MS ritgerð
í Stjórnun og stefnumótun

Effectus Mobile Solutions
Business Plan

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Business Plan

Connecting Performers with Strategy and Performance Management

University of Iceland
Faculty of Business

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MSc Thesis
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Executive Summary

Effectus Mobile Solutions is a smartphone software development start-up based in Reykjavik, Iceland, which plans to exploit an opportunity in the Strategy and Performance Management Software market.

Iceland is an ideal location for Effectus following the banking crisis in October 2008, when three of Iceland’s largest banks went bankrupt releasing scores of highly educated software developers, engineers, and scientists into the job market. Furthermore, the value of the Icelandic krona fell by more than 50% making salary expenses very competitive for companies able to move some of their operations to Iceland. And finally, Iceland is an excellent test market since early adoption of new technology and ideas is very high and companies are eager to improve their operational effectiveness with better management of their strategy and performance.

The Effectus Mobile Corporate Performance Management Solution (mCPM) helps companies solve many documented key problems hindering successful implementation of strategy. The Effectus solution is based on the latest research into strategy implementation and applies the emerging smartphone software industry to deliver a remedy. It integrates with the major strategy and performance management systems on the market today and can be implemented with a minor IT effort. It allows companies to take full advantage of the capabilities of the systems already in place – the Effectus solution simply adds the components necessary to ensure a successful strategy implementation.

The flora of strategy and performance management solutions is both substantial and diverse, ranging from simple products selling for USD 299, to full-fledged enterprise systems for hundreds of thousands of dollars. In most cases though, companies are delivering just enough to make a sale, or in other words, just the features that their competitors can also deliver easily.

Effectus, on the other hand, uses the latest research on strategy implementation to understand what is missing from existing strategy and performance management solutions, designs use cases that properly model the human behavior that will make the necessary change within organizations, and then applies mobile software development in conjunction with a server integration component to develop the complete solution that truly solves the problem.

The question for prospective customers then becomes: “How valuable is it for your company to really turn your strategy into a working competitive advantage?”
**Founder's Profile**

*Mr. Thorarinn R. Einarsson*

Thorarinn is currently finishing his MSc degree in Strategic Management at the University of Iceland, graduating in June of 2010. He completed his BSc degree in Human Factors Engineering from Wright State University in 1995 and a Diploma in Documentary Studies from Duke University in 2004.

Thorarinn has 15 years of experience in software product management, software design, development, and usability research. He worked for one of the leading human factors research and consulting companies in the US from 1996 to 2000, serving diverse clients from small start-ups to large Fortune 500 companies. His clients included IBM, AT&T, Gateway, Thomson Consumer Electronics, GlaxoSmithKline, and Ericsson, for which he managed a usability research project for their Screenphone product (*See Figure 1*). The Ericsson Screenphone, which was essentially a tablet computer like the Apple iPad, reached prototype status in 2000 before the project was cancelled due to market conditions and the dot-com bust.

Thorarinn joined SAS Institute in Cary, North Carolina in the fall of 2000, where he worked for the central Usability Engineering division, which reported to the CTO and VP of R&D. SAS Usability Engineering was tasked with adding user-centered design and usability research to various development projects across the entire SAS organization of nearly ten thousand employees in 63 countries.

In 2002, Thorarinn joined the newly formed Strategic Enterprise Solutions division of SAS and became lead designer on their Strategic Performance Management (SPM) solution, currently used by hundreds of companies world-wide for Strategy and Performance Management. In 2005, he worked on extracting the most simple performance management features out of SPM to create a general business performance management solution to allow any SAS Business Intelligence customer to assemble a scorecard of key performance indicators (KPIs).

After a few months in 2006 as Product Manager for the Icelandic software company Calidris, Thorarinn co-founded THOR Development & Research in August of 2006, a cross-disciplinary
independent research and analysis company connecting scientists from around the world with highly specialized projects in Iceland for both government, public, and private companies.

In 2009, Thorarinn funded and led the foundation of the software start-up SensiLogic LLC, a US-based smartphone software development firm, which, among other things, creates smartphone software solutions to help individuals lead a healthy and responsible life.

**Business Opportunity**

**Strategy and Performance Management**

According to the Oxford English Dictionary, the word “Strategy“ means “a plan of action designed to achieve a particular goal“ (Oxford English Dictionary (2 ed), 1989) and this is perhaps the most basic meaning of the word, the one that most will agree on. However, the word has a different meaning depending on in which field it is being used. In business, a strategy describes how an organization intends to compete or gain competitive advantage with the resources available in the existing and perceived future environment (Barney & Hesterly, 2010). Strategy is therefore closely tied to competition, one of the most powerful forces of human endeavor (Porter, 2008). In fact, every organization needs some form of strategy to deliver greater value to its customers than the competition and thus stay in business.

*Figure 2 - The Strategic Management Process (Barney & Hesterley, 2010)*

The best way to choose a strategy that is likely to work, is to follow a careful and systematic process in creating it. The Strategic Management Process (*See figure 2*) is a sequential set of analyses and choices to help companies choose a good strategy (Barney & Hesterly, 2010). It begins with the firm defining its mission or long-term purpose. A mission could be a detailed account of what the firm aspires to be, described in several paragraphs, or as short as one sentence.
Once a mission has been defined, the objectives supporting the mission can be determined. Objectives are specific measurable targets that are used to assess how well a company is doing in realizing its mission (Barney & Hesterly, 2010). Well chosen objectives are those that are easily measured and tracked over time by the company’s performance management system, and are tightly connected to the firm’s mission.

The next two steps in coming up with a good strategy can happen simultaneously, the external analysis and the internal analysis. The external analysis is used to determine the threats and opportunities of the competitive environment of the firm. It also looks at the likely evolution of that environment and what implications that change is likely to have.

The internal analysis looks at the firm from the outside-in, identifying its strengths and weaknesses, as well as which capabilities and resources are likely to contribute to the firm’s competitive advantage.

Once the external and internal analyses are complete, a firm is ready to begin making strategic choices. The choices can involve actions intended to gain competitive advantage in a single market or industry, referred to as business-level strategies. They can also involve actions intended to gain competitive advantage in multiple markets or industries simultaneously, referred to as corporate-level strategies (Barney & Hesterly, 2010).

The strategy formulation work eventually leads to a full grown strategy, a set of actions that the firm has decided to take in order to gain competitive advantage. This is when strategy implementation or execution begins. The success of any strategy will depend on both the quality of the chosen strategy as well as its implemention. If both are good, the end result may turn into a competitive advantage for the firm, allowing it to create more economic value than rival firms (Barney & Hesterly, 2010). That, in turn, is the basis for providing a satisfactory return on investment for the firm’s owners.

**Business Problem**

In a global study from 1988-98 of 1854 large corporations, at least 90% of them had developed detailed strategic plans (Zook & Allen, 2001). Yet, over 87% failed to achieve a modest 5.5% growth, despite much higher targets.
In 1999, a cover story in Fortune magazine of prominent CEO failures concluded that the emphasis on vision and strategy had created a false belief that the right strategy was all that was needed for success (Charan & Colvin, 1999). The authors estimated that at least 70 percent of cases, the problem behind the CEO failures wasn’t bad strategy, but bad execution. During and after the dot-com years, one could have expected the growth of information technology and enterprise solutions designed specifically for this problem to reduce the number of failed strategies, but in 2004, 66% of company strategies were never implemented (Johnson, 2004, December). Furthermore, 95% of employees are either not aware of their company's strategy or do not understand it (Kaplan, 2005).

Bonoma and Crittenden (2005) suggest that the larger problem of poor strategy implementation is that it becomes habitual (Crittenden & Crittenden, 2008). A poorly executed strategy shapes the next strategy formulation, again resulting in an equally bad or worse implementation. If not caught, this endless formulation-implementation-performance cycle will eventually lead to an implementation of a mistaken strategy (Crittenden & Crittenden, 2008).

Decades of research has failed to clarify why some companies successfully implement strategy, but others do not (Crittenden & Crittenden, 2008), but management strategists have offered advice to follow when implementing strategy. Much of this advice is summarized from the list of the Six Silent Killers of strategy implementation (Beer & Eisenstat, 2000).

Table 1 - The Six Silent Killers of Strategy Implementation (Beer & Eisenstat, 2000)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Top-down or laissez-fair management style</td>
</tr>
<tr>
<td>2</td>
<td>Unclear strategy and conflicting priorities</td>
</tr>
<tr>
<td>3</td>
<td>An ineffective senior management team</td>
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<tr>
<td>4</td>
<td>Poor vertical communication</td>
</tr>
<tr>
<td>5</td>
<td>Poor coordination across functions, business, or borders</td>
</tr>
<tr>
<td>6</td>
<td>Inadequate down-the-line leadership skills and development</td>
</tr>
</tbody>
</table>

As evident by this list, there are several significant hurdles that companies must overcome to become competitive, even if they have developed a good strategy. In other words, it’s one thing knowing what to do, but quite another to actually do it. It requires significant collaborative teamwork between a leadership group in the organization and rank and file employees. That is,
the leadership must stay connected to the knowledge embedded in the lower levels of the company (Beer & Eisenstat, 2000).

The list of The Six Silent Killers shows that company efforts suffer from several human deficiencies. The lack of collaboration, communication, knowledge management, and leadership skills are of particular interest here.

This business plan contends that some of these problems associated with implementing strategy can be solved with technology, particularly if the technology is implemented with adequate consulting, education and training. More specifically, technology can be used to bring ownership of the issues and actions needed for organizational change based on the chosen strategy, to the people whose work will effectively make the change.

Several major enterprise software development companies have been offering strategy and performance management solutions for many years. In the last couple of years however, the technology landscape has seen a major paradigm shift which might bode well for the strategy implementation problems listed above. This relevant shift is the advent of the move to mobile computing with the emergence of the smartphone software industry. A smartphone application could help move strategy implementation literally into the hands of employees.

**Smartphone Solution**

Although there appears to be no official definition of what a smartphone is, several industry definitions describe a smartphone as a mobile phone that offers capabilities far beyond traditional phones, towards those offered by personal digital assistants (Best, 2006), or more recently, towards those offered by personal computers. Features such as web browsing, e-mail, contacts, and calendar, along with larger screens, have transformed mobile phones into small personal computers. For several years though, smartphones differed from personal computers in that the availability of third party software was at best nebulous to users, and in the case of some smartphone models non-existent. Large manufacturers like Nokia have offered a variety of different applications for their phones, but the concept of third party applications didn’t become mainstream until July of 2008 when Apple, Inc. introduced the App Store, radically changing the smartphone market (Apple, Inc., 2010). The change that Apple made was simple: third party applications could now be purchased and installed on the phone itself, simply and intuitively in a matter of minutes or even seconds. This minor detail substantially increased users’ awareness of
the availability of third party applications and instantly created a large industry of software developers targeting Apple's iPhone. Not surprisingly, other manufacturers subsequently announced their own application stores.

This widespread adoption of sophisticated smartphones in the last 18 months that run third party software applications has therefore created an opportunity to create a mobile application solution for some of the strategy implementation problems described earlier. This solution would help move information, communication, and corresponding actions related to strategy and performance management, from company visionaries, strategists and department heads, to the workers whose day-to-day activities constitute most of the operations within a company. While such a solution could provide many of the pieces necessary right out of the box, it would have to integrate well with existing strategy and performance management software solutions in order to gain a foothold in the market.

**Strategy and Performance Management Software**

**Introduction**

Information technology (IT) and information systems (IS) play an important role in many organizations today (Deschoolmeester & Braet, 2006), supporting or even enabling many critical functions in modern firms. Strategy and performance management is no exception. Many companies have purchased or built specialized IT systems to handle both their strategy formulation and implementation, and even more have some form of a general business performance management system installed.

Performance management software solutions allow firms to monitor their resources, systems, and financial results on a continuing bases in order to make better operational decisions and to utilize their resources in the most effective way. Managers as well as other employees can get a general idea of how well an organization is doing relative to its goals by glancing over the properly selected key performance indicators (KPIs) displayed by the system.

Strategy management solutions add additional capabilities, allowing users to edit, manage, and track a firm’s strategy from formulation to implementation. They allow firms to monitor the KPIs behind each objective and initiative in their strategy and thus better align the organization
to achieve its objectives. Finally, they allow the people carrying out the actions necessary to implement, or “do” the strategy and to stay focused and informed as to how they are doing. Yet, with these sophisticated systems in place, one study after another finds that strategic plans are in most cases not turning into reality. The aim of Effectus is to fix that by adding the missing ingredients to these sophisticated systems already on the market. To do so, Effectus must easily integrate with the systems dominating the market.

**Major Vendors**

Strategy and performance management systems vendors range from small companies with a simple desktop solutions for small businesses, to a small data warehouse-based solution, to a full-fledged enterprise resource planning system (ERP), involving an enterprise data warehouse, several data marts, complex ETL\(^1\) processes, and sophisticated client applications, both web-based and rich (desktop) client. This business plan focuses on the full-fledged ERP vendors, since integrating with their performance management solutions is key to the survival of Effectus.

<table>
<thead>
<tr>
<th>Company name</th>
<th>Bus. perf. mgmt</th>
<th>Strategy Mgmt</th>
<th>Target market</th>
<th>Customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epicor</td>
<td>Yes</td>
<td>Yes</td>
<td>Mid-size companies</td>
<td>20,000+ customers in 140 countries</td>
</tr>
<tr>
<td>IBM</td>
<td>Yes</td>
<td>Yes</td>
<td>Mid-size to large companies</td>
<td>70,000+ customers in over 200 countries</td>
</tr>
<tr>
<td>Infor</td>
<td>Yes</td>
<td>Yes</td>
<td>Mid-size to large companies</td>
<td>70,000+ customers</td>
</tr>
<tr>
<td>Microsoft</td>
<td>Yes</td>
<td>Yes</td>
<td>Small to mid-size companies</td>
<td>83,000+ ERP customers</td>
</tr>
<tr>
<td>Oracle</td>
<td>Yes</td>
<td>Yes</td>
<td>Mid-size to large companies</td>
<td>37,000+ application customers</td>
</tr>
<tr>
<td>SAP</td>
<td>Yes</td>
<td>Yes</td>
<td>Mid-size to large companies</td>
<td>35,000+ customers in 120 countries</td>
</tr>
<tr>
<td>SAS</td>
<td>Yes</td>
<td>Yes</td>
<td>Small, mid-size, and large companies</td>
<td>Operations in 63 countries</td>
</tr>
</tbody>
</table>

The leading ERP market companies (See table 2) have been the drivers of extensive consolidation in the performance management market in the last few years. This business plan therefore covers the seven vendors listed above in greater detail than the remainder of the market, including a short account of their most relevant acquisitions.

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\(^1\) ETL (Extract-Transform-Load) is a data warehousing term referring to the processes used to extract data from source systems, transform the data to fit operational and reporting needs, and load it into the data warehouse.
SAP

SAP is the largest and probably the most recognized enterprise market share leader. SAP has more than 35 thousand customers in 120 countries and holds the top spot among ERP vendors. It is largely responsible for creating the client/server ERP market and claims the top spot in the Customer Relationship Management (CRM) software solution market as well. It offers many industry solutions and is usually priced at the high end (ERPsoftware 360, 2010).

The success of SAP is largely due to its extensive and full-featured accounting and distribution software suites along with well integrated financials, manufacturing, human resource, payroll and customer relationship management systems. It is one of the few vendors that offers companies one-stop shopping when it comes to the whole range of ERP software solutions.

