STRATEGIC ANALYSIS OF BUSINESS OBJECTS VERSUS COGNOS INCORPORATED, PROVIDERS OF BUSINESS INTELLIGENCE SOFTWARE

by

Pendennis Clark

PROJECT SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF BUSINESS ADMINISTRATION

In the
Faculty
of
Business Administration

Executive Master of Business Administration

SIMON FRASER UNIVERSITY

Summer 2005

APPROVAL

Name: **Pen Clark**

Degree: **Master of Business Administration**

Title of Project: **Strategic Analysis of Business Objects versus Cognos Incorporated, Providers of Business Intelligence Software**

Supervisory Committee:

Senior Supervisor
Neil Abramson, Associate Professor

Second Reader
Mark Selman, Adjunct Professor

Date Approved: August 11, 2005

ABSTRACT

Business Objects is the current market leader in the Business Intelligence software industry, which provides query, analysis and reporting tools to organizations needing to access data stored in disparate sources. In 2003 Business Objects acquired Crystal Decisions the # 3 firm at the time, resulting in the current organization.

During the period of acquisition Cognos Inc. released a new product, ReportNet that was extremely well – received, becoming their leading revenue product in a 12 month period. Based on this success, Cognos is in a position to overtake Business Objects as the #1 provider in the space within a 2 – 3 year period.

This paper proposes a marketing strategy and new product introduction to reduce the capability of Cognos to threaten Business Objects as the #1 vendor. This marketing and product strategy is consistent with management preferences and produces a positive NPV.

DEDICATION

I would like to dedicate this effort to my son Noel. His happiness and energy made getting through the program possible.

ACKNOWLEDGEMENTS

I would like to thank all the employees at Business Objects who have helped me in my career and supported my educational efforts. Special thanks to Terry Duncan for going above and beyond the call many times in helping me grow. Also I would like to thank Heather Watts for her patience, confidence and inspiration during the last 6 years.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

GLOSSARY

BI	Abbreviation – Business Intelligence, the software industry focussed on reporting, analysis and sharing of data held in a business system such as a database or ERP application
OLAP	Online Analytical Processing – method for multi-dimensional data analysis
ERP	Enterprise Resource Planning – software to manage finances, Human Resources and manufacturing/inventory in large companies
Tier 1 Vendor	Software companies with a market cap of 50 Billion+ and/or Revenues of 10 Billion+
ASP	Application Service Provider – outsource hosted application gaining popularity as a method to reduce IT spending and capital commitments (SalesForce.com)

1 INTRODUCTION

The purpose of this paper is to analyze the threat posed to Business Objects by Cognos and propose an alternative strategy that mitigates the threat, based on the strengths and opportunities identified in this analysis. The proposal will primarily focus on go to market strategies such as marketing and product development that can slow the revenue growth Cognos is currently experiencing.

1.1 Business Objects 1990 - 2005

Business Objects was founded in 1990 in Paris, France. Over the time frame from 1990 – 2003 it developed into the #2 Business Intelligence (BI) vendor behind Cognos. Business Intelligence is a category of software focused on providing several functions for Corporations, including Reporting, Query and Analysis, Performance Measurement etc. It is primarily useful for large companies that have massive amounts of data stored in disparate sources such as ERPs, departmental databases, Customer Relationship Management systems and Sales Force Automation systems.

The BI sector exists to provide tools to companies that have large amounts of data captured and stored in systems that business users require access or visibility to. Business Intelligence products allow people to generate reports based on some criteria, for example a sales report that shows all sales over $50.00 in a certain region, or to perform more sophisticated query and analysis between relational data sets (data sets which are linked but usually independent, such as employee start and end dates compared with product inventory).

In December 2003 Business Objects purchased the #3 vendor in the BI software market, Crystal Decisions, a Canadian firm headquartered in Vancouver, BC of nearly equal size to Business Objects. The purchase was motivated by two key goals which were to become the uncontested leader in the BI industry as measured by market share and license revenue, and to ensure that Business Objects had a reporting solution to allow it to compete with the forthcoming release of Cognos ReportNet. Crystal was best known for its low cost reporting product Crystal Reports and its retail and partner channel. In addition, Crystal had developed a reporting infrastructure product called Crystal Enterprise that was well reviewed in the market but had not yet penetrated the customer base. The combined organization is currently the largest BI software company world wide in both revenue and licensing and is listed on the NASDAQ (BOBJ). Ownership is typical of a public company with large investors owning the majority of shares. It is worth noting that the previous owner of Crystal Decisions is a major shareholder in Business Objects. Silver Lake Partners – the majority shareholder of Crystal Decisions – continues to be a large shareholder of Business Objects as are institutional investors.

1.2 Current Strategy

The current Business Objects strategy is differentiation based and primarily focussed on delivering against its current product roadmap. This was released shortly after the completion of the acquisition and is certainly a key goal for the company.

Gartner Group remarks in its 2H04 Research Note[1]: *"The real test still lies ahead with the Business Objects 11 release. The company must be successful with this new version, currently in beta release, because it delivers on the promise of integrating the Business Objects and Crystal Decision infrastructures."* This release has subsequently occurred, on time and in the fashion required. However, during this inward focus on product integration the company has lost some momentum in the market – particularly in license sales and new customer acquisition. The strategic goals of Business Objects are:

Corporate and Strategic Goals

1. Lead the market as the #1 vendor measured in revenue and licenses shipped.
2. Create and sustain technical leadership within the product line.
3. Operate as a trans-national company across the globe.
4. Achieve 15% (Quarterly measured year over year revenue growth and 8 – 12% profit margins
5. Retain employees to support growth with a voluntary turnover rate of less than 7%.

The following figure illustrates the differentiation strategy measured against key areas such as Product Strategy, Manufacturing and Capital Structure.

Figure 1.1 Business Objects Strategy Diagram. [2]

	Cost Based Low Cost/Adequate Quality		**Differentiation** High Quality / Adequate Cost
Product Strategy	Rapid Follower	9	Innovative
R&D Expenses	Low R&D	8	High R&D
Structure	Centralized	7	Decentralized
Decision Making	Less Autonomy	5	Autonomy
Manufacturing	Economies of Scale	8	Economies of Scope/Flexible
Labour	Mass Production	9	Highly Skilled/Flexible
Marketing	Comparative / Push	8	High Cost/Pioneering/Pull
Risk Profile	Low Risk	9	High-Risk
Capital Structure	Leveraged	9	Conservative

0 5 10

[1] H. Dresener, B. Hostmann, F. Buytendijk, *Magic Quadrants for Enterprise BI Suites and Platforms, 2H04*, (Gartner Research Note, 29 November, 2004)
[2] By the author

1.2.1 Product Strategy – Innovative (9)

Like most enterprise software companies, Business Objects products are focused on high quality, high functionality that is available only in their offering. Products are developed with a focus on key functions that competitors can't deliver as effectively. In Business Objects' case there are several such key features that differentiate its products:

- Meta Data layer – called the Business Objects Universe. This is a feature that allows business users to access corporate data using standard language as opposed to technical language. (Sales per Quarter vs. TSALES_ROW)

- Crystal Enterprise Reporting Infrastructure – A single infrastructure for serving reports, analytical cubes and other data analysis tools in a scalable environment. Cognos recently released a competitive tool called "ReportNet" and the two products compete frequently in deals.

- Compatibility – Crystal and Business Objects have both historically leveraged key partner technologies to differentiate the products. Business Objects produces different versions of our products for certain markets such as Crystal Enterprise for SAP and Crystal Enterprise for PeopleSoft. These versions have technical accreditation from the partner vendors.

Business Objects has demonstrated a willingness to pursue innovative technology through alternate means such as acquisitions to ensure it maintains a competitive lead on its competition, as demonstrated not only by the Crystal acquisition but several others before it (Olap@Work, Infinitum).

1.2.2 R&D Expenses – Moderate to High (8)

Business Objects is an R&D intensive organization. Product Management and Research and Development are very large and distributed organizations within the company. There are significant developer communities in Paris, Vancouver, Bangalore and Maidenhead. Furthermore these developers are some of the highest paid employees in the company excluding management. (A starting salary for a Product Developer is roughly $90,000 USD compared to a starting salary of $30 – 50,000 for an IT developer or marketing headcount, dependent on region.) Research and Development currently accounts for 23 - 35% of the company's overall expenses (based on Q4/04 – FY04 reports). Comparatively Microsoft (MSFT) spends approximately 33% of operating expenses on R&D (Q4/04) and Actuate (ACTU - low cost BI provider) spends approximately 15% (Q4/04) of their operating expenses on R&D. Business Objects measures R&D success not only by product delivery, but also by the number of patents granted to R&D employees quarterly. The goal is to have 20 patents per product group per year (60 patents total yearly) and is generally achieved within 20% of objective[3]. In 2004 the product group had 54 patents granted to employees in the R&D group.

