the current BM and is difficult for them to identify a different and better BM for new technology.

According to Chesbrough, “The most successful the current business model has been over time, the stronger its influence over how to commercialize the new opportunity that arises. And the more successful the firms has been with its
business model, the more wedded to the model it will be as new opportunities arise.” (Chesbrough, 2006: 120)

In order to understand better these barriers for Innovation I would like to summarize the Xerox BM case:

Xerox created a very successful BM based on delivering expensive copy machines to large corporations. Instead of selling the copiers, they offered a lease for 95 dollars per month, paying 4 cents per copy after the first 2000 copies the customers made each month, this model brought an interesting value proposition.

Once the equipment was installed on the customers facilities, users averaged two thousands copies per day, as a consequence of the copies’ quality; as a result Xerox become a global enterprise with 2.5 billion in revenues in 1972. This BM generated more revenues when more copies were made, and this established the dominant logic for Xerox’s business in the future.

The company developed faster machines that make high copy volumes. After a while Kodak and IBM entered to the market with a similar BM like Xerox, competing directly with them but after with the entrance of a Japanese manufacturer with different BM, Xerox started to suffer from the real competition.

The Japanese attacked the segment of small business and individuals and created a product with very different characteristics that Xerox machines. This new product could be serviced without a trained company technician, they made replaceable cartridge, the machines was priced at a modest gross margin and they created an indirect distribution channel which enable to create a national wide distribution capability.

Xerox in order to respond to this challenge required them to abandon the dominant logic of the successful BM they had created. It took a decade for Xerox to manage with the threat of the Japanese and the home-office market.

The purpose of describing these barriers is to take them into account at the moment of describing Accenture’s BM with the entrance of new products and innovation from the outside, (Accenture’s BM passing from type 5 to type 6), and analyze if the model is changing and adapting to the new necessities or if the model is not changing as a consequence of manager's biases or the company's dominant logic.

Concluding with the Open Innovation model I would like to mention that according to Chesbrough, firms creates value from their new technology in 3 basic ways:

First, by incorporating the technology in their current business, second, by licensing the technology to other firms, or third, through launching new ventures that exploit the technology in new businesses. Accenture in order to gain competitive advantages is using new technology in the 3 ways mentioned above, doing this by using an Open Innovation model to source and exploit new technologies. I will describe in chapters 4 and 5.
2.3 Alliances

Alliances create value (Chan et al., 1997; McConnell and Nantel, 1985). Alliances are complex organizational forms that are usefully viewed as incomplete contracts. They typically involve the transfer of know-how between firms, a process that is fraught with ambiguity (Jensen and Meckling, 1991). Organizations create alliances with suppliers and customers in order to create competitive advantages by complementing each other. They also can find better ways to use their products or services by changing experiences and innovation. Accenture makes alliances to create value to its stakeholders by helping suppliers to complement its offer and differentiate their product or services from its competitors. Whether and how competitive advantages are eroded depends on the stability of market demand and the ease of replicability (expanding internally) and imitatatability (replication by competitors).

Successful strategic alliances are highly evolutionary and go through a sequence of interactive cycles of learning, reevaluation and readjustments. On the other hand, common characteristics of unsuccessful alliances are highly inertial, with little or divergent learning between cognitive understanding and behavioral adjustments, or frustrated expectations.

Accenture has developed a network of successful alliances with more than 150 market leaders and emerging players, expanding Accenture’s knowledge of the technology providers and products. Examples of Accenture’s alliances with technology market leaders and emerging players are: Microsoft, SAP, Oracle, Siebel, Cisco Systems, Dell, EMC, HP, IBM, Salesforce.com, Sun Microsystems, etc.

Some of the benefits that Accenture client’s gets with these alliances are: enhanced vendor relationships with dedicated support resources and expedited vendor escalation processes. Accenture, by making these alliances, is also able to offer to its clients, access to development software, demonstration hardware, architectural expertise, sizing and configuration assistance, creating competitive advantages for the parties involved in the process.

In addition Accenture’s customers are able to reduce the risk and cost associated with the technology procurement process as well as the total cost of technology ownership. (I will describe on Accenture BM type 5 and BM type 6 with the examples of SAP and Cloud Computing respectively).

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7 Alliances are organizational forms that allow otherwise independent firms to share resources of a variety of sorts. Conceptually, we think of them as intermediate organizational forms between markets and hierarchies.

8 The trade press sometimes refers to alliances in this fashion, e.g., ‘alliances are incomplete contracts (which) leave all sorts of room for maneuver and interpretation’ (Alliance Analyst, November 25, 1996).
Chapter 3 – Technologies involved on the analysis of Accenture BM: What is SAP and what is Cloud Computing?

3.1 SAP (Systems, Applications and Products in data processing)

SAP is an Enterprise Resource Planning (ERP) software product capable of integrating multiple businesses applications representing a specific business area, these applications update and process transactions in real time mode. SAP has the ability to be configured to meets business needs.

SAP is categorized into 4 core functional areas:

Logistics including: Sales and Distribution (SD), Material Management (MM), Production Planning (PP), General Logistic (LO), Quality Management (QM) and Plant Maintenance (PM)

Financial including: Financial Accounting (FI), Controlling (CO), Enterprise Controlling (EC), Investment Management (IM), Treasury (TR) and Fixed Asset Management (AM)

Human Resources including: Personnel Administration (PA) and Personnel Development (PD)

Project including: Project System (PS), Workflow (WF) and Industry Solutions (IS)

Figure 1. SAP R3 Core Business Processes Modules

The explanation about SAP technology is given in general because this thesis is not pretending to explain in detail SAP functionalities but to analyze Accenture BM (type 5) by using SAP as an example of current service and Accenture’s strategy used to innovate its current services but also how Accenture is integrating and adapting its BM (type 6) with the entrance of new technology as cloud computing into the market in order to create new services for its clients.
3.2 Cloud Computing

There is much confusion surrounding cloud computing. What is it exactly? Some consider it to be a reincarnation of grid computing; some believe it to be virtualization; while others think of it as Platform-as-a-Service, Infrastructure-as-a-Service or Software-as-a-Service; or that it is simply utility computing. There is an element of truth in all these definitions and the aim of this study is to tackle some aspect of it regarding consulting services. Adding to the complexity, the definition of cloud computing may change over time. Confusion is to be expected when markets are nascent and new computing delivery methods become an option.

3.2.1 Some Preliminary definitions

According to John Foley’s definition⁹, cloud computing is the use of massively scaled offsite IT resources assembled virtually, accessed over the internet, used on demand in real-time or near real-time on a pay-per-use or subscription basis, where the workloads are shared among multiple customers.