In February, 2007, SAP, acquired business intelligence and performance management vendor Pilot Software. Pilot Software's main product was subsequently rebranded SAP Strategy Management and later SAP Strategic Enterprise Management (SAP SEM). Pilot Software had been described by Intelligent Enterprise magazine as a 2006 Company to Watch. Then, in October of 2007, SAP acquired one of the leading business intelligence vendors, the French enterprise software company Business Objects, which itself had acquired a number of competitors and makers of complimentary products. These two acquisitions provide SAP what it considers to be an end-to-end ERP solution to support the entire performance life cycle.

Oracle

Oracle is the world's second largest business applications vendor, with over 37 thousand customers. It began as a database vendor but today claims the number one spot in the CRM market and the number two spot in the ERP market (ERPsoftware 360, 2010).

Oracle has followed an aggressive acquisitions plan and has gathered an impressive portfolio of software solutions. However, these solutions do not always integrate well into the existing
Oracle infrastructure so Oracle set up project Fusion to accelerate the progress of integration between its acquired solutions.

In January, 2005, Oracle closed the USD 10.3 billion acquisition of enterprise software vendor PeopleSoft, marking the beginning of one of the most active acquisition years in Oracle history, when it added over 10 companies. PeopleSoft had previously acquired enterprise software vendor J.D. Edwards for USD 1.7 billion in addition to a number of smaller companies.

A year later, Oracle acquired customer relationship management leader, Siebel Systems for USD 5.85 billion, but it wasn't until March 1, 2007, when it acquired one of the leading enterprise performance management companies, Hyperion Corporation, for USD 3.3 billion.

In addition to its 30 year proven track record, Oracle's strength is its deep functionality and flexibility of implementation. It offers enterprise solutions in most categories and is priced at the high end.

**Epicor (formerly Platinum Software)**

Epicor began as a financial accounting system vendor 1984 but evolved into a complete enterprise software provider in the late 1990s. In addition to its financial solution, it now offers strong ERP software functionality such as supply chain management, retail management, human capital management, IT service management, and enterprise performance management. It has a long history of offering quality products and has been recognized for achieving the lowest total cost of ownership (TCO), as well as the lowest total per user cost of software, services, and maintenance for mid-size companies, important metrics among ERP customers. Its solutions are low to moderately priced.

Epicor has over 20 thousand customers in over 140 countries and was named in Business 2.0 magazine’s 2007 list of the 100 fastest growing technology companies for the second year in a row.

**IBM**

International Business Machines, or IBM, is the world’s largest technology company and the second most valuable global brand, behind Coca Cola.

IBM, or Big Blue, as it is sometimes called by nickname, is an old company with a history dating back to the 19th century, or 1896, when it started as the Tabulating Company. It therefore particularly old in relation to other information technology companies, but despite that, has its roots in data processing and the “information technology” of that time. It has 407 thousand employees today in over 200 countries and its employees have earned the company more patents than any other US-based technology company. By the same token, its employees have earned five Nobel Prizes, four Turing Awards\(^2\), nine National Medals of Technology, and five National Medals of Science.

IBM has five different parts: Global Technology Services (GTS), Global Business Services (GBS), Software, System and Technology, and Global Financing.

IBM sells both computer hardware and software, but has in recent years focused on the software part of the business. According to Forbes, it is the second most profitable information technology and services company in the world (Forbes, 2009). IBM therefore has extensive resources when it comes to acquisitions and has used them to move swiftly into new areas or improve its competitive position in its existing businesses.

Most recently, in October, 2009, IBM moved further into forecasting and predictive analytics with its acquisition of statistical software firm SPSS Inc. A month later, it acquired Guardium,

\(^2\) The A.M. Turing Award is given annually by the Association for Computing Machinery (ACM) to an individual who has made significant technical contributions to the computing community. It is recognized as the highest distinction in computer science.

**Infor (formerly Agilisys)**

Infor Global Solutions is the third largest ERP software vendor with over 70 thousand customers, offices in 125 countries, 8000 employees, and over USD 2 billion in revenue. It is privately held and the primary shareholder is the private equity firm Golden Gate Capital Partners.

Infor has grown largely due to an aggressive acquisition strategy. However, it is the mega company that surprisingly few ERP software buyers are aware of. Infor is a vertically oriented software publisher with several different ERP software systems and particularly strong distribution, supply chain management (SCM), lean manufacturing, complex manufacturing and process manufacturing solutions, financial management, human capital management, and enterprise performance management. Its product strategy is based on three core commitments: to enrich their applications with customer-driven enhancements, allowing customers to rank what is important to their business, to extend solutions to provide their customers with more software choices from partners that understand their business, and to evolve their products by building into them next-generation technology. Infor solutions are low to moderately priced.

Infor claims to focus on continual improvement by leveraging their customers existing technology investment. Their aim is to avoid disrupting what their customers already have. Infor also claims to keep a “laser focus“ on lowering the total cost of ownership (Infor Global Solutions, 2010). Their attention to the history of solution implementation problems experienced by ERP customers is likely to be music to customers’ ears, particularly since leaders such as SAP, have made the news for having solutions that are too complex, too expensive, and not delivered on time[heimild-Dr. Raj Ramesh,].
Microsoft

Microsoft has become the ERP darling of small and midsize business organizations (SMB). Since 2000, Microsoft has acquired at least ninety four companies, including Great Plains Software\(^3\) and Navision A/S\(^4\), both makers of financial accounting software. Its other acquisitions range from mobile applications developers to security software makers. In 2008 alone, Microsoft acquired at least sixteen companies.

Microsoft has, in the past, also been active in buying stakes in various companies, providing access to much needed technology for rapid advancement. These acquisitions and purchases of company stakes have created a big challenge for Microsoft of managing the knowledge transfer into the company and appropriately integrating purchased entities. While Microsoft failed on the infamous Project Green integration which was to merge its solutions into an ERP powerhouse, the company does an impressive job at continuing to advance the solutions independently. The Axapta and Navision products, for example, offer strong distribution and manufacturing capabilities and are far more popular in Europe than in North America. Great Plains remains a channel favorite and offers the strongest financials among the Microsoft product suites.

Microsoft serves over 83 thousand ERP customers worldwide, has a very strong partner channel, and only sells through value-added resellers (VARs). It is strong in the small to midsize business market and its solutions are considered low to moderately priced. Microsoft can usually leverage its own technology when putting deals together, since the company is well vertically integrated, offering both client and server operating systems, development tools, a database management system, and enterprise solutions that take advantage of all of the above. This internal access to proprietary information provides the company a competitive advantage in complex enterprise solution sales situations.

\(^3\) Great Plains Software previously acquired both RealWorld and Solomon Software, leading provider of SQL-based accounting software.

\(^4\) Navision had already acquired Axapta, one of the top rated accounting software products.
SAS

SAS is a privately owned business analytics software company, founded in 1976 as a statistical software developer. It has over 11 thousand employees in more than fifty countries and develops business intelligence and analytical solutions for a wide range of industries, with over 45 thousand customers in 119 countries, and 2009 revenues of USD 2.31 billion. SAS frequently claims to have among its customers over ninety of the top one hundred on the Fortune 500 list.

One of the most unique characteristics of the SAS system is its three-layer system design, often referred to as the inverted pyramid, and consisting of the host layer, base layer, and applications layer. The implication of this is that the SAS system can run on a wide range of operating systems and is therefore useful to a much larger group of customers than for instance, Microsoft solutions. On the Unix side for instance, it supports AIX, HP Tru64, HP-UX PA-RISC, Linux 32 and 64 bit, Linux Itanium, Solaris x64, and Solaris SPARC. On the Microsoft Windows side, it supports all major versions, and on the mainframe it supports both z/OS and its predecessor, OS/390.

SAS has award-winning technical support, provided to customers at no extra charge and it prides itself on a solid record of revenue growth and financial stability. The stability of SAS has in fact frequently been used as a selling point, since companies often evaluate the future viability of a vendor before purchasing a large and expensive enterprise solution from that vendor.

SAS has been widely covered as being among the top employers in the US, consistently remaining in the top twenty of the Fortune Magazine Best Companies To Work For. In fact, in 2010, it climbed to the number one spot.

SAS has not been active on the acquisitions front, but has instead chosen to build its own solutions. SAS president and CEO, Dr. Jim Goodnight describes the company's philosophy on acquisitions: "I believe in growing the company organically because it's the most cost-effective approach and results in the most integrated product offerings. However, we are always watching the market for exciting new technology that may extend our offerings far more quickly than we 
could develop the technology ourselves.“ (Goodnight, 2003). He goes on to mention a few key acquisitions of SAS, such as the activity-based costing and strategy management software firm ABC Technologies, which SAS acquired in April of 2002. SAS has also acquired marketing automation developer Intrinsic and risk analysis firm OpRisk Analytics, to name a few.

Other Vendors

The above descriptions of the top six ERP vendors is by no means a complete description of the strategy and performance management software industry, but it is the segment of the industry that is relevant to the Effectus business plan.

Effectus will begin by addressing integration with the solutions from the ERP vendors, but will address integration with solutions from the smaller vendors as residual projects. The software industry directory maintainer, Capterra, Inc., lists over eighty different business performance manage software vendors. Some of the products/solutions featured by Capterra are listed in this business plan as described by Capterra and the companies themselves to provide insight into the product features and dynamics of this market (See table 3).

Table 3 - Business Performance Management Software Vendors (Source: www.capterra.com)

<table>
<thead>
<tr>
<th>Product/Solution</th>
<th>Company/Developer</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ActiveStrategy Enterprise</td>
<td>Active Strategy</td>
<td>Web-based application supports and automates all areas of performance management, including strategy maps, cascaded balanced scorecards, strategic dashboards, objective and measure/KPI deployment and drill-down, alignment to business processes, performance improvement, initiative management, and employee goal alignment. Intuitive software was built for business users. Available as a SaaS on-demand application for quick deployment. Supported with results-based management consulting, when needed.</td>
</tr>
<tr>
<td>Astra</td>
<td>Marthan Systems</td>
<td>Astra leverages the power of scorecarding, benchmarking, comparisons, and root cause analysis to align action at store operations to organizational strategy and initiatives. With Astra you now have a systematic approach to deploying, communication, and effectively executing strategic plans. Astra provides you with a method and a tool to effectively manage the execution of initiative.</td>
</tr>
<tr>
<td>Product/Solution</td>
<td>Company/Developer</td>
<td>Description</td>
</tr>
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<td>----------------------------------</td>
<td>-------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Business Management System</td>
<td>Intelex Technologies</td>
<td>The Intelex Business Performance Management System (BMS) is a comprehensive software application designed to enable organizations to optimize their business performance through by collecting, tracking, and reporting all of their business data in real-time.</td>
</tr>
<tr>
<td>Control</td>
<td>KCI Computing</td>
<td>Unified end-to-end solution for all aspects of performance management - budgeting, modeling, forecasting, OLAP analysis, consolidations &amp; reporting. Excel based front end; industry standard relational database back-end; dynamic read-write to myriad data sources; drill-thru to transaction detail and more.</td>
</tr>
<tr>
<td>Corporater EPM Suite On-Demand</td>
<td>Corporater</td>
<td>Corporater EPM Suite On-Demand is a web-based Balanced Scorecard Solution, designed for business users. It offers you the tools you need to successfully implement and manage your balanced scorecard practice. Learn how organizations are already using it. It is a winning combination of a trusted specialized solution, available at an affordable price. Hosted on secure servers, your data will always be available to you, no matter where you are, as long as you have access to the internet.</td>
</tr>
<tr>
<td>Host Analytics Scorecard</td>
<td>Host Analytics</td>
<td>From our founding in 2000, our focus has been driving fact-based decisions based on sound financial justification. The Host Analytics CPM suite was built from the ground up to be fully integrated with each component of the CPM suite including: Integrate the corporate Strategy into daily objectives with Host Analytics Scorecard; Streamlining the monthly close and financial reporting with Host Analytics Consolidator; converting the strategic plan to actionable plans with Host Analytics Budget.</td>
</tr>
<tr>
<td>Product/Solution</td>
<td>Company/Developer</td>
<td>Description</td>
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<tr>
<td>PBL ScoreCard</td>
<td>Competitive Solutions</td>
<td>PBL ScoreCard is the most advanced business metric software on the market. Drives business metrics and accountability at all levels and provides a communications platform that tracks performance management. Provides a tool to track results, and integrate corrective actions for failing metrics. Also has an integrated standard communication process. Align your business with scorecards, dashboards, action plans, and performance graphs.</td>
</tr>
<tr>
<td>Planning Maestro</td>
<td>Centage</td>
<td>Planning Maestro is an easy-to-use Business Performance Management application, designed for the mid-market enterprise, with driver-based planning, advanced modeling, dynamic reforecasting and reporting capabilities in a collaborative planning environment. Streamline your most complicated budgeting process and eliminate the need to manage and maintain hundreds of formulas and worksheets. Drill down into the details and pinpoint the underlying factors that affect performance.</td>
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<tr>
<td>QPR Performance Management</td>
<td>QPR Software</td>
<td>Performance Management software QPR ScoreCard provides a fast to implement, low total cost of ownership solution for organizations that wish to upgrade from manually maintained performance reporting solutions, and go live within weeks. QPR ScoreCard provides automatic performance data collection, consolidation and reporting, supports multiple roles and initiatives and engages your employees with personalized access to information and powerful collaboration features.</td>
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<tr>
<td>Product/Solution</td>
<td>Company/Developer</td>
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<tr>
<td>Tagetik 3.0</td>
<td>Tagetik</td>
<td>Tagetik 3.0 creates value by simplifying complex business processes like Budgeting, Planning, Forecasting, Consolidation, Reporting, Financial Governance, Strategy Management, Profitability Modeling and Working Capital Analysis as a comprehensive way approach to managing business performance. The Tagetik performance management application is one software product, utilizing one cross-platform technology, in one database with one user interface.</td>
</tr>
</tbody>
</table>

Aside from these smaller vendors of strategy and performance management solutions, many VARs have assembled solutions using Open Source software, such as Openbravo, which provides cloud-based ERP solutions, and Compiere, which provides an entire suite of ERP solutions, including performance management, business analytics, and reporting (Compiere, 2010). Those companies are enjoying the support of a number of Open Source projects on the Internet which aim to deliver a competitive suite of ERP solutions for businesses.

According to ERPsoftware360, three of the largest ERP vendors in the world have mocked the Open Source initiative and their strategies seem of a defensive nature, belittling Open Source instead of taking advantage of it. This is expected to eventually lead to a turning point where protection of self interests will prove futile and ERP industry leaders will have to show Open Source a serious interest (ERPsoftware 360, 2010).

In a 2007 article, CIO magazine described Open Source ERP as the hottest emerging technology, quoting, among others, Gregor Bailar, former CIO of the large US bank, Capital One (McLaughlin, 2007). JP Rangaswami, managing director at British Telecom Group, explained

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5 Cloud-based computing places shared resources, such as applications and data, on off-site servers in remote data centers as opposed to on location, and provides a connection to them over the Internet.
that his team was playing with an Open Source ERP application, Thingamy, whose Open Source developers claim not to be competing with SAP and Oracle, but rather planning to “make those products irrelevant”. As of January 27, 2010, Oracle may however be moving more into the Open Source world after closing its acquisition of Sun, and thereby adding both Java and the most famous Open Source database, MySQL, to its portfolio of products.

The Effectus plan to utilize Open Source software as the integration component of its performance management solution, fits well with the prospects of a future that includes Open Source ERP solutions.