1.2.3 Structure – Decentralized (7)

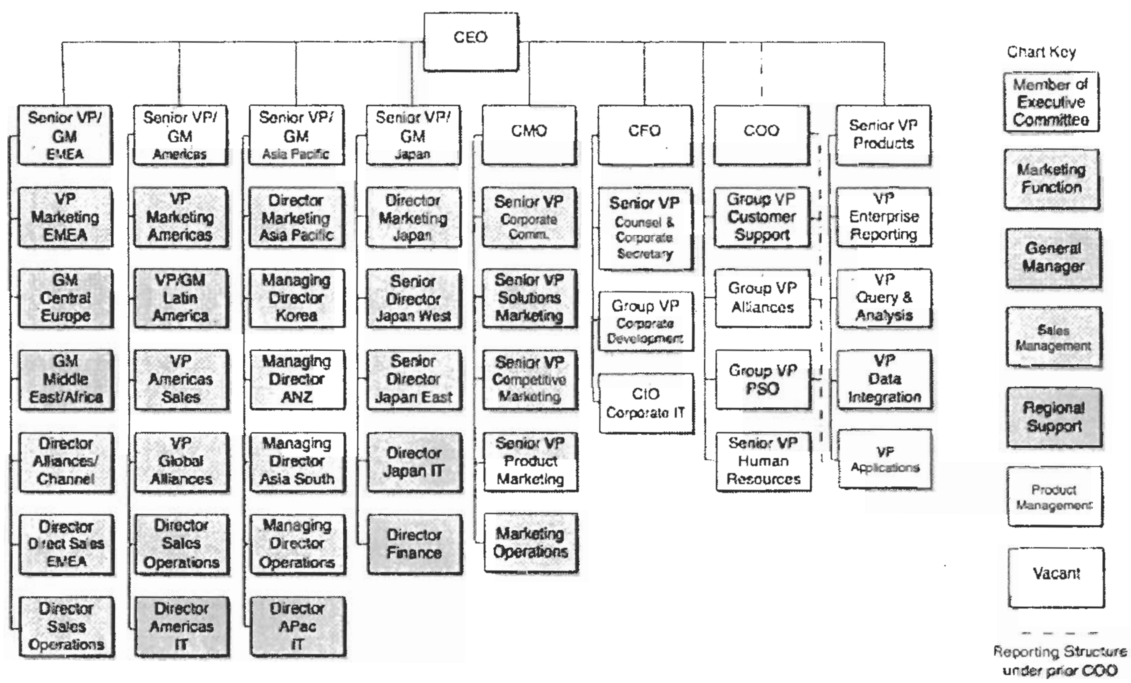
The company has a hybrid organizational structure as demonstrated in Figure 1.2 (page 6) below. Management responsibility is a matrix in some functions such as Sales where regions have very large amounts of control over expenditures and responsibilities for revenues. Other departments such as IT are centralized in Vancouver or San Jose with responsibilities and decisions being driven from a centralized management team. This

[3] Figures provided by Product Management

mix creates some friction. Very often regional or departmental priorities in decentralized organizations don't mesh with the decisions or priorities set by the centralized groups. As a result project prioritization and decisions can take longer than is ideal and frequently departments or regions will turn to outsource vendors due to resource restrictions, which results in difficulties in enforcing corporate standards.

More importantly this structure limits the ability of the organization to leverage economies of scale in marketing and sales activities. Since each region determines its priorities, marketing messages and sales focus are different depending on the direction the regional manager provides as opposed to an overall corporate priority.

Figure 1.2 Business Objects Organization Chart.[4]



[4] By the author

1.2.4 Decision Making – Moderately Autonomous (5)

Corporate decisions are made by an Executive Council that includes the "C" suite (CFO, CEO, COO, CMO) as well as regional Vice Presidents and functional Vice Presidents (Sales, Human Resources and Product). These strategic decisions are usually broad decisions around product direction, product positioning, IT platform selection and so forth. The actual execution strategies from a marketing or a sales perspective are then left to the regions.

This is effective for certain aspects of the business – for instance communicating product benefits globally, but clashes with the responsibility the regions have for revenue generation. Frequently the organization will decide that the main focus of a product release is a certain vertical industry or function such as finance. Marketing materials and sales tools are developed in a centralized group and then disseminated to the regions. However, often regions such as Italy and Korea will decide that their focus needs to be on the manufacturing industry instead, so they will develop a set of materials locally to sell to that sector.

The resulting problem is a loss in economies of scale as well as a loss in efficiency as regions duplicate materials already created. This generally only occurs in marketing, professional services (training), and sales.

1.2.5 Manufacturing – Flexible, Economies of Scope (8)

As a software company the manufacturing of the physical product is less important than the development of the intellectual property – the code that is the basis for the software. As such, Business Objects focuses primarily on flexibility and economies of scope. Software is different from other products in that creating additional units is done at almost no cost. Most of our large deals have no cost associated with the physical product aside from trivial amounts for packaging and CD duplication.

A key component of our business strategy is being the Business Intelligence solution for certain Enterprise systems such as SAP or Oracle. To achieve that, products specifically tailored to those uses are developed utilizing a common codebase with the other Business Objects products. Ninety five percent of the inputs in these products are the same as other versions with some minor modifications to create new products for existing or new markets. For example, a product for SAP systems (Business Objects Enterprise for SAP) is essentially the standard Enterprise XI product with some additional tools for connectivity to the SAP ERP product. The installation and customization of these complex products can take a customer 6 – 12 months and requires significant investment in training and professional services to be successful.

This complexity and customization is a key contributor to the solution's success as well as a deterrent to competitors as switching complex Business Intelligence platforms comes with a high cost. Furthermore, the company sells many different variations of its lower cost products (Crystal Reports has 4 versions ranging from Basic to Advanced Developer) which are essentially supersets of each other. Only one product is developed then pared down to create less functional versions that sell at lower costs. These low cost products are essentially by-products of the Enterprise solutions – the Crystal Reports product development is now produced by the report development process of the larger Enterprise XI product.

The current strategy may be overcompensating in its focus on the product line to the detriment of other opportunities. While it is critical that there is an integrated solution, the firm is trying to complete updates and integration features to all its products irrespective of their strategic importance. An example of this is the desire to provide upgrades to the low end ($500 - $1000) product, Crystal Reports. This product generates less than 15% of the firm's revenue, has achieved maturity in that it delivers the features that the customers demand and is mostly sold through a two-tier retail channel. The fact that Business Objects continues to spend marketing and R&D dollars presents a missed opportunity to apply resources to more lucrative product lines and sales initiatives.

1.2.6 Labour – Skilled and Flexible (9)

The labour force at Business Objects is highly skilled. Computer and technical literacy is required even for non-technical roles such as Human Resources or Facilities. Most employees at Business Objects have at least an Undergraduate degree and there is high mobility in the workforce. Many people start their careers in one group and then migrate through the company to other functions. This is encouraged and produces employees with a wide view of how the company functions. There is no 'mass production' in the company that utilizes less skilled labour. Tasks such as pressing of CDs and shipping are outsourced, as they are not seen to be core functions of the company.

1.2.7 Marketing – High Cost/Pull (8)

Marketing at Business Objects is high cost and pull oriented. While some of the company's lower cost boxed products are sold through a 2-tier channel, the vast majority of marketing activities are focused on the high cost/high value products. Marketing strategies include such activities as CFO/CEO luncheons or seminars co-hosted with industry analysts such as the Gartner Group, User Group meetings in locations such as Bora Bora or Hawaii, advertising in publications such as the Wall Street Journal or Fortune magazine and high cost direct mail campaigns to senior executives in target companies. This cost is recouped through the sales of Enterprise products that occur as a result of these activities. Other efforts include aggressive pursuit of favourable analyst reviews (Gartner, Meta Group, Forrester), free breakfast seminars globally, and road shows in major cities worldwide to communicate product and service offerings.

A restriction created by the current marketing strategy is the firm's historical unwillingness to directly name or challenge competitors in marketing material and advertising. While the sales group is provided with internal materials for use in deals, there is a reluctance to do any direct comparison against other firms or to publicly criticize a competitors offering.

1.2.8 Risk Profile/Capital Structure – High Risk, Conservative (9)

Like most large software companies, Business Objects is almost completely equity financed. Likewise it is probably seen as a relatively high-risk venture from the general capital market. Due to the nature of its products and assets and the exposure the company faces from new technology threats it makes sense that its risk profile is high and financing is primarily equity based.

Compared to its competitors, Business Objects has higher COGS, spends more on marketing and sales and captures less of its revenue as income due to reduced margins.

Likewise its license revenue and market share growth indicate it needs to refocus its sales force on capturing the high value deals that Cognos has proven capable of closing.[5]

1.3 The Problems Facing Business Objects

The new combined company is underperforming when compared to its significant rival in the segment – Cognos. Shortly after the acquisition Business Objects had the highest share of the market (Table 1.1). However in 2004 through acquisitions and effective execution on their go to market strategy, Cognos has begun to close the gap. Although still second in revenue and market share, they are growing at a faster rate (22.9% vs. 14% revenue growth) than Business Objects, penetrating key vertical markets such as Finance and performing better in terms of financial metrics (ROE, Operational Margins and License Growth). Later in the paper analysis will show that if the current situation remains static, Cognos will become the market leader in license revenue and market share no later than Q1/2008. Business Objects market share in 2004 has increased from 16.8% in 2003 (Table 1.1) to 17.3% (0.5% increase) with Cognos gaining 1.2% to finish at 12.2% in 2004[6].