- Offsite: you don’t own the IT resources, rather someone else has purchased them and you use them when needed;
- Assembled virtually: virtualization technology allows multiple customer applications to be run on the system or on a machine;
- On demand: the resource can be turned on or off quickly and as needed;
- Pay-per-use: use as needed, the economic model is OpEx and not CapEx, pay for what you need, not for unneeded capacity;
- Shared workloads: scale economies exist because of shared use and because client traffic may be non-correlated from a time of year or day usage perspective;
- Massive scale: access to extremely large infrastructure that would be challenging to build as a single entity.

For an alternative definition, The Gartner Group defines cloud computing as, “A style of computing where massively scalable (and elastic) IT-related capabilities are provided as a service to external customer using Internet technologies.” Accenture defines Cloud Computing as Cloud computing as the dynamic provisioning of IT hardware, software and services from third parties over a network, is an important step in the continuing industrialization and standardization of IT.

3.2.2 Types of Clouds

There are different types of clouds, among which are included: Software-as-a-Service (SaaS), Storage-as-a-service, Database-as-a-service (DaaS), Information-as-a-service, Process-as-a-service, Platform-as-a-service (PaaS), Integration-as-a-service, Security-as-a-service, Management/governance-as-a-service (MaaS and GaaS), Testing-as-a-service (TaaS) and Infrastructure-as-a-service (IaaS). In order

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to illustrate this technology, I would describe SaaS, PaaS and IaaS, which forms the architectural services layers of cloud computing according to Sun Microsystems:

Software as a Service (SaaS), the highest layer, is a complete application offered as a service, on demand, via multitenancy; meaning a single instance of the software runs on the provider’s infrastructure and serves multiple client organizations, in other words, is any application that is delivered over the platform of the Web to an end user, typically leveraging the application through a browser, for example: Salesforce.com or Google Apps.

Platform as a Service (PaaS), the middle layer, is the encapsulation of a development environment abstraction and the packaging of a payload of services, in other words, is a complete platform, including application development, interface development, database development, storage, testing, delivered through a remotely hosted platform, for example Google App Engine.

Infrastructure as a Service (IaaS), the lowest layer, is a means of delivering basic storage and compute capabilities as standardized services over the network. Servers, storage systems, switches, routers, and other systems are pooled (through virtualization technology), to handle specific types of workloads, in other words, is the ability to remotely access computing resources, for example Amazon Web Services.

The purpose of this thesis is not to analyze in detail each type of cloud but to describe in general the main concepts of this technology in order to analyze the introduction of it to Accenture’s BM.

3.2.3 Public, Private and Hybrid Clouds

The common characteristic of all of these types of clouds is that they can either be public, private or hybrid clouds. Third parties run public clouds where many different customers may be mixed together on the servers and storage systems, within the cloud. On the other hand, we have private clouds which are on-demand infrastructure owned by a single customer who controls which applications run, and where. One more last classification is the hybrid clouds, which combine the public and private cloud models, offering the guarantee of on-demand, externally provisioned scale, but adding the complexity of determining how to distribute applications across these different environments.

The technology behind the cloud is virtualization, which is the abstraction of computer resources; this is the foundation technology for all cloud architectures. The use of this technology was allowed as a result of the high bandwidth offered now for the majority of Internet users. This allows massive computation and data resources to be accessed from the browser.
3.2.4 Cloud’s Benefits

Some of the benefits of cloud technology are: 1) IT Efficiency, because it helps to minimize costs where companies are converting their IT costs from capital expenses to operating expenses. 2) Business Agility, because it helps to maximize return using IT as a competitive advantage through rapid time to market. But basically cloud computing enables IT organizations to increase hardware utilization and to scale up to massive capacities in an instant, without having to invest in new infrastructure, train or hire new personnel, or license new software. It also creates new opportunities to build better network services, in less time and less money.

3.2.5 Cloud’s Security and Privacy

But how secure is to use cloud technology? Security risks and privacy are important subjects for end-users to feel comfortable with a cloud solution that holds their software, data and processes, reason why, there should exist considerable assurances that services are highly reliable and available, as well as secure and safe, and that privacy is protected. The purpose of this paper is not to analyze if cloud computing is a secure technology or not, but I would like to mention the most important security benefits and risks for cloud computing according to ENISA\textsuperscript{10} in order to have a general idea about this topic.

Relevant security benefits are: economies of scale (all kinds of security measures are cheaper when implemented on a larger scale), market differentiator (strong driver for cloud providers to improve security practices), standardized interfaces (offer a standardized, open interface to managed security services), rapid-smart scaling of resources (the ability to dynamically reallocate resources for filtering, traffic shaping, authentication, encryption, etc, to defensive measures), audit and evidence-gathering (images of virtual machines which are accessible without taking infrastructure off-line, leading to less down-time for analysis), and the benefits of resource concentration (it has the obvious advantage of cheaper physical parameterization and physical access control).

On the other hand, ENISA (2009) identified relevant security risks including: lock-in (little on services interfaces that could guarantee data, application and service portability), isolation failure (shared resources and the failure of mechanisms separating storage, memory, routing and reputation between different tenants), management interface compromise (customer management interfaces of a public cloud provider are accessible through the Internet and mediate access to larger sets of resources), data protection (poses several data protection risks for cloud customers and providers), incomplete data deletion (the request to delete a cloud resource, may not result in true wiping of the data), malicious insider (the damage, which may be caused by malicious insiders, is often far greater) and loss of governance (the client necessarily cedes control to the cloud provider on a number of issues, which may affect security).

\textsuperscript{10} European Network and Information Security Agency (ENISA), Cloud Computing, Benefits, risks and recommendations for information security, November 09
The risks of cloud computing must be compared to the risks of staying with conventional solutions. Cloud customer transfer risk to cloud providers, however not all risks can be transferred, if a risk leads for example: to the collapse of a business, serious damage to reputation or legal implications then it is hard for any other party to compensate this injury. In the end, it is possible to outsource responsibility but is not possible to outsource accountability.

3.2.6 Cloud Computing Survey

In order to understand what is happening in general in the market with Cloud Computing technologies I would mention some conclusions and key findings from the 2009 Cloud Computing survey, conducted by Kelton Research, where the research organization interviewed 502 C-level executives and IT decision makers across 17 countries in North America, Europe and Asia-Pacific.

Key data from the survey shows:

The majority of companies surveyed (54%) use technology to cut costs. 60% report that existing internal IT systems are too expensive. The majority of respondents agreed cloud computing can lower up-front and ongoing costs. They believe Cloud Computing allows their companies to react quickly to market conditions and competitors using the ability to immediately tap computing power and software, helping the company to focus on its core business.