**Market Growth**

For most ERP vendors, the year 2009 was a year of flat or declining revenues, due in part to the worldwide recession that started in the fall of 2007 and went into high gear with the collapse of financial industry superpower Lehman Brothers in September, 2008. For reference, company performance figures for the last five years are listed here on the right (in millions of USD).

Aggregate sales figures for the performance management software industry could not be obtained since they are not separated from the figures of other related software solutions. However, the numbers for business intelligence (BI) tools are provided and they suggest growth of performance management software and analytical solutions. Research firm Gartner
reported in 2009 that the market for BI tools, analytic applications, and performance management software in 2008 had grown 21.7%, from USD 7.2 billion to USD 8.8 billion. It was noted however, that the growth was largely due to industry consolidation and focus on sales and marketing by the large vendors, specifically towards new acquisitions.

SAP accounted for almost 25% of the market, thanks to its 2007 acquisition of Business Objects. SAS and Oracle were both at 14.6%, IBM at 11.3%, and Microsoft at 7.7%.

Overall, Oracle did quite well despite the recession, increasing revenues from 2008 to 2009 and holding net income steady.

IBM revenues decreased only slightly, while the rest of the vendors, aside from Oracle, saw revenues falling.

Numbers for privately held Infor could not be obtained, but privately held SAS releases total revenue numbers without expenditures in the public version of its annual report (See figure 8). SAS reported 2009 revenues of USD 2.31 billion, up from USD 2.26 billion in 2008, and marking the 33th
year of continuous revenue growth. According to Dr. Goodnight, President and CEO of SAS, the company has remained profitable for its entire history.

Growth due to industry consolidation is said to continue in 2010 (Kanaracus, 2009). Analyst firm, Forrester Research, predicts that several of the top vendors will either merge, partner or buy up many pure-play analytics vendors, and it specifically mentions data mining automation firm KXEN, and data mining and credit risk predictive analytics firm Angoss.

While the large vendors buy up small add-ons in the form of niche technology companies, other smaller players strengthen their offerings and therefore their positions. Research firm Gartner, for instance, reported that Clarity Systems, make of corporate performance management and financial governance solutions, had grown 38% in 2009, or more than ten times the overall growth rate of 3.6% of all other vendors combined (Clarity Systems, 2010). This further supports this business plan’s suggestion that the large vendors are not addressing performance management customer needs adequately. The large vendors spent more than USD 15 billion on mergers and acquisitions in 2007 to acquire the “crown jewels” of the business intelligence and performance management market (Vermeulen, 2008). The challenge of turning those investments into a competitive advantage remains.

Detailed market data for the performance management software solutions market could not be obtained for this paper due to cost, but Kathleen Wilhide, research director of Compliance and Performance Management at research firm IDC states in the introduction to her USD 1500 report that “The FPSM [Financial Performance and Strategy Management] market will weather the economic downturn, and while growth will be impacted, FPSM solutions are critical tools enterprises will arm themselves with as they tighten their belts and scrutinize cost and profitability to better understand performance and make the right decisions” (Wilhide, 2009).
**Smartphone Software**

**Introduction**

The first smartphone was introduced at the computer industry trade show Comdex in 1992 (Schneidawind, 1992). It was designed by IBM and was called Simon. In addition to the normal telephone features, it offered a calendar, address book, calculator, note pad, email, fax, and games. Its user input mechanism consisted of a touch-screen, as well as a stylus pen.

Nokia raised the bar with its Nokia Communicator product line in 1996, starting with the introduction of the Nokia 9000, which brought together the features of personal digital assistants (PDAs) and the most advanced Nokia phone at the time. Then in 2000, Nokia introduced the Nokia 9210 Communicator, which offered a color screen and is by many considered the first true smartphone. The Nokia 9210 introduced a new operating system, Symbian, which until recently was the smartphone operating system of choice for Nokia.

While Nokia continued to refer to the 9210 and following models as a ‘Communicator’, the first phone to be marketed and sold as a ‘smartphone’ was the Ericsson R380, released in 2000 (PR Newswire, 2000). However, the R380, which ran the Symbian OS, did not allow users to install third party applications. A new player in the market, Handspring, Inc., started by former Palm entrepreneur Jeff Hawkins, popularized the notion of third party applications when it introduced the Treo, running Palm OS. Development of third party applications flourished as users began downloading them using a computer and syncing them to their device.

Research In Motion (RIM), which entered the market in the early 1990s with the Blackberry line of devices, has not put much emphasis on offering additional software, but rather focused on product differentiation on the devices themselves and offering additional features. RIM gained substantial marketshare by catering to the needs of enterprise users, offering wireless email and integrating well with existing enterprise groupware systems.
The software giant Microsoft, however, emphasized their commitment to the smartphone market when it announced the Microsoft Windows Powered Smartphone 2002 operating system in 2002 (Microsoft, 2002). Although similar to the system used by its sibling Pocket PC devices, the smartphone operating system offered a lower screen resolution. Microsoft was already well positioned to grab the mobile software market with its sophisticated suite of development tools and large base of software developers, but did not take advantage of its position.

In 2005, Nokia launched its N-Series of 3G smartphones, but began by marketing them as multimedia computers. More recently, it has also marketed similar phones as smartphones and mobile Internet devices. Nokia has offered third party software for many of its devices for several years and software for Nokia phones has been available through various dedicated web sites, some even offering it for free, such as www.freenokiasoftware.com. However, until the introduction of the Ovi Store, users had to use a special application on their computer to install the software on their phones. Furthermore, they had to filter the available software by model name since different Nokia phone models required installing different software. Considering the size of the Nokia brand hierarchy, this had the potential to confuse users, particularly since many Nokia phones don’t have the model name written on them (Einarsson, 2009).

Software development for mobile devices got an unexpected boost when Apple introduced its App Store in July, 2008 (Apple, Inc., 2008). Apple had previously pursued a web-based application development approach, allowing developers to only build applications for the iPhone’s Safari browser, as opposed to building native applications. At that time, Apple showed no indication that it would allow the development and installation of native iPhone applications in the future. However, the new approach was an instant success as users found it convenient to purchase and install applications right on the device.

The boost in software development for mobile devices triggered rivals to follow suit. The Android Market application store was opened on August 28, 2008. All other competitors opened their application stores the following year. RIM launched the Blackberry App World application store in April 2009, Nokia launched the Ovi Store in May 2009, Palm opened the Palm App Catalog in June 2009, and Microsoft launched the Windows Marketplace for Mobile in October 2009. By late fall 2009, software development for mobile devices was therefore widespread, with a corresponding increase in the variety and amount of available software for mobile phones.
Market Analysis

The smartphone market currently consists of seven major smartphone platforms, but only five of them are typically tracked by research firms due to the miniscule size of the remaining two. The seven platforms are (with company names in parenthesis) Symbian (Nokia), Blackberry (RIM), iPhone (Apple), Windows (Microsoft), Android (Google and others), MeeGo (Nokia & Intel), and WebOS (Palm). By the end of 2009, Symbian constituted 47% of the market, Blackberry 21%, iPhone 15%, Microsoft 9%, Android 5%, and others 3% (Canalys, 2010). Due to the emergent nature of the market, these numbers are fluctuating quite a bit, with Android quickly gaining ground at the expense of Microsoft, Nokia, and RIM.

The proportion of smartphone sales in the mobile phone market is steadily increasing (Reardon, 2009). Analysts expect that proportion to eventually reach 100%. The question is only when.

Five significant changes have occurred in the smartphone market in the last three years that warrant a closer look and analysis. These changes not only illustrate the current landscape of the market, they provide an indication of where this market is headed.

1. Android & The Open Handset Alliance

On November 5, 2007, Google and 47 other companies formed the Open Handset Alliance (OHA), a business alliance to develop open standards for mobile devices (Open Handset Alliance, 2007). The main product of the alliance is Android, an open source software stack based on the Linux kernel, including an operating system, middleware, and key applications.

The alliance, which now contains at least 65 members, includes such heavy weights as Intel, Motorola, Texas Instruments, Samsung, and Qualcomm, as well as mobile operators Sprint Nextel, T-Mobile, Telecom Italia, Telefónica, China Mobile, and Japan’s NTT DoCoMo. In all, the alliance includes mobile operators, software companies, commercialization companies, semiconductor companies, and handset manufacturers. Members of the alliance are committed to
furthering Android as an open standard for mobile devices, thereby strengthening their competitive position against rivals Nokia, Research In Motion, Microsoft, Palm, and Apple. Many of them have already released products running Android and others have Android-based products in the works. As of February 16, 2010, Android was shipping on 60 thousand handsets each day and growing, indicating yearly sales of over 22 million devices (Kumparak, 2010). This momentum, along with the number of alliance members is likely to result in one of the major forces in the mobile devices market, and thus the mobile software market as well.

2. Apple’s App Store & Third Party Software

On July 11, 2008, Apple opened the App Store and provided the 2.0 update to its iPhone OS. The operating system upgrade, which ran both on the iPhone and on the iPod Touch, allowed users to purchase third party software right on the devices themselves (Apple, 2008). The App Store opened with 500 applications, 125 of which were free.

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Less than 18 months later, on January 27, 2010, when Apple introduced its iPad tablet computer, there were already over 140 thousand applications available in the App Store (Apple, Inc., 2010). As of January 5, 2010, these application were available to customers in 77 countries who had downloaded more than 3 billion of them in less than 18 months (Apple, Inc., 2010). It’s therefore not surprising that other companies have opened their own application stores, although the number of applications in those doesn’t quite compare to Apple’s App Store (Carew, 2009).

If asked back in early 2008, some analysts might have argued that smartphones already offered third party software and that the market didn’t seem too interested in it. Other analysts might
have argued that current offerings of third party software were plenty, as claimed by Steve Litchfield, who has been running the 3lib online library of mobile software for 15 years. On November 9, 2006, Mr. Litchfield wrote on the web site All About Symbian: "I consider myself a power user of the [Nokia] E61, E70, P990i or N93, or whatever I happen to be trialling that month, and (games aside) I've only found a need for 3 or 4 third party applications at most. '575' sounds plenty to me”, referring to the then current Nokia offering of 575 third party applications (Litchfield, 2006). He later added: "In short, I just don't believe that any handheld platform needs ten thousand third party applications. Who could have time to navigate to a fraction of these and use them day to day?”. Mr. Litchfield’s comments may explain the attitude of the major market players at the time and why they had not done more to enable the third party smartphone software market. Today, the App Store provides Apple with a very good competitive advantage over rivals and according to JP Morgan analyst, Mark Moskowitz, the store will likely keep Apple ahead of the competition for a while (AppleInsider, 2010).

3. Palm & WebOS

Palm, Inc., which had previously used both its own mobile device operating system, PalmOS, as well as the old Windows Mobile operating system, introduced webOS at the Consumer Electronics Show on January 8, 2009. The same day, Palm announced a new smartphone, the Palm Pre, which immediately set analysts wondering whether this would be the first smartphone capable of competing with the iPhone. The Palm Pre was later followed by the Palm Pixi.

The webOS operating system is based on the Linux kernel with proprietary components added by Palm. It drew attention for both its graphical user interface as well as the underlying technologies, because it makes use of common web technologies such as HTML 5, JavaScript, and CSS (Cascading Style Sheets), which means that developers familiar with general web development can easily transition to application development for Palm’s webOS. With this, Palm hoped that it could fuel third party application development and create an ecosystem similar to Apple’s.

4. Nokia & MeeGo

Nokia and Intel drew mixed reactions from their own communities when they announced the merger of two of their projects on February 15, 2010, creating the MeeGo mobile operating system (The Wall Street Journal, 2010). MeeGo, which is based on the Linux operating system,
can run on smartphones as well as laptops, tablet computers, and TV sets, and it can help these devices integrate seamlessly. It was formed with the merger of Intel’s Moblin project and Nokia’s Maemo project. Moblin, short for ‘mobile Linux’, is an open source operating system and application stack for mobile internet devices, netbooks and embedded devices. Maemo, also based on Linux, is a software platform for smartphones and Internet tablets.

The merger underlines Nokia’s intent to transition from the Symbian operating system to a more modern and capable system for its high-end smartphones. Aside from the solid Linux underpinnings, one of the strengths of MeeGo will be its cross-platform nature. Developers can write applications once using the Qt graphical toolkit and then compile them for a variety of devices and platforms. Applications can be marketed and sold both through Nokia’s Ovi Store as well as Intel’s AppUpSM Center. Intel and Nokia claim that MeeGo “enables an open ecosystem for rapid development of exciting new user experiences” (Intel, 2010). It is clear that both companies realize the strong trend towards mobile application development.

5. Windows Phone 7

The Nokia-Intel announcement wasn’t the only surprise at the Mobile World Congress in Barcelona in February, 2010. Microsoft also revealed a new strategy with the unveiling of the Windows Phone 7 mobile operating system, a successor to its much-criticized Windows Mobile operating system, which so far hasn’t made Microsoft a worthy rival in the smartphone market.

Windows Phone 7 is very different from its predecessor. The user interface is all new, focusing on touch input. The underlying technologies include XNA, which drives both Zune games and Xbox content, and the system includes Silverlight development technology, making development for this new platform much better and helping to further the goal of a rich application ecosystem. Finally, Windows Phone 7 is based on the same kernel as the Zune HD media player, and may eventually take its place.
Current Platforms

iPhone

The iPhone was introduced in the United States on June 29, 2007, six months after being first announced. It only launched as a quad-band GSM phone, exclusively on the AT&T network in the US, leaving out other US cell phone carriers and other types of networks. Despite that, it gathered great reviews and was named Invention of the Year in 2007 by Time magazine (Grossman, 2007). The first non-GSM iPhone is expected for the Verizon Wireless network in the USA this summer, according to analyst reports and rumors (Electronista, 2010).

The first iPhone, retroactively labeled the “original” iPhone or the iPhone 2G, was followed by the iPhone 3G the following year on July 11, 2008. The same day, Apple also introduced the 2.0 version of the iPhone OS, which featured the previously mentioned App Store and launched a new software development platform.

Today, there are three different models in use, the original iPhone, the iPhone 3G and the iPhone 3GS, which launched on June 19, 2009. According to Canalys, Apple shipped over 25 million iPhones in 2009, representing over 15% of all smartphone shipments. In addition, the platform also includes the iPod Touch, which is estimated to sell at a rate of 0.7 per iPhone, and growing.

Figure 13 - Worldwide iPhone sales (M) – iPhone 2G (blue bars), iPhone 3G (green bars), and iPhone 3GS (orange bars)
(Source: Apple, Inc.)
Strengths of the iPhone include exceptional software usability, integration with iTunes, the greatest availability of applications of any mobile phone, and sleek design.

The original price of the iPhone was $599, which helped prevent mainstream use despite great interest. Today, however, the iPhone is available in the US at $99 with a 2 year contract and sales have been steadily rising (See figure 4). This has led to a tremendous growth in available applications which exceeded 185 thousand in early 2010 (Apple, Inc., 2010) (See figure 5).

Figure 14 - Available applications for the iPhone  (Source: Apple, Inc.)

Application purchases and downloads of free applications have increased accordingly, reaching 4 billion in early 2010 (See figure 6). Applications are available to over 85 million iPhone and iPod Touch users in 90 countries who can choose to search for applications in 20 categories, including games, business, news, sports, health, reference, and travel (Apple, Inc., 2010).