Table 1.1 Global Business Intelligence Market Share 2002 - 2004[7]

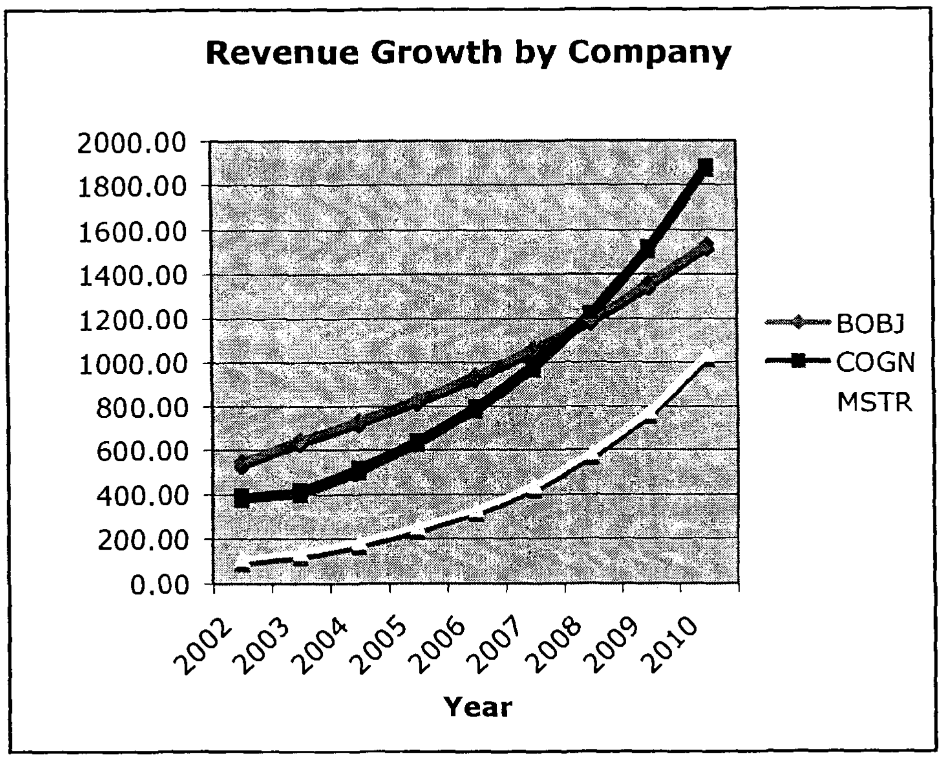
		Revenue (SM)			Share (%)		Growth (%)	Growth (%) 2003-
	2002	2003	2004	2002	2003	2004	2002-2003	2004
Business Objects	548.1	646.4	737	14.9	16.8	17.3	17.9	14
Cognos Inc.	397.4	422.6	519.5	10.8	11	12.2	6.3	22.9
SAS Institute	353.5	365.9	385.4	9.6	9.5	9	3.5	5.3
Hyperion Solutions	274.5	262.8	258.6	7.5	6.8	6.1	-4.2	-1.6
MicroStrategy	114.2	141.6	188.1	3.1	3.7	4.4	24	32.8
Information Builders	105	112	140	2.9	2.9	3.3	6.7	25
Oracle	136.1	116.4	123.5	3.7	3	2.9	-14.5	6.1

5 Appendix 1.2 – Business Objects Financial Summary
6 Dan Vesset, *WW BI Market Share Report* (IDC Research, June 2005), 3.
7 By the author

Figure 1.3 (page 12) shows the predicted revenue of Business Objects, Cognos and Microstrategy assuming they continue to grow at the 2003-2004 rates illustrated in Table 1.1.

Large multi-segment vendors have begun to enter the market, attracted by the high growth, relatively low penetration by existing vendors and ease of entry for firms with software development resources on a large scale. Additionally customer preferences and established sales channels allow these vendors to leverage their existing install base of other Enterprise products.

Figure 1.3 Revenue Growth Chart[8]



BOBJ: Business Objects, COGN: Cognos, MSTR: Microstrategy

[8] By the author

Although these vendors have not yet delivered products of comparable functionality to the products produced by vendors who only create BI software, their initial efforts are enough to trigger serious concern that they will pose a long to medium term threat. Companies such as Microsoft have committed to product releases by 2007. Business Objects must formulate a strategy that enables it to prosper as these firms try to establish their presence.

Acquisition and consolidation trends are also a factor Business Objects must account for as larger firms look to enter the market and existing firms look to broaden their capabilities or market share. Although short-term shareholder wealth could conceivably be maximized by the sale of Business Objects to a larger company looking to enter the market, the assumption is that over the next 5 to 10 years the company can produce better results if it remains a going concern as the number one vendor in the space. The rationale behind this is that it is better to become a tier one software vendor than be acquired by a tier one software vendor over the course of time. As such the company's strategy has to account for large vendors looking to buy their way into the segment and provide protection against this activity. Such protection will likely be realized in the form of high performance executing against the 2 challenges above and the resulting positive investor response.

Key environmental factors that are contributing to these challenges (further examined in subsequent sections) are:

- IT Budgets are either shrinking or remaining stagnant for the majority of Enterprise scale companies worldwide at approximately 1.7% of revenue. Some firms, notably large companies like Motorola, Verizon and Federal Express, are reducing budgets by 30% or more while maintaining service levels by utilizing outsource and Application Service Provider (ASP) solutions that provide functionality without the infrastructure commitments of traditional systems.[9] This is particularly challenging for the BI vendors as reporting and analysis decisions currently are often made by IT decision makers as opposed to the greater business involvement present when corporations purchase ERP or Financial software.

- Growth rates are relatively high at 11% compared to lower growth rates in more mature software markets such as office productivity software (4.9%). The relatively high growth rate of BI software when compared to other software markets has two effects; it encourages entry by large software vendors who are experiencing slow-downs in their traditional markets (Oracle, IBM, Microsoft) and it builds an expectation with some investors that past performance is an indicator of future performance, although this is not historically the case. Additionally the decline in year over year growth that started in 2002 and continues is creating more intense rivalries between existing vendors.
- Consolidation is occurring amongst partners and vendors on whom the BI vendors rely. Business Intelligence is not a stand-alone product. It relies on data-warehouses, ERP systems and other large Enterprise systems to provide value. As the providers of these data systems consolidate (Microsoft acquisition of Great Plains, Oracle acquisition of PeopleSoft) the ability to influence partners and to differentiate products as platform or system agnostic erodes.
- End-user sophistication is increasing. As business consumers of BI software become more sophisticated in using technology and more reliant on data mining

[9] Eric Keller, *Spending Shortfall is not Temporary* (AMR Research Report, August 30, 2004), 1.

and analysis tools, they demand greater functionality, better ease of use and increased convenience in the products available.

- Customers are developing a preference for single vendor solutions. The single largest factor in many organizations' purchase decisions - after product suitability - is vendor stability. These same organizations likely have pre-existing relationships with other Enterprise vendors such as Microsoft or Oracle. This preference is beneficial as it allows BI vendors to leverage the customer desire for standardization in the sales cycle but should also be noted as a potential threat as vendors from other segments look to enter the BI market, naturally leveraging their existing customer base as a starting point.

Given this current environment, the following chapter in this document (Chapter 2) will outline the state of the Business Intelligence industry in the context of the competitors Business Objects faces, determine what competencies these firms possess, and propose a strategy to account for the problems these firms are creating as outlined above.

Chapter 3 will analyze the capability of Business Objects to execute on the proposed strategy and outline any areas where operational or structural changes are required to proceed with the recommended course. This analysis will focus on the firms existing management preferences, organizational capabilities and resources in the context of the key success factors and proposal put forth in Chapter 2.

Chapter 4 consists of the specific recommendations to facilitate the execution of the strategic proposal and is followed by an Appendix of supporting financial information as well as the reference bibliography.

2 EXTERNAL ANALYSIS OF THE BUSINESS INTELLIGENCE INDUSTRY

2.1 Five Force Industry Analysis

Michael Porter's Five Force Industry Analysis[10] technique models the extent an industry is influenced by five forces that act upon it: Supplier Power, Barriers to Entry, Buyer Power, Threat of Substitutes and the Degree of Rivalry. Managers of a firm utilize this model to understand the external forces working on an industry allowing them to form their strategy in the context of the environment the firm operates in, identifying the factors that provide a firm with the best competitive advantage. The weaker the five forces acting on the industry, the greater the potential profitability is for firms operating there. Figure 2.1 (page 18) provides a diagram illustrating the Five Forces for the Business Intelligence industry.

2.1.1 Bargaining Power of Suppliers – Moderate

2.1.1.1 Technical Skill-set of Employees

Like most software companies, BI vendors maintain a large part of their corporate capital in human resources. Product development and R&D requires a highly technical skill-set and the same is true of many other functions in the organization. Sales people require between 3 and 6 training sessions on products before they are capable of handling large deals and corporate accounts.