Despite this common recognition that cloud computing is real and has the potential to improve a company's financial position and competitiveness, the clear majority (61%) are not using cloud computing technologies at this time. And the majority (84%) of those that currently depend on internal IT systems have no plans to switch to cloud computing technologies in the next 12 months. The survey shows a strong unwillingness to change driven by fears of security threats and loss of control.

On the other hand, those companies that have overcome skepticism or resistance due to security and control issues associated with cloud computing report business benefits. Specifically, companies that have migrated to cloud computing, use it to manage and deliver business applications such as CRM and HR services. What it is clear from the survey is the enormous interest in the cloud. Companies in general are not running their business in the cloud yet; only 5% of companies surveyed rely exclusively on cloud computing for their IT needs.

As we can notice cloud computing as an evolving technology, has advantages and disadvantages but as it matures, the battle is on to develop long-term strategies to capitalize on it. Depending on the company this can be done by adapting the BM to the best way to gain competitive advantages. In chapter 5, I will describe how Accenture is changing its BM to incorporate this technology and how is linking partners, providers and clients into the ecosystem of a consulting company.
Chapter 4 - Accenture Business Model, the case of SAP

This chapter will discuss Accenture’s BM first with its general services and then exemplified with a current business technology such as SAP. Also I will explain how this BM lies in type 5 according to the description and characteristics given by Henry Chesbrough.

4.1 Accenture’s Business Model with SAP

The main components I will use in order to describe Accenture BM are: Offer (value proposition), Infrastructure (capabilities, partners, key processes), Customer (relationship, channels, segments) and Finance (cost, revenues profits).

![Graphic description of Accenture's Business Model (type 5)](image)

**Figure 2. Graphic description of Accenture's Business Model (type 5)**

4.2 Offer

Accenture’s general value proposition is a global Management Consulting, Technology Services and Outsourcing Company, who works in identifying new business and technology trends; developing solutions and offering consulting services around the world, based on its “high performance business” strategy built on its expertise in consulting, technology and outsourcing.

Accenture operates globally with one common brand and business model designed to enable to provide clients around the world with the same level of service,
offering a combination of industry expertise, functional capabilities, alliances, global resources and technology, competitive priced and with a global delivery model by drawing on its global resources.

Accenture split his offering in three growth platforms: Management Consulting, Technology and Business Process Outsourcing.

A) Management consulting platform is responsible for the development and delivery of strategic, operational, functional, industry, process and change consulting capabilities.

It includes six services lines: Customer Relationship Management, Finance and Performance Management, Talent & Organization Performance, Process and Innovation Performance, Strategy and Supply Chain Management.

B) Technology consulting platform comprises three service areas: Systems Integration, Technology Consulting, and Information Technology (IT) Outsourcing.

Systems Integration consulting services include: Enterprise Solutions and Enterprise Resource Planning (including Oracle and SAP among others), Industry and Functional Solutions, Information Management Services, Service-Oriented Architecture, Custom Solutions, Software as a Service (SaaS), Mobility Solutions, Microsoft Solutions.

Technology consulting services include: IT Strategy & Transformation, Enterprise Architecture, Infrastructure Consulting, IT Security Consulting, Application Portfolio Optimization and Renewal, Digital Solutions, Research & Development and Microsoft Solutions.

IT Outsourcing consulting services includes: Application Outsourcing and Infrastructure Outsourcing.

C) Business Process Outsourcing consulting platform provides business processes to transform businesses, achieve higher levels of performance and results, and/or reduce costs, for example: business functions and/or processes, including finance and accounting, human resources, learning, procurement and customer contact, among others.

For the services mentioned above, Accenture applies a systematic approach to create and capture proven, repeatable processes, methodologies, tools and architectures.

Accenture's general offer was described above but in order to narrow its offer, I would like to describe one service in the Technology consulting platform, within the area of System Integration consulting, specifically with an Enterprise Resource Planning: SAP.

Accenture divides its SAP capabilities in 3 solutions: first, the Functional solution, which includes: Enterprise Performance Management, Business Intelligence (BI),
Customer Relationship Management (CRM), Duet, Finance and Performance Management, HR Transformation and Talent Management, Master Data Management, Supply Chain Management, Service-oriented Architecture (SOA) and SAP NetWeaver Solutions. In second place, the Industry Solutions, which includes: Automotive, Chemicals, Communications, Consumer Goods and Services, Electronics and High Tech, Energy, Financial Services, Health and Life Sciences, Industrial Equipment, Metals, Public Service, Retail, Transportation & Travel Services, Utilities and lastly, the Outsourcing Solutions, which includes: Application Outsourcing, Business Process Outsourcing, Infrastructure Outsourcing and Shared Services.

These are the services that Accenture offered for SAP implementations to its clients. Accenture has a 30-year history of working with SAP, delivering approximately 1,500 SAP projects each year for leading companies and public service organizations.

4.3 Infrastructure

Capabilities: Accenture network combines people and delivery centers with methods, tools and metrics that collectively enable to deliver consulting, technology and outsourcing services and solutions with more than 175,000 people worldwide. Its workforce includes business consultants, technologists and specialists on business functions and processes. The network is complemented by more than 50 Delivery Centers in 30 cities.

Partners: Accenture has developed a network of alliances working with more than 150 technology market leaders and innovators, complementing and extending Accenture’s solution and capabilities by enhancing a service offering, delivering a new technology or helping them extend their services to new geographies.

Some alliances are aligned with one service lines, adding skills, technology and insights that are applicable across many of the industries. Other alliances extend and enhance the offerings specific to a single industry group. Almost all of their alliances are non-exclusive. These alliances can generate significant revenues from services to implement partners’ products. Accenture also receive some direct payments, which are not material to its business, from their alliance Partners as compensation for marketing, technical and other assistance.

Key Processes: In recent years, a variety of sources have recognized the importance of creating repeatable processes for delivering innovation. The Capability Maturity Model Integration (CMMI) developed by the Software Engineering Institute of Carnegie Mellon is an example of this. Accenture recognize the benefits of approaching work with a consistent and standardized methodology. The benefits of this according to the CMMI website\(^\text{11}\) are: 1) More explicitly linking management and engineering activities to their business objectives, 2) Expanding the scope of and visibility into the product lifecycle and engineering activities to ensure that the

\(^{11}\) CMMI homepage - http://www.sei.cmu.edu/cmmi/general/
product or service meets customer expectations and 3) Incorporating lessons learned from additional areas of best practice.

Accenture has expended an enormous effort to accumulate a repository of documents to be used in all of its projects. Employees access to this set of tools to reduce the time required to work successfully in a project, ensuring a constant level of quality and performance across all industries and regions.