One of the key questions of analysts is how long this trend can continue. One of the leading online stores, GetJar, predicts that the number of applications will peak around 10 million in 2020 (Shiels, 2009). That number may not be reliable, but the mobile software trend is real and so is the growth of the smartphone segment of the mobile phone market.
One of the challenges of the iPhone has been to convince enterprise users that the iPhone is for them. In 2009, compete.com did a survey of iPhone users, asking them: “In a typical week, approximately what percentage of the time do you use your phone for personal use (assuming the other time is used for business purposes)?”

One of the challenges with respect to this business plan, is that 45% of the iPhone users indicated that 76-100% of their time with the iPhone is for personal use, and 73% said that more than 50% of their iPhone time was for personal use (Nohe, 2009).

The good news is that there is a new trend worth watching that might just change that. According to the Financial Times, the introduction of the iPad in April 2010 has
brought Apple to the attention of corporate users which appear to be interested in the iPad for enterprise use and at the same time handing out iPhones to their employees (Menn, 2010). That might play well into the hands of Apple, which is adding several enterprise features with the iPhone OS 4.0 upgrade in summer 2010, including better security, scalability, and compatibility, as well as a new Mobile Device Management service, which allows managers to configure, query and even wipe managed iPhones. In addition, it allows enterprises to “securely host and wirelessly distribute their own in-house developed apps to employees“ (Apple, Inc., 2010).

**Android**

Android is an operating system for mobile devices and includes necessary system software (middleware) and key applications. It was introduced on November 5, 2007 with the announcement of the Open Handset Alliance, a consortium of 65 companies dedicated to the advancement of open standards in the mobile industry (Open Handset Alliance, 2007). Google released much of the source code for Android under an open source license, allowing software developers from all over the world to view the code and even contribute to it.

HTC introduced the first Android-based smartphone on October 22, 2008, the HTC Dream, which was also referred to as the HTC G1. The second Android phone also came from HTC and was released in May, 2009. It was dubbed the G2, but was officially named the HTC Magic and the HTC myTouch 3G. Other manufacturers began releasing their Android phones in the months following and by the end of 2009, there were 16 different Android smartphone models on the market from 7 manufacturers (Androphones.com, 2010).

The Android platform ranks as the fourth largest smartphone platform as of February, 2010. On February 16, 2010 Google announced that 60 thousand new Android-based cell phones were being shipped each day (Tartakoff, 2010). Android phone sales have now hit 5.4 million units per quarter, and could overtake the iPhone in 12 months (Sherman, 2010).
The Android system has many strengths, and from a competitive standpoint, one of them is the widespread industry adoption and participation of the Android development project, which is backed by many industry heavyweights. Android embraces open standards and is thus very capable and feature rich. It supports many connectivity technologies, including GSM/EDGE, CDMA\(^6\), UMTS, and of course Bluetooth, Wi-Fi, and WiMAX. Consumers have a number of Android-based phone models to choose from, due to the number of partners in the Android project, which increases the likelyhood that each consumer can find an Android smartphone to his/her liking.

Updates to Android are frequent which may be great for savvy users but has the potential to annoy novice users. Android 2.0 was released less than 6 weeks after Android 1.6 came out on September 15, 2009.

It’s up to each manufacturer to differentiate themselves with sleek handset design, by adding custom enhancements to the Android base system. Recent experience shows that the success of those enhancements varies greatly (Android Central, 2010).

Software developers were not pleased with the Android SDK\(^7\) at first, citing bugs, lack of documentation, inadequate quality assurance infrastructure, and no public issue-tracking system (Paul, 2007). Nevertheless, Android applications started appearing and Google eventually began addressing these issues, announcing an issue tracking system in January 2008. Google also helped spur development by launching the Android Developer Challenge, a competition for the most innovative application for Android. It set aside USD 10 million for prizes for the first and second Android Developer Challenge. The 50 most promising entries each received USD 25,000 at the end of the competition, ten teams received USD 275,000 each, and another ten USD 100,000 each. Developers therefore had a substantial incentive to join the platform and begin developing software for Android.

\(^6\) CDMA (Code Division Multiple Access) is a channel access method used in the CDMA2000 mobile phone standard, used by several mobile phone carriers.

\(^7\) SDK (Software Development Kit) is a set of development tools and code libraries that allows the creation of applications for a certain platform or software package.
One of the remaining development issues for Android that is likely to continue to be a problem, is the fact that manufacturers release Android phones with different hardware capabilities. At minimum, this means that developers either need to build applications that conform to the lowest common denominator, or face testing their application for each Android device. In the worst case scenario, developers face difficulties in getting their applications to work on all Android models. This is likely to deter many would-be Android application developers and hold back the momentum of the platform as a whole.

Android phones are available at prices ranging from free, with a contract, to USD 530 unlocked. However, technical features such as the screen resolution, which ranges from 240 by 320 pixels to 800 by 480 pixels, vary substantially.

Market penetration has been steadily climbing and is at 9% by latest figures. Research firms, such as Gartner Inc., have issued predictions that by 2012, Android will be the world's second most popular smartphone platform, behind Nokia's Symbian OS, which is very popular worldwide, although it hasn't yet gotten traction in the US.

**BlackBerry (RIM)**

BlackBerry is a synonym for a whole product line of mobile e-mail and smartphone devices developed by Research In Motion (RIM). The BlackBerry smartphone was released in 2002, but the BlackBerry had already gained ground as a two-way pager following the release of the first BlackBerry device in September 1996 (RIM, 1996). BlackBerry quickly became very popular with business users for being the best mobile e-mail solution available at the time.
BlackBerry devices include a wide variety of models, most offering a physical keyboard, but touch-screen models have been added recently.

BlackBerry sales continue to be strong despite increasing competition (Reardon, 2009). Company earnings were up 59% in the third fiscal quarter of 2009, with over 10 million BlackBerry smartphones shipped. Motorola introduce its Android-based Droid smartphone during the same quarter and although the Droid got of to a good start, it does not appear to have had a major impact on BlackBerry sales.

BlackBerry demand remains strong with enterprise users due to the excellent support for enterprise needs, such as the ability for IT administrators to manage hundreds of different security policies for tens of thousands of BlackBerry devices on their networks. Administrators can set security policies to restrict which web sites users can visit, for example, and whether features like the camera or music player are available (Morisy, 2008).

BlackBerry is a unique device in the smartphone market due to its enterprise features. While other smartphones utilize existing enterprise systems, RIM offers enterprise components such as the BlackBerry Enterprise Server (BES), which acts as a conduit between groupware (i.e. messaging and collaboration) systems on enterprise networks and BlackBerry devices, redirecting emails and synchronizing contacts and calendar information. BES includes a number of individual components, installed as Windows services, which carry out each of the functions such as the alert service, the attachment service, the collaboration service, and the policy service.

One of the potential weaknesses of BlackBerry is its close association with the enterprise. As smartphone users start merging their personal and business smartphone needs, BlackBerry may find itself at a disadvantage due to the lack of multimedia features and applications for personal use. The growth of third party applications may be a risk to BlackBerry’s marketshare, and that presents several difficult issues for BlackBerry. First, consumers may begin to see third party applications as a standard option before too long. In order to stay with the market trends and offer a wide selection of third party software, Research In Motion must attract developers to the platform in large numbers. Considering the wide selection of BlackBerry devices with various hardware specifications, processor speeds, and screen resolutions, only mobile development firms with extensive resources are going to be in a position to commit to the platform since testing is going to have to be done on a large number of devices. For instance, RIM offers over
40 device simulators for developers for testing their applications for all potential BlackBerry users, a necessary process in order to avoid having the application run into problems on one of the BlackBerry devices. The iPhone platform, on the other hand, offers a single simulator, greatly simplifying development and reducing compatibility issues.

An increasing share of the growth of BlackBerry devices is coming from consumers, as opposed to corporate users (Silver, 2009). It is therefore imperative that RIM provide an attractive platform for developers in order to stay competitive.

BlackBerry App World, the BlackBerry application store, went live on April 1, 2009. By July 8 that same year, the number of applications had reached 2000. Roughly a year after opening, the store had 6000 applications, almost 180,000 applications behind rival Apple’s App Store (Miller, 2010). RIM does not disclose the number of downloads, but mobile analytics firm Localytics reports that BlackBerry application usage is higher and more concentrated during workdays than iPhone application usage (Localytics, 2010). This indicates both that BlackBerry usage is of a professional or corporate nature, and that the desire and/or need for BlackBerry applications does in fact exist.
**Symbian OS (Nokia)**

The Symbian OS (operating system) dates back to the early days of portable devices, specifically to the EPOC operating system of the Psion Organizer, developed by Psion PLC from around 1981 (Grossman W., 2000). Symbian Software Limited was acquired in 2008 by Nokia, which subsequently contributed the system along with its S60 user interface to the Symbian Foundation to create the open source, royalty free Symbian platform. The Symbian platform was officially made open source in February, 2010 (Symbian Foundation, 2010).

Symbian is optimized for low-power battery-based devices and systems running from a ROM\(^8\). This is particularly useful for mobile phones, where battery life is a big issue. Symbian is a multi-tasking operating system and its kernel is sufficiently responsive to handle both user applications and signal commands using a single processor core. This is an important technical achievement in today's market of feature-rich mobile phones and may have contributed to Symbian-based phones being both inexpensive and power efficient.

The Symbian OS with the S60 user interface has been used by Nokia and other manufacturers in their mobile phones since 2001. It reached over 52% marketshare in 2008, sliding back to just under 47% in 2009, making it still the most widely used smartphone operating system in the world (Gartner, Inc., 2010). It's used on several Samsung mobile phone models today and most of Nokia's smartphones, although Nokia has recently started using Linux-based operating systems, starting with Maemo and later moving to MeeGo (See next section).

The native programming language of Symbian is C++, but it's not a standard implementation of this widely used language, however, and the learning curve is steep. In addition, Symbian requires special development techniques, making even simple programs more difficult to write.

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8 ROM (Read-Only-Memory) is a class of storage media for electronic devices, where the data either can not be modified at all, or can not be modified easily or quickly, as compared to hard disks.
than in other environments. Other programming languages can be used however, such as Python, Java ME, Flash Lite, Ruby, and .NET, but this means that development environments used by Symbian application authors vary greatly, and hence, so does the documentation and support.

Third party applications have been available for Symbian-based phones for quite some time, but access to them has been less than optimal. Consumers have had to find the available applications on the various web sites that market them. In a way, the application ecosystem has therefore also been somewhat disorganized. This is changing with Nokia’s Ovi Store however, which launched world wide in May 2009 and was servicing almost 1.5 million downloads every day by February 28, 2010 (Symbian Freak, 2010). In fact, the analysis firm IDC, predicts that Symbian will retain its leadership position worldwide through 2013, when shipments of smartphones will exceed 390 million units (IDC, 2010).

**MeeGo (Nokia)**

MeeGo, a Linux-based operating system for mobile devices, is the latest mobile platform, introduced on February 15, 2010 (Intel, 2010). It was created with the merger of two existing systems, Nokia’s Maemo on Linux and Intel’s Moblin operating system. It will support multiple hardware architectures across a broad range of devices, including smartphones, netbooks, tablet computers, connected TVs and in-vehicle infotainment systems. MeeGo is an open source project hosted by the Linux Foundation. It offers the Qt application development environment\(^9\) with its tried and tested cross-platform GUI\(^{10}\) toolkit. Qt is used by applications.

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\(^9\) Qt (pron. cute or cue-tee) is a cross-platform graphical user interface development library and a set of tools. It was developed by Trolltech, which was acquired by Nokia in 2008. The K Desktop Environment (KDE), one of the two major graphical user interfaces for Linux, was developed using Qt. ([http://qt.nokia.com/](http://qt.nokia.com/))

\(^{10}\) GUI (Graphical User Interface) ...
thousands of companies in many different industries around the world, allowing them develop cross-platform GUI applications for a wide range of platforms and devices.

Due to the recent launch of MeeGo, there are no available applications written specifically for this platform as of this writing, but they will be distributed both through Nokia’s Ovi store and Intel’s AppUp Center portal. However, many applications do exist for both of MeeGo’s predecessors, Maemo and Moblin, but reliable data on the current number of applications could not be obtained. According to Maemo-related web sites, they appear to be in the hundreds.

MeeGo will run on various types of devices, and existing Maemo devices will likely be the first to see MeeGo running on them. The “MeeGo to N900“ project, headed by Harri Hakulinen of Nokia exists precisely for that purpose. In the next release of the project, it will allow Nokia N900 users to dual boot Maemo 5 and MeeGo, providing users a smoother transition between the two operating systems (Hakulinen, 2010).

Given the strength of its backers, MeeGo has the potential to become a reasonable contender in the mobile platform wars,. It offers a robust operating system, modern technologies, mature development tools, and a large base of developers. It is, however, entering the game at a rather late stage, and although it may have the force to push small players such as webOS to the side (See next section), contenders Android and the iPhone OS are going to be tougher to beat given their current lead and momentum.

WebOS (Palm)

The Palm webOS is a mobile operating system based on Linux, with proprietary additions developed by smartphone manufacturer Palm, Inc. It was introduced on January 8, 2009, along with the first webOS-based smartphone, the Palm Pre (Palm, Inc., 2009). Both were released roughly five months later, on June 6, 2009.

Palm offers three models with the webOS, the Palm Pre, Palm Pixi, and Palm Pixi Plus (coming soon). Despite initial interest, Palm Pre sales are in a “substantial decline“, according to analyst Ashok Kumar of Northeast Securities (Gibbs, 2009). The price reduction to USD 99 has not helped, and the introduction of the second webOS smartphone, the Palm Pixi, isn’t expected to reverse the trend due to stiff competition.
From a development perspective, the webOS offers a reasonable option however, since it makes use of several established technologies, such as HTML, JavaScript, and CSS, well-known to millions of web developers around the world, who could start developing applications for webOS devices with little extra training. Given the momentum of rival efforts however, webOS is in a difficult position. Hewlett-Packard might be able to turn the current decline around, following its announced acquisition of Palm, Inc. on April 28, but even HP may not be able to do it alone.

As of November 2009, analyst firm Gartner estimated that the operating system share of webOS was around 0.2%, and thus unlikely to attract a substantial amount of third party application developers, a prerequisite for success in the current smartphone market (Gibbs, 2009).

In the short time since webOS was introduced however, the number and variety of applications has grown extensively, which is impressive given the level of competition already in the market and that webOS has been backed by only a single, relatively small player in that market. Whether the HP acquisition changes that remains to be seen.

**Windows Phone 7**

Microsoft revealed a new strategy with the unveiling of the Windows Phone 7 mobile operating system on February 15, 2010, the next version of the much-criticized Windows Mobile operating system, which so far hasn’t made Microsoft a worthy rival in the smartphone market (Cellan-Jones, 2010).

Windows Phone 7 is very different from its predecessor. The user interface is an all-new touch input-focused interface, the underlying technologies are the ones that drive both Zune games and Xbox content, and it is based on the same core as the Zune HD media player. It includes the recent Silverlight development technology, improving the development experience for the Microsoft mobile platform, and helping to further it as a rich application ecosystem.

This new approach will allow Microsoft to better tap into the large population of both Windows and Xbox users due to the smooth technical integration between desktops, Xbox game units, Zune media players, and Windows Phone 7 smartphones. In fact,
every Windows-based smartphone will also function as a Zune media player using the Xbox graphical user interface.