[10] Michael E. Porter, *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. (New York: Free Press, 1980)

Figure 2.1 Five Force Industry Diagram – Business Intelligence Software.

Threat of Entry

High
(+) New vendors entering to exploit economies of scope
(+) Low entry and exit costs (existing software vendors)
(-) High marketing/branding costs
(-) Scale - global presence required to sell to Fortune 500

Bargaining Power of Suppliers

Moderate
(+) Technical skillset of employees
(+) High influence of Partners on customer spending decisions
(+) Reliance on other software vendors for access to products
(-) Low costs in physical assets (buildings, hardware)

Rivalry among existing competitors

Moderate
(-) Differentiated Product Offerings
(-) High growth industry
(-) High switching costs
(+) Low comptetitive concentration
(+) Increase in low cost product offerings

Bargaining Power of Customers

Low - Increasing
(-) Technical products - information assymetry
(-) Significant cost and switching costs
(-) Reliance on vendors to assist in project success
(+) Products becoming less differentiated
(+) Increase expertise in BI in organizations

Threat of Substitute Products/Services

Low
(-) Highly tailored solutions - large services component as well as software
(-) Highly technical products
(-) Difficult to achieve accreditations (SAP, Oracle)
(+) Increased quality in bundled solutions from other vendors

Likewise the Professional Service and Technical Support groups maintain very high levels of technical proficiency. Even less technical roles, such as marketing or telesales, have higher technical requirements than comparable roles in other industries due to fact that they must have some familiarity with both the products and the customer's challenges to be effective in their role.

2.1.1.2 Reliance on other software vendors for access to products

For Business Intelligence vendors to create a product that works seamlessly with PeopleSoft they must first have access to the PeopleSoft product and in all likelihood will require technical assistance from PeopleSoft/Oracle. BI products rely on the data stored in these Enterprise systems to provide value to customers and as a result are dependent on these other manufacturers to allow access, provide support, and in many cases accreditation. These vendor relations are often called 'Strategic Alliances' by the BI vendors. This "Competitive Co-operation" relationship is tenuous, particularly when some of these same vendors are entering the reporting and analysis market.

2.1.1.3 Low costs in physical assets (buildings, hardware)

Unlike more traditional manufacturing or retailing industries the software industry as a whole has less reliance on physical inputs or location based differentiation. Products are not generally dependent on inputs from sources other than employees and physical location is not a key factor to the success of a BI firm.

Overall Key Success Factor for Supplier Power: A proven ability to negotiate, maintain and manipulate partnerships or alliances with other vendors who provide technical information and with large consulting firms who influence purchasing is required. Also, corporate culture and policies should recognize the firm's dependency on human capital to succeed and reflect this dependency via compensation and recruitment activities. BI vendors must leverage their existing access to partners through accreditation and sales agreements (OEM, VAR) by building mutually beneficial agreements that are difficult for other vendors to duplicate.

2.1.2 Threat of Entry – High

2.1.2.1 New vendors entering to exploit economies of scope

As the overall software market matures and growth rates slow, large vendors are looking to new markets to generate profits. The BI industry – which has decent growth rates and high profit margins – is an ideal candidate for these firms. Companies such as Microsoft and Oracle who traditionally only supply data systems and applications are starting to enter the space. Microsoft has introduced a free bundled application that reports from SQL Server and Oracle is developing its new Oracle Reporting Services products. Oracle and Microsoft developed these products relatively quickly and one has to assume that the expertise that they have in their own databases and tools enabled them to build these products at a lower cost than another vendor might incur. While this is not an immediate threat to the traditional BI vendors (who are data source agnostic) it certainly signals a trend that could be highly problematic. If all data source providers (Seibel, SAP etc.) start developing reporting and analytic tools with any degree of proficiency it will represent a real threat to the current BI vendors. Recent acquisitions by some companies such as Oracle and the development of new products signal that these firms are actively searching for and pursuing new revenue streams as their traditional markets mature. Microsoft's OLAP tools and SQL reporting services combined with the newly announced EPM Dashboard Portal (Code-named: Maestro) are a good example of the threat. Although the current iterations of these products are substandard in terms of functionality they are available at close to no cost for existing Microsoft customers and historically Microsoft products have improved greatly with each version.

2.1.2.2 Low entry and exit costs (existing tier 1 or BI software companies)

Related to the above economies of scope, large software companies such as Oracle, SAP and Microsoft have relatively low entry and exit costs when entering the BI software market. These vendors already have significant infrastructure (R&D, Distribution), there is little cost to add a product to their existing line-up, and little risk in preliminary experiments such as limited release or beta products. This will certainly encourage these companies to enter the space if it appears that there is reasonable profit potential. The actual development of BI products by these vendors is not a trivial effort but it is not significant enough to create a real barrier to entry, particularly for customers and industries that are willing to accept "Good Enough" quality in exchange for cost savings, generally the small to medium business market. In addition, companies with significant 'war chests' (cash on hand) can choose to enter by acquisition if they are determined to build a presence quickly. If every database and application provider (Oracle, Microsoft, IBM, SAP, Siebel primarily) began to ship BI tools with their products, the perceived advantage current ISVs (Independent Software Vendors) enjoy due to their agnostic nature could start to evaporate provided the bundled tools met the basic customer needs. However, this is not a market that is currently easy for a start-up firm to enter, nor is it accessible to software companies that have the financial capabilities and scale but lack technical experience and credibility. (Adobe or Symantec despite their size would not succeed entering the BI space.) Exit costs for a failed venture are relatively limited, confined to the human development effort and any marketing or sales activities. No large physical capital expenditure such as equipment or real estate is required and it would be relatively easy for a firm to simply end-of-life a failed product and move to other markets.

2.1.2.3 High marketing/branding costs

All companies who enter this market are going to incur significant marketing costs. The large existing players such as Microsoft have a credibility issue to overcome with customers as they will have to convince customers that their Business Intelligence solutions are platform agnostic. Although customers are looking to standardize their applications, many are wary of vendors such as Oracle and Microsoft who traditionally have not supported competing products. Many customers utilize software from several vendors and it is a common requirement that their BI tool work with all their data sources and platforms, something these traditional database and application providers haven't historically provided. For example, many organizations want to consolidate data from their ERP (ie. SAP) with their CRM (Siebel) systems, which may run on UNIX and Windows. Larger database or application vendors will have a hard time proving to customers they are as impartial as the BI companies. Likewise, any new competitor is going to have a very hard time getting their product known and recognized in a market where the names Impromptu, Crystal Reports and Business Objects Enterprise dominate the landscape. Recent surveys indicate that decision makers still build their initial vendor lists based on recognition of firms as market leading providers.[11]

2.1.2.4 Scale - global presence and transparency required to sell to Fortune 1000

Aside from product development, marketing and developing credibility, any entrant to the BI space is going to need to rapidly develop or already have established a global presence and significant revenues. Companies that are investing heavily in software often (if not always) want to purchase from a global company that leads or is close to leading the space in revenue and market share. This is purely self-protection as Enterprise software is reliant on upgrades, support and maintenance to be successful as a long-term investment and is too costly to switch once implemented. Also, in Fortune 1000 organizations a global Enterprise tool will often mean the customer requires multi-lingual support from sales, implementation and support perspectives. Large public companies have a much better chance at selling to these global corporations than smaller regional players. In recent reports, vendor scale and stability was rated as the primary decision criteria after functional fit.[12] Public companies also enjoy several advantages over their private counterparts. Analysts generally cover public companies much more often and in much greater depth simply due to the greater transparency of a public firm. As well, customers feel more secure if they have access to the financial statements and can assess the vendors' financial status themselves. Crystal Decisions was the third largest BI vendor in 2001 but received significantly less analyst and industry press

---

[11] Gartner Analyst Group, *Gartner Research - Business Intelligence Multiclient Study*, (Gartner Research, February, 2005), 72.
[12] Gartner Analyst Group, *Gartner Research - Business Intelligence Multiclient Study*, (Gartner Research, February, 2005), 73.

coverage than several competitors that were much smaller but were listed on the NASDAQ.

Overall Key Success Factor for Entry Threats: Companies require an established reputation as a best of breed or market leading provider with long term viability as a going concern, supported by analyst opinions and financial market activities. Organizations must have the ability to quickly react with superior functional solutions and communicate the drawbacks of any new entrant's product.

2.1.3 Bargaining Power of Customers – Low, Increasing

2.1.3.1 Technical products - information asymmetry

Large BI implementations are extremely complicated – more so than the average CRM project and only somewhat less so than an ERP. As a result, even technically knowledgeable and experienced customers find themselves at a disadvantage in the sales cycle for these products. It's impossible to simply assess which product is best for a given environment and the customer must rely extensively on information provided by the vendor and any consultants involved in the process. This asymmetry coupled with very high switching costs post-implementation restricts the customers' power in the selection of a BI vendor and platform. Sophisticated customers rely on external consultants (Accenture, EDS, E&Y) to provide expertise and often insist on extensive proof of concepts at the vendors cost. As well, recent government regulations such as Sarbanes-Oxley (SOX) have created an environment in which corporations are less willing to leave these decisions strictly to the technical departments. The effect of this asymmetry is waning as large corporations develop better governance and assessment procedures and partner with consultants more frequently on BI initiatives. To encourage this trend, consultants like Accenture have begun to switch their billing to a customer success based model. Accenture will now accept their fee as a % of the return experienced by a company as outlined in the project ROI proposals. This essentially creates a guarantee for the customer that they will realize a positive NPV on large scale implementation projects and puts the onus of due diligence on the more experienced consultants who are subject matter experts.