The Methodology is online and contains information for all kind of projects, industries, services and solutions. The methodology is based on global best practices, passing through the different phases of a project including: plan, analyze, design, build, test and deploy; for example: Accenture Delivery Methods (defines what work needs to be done and how it can best be accomplished), Accenture Delivery Processes (supports the steps or tasks defined by the methods), Accenture Delivery Tools (automates activities defined by methods and processes) and Accenture Delivery Architectures (provides a platform for net-centric solutions).

Following the example with SAP solutions, I would describe Accenture infrastructure in relation with this technology.

Capabilities: Accenture has more than 30,900 SAP-skilled professionals globally (as of August 31, 2009). Also counts with 2 Centers for Innovation for SAP in Heidelberg-Walldorf and in Bangalore.

Partners: one of the most important Accenture’s alliances with software providers is with SAP.

Key Processes: Accenture has created a methodology in conjunction with SAP to use it with its client's implementations; the methodology provides a framework for solution delivery throughout the project life cycle and is compose by 4 tools:

Accenture Delivery Methods for SAP: is utilized to provide an approach over six phases, from plan to analyze, through design, build, test and onto deploy, covering the full project life cycle. Tasks are described for each work stream, for example: project management, application, technical architecture, training & performance, etc.

Accenture Delivery Estimators for SAP: provides bottom-up and top-down estimating approaches based on actual data captured from Accenture SAP projects. These predict for example: the workload and the resources required to complete work.

Accenture Delivery Tools for SAP: is the team workbench, accessible on team desktops, used to execute daily tasks. For example: project deliverables (requirements, process descriptions, configuration documentation, functional and technical specific development documentation, end-user training material).
Accenture Business Process Repository: is a collection of SAP and business processes content embedded with Accenture’s best practices and knowledge capital.

The facts mentioned above about the alliance with SAP, demonstrated how important is for Accenture to partnership with software providers and how this relation creates competitive advantages and also creates a stronger infrastructure for both companies to add value for clients, suppliers and the consulting business in general.

4.4 Customers

Accenture has relationships with the world's leading companies and governments. Accenture revenues are derived primarily from Fortune Global 500 and Fortune 1000 companies, medium sized companies, governments, government agencies and other enterprises. Today Accenture serves more than 1,500 clients worldwide with offices and operations in more than 200 cities in 52 countries. The company divides its operations in 3 geographic regions: Americas, Asia-Pacific and Europe - Middle East - Africa (EMEA), providing consulting services through the following five operating groups and their 18 industry groups.

![Operating Groups and Industry Groups](image)

*Figure 3. Accenture's Operating and Industry Groups, Source: Fact Sheet Q1 Fiscal 2010*

With SAP, Accenture divides his customers in three areas: by subject, by industry and by geography. (Already mentioned above). As an example of Accenture’s SAP customer I would like to mention Nordic Investment Bank, Subject: Financial Management, Industry: Banking; Financial Services and Geography: Norway, where Accenture implemented a SAP Banking Solution. The Nordic Investment Bank (NIB) is an international financial institution owned by eight member countries: Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway and Sweden. The bank finances private and public projects in and outside the member countries. It offers businesses and organizations in the private and public sectors long-term loans and guarantees on competitive market terms.

The Nordic Investment Bank’s financial management system was based on aging technology and needed renewal. In choosing a new system, the most important criteria for the Nordic Investment Bank were functional coverage of the packaged solution and International Financial Reporting Standards (IFRS) compliance.
Accenture and SAP was chosen to deliver and implement a new accounting system for the Nordic Investment Bank. SAP delivered the software: finance and controlling modules of their enterprise resource planning software. Accenture was responsible for the implementation of the solution. The project delivery included: plan, design, build, test and deploy phases. Accenture's project team consisted of Finnish and international SAP and financial services professionals. After the implementation of the new accounting system, cooperation with Accenture continues into the maintenance phase during which Accenture provides hosting services.

This is an example of how Accenture in alliance with SAP delivered a successful ERP implementation, doing this by complementing each other and creating competitive advantages. As a result Accenture and SAP are adding value to the customer and also are taking a portion of this value creation for their own, demonstrating that its business model is working properly.

4.5 Finance


In the following table I showed the Income Statement Data for the years ended August 31, 2009, 2008, 2007, 2006, 2005 are derived from the audited Accenture's Consolidated Financial Statements, according to Securities and Exchange Commission, form 10-K, fiscal year ended August 31, 2009.

![Figure 4. Accenture's Income Statement Data, Source: SEC, form 10K, fiscal year 31, 2009](image)

By analyzing Accenture’s report I found that their operations are expose to be affected by economic conditions, including: macroeconomics, credit market and levels of business confidence. Accenture’s revenues are driven by the ability of their executives to secure new contracts and to deliver solutions and services that add value to clients’ current needs. Accenture adds value to clients and drive revenues based on their ability to deliver service offerings and to deploy skilled teams of professionals on a global basis.
According to the financial report, the global economic downturn in fiscal 2009 was widespread, leading to economic contraction in many industries and geographies where Accenture operate. These changing demand patterns have had an adverse effect on Accenture’s new contract bookings and revenue growth, compared to the prior fiscal year, as we can notice in its revenues before reimbursements (“net revenues”) for fiscal 2009 were $21.58 billion, compared with $23.39 billion in fiscal 2008, a decrease of 8% in U.S. dollars. (Figure 7)

The primary categories of Accenture’s operating expenses include in first place, cost of services, which consists of compensation, sub-contractor and other personnel costs, and non-payroll outsourcing costs; primarily driven by the prices obtained for solutions and services, utilization of the client-service personnel (percentage of professionals’ time spent on billable consulting work), and the level of non-payroll costs associated with the growth of new outsourcing contracts.

In second place, sales and marketing expenses, are driven primarily by compensation costs for business-development activities, development of new service offerings and client-targeting, image-development and brand recognition activities.

And lastly, the general and administrative costs primarily include costs for non-client-facing personnel, information systems and office space, which Accenture seeks to manage, as a percentage of revenues, at levels consistent with or lower than levels in prior-year periods. Operating expenses in fiscal 2009 also included restructuring costs of $253 million recorded in the fourth quarter.

With the end of this high level financial analysis, I conclude with the description of Accenture BM with SAP technology as a portion of its current business activity, where we found how Accenture is generating revenues by combining the main elements of its BM and creating value for its stakeholders, demonstrating that its model is working positive in accordance with its mission. Now is moment to reefer this BM to the literature of Henry Chesbrough and explain why I consider that Accenture’s BM described above is within the classification of a BM type 5.