The short time since the introduction of Windows Phone 7 is not long enough to determine how the platform will do in the marketplace. The first impressions, although brief, indicate that consumers might get excited about it, and almost without exception, reviewers are praising it (Tartakoff, 2010). However, virtually no data is available to gauge developer interest, but Microsoft is hard at work to reach the developer community and bring developers to the platform.

The platform’s main weakness is that consumers will have to wait until Christmas of 2010 to get their first smartphone running the Windows Phone 7 operating system. Given the pace of development of the competing mobile platforms, it is very difficult to forecast exactly what Microsoft’s competitive position will be like once the first Windows Phone 7 devices hit the market. One thing is clear, the next few months will determine a lot about how Microsoft will do in the mobile market.

**Future Market Growth**

Each of the five events described above illustrate the move towards a software-based mobile device market, where product differentiation efforts will move from being focused on the devices themselves, to being directed at the available software. Consequently, users will come to expect a rich flora of applications to solve various personal as well as enterprise needs. This means that users will be able to accomplish more tasks with a mobile phone and that computing in general will increasingly take place in the palm of the consumer’s hand.

Analysis firm Canalys reports that the smartphone market grew by 41% from 2008 to 2009, and touch-screen smartphones were up 138%. According to Canalys, total smartphone shipments in 2009 reached 166 million units, with 75 million of those touch-screen smartphones (Canalys, 2010). Gartner, on the other hand, reports that smartphone sales reached 172 million in 2009. Meanwhile, worldwide mobile phone sales totalled 1211 million units, a decrease of 0.9% from 2008 (Gartner, Inc., 2010).
In the smartphone operating system market, Symbian maintained its lead, but its market share dropped 5.4% in 2009. Rivals such as iPhone, Android, and BlackBerry, continued to successfully push their way into the market, assisted by Nokia's weakness when it comes to advanced smartphones intended to compete with the premier iPhone, Android and BlackBerry models (Gartner, Inc., 2010).
According to Canalys, Android growth is likely to continue increasing as more manufacturers in the Open Handset Alliance release their smartphones. IDC expects Android to become the second largest platform by 2013, enjoying a compound annual growth rate of over 150% for the next three years (IDC, 2010). It further expects smartphone sales to exceed 390 million units per year by 2013. iPhone growth appears to be steadying, but is still substantial. Together, Android and iPhone are therefore going to make it tough for newcomers such as webOS, Windows Phone 7, and MeeGo to gain traction. In addition, MeeGo-based phones will not reach the market until second half of 2010, and Windows Phone 7 series phones not until Christmas 2010, giving the current players ample time to fortify their positions.

Although the final call on which platforms will survive the next five to ten years is not yet possible, the mobile software conclusion is clear: mobile applications are going to flood the market in the next few years and the platforms attracting the most applications are likely to survive for the foreseeable future.

**Mobile Internet Devices**

The analysis of the smartphone software market warrants a brief mention of emerging and related devices, particularly mobile internet devices\(^{11}\) (MIDs). The question was raised many years ago whether there was enough space in the market between a mobile phone and a mobile computer. The palm computing revolution came and passed. Devices like the Palm Pilot, the Handspring Visor, and even the Apple Newton in 1993, carved some space in the market and then faded away as high-end mobile phones and later smartphones took over.

Finally, in the last few years, the netbook\(^{12}\) concept began gaining momentum (Copeland, 2008). Prominent laptop manufacturers such as HP, Dell, and Asus began offering netbooks. Apple, however, believed that those manufacturers had not yet located the right position (Apple, Inc., 2010). In a 2010 press meeting, Apple CEO Steve Jobs explained that if there is going to be a third category, referring to the space between smartphones and laptop computers, those new devices are going to have to improve some key tasks, including browsing the web, working with email, photos, video, music, games, and eBooks. „That is a pretty tall order“, added Mr. Jobs.

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\(^{11}\) Mobile Internet device (MID) is defined as a multimedia-capable handheld computer, providing wireless Internet access, entertainment, and information and location-based services for personal use (Source: ARM Ltd).

\(^{12}\) Netbooks (sometimes called mini notebooks or ultraportables) are a rapidly evolving category of small, lightweight, and inexpensive laptop computers (Source: CNN/Technology and the New York Times).
Apple launched the iPad on April 3, 2010 and later reported that it sold 300 thousand iPads the first day (Apple, Inc, 2010). The iPad is different from netbooks and thus might be considered yet a new category, a so-called tablet computer. Sales have continued to be brisk. Advertising firm Chitika claims to have developed a method for counting the number of iPad currently on the market (Ionescu, 2010). The iPad outsold the iPhone on day one and as of April 26, 2010, Chitika’s estimate of iPads had just exceeded one million units, rising by approximately forty thousand per day (Chitika Labs, 2010).

The significant relevance here is that the iPad is the same platform as the iPhone and iPod Touch. That is, applications written for the iPhone and iPod Touch also run on the iPad. Developers are, however, urged to modify or re-design their applications to take better advantage of the iPad’s much larger screen, and although most of them might do that, some applications may be written to simply recognize whether they are running on the iPhone or the iPad and then apply the appropriate user interface view and view controller accordingly.

The new MeeGo operating system of Nokia and Intel is also targeted at both smartphones and other handheld devices, and Android tablet computers are already on the market. Tablet computers have entered the market from both startups and established companies, and even more have announced their tablet intentions, such as HP and Dell (Burns, 2010). Finally, Microsoft is unlikely to sit back and watch this new category of devices erode their own desktop and laptop space. Mobile Internet Devices is therefore a product category that needs to be considered by mobile applications developers as an economically viable platform.

13 Development for the iPhone, iPod Touch, and iPad follows a programming design pattern called Model-View-Controller (MVC), in which the data model, the user interface view, and the controller handling the logic and connecting the view with the data, are separate pieces. This design pattern allows easy runtime swapping of views based on such things as hardware specifications.
Effectus Product Strategy

Platform Strategy

One of the biggest determinants for success for high-technology companies is their product platform strategy (McGrath, 2001). Other aspects of product strategy are enabled and constrained by the platform. In order to formulate the platform strategy, several key facts must be in place.

Platform Elements

A product platform is made up of a number of platform elements. These elements, how they fit together, and how they change over time, must be clearly understood.

The smartphone platform consists of the electronic hardware, the operating system, and the display. The main electronic hardware components are the microprocessor, memory, motherboard circuitry, cellular circuits and other I/O circuits, camera components, microphone, and speaker. The microprocessor is the most significant of the those, and in the personal computer industry, for instance, the platform is synonymous with the microprocessor.

Figure 30 – The Effectus mCPM Solution and the underlying smartphone product platform.
The smartphone platform elements change over time in different ways. The microprocessor changes primarily with respect to speed or input/output performance, whereas the memory mostly increases in capacity. The camera and display will see resolution increases, and the operating system gets additional features. From an Effectus perspective, the operating system is the element to watch.

Defining Technology

In every platform, one element defines the platform more than any other. The long-term survival of the platform and thus its life cycle is often dependent on the ongoing strength of this defining element. It is therefore imperative that this element be well understood.

For the Effectus mCPM solution, the operating system defines the platform. In order to deliver many of its features, the mCPM relies on APIs\(^\text{14}\) that are provided by the operating system. As the operating system changes, the capabilities, and in some cases even the limitations of mCPM, change as well. The operating system must therefore be carefully evaluated.

The PowerPC-to-Intel microprocessor transition of Apple, Inc. during 2006 demonstrated how the operating system reigns over the hardware as a platform's defining technology (Cohen, 2006). It illustrates that a company like Nokia, for instance, could switch its Symbian-based phones to a new line of microprocessors without much disruption to the Symbian developer community. This would be accomplished by upgrading Symbian development tools to produce a so-called “Universal”\(^\text{15}\) build of the software that runs on both the old microprocessor and the new one. However, disregarding Symbian all together would not only disrupt those businesses targeting Symbian, it would wield them a devastating blow.

Competitive Advantage

A platform may provide a sustainable competitive advantage when a product's differentiation is implemented using mostly the platform's unique capabilities or features. For high-technology companies, the ideal platform strategy would involve a proprietary platform, allowing a company to maintain a sustainable competitive advantage for a considerable time. In many markets

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\(^{14}\) API (Application Programming Interface) is a software programming interface provided by a set of routines, data structures, object classes, and protocols to enable interaction with other software. APIs are implemented by applications libraries and operating systems to specify the calling conventions to use their services.

\(^{15}\) “Universal build” is a term coined by Apple, Inc. to describe the new type of executable file that runs on both PowerPC and Intel processors. Apple upgraded its development tools to allow them to produce a universal build.
however, including the mobile phone market, the need for open and compatible products is a strategic trade-off. The competitive advantage may then turn into a decision of which open standards to select as the platform of the product.

The smartphone industry is the kind of business where joint partnerships for platform collaboration can yield great results for the participants and even allow them to push weaker platforms out of the market. Android is the best example of this, with 65 members and counting, while Palm, Inc., on the other hand, competes with its own proprietary platform.

Effectus can choose to develop its solution for any number of platforms, or all of the current smartphone platforms. In fact, the unique value proposition of Effectus is that the mCPM will be available on as many platforms as economically feasible at any given time while at the same time using each platform's unique capabilities to the fullest. When the large ERP system vendors finally implement a smartphone client solution for their customers, they are likely to begin by only supporting a couple of the most popular platforms. This creates one of the possible exit strategies for Effectus. The existing performance management vendors may find it more economical to buy vs build, and simply acquire Effectus, thereby eliminating the possibility that their competitors be able to implement the mCPM.

Number of Platforms

McGrath (2001) states that no more than one product platform should serve a market, but admits that this statement has been found to be controversial. For one thing, having two or three platforms in a single market would allow each platform to target a specific set of needs. The experience in the personal computer industry from the late 1970s through the 1980s and into the 1990s taught us that when we see a paradigm shift, such as when computing moved from mainframes and onto microcomputers or personal computers, we first see a proliferation of platforms before the market begins converging on two or three of them.

The smartphone industry will likely see something similar, except that in its case, the proliferation may not become so great since the already established platform vendors in the personal computer industry have a leg up on any newcomers in the smartphone industry. They already have ample resources and capabilities to quickly build a mobile phone platform based on their personal computer platform or, in the case of Linux, on another already existing and open personal computer platform. This is what has happened in the case of Android, MeeGo, iPhone
OS, and Windows Phone 7. Furthermore, webOS is based largely on existing technologies, and
Symbian is already an established mobile platform.

The existing platforms should provide a significant barrier to entry from now on and curtail the
further proliferation of platforms. Hence, when it comes to the platform choice by smartphone
developers, they are therefore only left with the decision on which of the above seven platforms
are likely to succeed.

Effectus will begin by supporting two platforms for its mobile software, Android and iPhone. It
will also plan for a BlackBerry version, but will keep that project on hold until a more detailed
evaluation of the new BlackBerry development tools, announced on April 6, 2010, has taken
place (McCrank, 2010). The MeeGo and Windows Phone 7 platforms will be evaluated in early
2011 based on their Christmas season 2010 sales numbers and the status of their respective
development environments.

The webOS platform improved its standing on April 28, 2010, when Hewlett-Packard announced
that it would acquire Palm, Inc. for approximately USD 1.2 billion in cash (HP News release,
2010). Hewlett-Packard certainly has the cloud to attract prominent companies to the platform,
but it remains to be seen what their intention is and what type of strategy they will employ. It is
therefore too early to make a call on whether webOS will be a formidable platform in the
smartphone market and thus one of the target platforms of Effectus.

Additional Platform Considerations

Effectus also needs to consider the server side of the platform issue, since the Effectus solution
includes a server side component, the Effectus Performance Management System Broker.

The EPMS broker will be implemented on the Linux platform using Open Source\textsuperscript{16} technologies,
including MySQL\textsuperscript{17} and Python\textsuperscript{18}. This will provide the greatest flexibility in connecting with the
existing performance management systems, as well as providing an economical solution for this
important infrastructure component of the Effectus mCPM solution.

\textsuperscript{16} Open Source refers to a practice in production and development that promotes access to the end product’s source
materials, such as the source code in the case of software. It therefore invites contributions from a large number of
potential contributors.

\textsuperscript{17} MySQL is a relational database management system, whose source is available under an Open Source license. It
runs on a large number of server platforms, including Linux.

\textsuperscript{18} Python is a high-level general-purpose programming language, whose philosophy emphasizes code readability.
Product Line Strategy

Product line strategy involves a conditional time-phased plan for releasing products from a common platform in sequence (McGrath, 2001). The product line strategy is therefore dependent on the platform strategy. By the same token, the true potential of the platform strategy will not be realized without an effective product line strategy. An effective product line strategy lays out what the proper sequence of product offerings should be in the specific market segments.

McGrath (2001) describes several ingredients that are common to successful product line strategies.

Cover all primary targeted market segments

Product offerings within a product line are intended to appeal to different market segments. Together, they should cover all the major segments of the market. The key is to segment the market such that each product offering enjoys a competitive advantage.

Effectus will begin by targeting the strategy management system segment, enhancing existing strategy management systems to alleviate the effects of the Six Killers of Strategy Implementation. Then it will target the general business performance management system segment, providing a solution that improves the effectiveness of existing performance management systems.

Product line strategy must be aware of the possible rapid change in segmentation, particularly in high-technology markets. Effectus must therefore be ready to release new product offerings to address emerging market segments.

Within each of the two segments described above, strategy management and business performance management, Effectus will monitor the difference in needs between executives and regular employees in order to evaluate whether the emerging tablet or slate\(^{19}\) market creates a sub-segment for Effectus that warrants a new product offering – the mCPM on an iPad.

Focus each product offering

Product proliferation sometimes results from companies trying to cover all market segments. That is, companies try to be all things to all people and end up releasing too many products. This can even be the result of a company that is excessively customer-focused (McGrath, 2001).

\(^{19}\) Tablet and slate, in this case, refer to a light-weight touch-screen mobile computer, such as the iPad.
The point of having a product line strategy is to be proactive instead of reactive when it comes to the important and often difficult decision of which products to develop. Effectus must fully comprehend the market and the competition in that market in order to arrive at the best possible decision.

*Time-phased product development schedules*

Product offerings in a product line must be properly sequenced and prioritized. Predictability of the timing of product releases is also key, and this is particularly true in the software industry in general where release schedules often change.

Effectus has prioritized its product offerings such that it will address the most significant problem first, strategy implementation failures, and then it will capitalize on the product development already undertaken by releasing a solution for general business performance management systems.

Effectus can later address the market for low-end, low-priced strategy and performance management systems, by leveraging its established mobile solution, and thereby integrating vertically by moving upstream in the product hierarchy.

**Competitive Strategy**

Products gain competitive advantage through competitive strategy – a detailed plan for how to compete based on the company’s strengths and weaknesses in relation to those of its competitors. In addition, companies must take into account external factors influencing their ability to succeed using their strengths and weaknesses (Barney & Hesterly, 2010).

The five forces framework, developed by Professor Michael Porter, constitutes a micro environment with five forces that describe the competitive intensity in a market, and thus the attractiveness of that market (Porter, 2008). The analysis of these five forces is useful in describing the environment that Effectus will be entering.

**Five Forces Analysis**

*Threat of Entry*

The first environmental threat is the threat of a new entry. New entrants are companies that have either just started operating in the market or that threaten to begin operating in it soon.
This is a significant threat for Effectus. As previously discussed, the prerequisite for the success of Effectus is a timely execution of this business plan. The swifter the execution, the lower this threat, and thus lower the risk of failure.