2.1.3.2 Significant cost to implement

As mentioned earlier in the paper, these products are expensive, require significant customization, have long sales cycles (6-12 months is common) and even longer implementation timelines (12 – 36 months). As a result, once an organization is committed to a Business Intelligence platform, implementation is an expensive and time-consuming process. This results in existing customers having very little direct influence over their vendors post purchase as they can't simply "take their business elsewhere", a situation that creates high stress in any IT organization or any organization involved in a major capital outlay. Many organizations try and tie some sort of non-financial compensation to the success and ongoing maintenance of the projects, such as being a public reference for the vendor after a year or willingness to speak to analysts regarding the success of the implementation and the return on investment. This option is usually only available to a few recognizable companies in each industry. As IT budgets recede the Total Cost of Ownership and the upfront capital investment is often a limiting factor in BI implementations, particularly when the initiative is driven from the IT/IS perspective as opposed a strategic directive from the CFO, COO or other executive business sponsor.

2.1.3.3 Reliance on vendors to assist in project success

Companies that purchase a Business Intelligence product also generally purchase Professional Services to assist in implementation and maintenance agreements to provide Technical Support and future product upgrades. The challenge they face is that during the sales cycle it is very difficult to ascertain what level of competence is going to be available throughout the project and sustained afterwards. Contractual tools exist to help assure the customer of a certain level of service but there is no way to ensure that the customer will always receive the most qualified resources a vendor can provide or that the vendors vision for the product going forward is compatible with a customers needs. Ironically this tends to drive companies to consolidate on single vendors where possible, particularly if they have had good experiences in the past. It is easier as a customer to pressure one vendor they have invested $1 million dollars in than 10 vendors they have invested $100,000 dollars in. Another strategy firms are employing frequently now is to put the overall project success under the supervision and responsibility of external consultants who then work with the vendor. These external consultants tend to be more experienced in a larger variety of implementations and subject matter experts. This reduces the reliance on vendor's consultants and assists in ensuring knowledge transfer to internal resources occurs in a controlled process, reducing reliance on the vendor in any future initiative.

2.1.3.4 Products becoming less differentiated

As the industry matures, the products provided by the market leaders are becoming less differentiated. For example, where Cognos used to be known primarily for its analytic tools (ad-hoc querying), Business Objects for its dashboards, data integration tools and meta layer and Crystal for accessible reporting solutions, the lines have blurred significantly. Cognos now has an Enterprise reporting solution, as does Business Objects through the acquisition of Crystal Decisions. This is giving customers a wider range of options from each vendor and is empowering them to make their decisions in an environment less confined by product capabilities.

This influence is immature; products are still sold on unique capabilities and will likely continue to be so for at least 3 - 5 years. Patents and development expertise ensures that individual vendors will remain strong in certain functional areas and weaker in others. However firms should be aware that in 5 – 10 years the differentiation advantage will eventually start to erode and price will become more important in customer selection.

Overall Key Success Factor in Customer Power: A vendor must be committed to the success of their customers with respect to BI initiatives. Customers that are successful in their initial implementations are likely to expand their commitment to the vendor as future initiatives are introduced. Only through strong customer relationships can vendors secure references and early notification of changes in a customer's strategy that will have an impact on their future business. Limited customer power is increasing as growth rates slow and projects grow in size to satisfy large corporate initiatives. Customer loyalty initiatives, changes to maintenance and price models (abandoning the "drive by" sales cycle) and focussing on establishing partnerships with the most profitable customer and prospects will be key to the success of BI vendors.

2.1.4 Threat of Substitute Products/Services - Low

2.1.4.1 Highly tailored solutions - large services component in addition to the sale of software

The current generation of BI products are similar to other Enterprise software solutions in that they are really a set of tools and applications that must be tailored to an organization for there to be any real value. A simple example is even a basic report against the General Ledger must be customized. Examples of the kind of questions that face the implementation team faces are; what are the date conventions? Is revenue tracked by account or by another identifier? Is there a reporting instance that needs to be synchronized? These questions multiplied by thousands of reports and hundreds of process definitions result in very involved and extensive projects. The result is that there are really no alternate substitutes to the industry's products. Some organizations may choose to build their own infrastructure or to do without reporting and analytics altogether but overall the tailored BI solutions are most effective at meeting the need. This will continue and provides pure BI vendors such as Business Objects some protection from entrants to the market that will have to develop the expertise in delivering these specific requirements. This is likely to increase as companies continue to try and maximize their investment in other systems and end-users become more technically literate, expecting greater functionality.

2.1.4.2 Increased quality in bundled solutions from other vendors

Increasingly some organizations are finding 'good enough' solutions in existing supplier bundles of basic reporting tools with other data and application products. These solutions are generally departmental/low dollar sales and are not currently the target market for BI vendors, however understanding the product capabilities at this level is important to be able to predict any future threat from these low cost providers. While these products are not as comprehensive as the standalone tools and are limited to a single supplier's product, many small to medium businesses feel that this is an acceptable trade off to avoid expensive and time consuming BI projects.

Overall Key Success Factors for Substitution: Substitution is not generally a major concern for vendors in the BI market. Customers with initiatives that require BI tools will not be able to easily look to other segments or providers to solve these requirements. However, vendors should be aware of low cost alternatives such as bundled software or Open Source applications.

2.1.5 Rivalry amongst competitors – Moderate

In addition to the influences on the industry's competitive rivalry described above, a Herfindahl Index (HI) [13] has been generated to ascertain the level of industry balance based on 2003 market share figures. The Herfindahl Index is a simple equation that measures the concentration of competition in an industry and is used by the Department of Justice in the United States as a metric when analyzing industries for anti-trust or other legal purposes. The index equation is **HI = 10,000 * (The Sum of (the square of each firms market share)).** A result of 10,000 indicates a monopolistic

[13] Department of Justice - http://www.usdoj.gov/atr/public/testimony/hhi.htm, July 12, 2005

environment, the result of only 1 firm existing in an industry, whereas a result of 0 = perfect competition. This equation is a useful litmus test when assessing rivalry since perfect competition results in an environment with intense rivalries and a monopoly has no rivalry by definition. It is not definitive and doesn't account for a significant amount of other factors at play but is a useful exercise to benchmark an industry.

The Herfindhal Index of the Business Intelligence industry is based on 2003 data available and is equal to[14]:

$$\mathbf{HI = 10{,}000\,((.165)^2 + (.109)^2 + (.094)^2 + (.068)^2 + (.037)^2 + (.035)^2 + (.032)^2 + (.029)^2 + (.027)^2 + (.023)^2 + (.013)^2 + (.012)^2 + (.011)^2 + (.006)^2 + (.006)^2 + (.005)^2 + (.004)^2 + (.004)^2 + (.003)^2 + (.003)^2 + (.003)^2 + (.003)^2 + (.003)^2 + (.002)^2 + (.002)^2 + [(.002)^2] = 592.50}$$

The indication here is of an industry with moderate to high rivalry (1000 – 1800 is considered concentrated, or low rivalry, above 1800 is considered highly concentrated, with very low rivalry).

The HI is somewhat misleading in that it assumes that the smaller firms (1% or less market share) have the capability to compete with the market leaders, which is not accurate in the current Business Intelligence market due to the fact the small vendors have limited or niche products. However it is still a useful metric that illustrates competitive concentration and more importantly the effects of consolidation on the market, which enables additional profit opportunities to the firms with larger market share.

[14]2003 IDC figures were used and the remaining 30% market share was divided amongst 150 assumed companies each with a market share of 0.2% - a figure less than the last company in the data set. This approximation is indicated in the equation by a []. Attributing this 30% "Other" to a single "niche products" entity results in a HI value of 1540.5.

2.1.5.1 Highly Differentiated Products

Business Intelligence vendors generally focus on two key factors during the sales cycle; Product Functionality/Features and Total Cost of ownership/ROI over the lifetime of the project (generally capped at 5 years). Due to the nature of the software, two vendors rarely compete on product feature sets alone, nor are they able to fulfil all of a customer's requirements. More often vendors will stress the importance of the features their product does well and play down the importance of less developed functions or features competitive products are superior in. The complexity of Business Intelligence products and the wide variety of customer requirements allow vendors to highlight how their offerings solve specific needs as opposed to having to meet any external benchmark or standardized metrics. In a word processor it's relatively easy to determine if spell-check works. Even in databases it's easy to compare response time and relational capabilities. BI products are more diverse and less capable of being directly compared. If a vendor's product is slower than the competition when executing a specific function customers require, the sales team will simply focus on the area that their product outperforms the competition in. Since these initiatives are often undefined and based on vague or difficult to validate business requirements, vendors rely on the opportunity to define priorities based on their capabilities and marketing departments ensure that materials from objective parties (press, analysts) are prepared in a fashion that emphasizes the importance of features their solution excels in.