4.6 What kind of innovation process is Accenture BM with SAP, according to the description made by Henry Chesbrough?

Accenture can be found using a business model type 5 according to Henry Chesbrough because in a BM model type 5, “Innovation is a business function”(Chesbrough, 2006: 126). Accenture is taking research and innovation as a business function because they believe these 2 subjects have been major factors in their success and will help them continue to grow in the future. A prove of this is the investment Accenture made in research and development during the last three years: $435 million, $390 million and $307 million in fiscal 2009, 2008 and 2007, respectively, to help create, commercialize and disseminate innovative business strategies and technology solutions. Staff members from every functional area and different levels, from Analyst to Senior managers and Partners feel that they contribute to the innovation process and the development of the services and
technologies offered by Accenture. For effective innovation across different business functions Accenture has teams, projects and operating platforms working to the same corporate strategic goal.

Another characteristic of a BM type 5 is that “The Company’s internal and external R&D activities integrated through the company’s BM” (Chesbrough, 2006: 126). Accenture is fulfilling this characteristic by supporting the creation and the utilization of innovation both from the inside and from the outside. Firstly from the inside with its technology R&D organization called Accenture Technology Labs, particularly in 5 areas: a) R&D teams - who explore innovations and deliver solutions that leverage emerging technologies and trends, b) research on internet computing - cloud computing which enables technical capabilities (hardware, software and storage) to be sourced through the Internet across company firewalls and boundaries, c) research on data and decisions – using of data in decision-making, business analytics and intelligence and other new technologies that let users access live data from multiple sources, and data visualization tools, d) research on mobile devices, which will supplant personal computers as the new e-business channel for employees and customers and e) the convergence of communication, collaboration, communities and content, which has given companies different technological options, enabling them to rethink their workforces and work practices.

Accenture believes that by supporting innovation, more fresh thinking will come from sources outside the company, including customers, suppliers and other stakeholders. In addition of the Technology Lab, Accenture has created other Labs to develop more innovation in different areas, for example: Workforce Lab, Customer Lab, Enterprise Lab, Infrastructure Lab and the Software Engineering Lab. These are some examples of how Accenture is developing new technology inside their boundaries.

Secondly Accenture is developing new technologies by taking innovation from the outside by organizing innovation workshops with executive leaders from enterprises, where participants explore topics such as: cloud computing, data center, virtualization, enterprise mobility, green IT, etc. These facts demonstrate how Accenture is integrating both internal and external R&D activities into its BM.

A third characteristic of a BM type 5 is that “The innovation road maps are shared with suppliers and customers, and this access is reciprocated by those parties” (Chesbrough, 2006: 126); what Accenture is doing to this respect, is taking innovation from outside by creating alliances and partnering with software providers and clients, exchanging ideas, complementing technologies, methodologies, experiences, resources and creating competitive advantages for both parties. More specifically following with the example of SAP, Accenture had created two Innovation Centers for SAP in Heidelberg-Walldorf and in Bangalore. They focus their efforts on innovation and development, supporting continuous innovation and industrialization around existing and emerging SAP-based technologies. The centers work with clients to develop client-specific solutions (such as SOA-based solutions) and are an innovation hub for learning, modeling and developing new SAP technologies. One way they achieve this is creating
development and technology and architecture templates. According to Accenture, the new ideas often come from client ideas as well as being created by the Innovation Centers for SAP.

Accenture is using its understanding of clients and suppliers to identify discrepancies and disconnection between the customer’s or supplier’s BM and Accenture’s BM both in current and in new business areas. Accenture offers to its client’s executives to collaborate, facilitating discussions on how SAP-based solutions can realize specific client value. Clients are encouraged to use these workshops as a starting point when thinking about business transformation and value realization to explore how SAP-based solutions can deliver better results in industry-specific scenarios. For example, SAP is marketing a new product called NetWeaver, that pretend to help customers and third-party software companies connect R/3 and other SAP products to these architectures. SAP is now looking, instead of being the leading business applications software provider, now sees itself as delivering tools for connecting business processes and precisely in this transition Accenture is working together with SAP and clients sharing information with the aim to execute this the innovation process faster and successfully.

Understanding the Innovation process that Accenture is sharing with clients and providers (in this case SAP) I can say that Accenture BM is now focused on new markets and new businesses (internal and external R&D for SAP), as well as current businesses (current SAP offer, services). The company strives to align customers and suppliers with its BM, which is another characteristic of a BM type 5 (Chesbrough, 2006: 126). Accenture is involving other parties for developing new products, new services and technologies, doing this by cooperation with other firms in their sector (competitors), suppliers and partners (technology providers) and end-users (customers).

The last characteristic of a BM type 5 is that “IP is managed as another kind of financial asset, managed within a profit center” (Chesbrough, 2006: 126). Accenture takes its IP management as strategic, using external technologies (IP’s) for strengthening it internal IP supporting licensing as a business. Accenture’s success is resulted in part from their proprietary methodologies, software, reusable knowledge capital, assets and other intellectual property rights. They rely upon a combination of nondisclosure and other contractual arrangements as well as upon trade secret, copyright, patent and trademark laws to protect their intellectual property rights and the rights of third parties from whom Accenture license intellectual property. Accenture also enter into agreements with its employees. Accenture manage IP as financial assets by looking for optimize its value by licensing its internal IP and also seeking to use external technologies.

Above I have explained, how Accenture current BM meets all the characteristics of a BM type 5 according to the description made by Chesbrough. In the next chapter, I will explain how Accenture is passing from type 5 to type 6 BM by changing its model according to the market, as a result of the introduction of new technology such as Cloud Computing.

Chapter 5 - Moving to a new BM with Open Innovation, the case of Cloud Computing

This chapter will discuss how Accenture's BM is moving from type 5 to type 6 with the use of open BM and open innovation according to the description given by Henry Chesbrough. Accenture is taking innovations and new technologies from the outside to integrate it in their BM, with the aim to survive and strive in the highly competitive consulting industry. This thesis is considering Cloud Computing as a major force that demand a re-examination of Accenture’s BM (development of a BM type 6). In other words, how Accenture’s BM is disrupted or not with the introduction of new technology such as Cloud Computing.

5.1 Accenture’s Business Model with Cloud Computing

In order to describe Accenture’s Business Model with the incorporation of Cloud Computing, I identified two possible scenarios: A) Accenture develops its own cloud technologies, offering new services to his clients and B) Accenture makes alliances with Cloud Computing providers (as other technologies), developing new offers and services, in a continuous innovation process, helping clients by capitalizing cloud computing potential and also utilizing external clouds for its own infrastructure.

Figure 5. Graphic description of Accenture's Business Model (type 6)
5.1.1 Scenario A – Accenture develops Cloud Technology

In the first scenario, Accenture develops Cloud technology in order to create new products and new services for its clients. Accenture focuses its cloud computing developing efforts on process and industry clouds including Accenture’s Navitaire for airline reservation systems.