The threat of new entrants in this market does not stem from new strategy and performance management software vendors since that market is already well saturated, particularly on the enterprise side, but rather from the existing large ERP vendors “waking up“, putting their plans together, and building a mobile addition to their existing solutions.

Incumbents, however, do not have a significant cost advantage, since even they would have to implement both the mobile solution itself, as well as the server-side additions needed for integration into their solution suite. Incumbent firms do however have access to their own proprietary technology to make the integration, which makes them the significant threat, and further underscores the need for Effectus to move swiftly.

There is also some threat of smaller firms providing the mobile addition to the existing enterprise solutions, but this threat isn’t as significant as the threat from the ERP vendors. While the cost of entry for other small mobile software companies to provide a mobile solution addition is low, the time window is short before incumbent companies begin implementing their own mobile solution additions. One of the main motivators for entry, potential profits, will therefore likely be considered too low for new entrants to take the plunge.

**Threat of Rivalry**

The threat of rivalry represents the intensity of competition among a company’s direct competitors. High levels of rivalry are evident if companies are frequently cutting their prices, frequently introducing new products, or are running intense advertising campaigns.

Strong rivalry reduces potential profits. An industry usually experiences strong rivalry if there is a large number of competing companies of a similar size, slow growth in the industry, lack of product differentiation, or if capacity is added in large increments.

At first, Effectus will not be subject to strong rivalry since the attributes described above do not apply at the present time. However, that could change very quickly as the ERP vendors come to realize the potential of mobile software to add value to their offerings. This threat is therefore considered mixed for Effectus.
**Threat of Substitutes**

If a product or service by a rival meets the same customer need as a company's product or service, but in a different way, then it is a substitute. Substitutes put a ceiling on the price that companies in that industry can charge, and in some cases, they replace existing products or services all together.

The threat of substitutes for the Effectus mCPM solution is low, since it is a highly specialized solution. The ERP vendors could try to update their current systems to alleviate the issues that mCPM is targeting, but if they were aware of them, they would have done so already.

**Threat of Powerful Suppliers**

Suppliers provide raw materials, labor, and other necessary assets to companies. If they have too much power, they can threaten the profitability of companies by increasing their prices. One of the determinants of whether they have too much power in an industry, is that there are very few suppliers.

Effectus relies mostly on human capital to build its product, and as such, is not going to experience a threat of powerful suppliers.

**Threat of Powerful Buyers**

Buyers represent a threat to a firm if they become too powerful. They may gain enough leverage to force a company to lower its prices, customize its product, or act in some other way that benefits the buyer more than the company selling the product.

Buyers can become a threat if there are only a few of them in an industry, the products they are buying are undifferentiated, the products represent a significant percentage of a buyer's final costs, if they are not earning a significant profit, or if they threaten backward vertical integration.

The total market for the Effectus mCPM solution exceeds 240 thousand potential buyers and is therefore substantial. The mCPM is a highly differentiated product *(See the Business Strategy section)* and the cost represents a small percentage of the total amount that the buyer will spend on strategy management and/or performance management. In addition, the solution aims to help buyers align their organizations and earn higher profits. The threat of powerful buyers is therefore considered low for Effectus.
Table 4 - Five Forces Framework analysis for the mobile software addition to PM systems

<table>
<thead>
<tr>
<th>Five Forces</th>
<th>Level of Intensity</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat of entry</td>
<td>High</td>
<td>Short time window, slow-moving large enterprises without much cost-advantage, but will eventually move in with force.</td>
</tr>
<tr>
<td>Threat of rivalry</td>
<td>Mixed</td>
<td>No specific rivalry yet, but rivalry will become strong once ERP vendors enter.</td>
</tr>
<tr>
<td>Threat of substitutes</td>
<td>Low</td>
<td>This highly differentiated product does not have any substitutes.</td>
</tr>
<tr>
<td>Threat of powerful suppliers</td>
<td>Low</td>
<td>There are no specific suppliers, since the raw material is human capital.</td>
</tr>
<tr>
<td>Threat of powerful buyers</td>
<td>Low</td>
<td>With over 240 thousand potential customers, this threat is low.</td>
</tr>
</tbody>
</table>

Expected firm performance: Mixed

Five Forces Summary

The importance of the five forces model is threefold for Effectus. First, it describes the most common threats in an industry and evaluates them. Second, it characterizes the overall threat in the targeted industry. And finally, it provides an indication of what the average level of performance could be in that industry.

The threat of entry has been evaluated as high and the threat of rivalry as mixed. The conclusion is therefore that Effectus must move quickly to mitigate the threat of entry, as well as the resulting and existing rivalry. If Effectus can deliver the solution on schedule and gain the intended visibility, the business plan will succeed.

The other three forces have been evaluated as low, and are likely to stay that way.

Business Strategy

A business strategy consists of those actions taken in order to gain competitive advantage in a single market or industry. Business strategy is usually based either on the price of the product, or the features of the product. In some cases though, companies are able to formulate a successful strategy involving both price and features and such a mix is considered to gain popularity as global competition increases (Barney & Hesterly, 2010).
Price-Based Strategy

When a company chooses to pursue a price-based strategy, it means that much of its effort goes into keeping costs down so that it can charge the lowest possible price in the market. This can get risky, such as in a non-homogenous market, since a single-minded focus on keeping costs down can lead to poor products (Barney & Hesterly, 2010).

The Effectus mCPM solution is an addition to large existing solutions that have in most cases been sold at high prices. Customers are, on one hand, not eager to spend more on the same project or initiative, but on the other hand, they want to protect their investment and understand that by adding the mCPM, they can capitalize on their sunk cost, achieving better performance from existing products for a marginal fee.

Effectus is charging a reasonable fee for the mCPM. It accomplishes this by applying lean IT principles and avoiding a few large cost line items, such as by utilizing Open Source software for its server side components. Effectus main business strategy, however, involves product differentiation.

Product Differentiation

Most high-tech companies achieve competitive advantage with a product differentiation strategy (McGrath, 2001). The challenge for Effectus is therefore how it can differentiate the mCPM in order attain its competitive advantage.

Differentiation is a way of distinguishing a product’s perceived value from that of its competitors. It means more than being different though. It is a strategic approach to positioning the product such that customers will find it favorable over other options.

Differentiation is a relative comparison because the product is evaluated against competitor offerings. If the competitors are absent, as in the case of first-mover products like the mCPM, then differentiation can be considered only against imaginary competitors. In such cases, subsequent companies to launch their product have an advantage, since they can position their product through copying as well as differentiation against the Effectus product already in the market. It is therefore extremely important for Effectus to pursue multiple points or vectors of differentiation. Ideally, some of these vectors of differentiation will turn out to be obscure for the forthcoming competitors, delaying effective rivalry until the competitors catch on.
In order to successfully apply a product differentiation strategy, the four basic concepts of differentiation must be understood (McGrath, 2001).

1. **Differentiation positions a product in the market.**

   The combination of price and product differentiation defines the position of the product in a market relative to competitors.

2. **Differentiation segments the market.**

   Customers choose products differentiated to their tastes. In that sense, the differentiation actually segments the market. Furthermore, in some cases, the differentiation can be so substantial that it creates a new market.

3. **Differentiation evolves through a market’s life cycle.**

   The relative differentiation in a market evolves as the market evolves. The ability to understand and predict these changes is essential to competitive strategy.

4. **Differentiation should be managed as vectors, not points.**

   If product is simply differentiated by a single point, it has nowhere to go as the market evolves or competitors move in. If it is differentiated by a vector, it has a specific path for continuous differentiation. Furthermore, vectors bring focus to how the product will continue to be successful.

**Vectors of Differentiation**

The Effectus mCPM solution strives for competitive advantage by applying several vectors of differentiation (VoDs).

*Unique features – (the right features – user research)*

Differentiation by product features is very popular with high-tech companies because as technology advances, new opportunities for differentiation emerge. Software development companies are particularly prone to differentiation by features since certain features can be very easy to add, generating a pressure by marketing or product management to have them added to a product, often without adequate planning. This is what is referred to in the software development industry as “feature-itis“.
The management of software features is an area where Effectus possesses an advantage (See Founder’s Profile section).

The founder’s expertise is in the fields of user-centred design, usability research, and user-centered product development. Effectus will apply proven methodologies to the development of its solution, such as contextual inquiry, part of the contextual design methodology, as well as software persona development, usability testing, and affinity diagram development.

**Ease of Use**

Differentiation by ease of use is particularly popular in today’s high-tech world. As stated in the previous paragraph, Effectus has an advantage here due to the expertise of its founder. Effectus will apply user research and usability testing to optimize the usability and overall task flow of its solution, resulting in a product that quickly begins selling through its excellent reputation and builds customer-based brand equity from positive user experiences.

**Design differentiation**

The literature states that even high-tech products can be differentiated with product design, particularly when the design promotes ease of use. There is another aspect to design, however, one that is usually overlooked, and particularly by small companies. That is that different designs evoke different feelings to users.

Effectus regards the design differentiation vector as a highly important competitive tool. If used successfully, it can make competition very difficult for imitators, since design features that elicit the best emotional response among users can not be determined without adequate research.

**Improved productivity**

The promise of productivity improvement is one of the most frequently used differentiators and it is one of the cornerstones of the Effectus mCPM solution.

The primary claim of Effectus is that the information of current strategy and performance management systems is not getting to the people who need it, and therefore not causing the change in behavior that leads a company to implement its strategy successfully.

Furthermore, the soft side of productivity improvement can benefit as well. Executives that have better data than their competitors are likely to make decisions that result in higher productivity.
Measurable customer benefits
Products that are differentiated with measurable benefits can be sold for higher prices since customers value the certainty of a return on investment over a product that makes promises but does not provide proof.

Effectus offers companies the option of conducting a survey on strategy management before and after the installation of the mCPM, with a discount if the results are not favorable.

Protecting customer’s investment
The first solution of Effectus is all about protecting the existing investment of customers. As previously explained, the majority of companies with a formulated strategies do not successfully implement them. The vast investment in ERP systems is therefore not providing the return expected. The mCPM therefore works like the plug for the leaking hole.

Higher performance
Products can be differentiated to provide a greater performance, either via increased speed, power, or capacity. The mCPM provides greater performance via superior alignment of the organization. When the organization is aligned, wasteful actions diminish and the power of the organization increases.

Total cost of ownership
Total cost of ownership is calculated as the price of the product plus any expenses associated with the product over the ownership life cycle. Total cost of ownership (TCO) is a common term in information technology (IT) because administration, maintenance, service, and repair can vary greatly among IT systems. It is therefore imperative for companies to evaluate the TCO when making a purchase decision.

The mCPM constitutes an addition to the IT budget and thus results in increased overall IT expenses. However, individually, it achieves extraordinary results when it comes to TCO, because Effectus strives to reduce or eliminate common causes of high cost, such as technical complexity and expensive proprietary systems.

Finally, the TCO of the Effectus product is insignificant when evaluated in relation to the benefits since it provides a substantial return on investment.
The Effectus Solution

Product Roadmap

The Effectus company product roadmap follows a logical sequence steps, first moving into an uncontested market for a mobile add-on for existing performance management system customers. This provides Effectus a “foot in the door” of valuable customers for further expansion and market intelligence purposes.

The next step is to create a simple strategy management desktop application that works off of a strategy and performance management data warehouse. This would allow Effectus to acquire customers that do not have a performance management system installed already, by leveraging the benefits of the mCPM solution.

The third step would be to upgrade the strategy management solution to appeal to mid-size businesses, both those that have systems installed and those who do not.

Components

Figure 31 - Architectural overview of the Effectus mCPM solution.
An overview of the mCPM solution can be seen in the figure above (*Figure 31*). Effectus provides an integration component called the Effectus Performance Management System Broker. The purpose of this component is to communicate with the mobile devices on one side, and with the customer’s installed strategy and performance system on the other side.

The mobile devices can be either mobile phones, tablet computers, netbooks, or other mobile internet-enabled devices, or in the future, even desktop computers. Their interaction with the broker is independent of the type of performance management system in use at each particular customer site. This flexibility allows a customer to switch performance management systems in the future without impacting the majority of the user population, the “actors” in strategy and performance management at the company.

The Effectus Performance Management System Broker is implemented on an Open Source platform for maximum flexibility and lowest total cost of ownership. As the system matures, the operating system platform that the broker runs on may therefore be tuned by Effectus to better fit the task.

The broker will launch with support for solutions from SAP, Oracle, and IBM, but other ERP vendor solutions will be added shortly thereafter.

**Features**

Performance Management software solutions allow company executives, division heads, department managers, human resources professionals, and other with a need to know, to monitor the performance of their company on a daily, weekly, or monthly basis. The system surfaces key measures or metrics, key performance indicators (KPIs), as selected by the maintainers of the system, those individuals to be better informed and thus better equipped to make the best possible decisions.

Strategy Management systems add more sophistication by describing the KPIs in the context of some objective or initiative which has been defined and selected based on strategic formulation, the result of strategic analysis of the company’s mission, company internals, and external environment. This provides an added dimension since KPIs are now grouped based on overall objective. KPIs can even be drivers of other KPIs and so on, defining a causal relationship.
The Six Killers of Strategy Implementation described by Beer & Eisenstat (2000) clearly show that strategy implementations suffer significantly due to poor communication between senior management and rank-and-file employees. This is indicated by Silent Killers 1, 2, and 4, which are “Top-down or laessez-faire management style”, “Unclear strategy and conflicting priorities“, and “Poor vertical communication“, respectively.

The Effectus mCPM solution allows companies to filter a large amount of information based on identity and role in order to get the right information to the right people. This helps alleviate Silent Killer number 4.

The Effectus mCPM solution provides employees a stake in the well-being of the company by pushing ownership of issues and the thus KPIs down into their hands. This helps alleviate Silent Killer number 2.

Finally, the Effectus mCPM solution provides employees the power to communicate critical issues related to “their“ KPIs to their managers and up the chain of command, if no acknowledgement is received, and thus push for appropriate action. This helps alleviate Silent Killer number 1.

Over time, the solution creates an environment of awareness about company strategy and enthusiasm to take part and contribute to the success of the business. Furthermore, compensation policies can benefit from the use of the system, and decisions on bonuses and salary increases can be improved.
Marketing Plan

Current Situation

Effectus is a new company and as such does not have a prior history of performance to use as a prediction of future success. However, it does have a plan of action and its plan and the probability of success, is based on strengths in its internal environment.

Internal Environment

Effectus possesses vital points of knowledge pertaining to several key areas of developing the Effectus Mobile Corporate Performance Management solution (mCPM) and achieving success in selling it. These form the company’s main strengths.

- Expertise in strategy and performance management
- Expertise in development of software for strategy and performance management
- Expertise in software development methodologies
- Expertise in software product management
- Expertise in user research, user-interface design, and usability testing
- Knowledge of cost-effective development methodologies
- Rapid development practices

Effectus does suffer from a few weaknesses, however.

- Lack of financial resources
- Lack of brand awareness

External Environment

The mission of Effectus is to exploit an opening in a market dominated by large ERP vendors. Effectus has great several opportunities in this market.

- Emerging technologies have not been exploited yet
- Increased need for performance information among companies in general
- Increased competitive pressures pushing companies to optimize
- Acquisition behavior of leaders in the ERP market provides a basis for exit strategy
- Possibility of integrating vertically by adding a strategy authoring tool, due to high price tags of existing systems
However, Effectus faces several substantial threats in accomplishing its mission.