2.1.5.2 High Growth Industry

The Business Intelligence software market is growing at a rate of 11%[15] one of the fastest growing sectors of the Enterprise software industry. Business Objects and Cognos are both exceeding industry growth (14% and 22% respectively) as are several other vendors (Table 1.1 page 11). This is an environment where many vendors are more constrained by their ability to sell – by the availability of a trained sales force, Professional Service availability – than limited by a small number of opportunities. However, this growth is slowing as IT budgets are reduced and companies focus on strategic projects that take longer to implement and are more aggressive in requirements, which in turn is driving a trend of fewer, but larger, dollar value deals. In turn, companies are forced to be much more aware of their competitor's actions now than in the last 2 years. A limited capacity to execute also underscores the importance inherent in the sales strategy of a vendor in this space as few firms have the ability to sell to every company with a need – firms must pick the best opportunities and focus their efforts there. Any resources or effort spent on an industry or segment that is not optimal will result in an opportunity cost that may be capitalized on by other, more focussed, competitors.

2.1.5.3 High Switching Costs

Large Business Intelligence software deals can range from $250,000 up to $2+ Million. These software systems are deeply embedded into an organization, with numerous interfaces between ERP and CRM systems which result in established customers generally employing tools from only one or two BI vendors. Although there certainly are departmental sales opportunities of a smaller scale, this difficulty in

[15] Dan Vesset, *WW BI Market Share Report* (IDC Research, June 2005), 1.

switching allows most vendors to focus their energies on new markets and prospects and reduces the need to market and support existing customers as heavily as a vendor in a homogenous industry might. The exception to this is the developer and desktop reporting market, which Business Objects competes in with its Crystal Reports product. This lower cost segment is still primarily owned by the Crystal product line but is increasingly bring threatened by Microsoft who has bundled reporting services into its SQL product, the database primarily utilized by Crystal Reports users. The cost of switching at this workgroup level is very low and the purchase decision tends to be driven more by software license cost than features or vendor stability and support.

2.1.5.4 Moderate Competitive Concentration

In 2004 there were 4 vendors of Business Intelligence software with revenues over $400 million – Cognos, Business Objects, Hyperion and SAS. Of these SAS is often not considered a BI vendor by market and industry analysts, as their product focus is more on statistical analysis as opposed to data analysis and reporting. Regardless, in a market space that is growing these 4 vendors stand to do quite well – combined they account for 40% - 50% of the current market. Companies want to buy software from stable and large organizations as insurance on their investment. This leads to the large companies getting larger while smaller vendors are relegated to niche markets and products, such as Microstrategy's focus on the retail industry. This reduces rivalry between the larger players in the short-term but as these firms increase their market share and profits, they attract entrants who see the declining concentration and market growth as an opportunity.

2.1.5.5 Increase in Low Cost Products

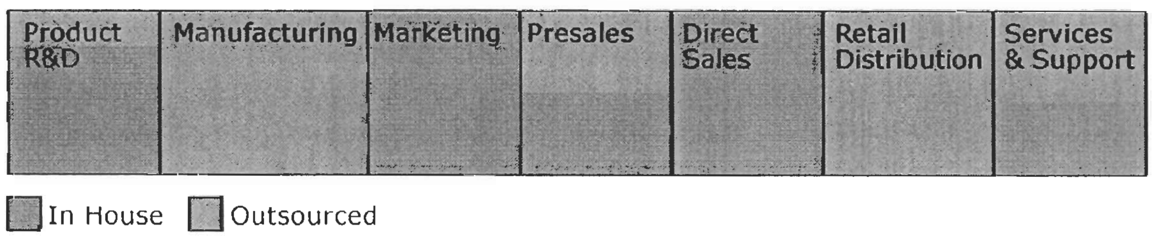
As overall software becomes more modular and interfaces become standardized, lower cost products that previously couldn't deliver the same functionality as the large vendor offerings are becoming more capable, although they still lag significantly behind the more developed product lines. Small to medium size organizations are starting to look at low cost products price competition is a sign that rapid expansion is ending and companies are starting to fight each other for share that offer decent 'off the shelf' capabilities as an alternative to the more expensive BI solutions. This is increasing rivalry in the industry as it erodes the importance of product differentiation and creates a more homogenous product landscape. This is particularly problematic for Business Objects, as 30% of the Crystal revenue traditionally has come from the sub $5,000.00 products. As Microsoft and Oracle start to deliver 'free' reporting alternatives bundled with existing databases or applications there is significant incentive for customers in the Small Business Market (SMB) to accept reduced functionality in exchange for cost savings.

Overall Key Success Factor in Rivalry: Firms must be able to rapidly develop and adjust product lines to keep pace with competitor advances and changing customer demands, supported by the ability to market and sell these products to both existing customers and new prospects. Companies with the ability to accurately forecast areas of growth and target segments in advance of their competitors will have distinct advantages in product development and acquisition activities to meet future demands. Companies must maintain focus on delivering customer solutions at a corporate level and not be drawn into competing on price in small workgroup deals.

2.2 Value Chain Analysis

The industry value chain for the Business Intelligence software market is comprised of 7 distinct activities. These are Product Development, Manufacturing, Marketing, Presales, Direct Sales, Retail and Distribution and Training and Support. Figure 2.2 (page 35) identifies how Business Objects operates along this value chain with green portions indicating activities performed by the company and orange portions indicating outsourced activities.

Figure 2.2 Industry Value Chain BI – Business Objects Footprint.[16]



2.2.1 Product Research and Development

Companies in the Business Intelligence software market, like most software industries, are primarily aligned with a differentiation strategy. As a result, Research and Development is a key activity for these companies. Firms need to be able to quickly develop products that are capable of meeting customers existing requirements and be distinguished from competitor's offerings by providing superior functionality, performance or both.

It is important that companies can perform a number of activities in Product Research and Development. The first requirement is the technical capability to develop

[16] By the author

complex software systems that satisfy feature requirements provided by Product Management. Companies need to have developers with experience in data systems and structure as well as experience with low level development languages such as C++ or Java.

A second requirement is a Product Management group that is capable of liaising with the Marketing, Sales and Support organizations to determine what features customers require in future products and what problems in existing products need to be rectified to maintain existing customer satisfaction.

Finally firms need a development process that allows the quick modification of existing products to new market opportunities, such as a reporting tool for the finance industry, and to react to a market threat where a competitor may deliver a key function that needs to be matched to maintain technical parity or superiority. This process needs to be a fundamental part of the R&D organization and encompasses code management tools and processes, Product Management access to R&D resources to quickly react to threats or opportunities and thorough QA processes to ensure the timely delivery of a quality product.

Some companies, such as Microstrategy, have focussed their efforts on developing products for specific industries such as the Retail industry, and then leveraged success in those industries to sell products to other related industries, such as Transportation and Shipping. Other firms – Business Objects included – have focussed on developing trade-mark technologies that are only available in their products. These core features are then implemented across multiple product lines to gain access to different corporate or industry markets. In Business Objects case their meta-data Universe and the Crystal reporting platform are examples of this R&D approach.

Likewise, most firms have benchmarks around key activities to ensure that the company is performing well in this activity. The number of patent applications in a year, number of bugs resolved or remaining in a product and their severity, number of 'point releases' (a point release is a version of software that rectifies some problem or enhances an existing feature in a product – these are often called 'patches') released per quarter and the period of time between product releases are all examples of metrics used to assess how a company is performing in the R&D function.

2.2.2 Manufacturing

Manufacturing is traditionally an area where software companies can outsource activity. No real value to the customer is created here, particularly in Enterprise software environments where the delivery, installation and documentation of the products occur during the implementation period. The actual box, CDs and print manuals are often not delivered until after the company has finished the purchase and implementation process and in many cases sit on a bookshelf unused after delivery.

As a result the process of creating CDs, printing manuals and assembling boxes is somewhat or completely outsourced by many firms. Business Objects completely outsources this activity to several vendors worldwide. Some firms may perform these activities in-house, but that is only likely when they have existing infrastructure and gain some benefit in doing so. An example would be a company such as Microsoft who create and ship millions of boxes of consumer software and might realize a cost savings or shortened production time-lines in performing this activity in-house. Even so, it would be unlikely that they would do 100% of this work; there are too many low cost providers in the CD and printing/publishing industries for this to be a core focus for a software firm.

2.2.3 Marketing

Marketing is a vital activity for Business Intelligence vendors. Without strong competency in this area it would be difficult to impossible for a firm to succeed in this industry. The marketing organization needs to perform several key functions for the firm, which are essential to their success.

Marketing must generate demand by articulating product benefits. Marketing in this industry is a company's way to communicate their products offerings to potential customers and industry watchers such as analysts. Firms need the experience and financial capabilities to engage in advertising campaigns in high-profile publications such as the Wall Street Journal where target audience members will see it, to create marketing events such as CIO summits, CEO Breakfast seminars, and publishing content such as whitepapers that address topics relevant to the target market. At Business Objects this demand creation is primarily the responsibility of the Field (Regional) Marketing Groups illustrated in Figure 1.2 (page 6).