Navitaire’s online booking system is one example of cloud technology developed by Accenture. This technology is enabled by SaaS to support the airline industry. Navitaire helped airlines to increase operational efficiency, enhance customer service and optimize profits.

Other example of Accenture’s internal platform was rolled out five years ago by adding a new capability for employees. This was the Microsoft SharePoint, which is a simple cloud platform that allows any group in Accenture, or client’s team, to access a template to quickly build a web site for collaboration and document sharing. Also in 2003, Accenture’s IT organization moved to Microsoft Exchange e-mail, which offers a scalable infrastructure that can be self-provisioned and priced on a per-use basis.

One last examples of Accenture’s cloud development is the IT organization’s internal SaaS offerings, which also include two applications for the Accenture Business Process Outsourcing (BPO) Services unit. The BPO business accesses both a work queue and help desk management tool and a document scanning and storage application in Accenture’s application cloud.

Accenture’s cloud has many of the characteristics of external clouds, including a one-to-many management approach, shared infrastructure, use of virtualization to optimize utilization and charges based on usage. The cloud model developed by Accenture brings advantages to the IT services for example; it makes tools and applications more efficient and effective.

Accenture is creating its own Cloud technology but is finding difficult to match the economies of scale of Internet companies like Microsoft, Google and Amazon. For example Google has more than 1 million servers compared to Accenture with a few thousand servers. Another issue is the utilization. For example: Accenture’s servers run flat-out two days a month when employees file their time reports and the machines are completely active. For the other 28 days a month, the machines are largely inactive. On the other hand, cloud providers can secure high operation by having multiple customers share their servers and they can justify investment in data centers.

In the next scenario I will explain what Accenture is doing in order to mitigate the economies of scale inequality’s with technology providers such as Google and Amazon, doing this by making alliances with cloud providers and complementing each other offer; Accenture by making alliances with cloud providers is not only offering new products and services, but using external technology into its own infrastructure to obtain immediate cost savings and greater agility.
5.1.2 Scenario B – Accenture make alliances with Cloud Providers

In this second scenario Accenture make alliances with cloud providers in order to offer new technology and new services to its clients, and also to use external clouds in their own infrastructure.

Accenture in addition of developing their own cloud technology is also making alliances with cloud providers, helping them to bring the cloud faster to the market and also to improve the technology by developing new services, new solutions and new ways to apply it. Some examples of theses alliances is Salesforce.com, who announced a partnership for implementation services and have been collaborating from 2004. Accenture has created a methodology for delivering salesforce.com solutions, including assets, capabilities, tools, and accelerators.

Other alliance is with Sun Microsystems, this collaborative effort aligns Accenture’s people, processes and technology with Sun’s vision next-generation for cloud computing. Accenture is also conducting a pilot with Amazon Web Services, with its move to Amazon’s infrastructure cloud.

Accenture’s team of Amazon Web Services has developed applications and data center solutions that lay the foundation for cloud computing, including: elastic data center (consolidate servers as a first step in adopting cloud computing), orchestration and provisioning (automate the provision of a number of IT components, such as server and storage environments) and cloud migration (intra-enterprise and extra-enterprise clouds, thus enabling end-to-end IT service provisioning and management). One last example is with Avanade whom are committed to deliver Cloud Computing solutions on the Windows Azure Platform.

Inside the content of Accenture’s infrastructure BM type 6, I will explain with more detail how these alliances are creating value to the ecosystem of Accenture consulting services.

5.1.3 Accenture using external clouds for its own infrastructure

As a consequence of Accenture’s difficulty to match the economies of scale of Internet companies like Microsoft, Google and Amazon. Accenture see as reasonably to don’t have any data centers in five years and run most of their applications on external clouds. Hence making alliances with cloud providers, developing new ways to use its technology in its own infrastructure and creating competitive advantages by complementing each other.

For example Accenture’s IT organization moved to an application cloud in 2006 when they adopted Taleo’s global recruiting tool. Taleo offered a single global platform that allowed each country to configure their application. Accenture rolled it out globally, completing the shift in 2007, and now uses Taleo in 46 countries. The company saved $1 million a year by eliminating maintenance after retiring its dozens of recruiting systems.

According to Ken Corless, (Accenture’s Enterprise Business Applications executive
director), the half of Accenture applications will be running in the cloud by 2012. External clouds allow Accenture’s IT organization to focus on its strengths while shifting low or no-valued-added operations or capabilities to lower-cost specialists. They also benefits from cloud providers’ lower costs, other operating savings while cutting capital expenses and improving efficiency by transferring most of its applications to run in infrastructure clouds.

These are some examples of how Accenture is using external clouds on its own infrastructure, reaping the benefits of cloud technology and also developing new products and services in conjunction with cloud providers by opening its BM and by using an approach of open innovation.

The two scenarios described above are disrupting Accenture’s business model, by affecting and changing in some scale its Offer (value proposition), Infrastructure (capabilities, partners, key processes), Customer (relationship, channels, segments) and Finance (cost, revenues profits). (I will describe).

5.2 New Offer

With the introduction of cloud computing to Accenture BM, they offer to his clients an assessment in order to help identify cloud-ready enterprise applications and pilot a candidate application with one or more cloud providers. The Accenture cloud computing assessment tool is used to model applications usage and traffic patterns in order to avoid over-provisioning of cloud computing resources, while maintaining desired service-level requirements such as redundancy and up time.

After the Cloud Computing assessment applied to a client, Accenture is able to recommend or not the implementation of cloud technology. Besides the Assessment, Accenture offers to its clients a Cloud Computing Accelerator, which explore the potential power of cloud computing from assessment through pilot, while focuses on the infrastructure clouds, platform clouds and application clouds. This tool take enterprises from a standing start to a pilot in a short time by working through three defined phases: the discovery is the phase one where Accenture works with the client’s team to identify applications that could benefit by running on a cloud, this is done by identifying the client’s business goals and IT strategy. In phase two, Accenture works to prioritize the application readiness, and create detailed maps for migration opportunities, define a migration strategy, and build an implementation roadmap. And in the final phase, Accenture works to conduct a workshop pilot that will prove out a functional cloud to client’s management, and then build a business case and implementation plans for a production rollout.

Accenture has different methodologies to implement its partner’s clouds like Amazon or Salesforce.com and the service covers from the Analysis to the Deployment and also the support in many different cloud solutions. As mentioned before Accenture also offers its own SaaS cloud technology and methodology to implement internally or externally developed clouds to its clients.
5.3 New Infrastructure

Capabilities: Accenture has participated in more than 100 big-size cloud implementations. They have people to bear on cloud engagements, across 17 industries and functional domains. The company has developed the Cloud Application Factory, an industrialized delivery approach that helps clients to either migrate existing applications or custom build new ones on a cloud platform. The Accenture Technology Labs are doing research on Internet computing and cloud computing which enables technical capabilities (hardware, software and storage) to be sourced through the Internet across company firewalls and boundaries.