- New entrants in the market may arrive at any time – short time window
- Deep pockets and extensive resources of ERP vendors
- ERP vendors have access to the proprietary technology of leading enterprise performance management solutions

The task at hand is not an easy one, and the time window is short. However, the possible gain is great in a time period where both savings rates and stock market returns are at historical lows. Effectus should therefore be able to find investors willing to risk the required amount to launch the Effectus mCPM solution development project.

**Market Analysis**

**Market Definition**

The potential market for the Effectus mCPM solution is all companies with one hundred or more employees. Smaller companies can not be considered since it is not economically viable for them or Effectus due to fixed costs of IT installations.

The available market is substantially smaller, consisting of companies with one thousand employees or more. The difference between the potential market and available market for the mCPM, is primarily financial capacity. The probability that a company with only one hundred employees is going to be able to afford an IT solution to align their operations with their strategy (if they have one) is low. Furthermore, even if such a small company has the financial capacity, it is unlikely to invest in the solution since the probability of receiving a measurable financial return on the investment is also low. The larger the company, the more likely it is both to be able to afford the solution, as well as to be able to receive a positive return on investment due to economies of scale.

The qualified market in this case is the same as

![mCPM market definition diagram](image-url)
the available market, since no product-specific criteria limit the available market. All interested customers with financial capacity to purchase the solution qualify.

**Market Changes**

The increasing competitive pressures on companies as a result of changes such as globalization, call for even more attention to efficiency – or how to get more out of current resources. That creates demand for information systems that enable the accurate tracking and management of company resources. The target market for the Effectus solution is therefore likely to continue growing.

**Market Share**

Effectus enjoys the benefit of being a startup company with a fresh cost structure and minimal dead weight. The company can therefore reach profitability with relatively few sales. There are over nine thousand companies in the US with over a thousand employees. Effectus would do well by servicing just over 1/10th of a percent of this market.

**Segmentation, Targeting, Positioning**

**Segmentation**

The distribution of US company employee counts shows the number of companies within the various ranges of employee count, starting at five hundred (Statistics of U.S. Businesses, 2006).

*Figure 33 - Distribution of US company employee counts (Source: Statistics of U.S. Businesses: 2006)*
There are over ninety thousand companies in the US with an employee count between one hundred and five hundred. For the sake of chart granularity, the above chart (See figure 26) does not include those companies, but rather starts at an employee count of five hundred. There are over eighteen thousand companies in the US with more than five hundred employees.

The Effectus mCPM solution can be used by any company with an installed system for performance management. Companies which have made the investment, want a return on that investment. In fact, most IT departments are required to justify the return on investment of major system implementations by illustrating how the systems pay for themselves. Although the justification of a general purpose IT system costing tens of thousand of dollars is sometimes difficult, it is not impossible.

Effectus will therefore further segment based on whether a company has a strategy and/or performance management solution installed. Unfortunately, those numbers are not available for free and since this business plan is written without a budget, they will be omitted.

The cumulative distribution of US company employee counts illustrates well that the pursuit of smaller than 1000+ employee count companies could provide a significant benefit. The US has over 108 thousand companies with more than a hundred employees, but only about 9 thousand companies with more than 1000 employees (Statistics of U.S. Businesses, 2006). Starting the segmentation at 100 employees would therefore be an increase by more than ten-fold.
The segmentation also needs to consider financial capacity. In most cases, companies with an employee count of one hundred are likely to have less financial capacity than those with one thousand employees. In addition, they are also likely to find that although a manager’s intuition might argue that the solution is economically viable, justifying it on paper could be a difficult.

The average payroll per employee by employee count describes the salaries being paid at companies of different sizes. It is not a direct indication of profitability, but one could deduce that the higher the average payroll per employee, the more value is in the employee contribution and thus a higher probability of profit.

Figure 35 - Average payroll per employee by employee count (Source: Statistics of US Businesses: 2006)

The employee count ranges of five hundred to seven hundred and fifty, and seven hundred and fifty to one thousand employees have similar payrolls per employee, or about USD 40,000. This is segment B.

The next segment, C, is companies with anywhere from one thousand employees to two thousand five hundred. Their average payrolls per employee are over USD 42,000.
The highest payroll per employee occurs in companies with an employee count from two thousand five hundred and up to ten thousand (two ranges in the chart above). This is segment D.

The final segment is E, which includes any company with more than ten thousand employees.

Each of the segments is further divided into those companies which already have a performance management system of some kind, and those which do not. Segment A is therefore divided into A₁ for companies with an installed performance management system, and A₂ for companies that do not.

**Targeting**

One of the primary reasons for segmenting the market for the Effectus mCPM solution is to be able to vary the approach to targeting and positioning for each segment. The A and B segments will be targeted via value-added resellers (VARs), direct mail, and industry magazines. The C segment will be targeted similarly, via VARs and industry magazines, but also in local newspapers. The large company segments, D and E, will be targeted via national newspapers and industry magazines.

<table>
<thead>
<tr>
<th>Priority</th>
<th>Segment</th>
<th>Employee Count</th>
<th>Ave. payroll per employee</th>
<th>Targeting method</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>A</td>
<td>100-499</td>
<td>$37,680</td>
<td>VARs, direct mail, industry magazines</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>500-999</td>
<td>$39,977</td>
<td>VARs, direct mail, industry magazines</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>1000-2499</td>
<td>$42,719</td>
<td>VARs, newspapers, industry magazines</td>
</tr>
<tr>
<td>1</td>
<td>D</td>
<td>2500-9999</td>
<td>$46,809</td>
<td>National newspapers, industry magazines</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>10000+</td>
<td>$45,110</td>
<td>National newspapers, industry magazines</td>
</tr>
</tbody>
</table>

Segment D will be given first priority. Market intelligence will be obtained from IDC and Gartner, cross-referenced with other sources to create a short list of companies that have strategy and/or performance management systems installed but have not achieved a competitive advantage and can therefore be deemed vulnerable relative to their competitors.

**Positioning**

Products should be positioned using three desirability criteria: competitive distinction, relevance, and credibility (Wood, 2004). Effectus will promote the employee-enabling characteristic of its solution to illustrate its competitive distinction. It will present prospective customers with data
on how companies are failing to implement strategy and explain how that illustrates that existing strategy and performance management systems are not living up to their promise

Effectus will present the following value proposition to these firms:

- Substantial investment has been made into strategy and/or performance management systems
- Competitive advantage has not been achieved
- Employees may not even know what the company’s strategy is and what their own priorities are
- The Effectus mCPM solution adds an inexpensive component, a complementor, that activates the existing investment

One of the assumptions of this business plan is that the combination of the competitive and economic pressures in the market place today will the tipping point for companies to add the Effectus solution to their existing investment. The only detail missing for them to make the decision is the price.

Pricing

Customers perceive the value of a product based on the total amount of benefits they receive (Wood, 2004). Individual benefits of a product may deliver different value to different customers, but it’s the combination of all benefits that delivers the value.

Perceptions of value are made in the context of competitors, or substitutes that might also meet the need, but in general, the value assessment is made on the basis of benefits such as performance, features, quality, service, and availability. Customers also evaluate the total cost against the benefits. The total cost includes the initial purchase price, installation, training, maintenance and repair, and ongoing fees.

Effectus will strive to keep the cost structure of all its solutions as simple as possible at all times. The mCPM initial purchase price includes installation and a set number of setup hours by Effectus consultant or its partners and VARs. The price will cover the cost of the first year. Subsequent years will be charged at 35% of the purchase price, which includes a technical support contract. There will be no separate maintenance and repair fees or other hidden fees. The aim is to make customers feel that the reason for Effectus being is to patch the hole in their
current strategy and performance management system so that it begins delivering as promised by the original vendor.

All Effectus solutions will be sold with a user-tiered pricing model, starting at a minimum price based on one hundred employees.

Table 6 – Effectus mCPM solution pricing scheme

<table>
<thead>
<tr>
<th>SKU</th>
<th>Company size (employees)</th>
<th>Fixed amount (USD)</th>
<th>+ Price per user</th>
<th>Variable part total</th>
<th>Total price (1st year)</th>
<th>Total price (2nd year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>mCPM</td>
<td>100</td>
<td>$18,000</td>
<td>$8</td>
<td>$800</td>
<td>$18,800</td>
<td>$6,580</td>
</tr>
<tr>
<td>mCPM</td>
<td>499</td>
<td>$18,000</td>
<td>$8</td>
<td>$3,992</td>
<td>$21,992</td>
<td>$7,697</td>
</tr>
<tr>
<td>mCPM</td>
<td>500</td>
<td>$28,000</td>
<td>$7</td>
<td>$3,500</td>
<td>$31,500</td>
<td>$11,025</td>
</tr>
<tr>
<td>mCPM</td>
<td>999</td>
<td>$28,000</td>
<td>$7</td>
<td>$6,993</td>
<td>$34,993</td>
<td>$12,248</td>
</tr>
<tr>
<td>mCPM</td>
<td>1000</td>
<td>$44,000</td>
<td>$5</td>
<td>$5,000</td>
<td>$49,000</td>
<td>$17,150</td>
</tr>
<tr>
<td>mCPM</td>
<td>2499</td>
<td>$44,000</td>
<td>$5</td>
<td>$12,495</td>
<td>$56,495</td>
<td>$19,773</td>
</tr>
<tr>
<td>mCPM</td>
<td>2500</td>
<td>$56,000</td>
<td>$4</td>
<td>$10,000</td>
<td>$66,000</td>
<td>$23,100</td>
</tr>
<tr>
<td>mCPM</td>
<td>9999</td>
<td>$56,000</td>
<td>$4</td>
<td>$39,996</td>
<td>$95,996</td>
<td>$33,599</td>
</tr>
<tr>
<td>mCPM</td>
<td>10000</td>
<td>$66,000</td>
<td>$3</td>
<td>$30,000</td>
<td>$98,000</td>
<td>$34,300</td>
</tr>
</tbody>
</table>

The pricing scheme takes into account technical design characteristics of the mCPM that contribute to lower cost and some of that benefit is passed on to the customer. While Effectus will keep its annual renewal fee at 35% going out the door, it does have a buffer to utilize in case it needs to due to competitive pressures as new entrants arrive with similar solutions.

Overall, the price of the mCPM is very reasonable based on author’s experience with ERP solutions and related software, but one of the prerequisites of this price is the current exchange rate of the Icelandic krona. However, although the krona is expected to eventually recuperate, by that time Effectus will have achieved some economy of scale and can therefore pay higher salaries.

**Distribution**

The Effectus mCPM solution will be developed at the company’s headquarters in Reykjavik, Iceland. Companies in Iceland will also serve as beta testers, providing local companies with a free test run whether they have a performance management system in place already or not. If not, Effectus will set up a small data warehouse with the necessary ETL processes to implement a small performance management system with core business KPIs.
Effectus will set up a sales, marketing, and support office in the US to service the market from there. The US office will recruit and train value-added resellers across the US to sell and service the product. When a VAR handles the sale, installation, and configuration, Effectus will receive 20% of the initial price as well as 20% of renewals. Since Effectus will also be selling and servicing the product, it will divide the US market among itself and VARs so as to not compete with its VARs.

**Brand Strategy**

Branding is an important aspect of both product strategy and marketing since it provides both identity and competitive differentiation to stimulate a customer response – branding is about creating differences (Keller, Apéria, & Georgson, 2008).

Effectus will begin building brand equity by establishing a strong brand identity through advertising in prominent and reputable magazines and newspapers. Effectus will create relevant associations of achieving a competitive edge utilizing existing investment, appealing to companies' awareness of their own failed strategies. Effectus will link positive feelings of success with the brand via advertising. Then it will apply a state of the art customer relationship management program to handle each customer as if it was the only one, since it is the customer’s interaction with the brand that will ultimately build the brand identity.

If the brand strategy succeeds, Effectus will enjoy a competitive advantage as new entrants begin offering similar products. When the large vendors start adding mobile software components to their solutions, Effectus will already be releasing a complete strategy management system at a lower price point.

**Financials**

**Forecasted Revenues**

Effectus plans to begin receiving revenues from the first sales of its solution in the 2nd quarter of 2011 and projects total sales for that year to be USD 293 thousand.

In 2012, Effectus plans on increasing sales by 35%, also collecting renewals fees for the previous year, as well as adding the first version of its complete strategy management system, resulting in total 2012 sales of USD 943 thousand (*See table 7*).
Effectus plans assume a modest increase in the number of customers, with only a handful of new sales in 2012 and 2013. The company could start seeing economies of scale in its operation as early as 2013, and particularly in 2014 when sales are expected to exceed USD 2 million.

**Cost Analysis**

The projected revenues are based on conservative estimates of new customers as well as conservative operational numbers. While the Icelandic development center enjoys a relatively favorable cost structure, opening a sales and marketing office in the US could quickly turn into a significant budget item if not managed carefully.
Effectus will keep operations solely in Iceland in 2010 but being planning for the US-based sales and marketing office by year's end. The 2010 financials therefore include very low sales and marketing expenses.

**Figure 37 - Effectus 2010 Financials**

<table>
<thead>
<tr>
<th>EXPENSES</th>
<th>ISK</th>
<th>USD*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative</td>
<td>798.000</td>
<td>$6.384</td>
</tr>
<tr>
<td>Rent for office space</td>
<td>600.000</td>
<td>$4.800</td>
</tr>
<tr>
<td>Telephone</td>
<td>30.000</td>
<td>$240</td>
</tr>
<tr>
<td>Internet connection</td>
<td>48.000</td>
<td>$384</td>
</tr>
<tr>
<td>Food and snacks</td>
<td>120.000</td>
<td>$960</td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td>15.470.000</td>
<td>$123.760</td>
</tr>
<tr>
<td>Salary for þórarinn</td>
<td>3.900.000</td>
<td>$31.200</td>
</tr>
<tr>
<td>Salary (3 R&amp;D employees)</td>
<td>9.900.000</td>
<td>$79.200</td>
</tr>
<tr>
<td>PC Hardware (5 wkstns, 2 servers)</td>
<td>1.200.000</td>
<td>$9.600</td>
</tr>
<tr>
<td>Software</td>
<td>90.000</td>
<td>$720</td>
</tr>
<tr>
<td>Smartphone hardware</td>
<td>380.000</td>
<td>$3.040</td>
</tr>
<tr>
<td>Sales &amp; Marketing</td>
<td>3.914.000</td>
<td>$31.312</td>
</tr>
<tr>
<td>Salary (1 sales &amp; marketing employee)</td>
<td>3.900.000</td>
<td>$31.200</td>
</tr>
<tr>
<td>Hosting of website</td>
<td>14.000</td>
<td>$112</td>
</tr>
<tr>
<td><strong>Total Expenses:</strong></td>
<td>20.182.000</td>
<td>$161.456</td>
</tr>
<tr>
<td><strong>INCOME</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales of software</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Total Income:</strong></td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Net Income:</strong></td>
<td>-20.182.000</td>
<td>-$161.456</td>
</tr>
<tr>
<td><strong>Capital from Founder</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paid-in capital: þórarinn R. Einarsson</td>
<td>20.000.000</td>
<td>$160.000</td>
</tr>
<tr>
<td>Founder not taking salary (6 mo. of 2010)</td>
<td>3.900.000</td>
<td>$31.200</td>
</tr>
<tr>
<td><strong>Total Capital from Founder:</strong></td>
<td>23.900.000</td>
<td>$191.200</td>
</tr>
<tr>
<td><strong>Cash Position at end of 2010:</strong></td>
<td>3.718.000</td>
<td>$29.744</td>
</tr>
</tbody>
</table>