Marketing departments in this industry are also responsible for targeting prospects and supporting sales through systems and processes that allow the regional marketing teams to turn the demand creation activities into leads that can be followed up by the sales force. This kind of activity is often paired with the work to identify target companies and both tasks often reside in some sort of Marketing Operations group that is fairly centralized due to its reliance on IT for system support and due to the fact that companies can best realize scale benefits by having a centralized system for lead management and industry analysis.

Another key activity that directly impacts a firm's success is the management of relationships with industry analysts and press. Analysts and press often play a key role in shaping prospective customers opinion of a solution and the viability of a software provider. This is important as most companies engaging in large Enterprise software purchases do due diligence not only on the product but on the financial and managerial well being of the provider, information often supplied by analysts such as Gartner or IDC.

Marketing is also responsible for a number of other activities that are important although the exact delegation of these tasks is not standardized. These functions include competitive marketing, which looks at what the competition is focussed on, and works with sales to quantify the factors in a deal that determine when a competitor wins vs. when the company makes the sale. Many companies also have a solution marketing function, which focuses on vertical or industry specific marketing materials and messages. Targeting specific industries such as Health Care or market segments such as Small-Medium Business (SMB) is often the responsibility of the Solution Marketing team. Additionally any firm with a reseller distribution channel or significant alliances will require a Partner Marketing group. Their responsibility is to develop programs with partners that result in mutually beneficial opportunities as well as performing demand generation activities to recruit new partners.

As in most industries, marketing groups in the Business Intelligence software industry are responsible for the management of a company's corporate identity and communication vehicles such as the website, powerpoint templates, brochures, press release standards, etc. These are significant activities that create the public image of the firm and generate the overall perception of the company in regards to a global presence.

The last key activity performed by marketing is Product Marketing. Product Marketing as a function is responsible for working with sales and product management to determine what features customers require in current and future versions of the product and acting as the conduit for information from sales to Product Management. The Product Marketing role is also to develop materials and messages for use by other marketing teams to position product offerings against competitor offerings and in regards to customer needs. This function is also responsible for what might traditionally be called Brand Management at the product level.

2.2.4 Presales

Presales is identified in Figure 2.2 (page 35) as a distinct activity although in some companies it may be considered a part of the direct sales function. It is called out separately in this paper as it is often critical to the sales cycle and is a bridge in many Enterprise deals between the marketing function and the sales function. Presales is essentially a type of consulting that occurs prior to the sale of a product. It is related to the Professional Services Organization (PSO) in terms of skill set and activity but is generally owned by sales organizationally. Where PSO is focussed on post-sale implementation success, Pre-Sales consulting is involved in two key activities that occur prior to a sales completion:

- The first major presales activity is the proof of concept phase of a sale. This often occurs early in the sales cycle and is the tool which the sales force uses to gather customer requirements and deliver a functional example of how a solution would be implemented. This is a powerful sales tool and is critical to the sales team being able to move through the sales cycle to closure.
- The second vital function that presales fulfil is acting in conjunction with other consulting partners to assess customer needs or to assist in a partner driven deal. An example of this would be when a large consulting firm such as Accenture is involved in an ERP implementation. As part of the ERP project, an Accenture customer will require a reporting solution. Business Intelligence vendors who partner with Accenture during the planning and requirement gathering portion of an implementation project will be capable of both selling more into the account than might have been possible otherwise, and will strengthen the key relationship with the consulting partner.

2.2.5 Direct Sales

Direct Sales is the function that generates the majority of revenue (60% - 90%) for Business Intelligence vendors. Direct selling is when a vendor sells a solution directly to the end customer instead of utilizing a sales channel. In most cases these Direct Sales activities are performed in partnership with Presales and the Professional Services Organization and the actual solution is a combination of software product/licenses, consulting services to assist in implementation and maintenance agreements that cover support requirements and software maintenance (upgrades, etc.) While the deal value is generally an amalgamation of these products and services, the direct sales force is almost always responsible for the overall revenue numbers.

The kinds of deals that Business Intelligence vendors are involved with are large complex sales that have relatively long lead-times, it's not uncommon for a deal to take 6 -8 months to get signed. Due to this complexity, the large dollar value of these deals and the long lead times, companies require a well trained and experienced sales force. Ideally sales candidates need to have experience in Business Intelligence, selling Enterprise software and a variety of sales methodologies. Many companies utilize some sort of defined sales process such as the Miller Heiman[17] or Customer Centric Selling (CCS)[18] models designed to educate and prepare Sales Representatives to identify and sell to the highest value opportunities. This kind of selling is fairly technical, relying on significant documentation and adherence to the process. A sales force that can effectively and consistently use the sales methodology chosen by the company is going to be more effective than a sales force that relies on ad-hoc sales processes driven by individual representatives. The ability of sales reps to follow a methodology needs to be matched with the ability of the company to provide a system such as a Customer Relationship Management or Sales Force Automation tool that is aligned with the sales process.

2.2.6 Retail & Distribution

Although traditionally a model for consumer software, some firms in the Business Intelligence industry distribute a percentage of products through what is called a 2-tier

[17] http://www.millerheiman.com/ - Miller Heiman sales methodology and consulting, July 15, 2005
[18] http://www.customercentricsystems.com/ - Customer Centric Systems, provider of the CCS methodologu

distribution channel. This is the method whereby the company sells products to a distributor who in turn sells these products to retailers. The retailers complete the final product sale to the end user. This is not a large part of the industry but it does account for some revenue. Companies like Business Objects and Microsoft sell lower cost (<$5,000) products through a retail channel. As well, some firms partner with Value Added Resellers (VARs) who will resell the product as part of a larger engagement. These VARs are often consultants or software providers in niche markets that are not profitable for the BI vendors to target.

These retail activities are completely outsourced by most vendors in the space, Business Objects included. There is almost no precedent of a software company vertically integrating into the retail market. Some resources are committed to managing the relationship with the resellers and distributors, however these resources are usually marketing or operations focussed and are not engaged in the actual retail distribution of the products.

2.2.7 Services and Support

There are three activities in the Training & Support section of the Value Chain; Professional Services, Training and Technical Support. Of these, Professional Services and Training are revenue generators and Support is generally considered a cost centre. Most firms will keep the Professional Services function in-house. This is due to the heavy reliance on the PSO group to ensure that customers are successful when implementing Business Intelligence products. As well, PSO provides valuable feedback to the product groups regarding challenges that customers might encounter during implementation.

Training is generally end-user or administrator training on the products and is often offered as both class-room and onsite formats. Although training can provide a revenue stream many companies out-source this activity, receiving a portion of the revenue from the training provider. This is due to the facts that the revenue training generates is relatively small when compared to license revenue and the fact that training facilities and instructors are not resources most firms wish to invest in. As a result partners who are managed through some sort of certification program by the vendor frequently provide training.

Technical Support is a key post-sales support area for the industry. As with all software, Business Intelligence tools are imperfect and have a number of bugs and problems that impact customers using them. Additionally the complexity of the products and the customization required increase the chances that customers will encounter incompatibilities with other systems or user errors that are difficult to diagnose. This support information is fed back into the product group to identify areas of improvement in future releases of the software. Very few companies outsource their support function. The level of service an end user experiences when the software is perceived to be 'broken' is an important factor in a customer's relationship with the vendor.

2.3 Summary of Key Success Factors

Based on the Five Force analysis and the examination of the industry value chain the most important Key Success Factors have been identified and listed below. Following this listing is a brief description of the KSF and how it impacts the industry:

1. Product Design and Functionality, encompassing the ability to rapidly deliver and develop solutions relevant to key customer segments.
2. Marketing Expertise and Sales Target Segmentation, ensuring that messaging and marketing activities are targeted at the most profitable or highest growth customer segments.
3. Ability to develop and cultivate relationship with partners and other vendors that are formalized contractually where possible.
4. Expertise and experience in the sales force when executing high value long-term software deals in a prescribed sales methodology.
5. Marketing capability to develop and maintain relationships with key industry influencers such as industry analysts and press.
6. Service and support abilities to deliver a post-sale experience to a customer that is positive and enhances the company's image in the market.

Product design and functionality is the primary differentiator in the industry and remains instrumental to a company's success. Vendors in the space must have a product offering that is considered unique and valuable in its function and is capable of meeting diverse needs from a customer's corporate roadmap. Successful vendors will have products that are considered 'best of breed' in some category (Reporting, Query, Analysis, OLAP, Distribution, etc.) and must be able to solve needs from both vertical industries (Healthcare, manufacturing) as well as departmental organizations (Human Resources, Finance).

The ability to quickly adapt products to new opportunities is becoming more vital. As industries complete their ERP initiatives, they are looking at BI as a way to add-value to these large capital projects. The ability to rapidly enhance products to meet the needs of specific customer verticals will prove to be a Key Success Factor.

Product development and the ability to target segments is only viable if the product management and R&D groups know what to develop. Therefore a firm's ability to accurately define new profitable segments and develop marketing messages and activities that are relevant to these targets is important. Marketing groups must be able to not only identify an upcoming profitable segment, but also rapidly develop messages that resound with that target and arm the sales force with materials that allow them to sell solutions into the new segment.