Partners and alliances: Accenture has developed a network of alliances with the objective of helping clients getting value out of technology investments. This alignment with technology providers enables Accenture to deliver complete solutions and help clients to achieve IT cost reduction; reduced total cost of ownership; reduced delivery risk; and accelerated vendor identification and evaluation cycle time. Accenture’s cloud alliances include:

**Accenture and Eloqua**
They collaborate with clients to provide SaaS-based solutions in customer relationship management, demand generation, marketing automation and lead management. Eloqua on-demand software allows executives to track campaign success, lead quality and flow, and monitor the needs of their sales prospects. Accenture implement and integrate customer relationship management systems. Together, the two companies provide a solution that delivers value to customers.

**Accenture and Avanade**
Avanade is a business technology provider dedicated to using the Microsoft platform to help enterprises achieve growth, are committed to delivering Cloud Computing solutions on the Windows Azure Platform that can help improve performance and reduce costs. In addition, Accenture is delivering Microsoft Dynamics CRM as an enterprise-wide SaaS solution via Avanade Online Services (a new business, which focuses on helping organizations use SaaS as a strategic means to achieve key business objectives).
**Accenture and Oracle**
They are teaming to deliver on-demand subscription-based scalable CRM solutions that allow to leverage and customize different services at a per-month, per-user fee while efficiently managing and protecting business information. On Demand software includes database, middleware and applications, also offers flexible SaaS deployment options such as multi-tenant, single-tenant and “at customer,” allowing tailored services based on business needs.

**Accenture and salesforce.com**
They are collaborating to help use Cloud Computing technologies and services to enterprises for faster application deployment, greater flexibility and lower total cost of ownership. Working together since 2004, Accenture and salesforce.com have helped customer relationship management Software as a Service (SaaS) solutions achieve market maturity. Now they are focused on shaping other areas of the business, including human resources, supply chain, asset tracking and contract management. With Force.com, salesforce.com’s cloud platform, Accenture clients can also run complete enterprise resource planning solutions, as well as any number of custom applications.

**Accenture and Workday**
Together they are helping organizations improve their return on investment and overall business performance through superior HR and financial management solutions. Workday Human Capital Management and Workday Financial Management use, standards-based technologies to provide a level of agility, ease-of-use, and integration capability.

**Accenture and Veeva**
They are working together to develop customer relationship management solutions built on Force.com (salesforce.com’s cloud platform) for the global life sciences industry.

**Key Processes:** Accenture posses different methodologies to help its clients to take advantage of cloud technologies among which are: the Accenture SaaS Business Solutions suite (an iterative approach for delivering SaaS and cloud Technologies), Accenture Cloud Computing Accelerator (focuses on infrastructure and platform clouds, helps to answer questions in a short period of time via a defined process using proprietary tools, thus accelerating the client’s first cloud pilot), Accenture Cloud Opportunity Assessment Tool (is driven by a repository of cloud computing research and resources, it also factors in application use cases to support the development of cloud computing solutions that leverage Infrastructure-as-a-Service, Software-as-a-Service or Platform-as-a-Service).

**5.4 New Customers**

As a result of the entrance of Cloud technology to Accenture’s BM, some new clients have arrived to its business. The following are some case examples of previous cloud implementations made by Accenture:
With Lawson, Inc. Accenture and salesforce.com worked with Lawson, Inc. in Japan to rebuild and migrate 400 Notes applications, including workflows, onto Force.com, (salesforce.com's cloud platform).

With a Global High Tech Organization. Using its SaaS methodology, Accenture helped this organization improve productivity and sales performance by integrating Salesforce CRM with critical sales systems around the world—arming the company with a closed-loop marketing process and its sales team with the training and tools needed to accelerate ROI.

Accenture helped Ashoka implement a Salesforce customer relationship management solution that delivers up-to-date information, greater employee effectiveness and reduced IT effort.

With a French Communications Company. Accenture worked with this organization to align sales processes and integrate legacy systems with salesforce.com for improved performance, following a recent acquisition. Accenture used its offshore development team to overcome the complex data migration, cleansing and integration challenges for hundreds of thousands of records stored in data warehouses.

All of these projects descriptions with different clients are some examples of how Accenture is offering new services to new customers and helping them to capitalize on new technology such as Cloud Computing.

5.5 New Revenues

Accenture’s IT organization by the use of cloud technology, estimates a save up to 50 percent of its hosting costs which can be translated on tens of millions of dollars annually. Accenture is saving money by implementing cloud technology in its own architecture and also is acquiring new projects and new clients, which will be translated in more incomes and profits, but this is still in an early stage.

To conclude with the description of Accenture BM type 6 with Cloud Computing I would like to mention that Accenture is testing and developing a mixed approach first with its R&D department by developing cloud technology, implementing the cloud on its own infrastructure and also offering this innovation to its clients; and second by making alliances and creating new products and new services in conjunction with technology providers doing this by opening its business model and incorporating innovation from outside his boundaries in order to create competitive advantages. Cloud computing can speed time to market and provide important flexibility, enabling greater responsiveness to customer, market and economic changes.

Now is moment to explain why I consider that Accenture’s BM with the introduction of new technology such as Cloud Computing meet the characteristics of a BM type 6, according to the description made by Henry Chesbrough.
5.6 How Accenture by working on Cloud Computing is moving its BM from type 5 to 6 according to the description made by Chesbrough?

These companies drive the business model of its key suppliers and customers, (Chesbrough 2006: 130). Accenture has changed its BM to form alliances with major Cloud providers, with the idea to provide its customers with cloud expertise. One of the future services Accenture is working on in collaboration with other companies is the transition from heavy server compute dependence to web-based applications. As a result Accenture is creating new methodologies and complementing Cloud providers offers, driving in some scale suppliers BM. And also by offering new services and implementing cloud technology to customer’s infrastructure, Accenture is changing clients BM by delivering and helping them to capitalize the benefits of Cloud Computing.

Innovating the company’s business model, which is widely shared across the company, itself is part of the company’s innovations task, (Chesbrough 2006: 130). Accenture with the introduction of new technology such as Cloud Computing into its BM is innovating its own BM, this requires an experimentation with one or more BM variants and a motivation to invest some amount of fund and management attention to explore alternative BM’s in small start-up companies for example Accenture’s Navitaire SaaS, an industry clouds for airline reservation systems. Other examples of this is the joint ventures that Accenture is creating with cloud providers (Accenture with salesforce.com or Amazon Web Services) as a means to commercialize technologies outside their own current BM, cultivating ideas that are not yet ready for high-volume commercialization.