*Assuming 125 kr/1 USD

The 2011 financials add the sales and marketing office in the USA and two more employees. Effectus will thus stay a low overhead company into 2012.
**Figure 38 - Effectus 2011 Financials**

<table>
<thead>
<tr>
<th>EXPENSES</th>
<th>ISK</th>
<th>USD*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative</td>
<td>13.186.000</td>
<td>$105.488</td>
</tr>
<tr>
<td>Rent for office space (Iceland)</td>
<td>1.400.000</td>
<td>$11.200</td>
</tr>
<tr>
<td>Rent for office space (USA)</td>
<td>3.700.000</td>
<td>$29.600</td>
</tr>
<tr>
<td>Office assistant salary (USA)</td>
<td>6.400.000</td>
<td>$51.200</td>
</tr>
<tr>
<td>Health care insurance (USA)</td>
<td>740.000</td>
<td>$5.920</td>
</tr>
<tr>
<td>Telephone</td>
<td>60.000</td>
<td>$480</td>
</tr>
<tr>
<td>Internet connection</td>
<td>96.000</td>
<td>$768</td>
</tr>
<tr>
<td>Food and snacks</td>
<td>240.000</td>
<td>$1.920</td>
</tr>
<tr>
<td>Travel</td>
<td>550.000</td>
<td>$4.400</td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td>32.270.000</td>
<td>$258.160</td>
</tr>
<tr>
<td>Salary for Hórarinn</td>
<td>7.800.000</td>
<td>$62.400</td>
</tr>
<tr>
<td>Salary (3 R&amp;D employees)</td>
<td>23.400.000</td>
<td>$187.200</td>
</tr>
<tr>
<td>Server hardware</td>
<td>600.000</td>
<td>$4.800</td>
</tr>
<tr>
<td>Software</td>
<td>150.000</td>
<td>$1.200</td>
</tr>
<tr>
<td>Smartphone hardware</td>
<td>320.000</td>
<td>$2.560</td>
</tr>
<tr>
<td>Sales &amp; Marketing</td>
<td>27.215.000</td>
<td>$217.720</td>
</tr>
<tr>
<td>Salary (2 sales &amp; marketing employee)</td>
<td>17.600.000</td>
<td>$140.800</td>
</tr>
<tr>
<td>Hosting of website</td>
<td>15.000</td>
<td>$120</td>
</tr>
<tr>
<td>Advertising</td>
<td>9.600.000</td>
<td>$76.800</td>
</tr>
<tr>
<td><strong>Total Expenses:</strong></td>
<td><strong>72.671.000</strong></td>
<td><strong>$581.368</strong></td>
</tr>
</tbody>
</table>

**INCOME**

| Likely income                           |                     |       |
| Sales of software (4 customers)         | 28.750.000           | $230.000 |
| **Probable income**                     | 7.875.000            | $63.000 |

**Total likely + probable income:**

| 36.625.000 | $293.000 |

| Net Income: | -36.046.000 | -$288.368 |

| Capital investment sought               | 40.000.000          | $320.000  |
| Cash position at end of previous year   | 3.718.000           | $29.744   |

| Cash Position at end of 2011:           | **7.672.000**       | **$61.376** |

*Assuming 125 kr/1 USD*
Return on Investment

Effectus is seeking a USD 320,000 capital investment in 2011 to finance operations into 2012, when revenues are expected to almost triple. The investment will constitute a 62.6% stake in the company, or just short of a super majority, provided that no other capital investments are sought.

Figure 39 - Effectus Return On Investment (ROI)

<table>
<thead>
<tr>
<th>Revenue</th>
<th>Unc et y</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
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<tbody>
<tr>
<td>Sales</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Effectus mCPM sales</td>
<td>Low</td>
<td>$230.00</td>
<td>$322.00</td>
<td>$434.70</td>
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<tr>
<td>- Renewals for above</td>
<td>Low</td>
<td>-</td>
<td>-</td>
<td>$80.500</td>
<td>$112.700</td>
<td>$152.145</td>
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<tr>
<td>Effectus mCPM VAR sales</td>
<td>Medium</td>
<td>-</td>
<td>$63.000</td>
<td>$128.000</td>
<td>$268.000</td>
<td>$443.000</td>
</tr>
<tr>
<td>- Renewals for above</td>
<td>Medium</td>
<td>-</td>
<td>$22.050</td>
<td>$44.800</td>
<td>$93.800</td>
<td></td>
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<tr>
<td>Effectus Strategy Mgmt sales</td>
<td>Low</td>
<td>-</td>
<td>-</td>
<td>$254.000</td>
<td>$385.000</td>
<td>$496.000</td>
</tr>
<tr>
<td>- Renewals for above</td>
<td>Low</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$88.900</td>
<td>$134.750</td>
</tr>
<tr>
<td>Effectus Strategy Mgmt - VARs</td>
<td>Medium</td>
<td>-</td>
<td>-</td>
<td>$38.000</td>
<td>$65.000</td>
<td>$84.000</td>
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<tr>
<td>- Renewals for above</td>
<td>Medium</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$13.300</td>
<td>$22.750</td>
</tr>
<tr>
<td>Capital injection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Founder’s capital + work contri b’n</td>
<td>Low</td>
<td>$191.200</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>VC capital</td>
<td>High</td>
<td>-</td>
<td>-</td>
<td>$320.000</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Total revenue:</td>
<td></td>
<td>$191.200</td>
<td>$613.000</td>
<td>$844.550</td>
<td>$1,412.400</td>
<td>$2,013.290</td>
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<table>
<thead>
<tr>
<th>Expenses</th>
<th>Unc et y</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
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<tbody>
<tr>
<td>Administrative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Rent for office space (Iceland)</td>
<td>Low</td>
<td>$4.800</td>
<td>$11.200</td>
<td>$11.872</td>
<td>$12.584</td>
<td>$13.339</td>
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<td>Rent for office space (USA)</td>
<td>Low</td>
<td>-</td>
<td>$29.600</td>
<td>$31.376</td>
<td>$33.259</td>
<td>$35.254</td>
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<td>Office assistant salary (USA)</td>
<td>Low</td>
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<td>$54.272</td>
<td>$57.528</td>
<td>$60.980</td>
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<td>Health care insurance (USA)</td>
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<td>$6.275</td>
<td>$6.652</td>
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<td>Telephone</td>
<td>Low</td>
<td>$240</td>
<td>$480</td>
<td>$640</td>
<td>$678</td>
<td>$719</td>
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<td>Internet connection</td>
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<td>$384</td>
<td>$768</td>
<td>$1,120</td>
<td>$1,187</td>
<td>$1,258</td>
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<tr>
<td>Food and snacks</td>
<td>Low</td>
<td>$960</td>
<td>$1,920</td>
<td>$2,650</td>
<td>$2,809</td>
<td>$2,978</td>
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<tr>
<td>Travel</td>
<td>Medium</td>
<td>-</td>
<td>$4.400</td>
<td>$8.400</td>
<td>$12.300</td>
<td>$14.200</td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salary</td>
<td>Low</td>
<td>$110.400</td>
<td>$249.600</td>
<td>$336.960</td>
<td>$454.896</td>
<td>$614.110</td>
</tr>
<tr>
<td>Server hardware</td>
<td>Low</td>
<td>$9.600</td>
<td>$4.800</td>
<td>$3.500</td>
<td>$2.400</td>
<td>$4.300</td>
</tr>
<tr>
<td>Software</td>
<td>Low</td>
<td>$720</td>
<td>$1.200</td>
<td>$1.100</td>
<td>$1.300</td>
<td>$1.400</td>
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<tr>
<td>Smartphone hardware</td>
<td>Low</td>
<td>$3.040</td>
<td>$2.560</td>
<td>$2.600</td>
<td>$2.700</td>
<td>$2.800</td>
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<td>Sales and Marketing</td>
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<tr>
<td>Salary</td>
<td>Low</td>
<td>$31.200</td>
<td>$140.800</td>
<td>$183.040</td>
<td>$237.952</td>
<td>$309.338</td>
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<td>Hosting of website</td>
<td>Low</td>
<td>$112</td>
<td>$120</td>
<td>$145</td>
<td>$150</td>
<td>$160</td>
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<tr>
<td>Advertising</td>
<td>Medium</td>
<td>-</td>
<td>$76.800</td>
<td>$86.000</td>
<td>$92.000</td>
<td>$95.000</td>
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<tr>
<td>Total expenses</td>
<td></td>
<td>$161.456</td>
<td>$581.368</td>
<td>$729.950</td>
<td>$918.396</td>
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<td>EBITDA in USD</td>
<td></td>
<td>$29.744</td>
<td>$31.632</td>
<td>$114.600</td>
<td>$494.004</td>
<td>$850.403</td>
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</table>

Kronas (USD = 125 ISK)
The EBITDA in 2014 is expected to be roughly USD 850 thousand, which translates to a share for the 62.6% stake in excess of USD 532 thousand, or over 18% annual return on investment. The market value of the company at that point will depend on both achieving this performance, and on the market conditions in 2014, which should be at least slightly better than current conditions given the past economic turbulence. If the anticipated market value is estimated using either the five-fold EBITDA rule, or the triple revenue rule, the price of Effectus ends up between four and six million dollars at the end of 2014. Assuming the conservative estimate once again, the return on investment to the main financier of Effectus would then increase by USD 2.5 million.

**Critical Success Factors**

The success of this business plan rests on several critical success factors (CSFs), which fall into three different categories: the company, the customer, and the competition.

**The Company**

**Financial Capital**

This business plan outlines the fact that Effectus can not survive unless it secures a capital infusion in 2011. Effectus is seeking a USD 320 thousand investment although the company can survive with less. The breaking point, at which Effectus would have to seize to exist, is somewhere around USD 90-100 thousand, but the exact amount depends on whether Effectus can bring on board competent employees that are willing to invest in the company with their work contribution, at least partially.

**Human Capital**

The Effectus mCPM solution is a software solution that will only be produced with substantial work by highly skilled information technology professionals. This CSF ties into the financial factor since selecting the best people can have a tremendous effect on productivity and thus profitability as well as financial capital need, in the event that those individuals are willing to invest in the company. The financial projections of Effectus do not assume an investment by work contribution on behalf of other employees besides the found, but such an investment is not considered unlikely in Iceland in the current economic climate.
Organizational Competence

Anytime a new company is launched, there is a multitude of pivotal decisions that need to be made – decisions that affect how the company will operate in the future. Startups therefore face important moments on a regular basis that can determine their destiny.

Effectus has created a growth plan that sets up a small company (5-6 employees) at launch, and slowly adds to that group up to about 10 employees. The company is then expected to have established best practices in the key areas, such as research and development, sales and marketing, and operations and administration. This approach provides a more solid base to build from than a speedy initial growth would provide. The Effectus founder has already been through such an exercise during his experience at HumanCentric Technologies (HCT) from 1996-2000, under the leadership of Dr. Barry Beith, who successfully built HCT into a successful user-centered product design firm.

The Customer

This business plan has made an attempt to analyze and introduce a vacant position in the market for strategy and performance management software, which provides Effectus an opportunity to act quickly to fill that need. The analysis is by no means exhaustive, but at minimum, this plan provides the groundwork to do further analysis if financing for buying market intelligence reports is provided.

The central question about the market and potential customers is whether they will agree with the assessment of this plan that strategy and performance management systems are not delivering to their potential, and that they can deliver if augmented with the Effectus mCPM add-on. Preliminary informal interviews with middle-management in US companies indicates that they will agree, but the data points are too few and informal to make serious inferences.

The Competition

One of the great unknown factors in this business plan is the competition. The reason for that is that the market for the mCPM add-on can be considered uncontested, a Blue Ocean market.20 The strategy and performance management software market is quite the opposite, a so-called Red

---

20 “Blue Ocean” is a term coined by W. Chan Kim and Renée Mauborgne to denote an uncontested market. In blue oceans, demand is created rather than fought over. The cornerstone of Blue Ocean strategy is “value innovation”, and that is what Effectus is aiming for with the mCPM add-on.
Ocean, where there are many companies trying to outperform each others and competition is ever increasing. The market for the Effectus mCPM add-on is a sub-market of the strategy and performance management software market and the Blue Ocean of this sub-market will most likely change to a Red Ocean quite rapidly after the Effectus product is launched.

The timeline of product releases is of critical importance. Effectus needs to launch before the large vendors begin offering the same product, and not much later than any third-parties that might go the route of Effectus. The company does not need to be the first-mover, but it needs to be a fast-follower if it is not first.

**Risk Analysis**

The viability of this business plan is based on several small competitive advantages. They are not sustainable however, and that is not the premise of this business plan. Rather, it’s based on seizing an opportunity in a market among very large companies that move slowly but have a tendency to acquire small solution providers, both in order to obtain the value-add solutions, and in order to keep those solutions from going into the hands of their competitors.

The prerequisite for the success of this plan is that it be put into action no later than summer or fall of 2010. The longer the delay, the more probable it is that one or more of the major ERP vendors implement a similar solution. Although one such vendor does not entirely eliminate the potential of the Effectus solution, it significantly reduces the chances of being acquired by one of those major vendors. In that case, Effectus would be left with competing with them.

Effectus could integrate vertically and turn towards the low-end of the market, providing an inexpensive mobile device-enabled complete performance management solution, but the low-end of the market is both costly and crowded, with plenty of “noise” to prevent Effectus from getting its message across.

**Exit Strategy**

The Effectus mCPM solution will go on sale in an industry that is already mature, but in a space that is uncontested. The characteristics of such markets are that demand is growing slowly, technology standards already exist, competition is increasing internationally, industry-wide
profits are declining, and industry exits are beginning (Barney & Hesterly, 2010). Investors must therefore ask themselves why in the world should a small startup like Effectus enter this market? Mature industries aren’t without opportunity. While this business plan has already shown that considerable consolidation has taken place in this industry, several dominant firms have emerged, and they are now building market power and exploiting economies of scale, it is also clear that the industry players haven’t provided a solution to one significant problem faced by the majority of their customers – the failure of strategy. One research paper after another confirms that while most companies are formulating strategy, they are not reaping the benefits of that work. That is, their efforts are not awarding them a competitive advantage and a resulting increase in economic performance. Many of these companies have invested heavily in sophisticated information systems, including strategy management software solutions, yet they don’t seem to be getting the anticipated return on investment. Why are these solutions not delivering?

It is the personal experience of the founder of Effectus, working with various Fortune 500 clients, that the large vendors vary considerably in how truly solution-oriented they are. In many cases, their solution teams have become so sales-oriented that they have lost sight of what they are ultimately trying to accomplish – to solve a customer’s problem.

This is a situation that calls for a complementor, a product that, when added to another firm’s product, increases the customer’s perception of value in that firm’s product. The mCPM can therefore help customers feel better about their current investment in strategy management software, and help vendors sell the strategy management software solutions.

As more companies begin using the mCPM, it offers Effectus the opportunity to integrate vertically and cannibalize the lower-end of the strategy and performance management market from the large vendors by upselling them with the complete Effectus Strategy Management solution. Effectus will have created a locking-mechanism since the benefit of the entire strategy management system will result from each employee’s use of the mCPM, not which enterprise system is running in the back office. The large vendors will therefore be strongly inclined to buy Effectus to protect their marketshare, add it as a complement to their own solution, and to keep Effectus out of the hands of their competitors.
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<td>29</td>
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<td>Android marketshare (Source: Canalys, ComScore)</td>
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