External partners share technical and financial risks and rewards with the company in the innovation process, (Chesbrough 2006: 130). Accenture with cloud providers and clients are becoming partners where both technical and business risks are shared. The BM of suppliers are integrated into the planning process of Accenture and also has integrated its BM into the BM of key customers, for example: Accenture and salesforce.com collaborate to help clients use cloud computing technologies and services to transform the enterprise for faster application deployment, greater flexibility and lower total cost of ownership. Accenture Development Partnerships helped Ashoka improve its ability to leverage its social network. Accenture helped Ashoka implement a Salesforce customer relationship management solution that delivers up-to-date information, employee effectiveness and reduced IT effort. Looking forward, Ashoka intends to further streamline and automate business processes through Salesforce CRM as the organization’s needs continue to grow and change. This allows Accenture to create its BM as a platform to lead CRM SaaS implementations with Salesforce and customers.

IP is managed as a strategic asset, helping the company enter new businesses, align with suppliers and customers, and exit existing businesses, (Chesbrough 2006: 130). Accenture recognize the increasing value of intellectual property in the marketplace, as a result, Accenture create and protect its intellectual property. This enable Accenture to enter or exit markets, build ecosystems within markets
and create value. Patent mapping is used to manage risk and to identify potential reward within current and possible future markets. As of August 31, 2009, Accenture had 2,080 patent applications pending in the United States and other jurisdictions and had been issued 393 U.S. patents and 318 non-U.S. patents in the following areas: web visual navigation technology; healthcare solution frameworks; online banking models; line-item data processing; investor profile methodologies; marketing analytics; inventory management; location-based services; goal-based educational simulation; virtual call centers; hybrid telecommunications networks; development architecture frameworks; emotion-based voice processing; mobile communications networks; location-based information filtering; and computerized multimedia asset systems. As a result Accenture enjoys a preferred relationship with market makers, enabling it to be presented with opportunities ahead most other competitors.

Accenture intend to continue to identify, create and protect intellectual property and to leverage there protected, differentiated assets and methodologies to provide value to its clients, complying with another characteristics of a BM type 6.

The management of innovation and IP is embedded in every business unit of the company, (Chesbrough 2006: 130). Accenture may choose a company to empower a business partner to take over the business, while earning revenues for its technology and know-how. In some cases, IP may be bundled in as part of the terms of a purchase or a sale of a product or service. For example, Accenture is offering a bundled approach, similar in principle to the supermarket concept, where shoppers can save valuable time and money while getting more consistent and predictable quality and availability from stores with a broad range of goods and services, including groceries, prepared meals, pharmaceuticals, financial services, even clothing and automotive services. This dynamism and agility combined with the close collaboration with key partners that they invest in conjunction with the firm, separate a type 5 and type 6 BM.

Chapter 6 – Recommendations and Conclusions

Accenture, as one of the most important technology consulting service providers around the globe is doing all kind of efforts to stay ahead of technology trends. They are opening its Business Model and using an approach of Open Innovation with the aim not only to share and offer to third parties its internal innovations, but also receiving and using new technologies and products from outside, complementing suppliers and customer’s requirements; also its own value proposition.

Accenture has created a repeatable and convincing process by developing an auto-strengthen process full with training, continuous methodology improvement, creation and sharing ideas, and constant application of these components across industries and regions. Within the consulting industry, this is a key differentiator, and the company’s CMMI certification is often leveraged during the sales cycle to gain competitive advantages. Accenture’s success in this area go further than discussing previous credentials with new clients by providing tangible facts that
similar success will be achieved in future assignments, because it is the process and methodology itself that creates value and deliver successful projects.

Accenture is passing from a BM type 5 where integrates its innovation process connected with its BM and where they use IP as a financial asset to a BM type 6 where Accenture is able to change, and is changed by the market, in other words, Accenture is creating a BM which is adaptive and where its innovation process identify new business models and also use IP as an strategic asset.

Accenture under the BM type 5 is offering its current services such as SAP and is developing innovation from inside with technology R&D organization called Accenture Technology Labs but also is taking innovation from outside by Opening its Business Model, enriching it offer by creating alliances with suppliers and customers and identifying new products and services that are relevant in the market. By continuing its interactions with a larger supplier and customer base and with its strategy of partnerships, the organization is effectively updating its value proposition, infrastructure, suppliers and customers, mitigating by this way, the risk of obsolescence.

The entrance of new technology such as Cloud Computing shows an example of how Accenture’s BM is passing to a BM type 6 which adapts to the market and is also is changed by it. The changing business model, underlying technologies and architectures will likely create a new wave of innovations. For enterprise IT users, the cloud embraces great potential in providing lower cost services, IT agility and more flexibility. The cloud also presents a number of new challenges in data security, privacy, control, compliance, application integration, and service quality. In general, cloud computing will act as an accelerator for organizations, facilitating them to innovate and compete more effectively with elastic and unlimited IT resources. By utilizing the right cloud capabilities, companies can quickly enter new geographical markets or launch new products or services in existing markets.

Even though cloud computing is still at a nascent stage; organizations should take steps now to experiment, learn, and obtain some immediate business benefits. To be successful Organizations should take small, incremental steps toward this new environment so can obtain early benefits for applicable business situations, and learn how to deal with the associated issues and risks. While cloud computing still has a long way to go before proving its full value, Accenture is moving fast to make it a vital part of its value proposition and its Business Model.
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6.2 Appendixes

6.2.1 Appendix # 1 - Notes on Methodology for the Cloud Computing survey

The Cloud Computing survey was conducted by Kelton Research, an independent research firm, between December 15, 2008, and January 8, 2009, on behalf of Avanade.

The 502 respondents include C-level executives (e.g. CEO, CFO, CIO, CTO), business leaders (GMs, heads of departments and functions, etc.) and IT decision-makers from 17 regions, including Austria, Australia, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Singapore, Spain, Sweden, Switzerland, the United Kingdom and the United States. Large enterprises (similar in size to companies in the FORTUNE 1000) made up the majority of respondents on a global basis. Respondents from the United States, Canada and the United Kingdom originate from the top 1 percent of the largest companies by employee headcount within their respective countries. Respondents from all other countries originate from the top 5 percent of the largest companies by employee headcount within their respective countries. Nearly a fourth (23 percent) of respondents work at the largest companies with 10,000 or more employees.


Results of any sample are subject to sampling variation. The magnitude of the variation is measurable and is affected by the number of interviews and the level of the percentages expressing the results. In this particular study, the chances are 95 in 100 that a survey result does not vary, plus or minus, by more than 4.4 percentage points from the result that would be obtained if interviews had been conducted with all persons in the universe represented by the sample.