These marketing functions must be able to understand how existing offerings fit into any new customer requirements that are relayed by the sales force and quickly position product offerings to communicate to customer prospects about the vendor's capabilities. Weak marketing capabilities in this regard will be a liability for a BI provider.

Business Intelligence products are dependent on other software vendors for success. By definition, these tools that reports on or analyze data from another vendor's database or application has some reliance on interoperability and technical access to that vendor's product. As a result, it is vital that a firm be able to develop and maintain complimentary relationships with these tier one providers. Since Oracle and Microsoft are both in this category and are potential competitors this relationship must be managed sensitively and strategically, understanding that any trade of proprietary knowledge may be a leverage point later.

An area some companies undervalue is the actual field sales representative who initiates and guides deals through the sales cycle. Crystal Decisions for example had an inexperienced sales force and recruited personnel who although seasoned in sales, had irrelevant experience (Xerox equipment sales people). These resources were not capable of executing in the environment that Enterprise sales occur in. BI sales representatives need to have competence in sales models and the supporting infrastructure tools, such as a Customer Centric Selling program with the associated documents, which not only facilitate the sales cycle but provide feedback to the organization about customer requirements, competitor presence and organizational requirements of the customer, such as average project budget, timeline, and approval level.

As in ERP products, BI is a solution that relies not only on the product and services a vendor can supply but also on the reputation of the provider. IDC Research surveys have shown that after basic product functionality and fit, company stability, viability and reputation is the key determinant in vendor choice[19]. Marketing functions in this industry must be able to generate positive press stories in both industry publications and general business press as well as influence the key analysts who cover the space. Although analysts are impartial in their assessment of vendors and technology, vendors must be able to get face time with the actual report authors to communicate their vision. For instance, Business Objects has a close relationship with the Gartner Group and invites key Gartner analysts to pre-release briefings, beta interviews and customer roadmap presentations.

[19] Dan Vesset, *WW BI Market Share Report* (IDC Research, June 2005), 14.

2.4 Analysis of Business Objects vs. Key Competitors

The goal of this section is to assess the performance of 3 competitors and then evaluate these vendors in context of the Key Success Factors identified in the Five Force and Industry analysis.

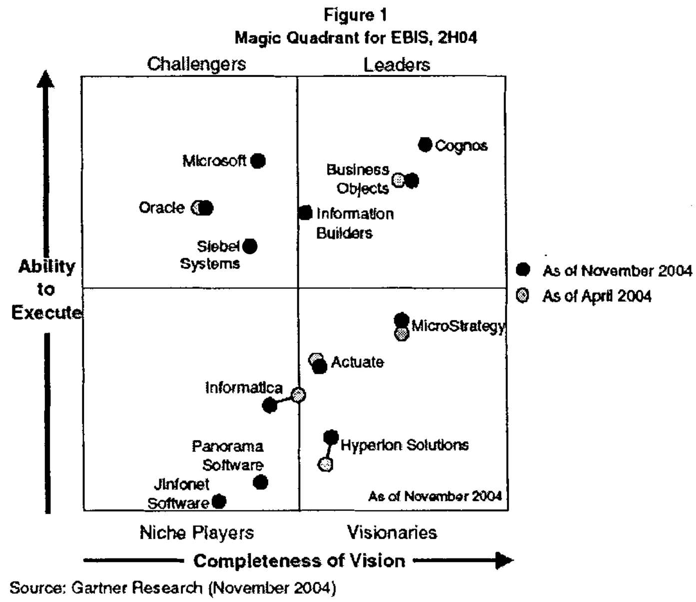
A significant threat is the fact that Cognos timed the introduction of their new ReportNet product extremely well, coinciding with the acquisition of Crystal, and executed on their go to market strategy very effectively as measured by their revenue and growth over the 2004 calendar year. Figure 1.3 (page 12) illustrated that at current revenue growth rates Cognos will match and then overtake Business Objects by 2007/2008. This assumes that no entrant changes the market dynamic dramatically and that the two companies maintain current revenue growth rates.

The Gartner Group produces a diagram known as the Magic Quadrant[20]. The intent of the diagram (in conjunction with the accompanying research) is to illustrate the position of vendors in the market as measured on two key criteria – Completeness of Vision and Ability to Execute. Figure 2.3 (page 49) is the Magic Quadrant from the most recent report published.

The "Ability to Execute" axis is defined by Gartner as a vendors ability to 'deliver a relevant product portfolio, provide organizational support for customers and execute in the field' (KSFs 1., 3., 4., 6.).

[20] H. Dresner, B. Hostmann, *Magic Quadrants for Enterprise BI Suites and Platforms, 2H04*, (Gartner Research November 29th, 2004), 3.

Figure 2.3 Gartner Research – Business Intelligence Magic Quadrant



The "Completeness of Vision" axis is the analyst's measure of the ability to 'predict and react to areas of growth, communicate strategic direction to the market and prospects and promote their solution as the best-of-breed innovation available'. (KSFs 2., 5)[21]

As can be seen in the Magic Quadrant Business Objects is in the Leader quadrant but trails Cognos in both criteria. This is accurate and is a concise presentation of the strategic challenge facing the organization with respect to the #2 competitor.

Also worth noting is that the occupants of the Challenger quadrant - companies with strong ability to execute but underdeveloped vision - are significantly larger firms than the other vendors. Microsoft alone has a larger market cap and cash on hand than all the other vendors (excluding Oracle) combined. This is a worrying trend – generally it is

[21] H. Dresner, B. Hostmann, *Magic Quadrants for Enterprise BI Suites and Platforms, 2H04*, (Gartner Research November 29th, 2004), 3.

better if your competitors fall in the visionary quadrant as moving upwards tends to be a more difficult task than developing a complete vision, which is a more natural process that occurs during the sales→ post-sales→development→sales→post-sales cycle. Companies that can execute well will find it easier to develop a strategic vision when compared to companies who have that vision but need to develop competency in operational execution. MicroStrategy is an example of the latter – their product line is widely regarded as innovative, flexible and powerful but they have failed to keep pace with customer requirements and have had a litany of internal management issues that adversely affect their ability to engage, such as multiple restating of earnings and long running unresolved lawsuits.

The Magic Quadrant diagram succinctly identifies Business Objects two major threats driving the need to deviate from the current strategic plan – the short term requirement to defeat Cognos as quickly and completely as possible and the longer term need to create a significant gap between itself and the much larger competitors moving into the space. Business Objects and key competitors are outlined in Table 2.1 (page 51).

A brief analysis of three key competitors, Microsoft, Microstrategy and Cognos and their current operations is conducted next to provide context when assessing the competition's capabilities in regards to the KSFs. The three competitors chosen are Microsoft due to its vast resources, Microstrategy because of its significant growth rates and Cognos due to its immediate threat to Business Objects.

Table 2.1 Business Objects and key competitors – vital financial statistics[22]

	BOBJ	COGN	HYSL	MSTR	Industry
Market Cap:	2.50B	3.14B	1.53B	850.54M	59.48M
Employees:	3,834	3,297	2,473	945	199
Qtrly Rev Growth (yoy):	14.50%	26.80%	6.60%	22.20%	12.50%
Revenue (ttm):	957.17M	825.53M	689.99M	242.09M	44.94M
Gross Margin (ttm):	78.10%	81.94%	74.86%	86.03%	55.74%
EBITDA (ttm):	160.01M	185.04M	133.07M	85.31M	1.05M
Oper Margins (ttm):	10.02%	19.22%	13.74%	31.67%	0.03%
Net Income (ttm):	58.87M	136.60M	60.71M	172.99M	-285.98K
EPS (ttm):	0.648	1.465	1.475	10.148	N/A
P/E (ttm):	41.47	23.5	25.68	5.14	24.91
PEG (5 yr expected):	1.59	1.35	1.38	0.95	1.36

Source: Figures from Yahoo Finance – http://finance.yahoo.com (BOBJ - Business Objects; COGN – Cognos; HYSL – Hyperion; MSTR - Microstrategy)

2.4.1 Cognos

Cognos is a publicly traded company (COGN, Nasdaq) based in Burlington, MA but with its largest and oldest office in Ottawa, ONT. The company was founded in 1969, became Cognos (formerly Quazar) in 1982, had its initial public offering on the Toronto Stock Exchange in 1986, and moved its listing to the NASDAQ exchange the following year. It is the oldest and most recognized name in Business Intelligence in North America and Asia and has a broad product line that it revises on a consistent product release schedule annually with feature focussed point releases (ie. Version 10.2 to 10.3) occurring either quarterly or bi-annually.

Cognos has an excellent track record, particularly since the year 2000. The company has successfully positioned itself as the provider of Enterprise analytics –

[22] By the author

primarily focussing on OLAP (Online Analytical Processing) tools – the best known of which is Cognos PowerPlay. The company's OLAP tools allow sophisticated users to do projections and multidimensional analysis of data stored in financial or production and manufacturing systems. OLAP analysis is generally limited to relatively specialized needs and does not provide general business end users with the ability to look at basic data such as inventory status or other static list based reports. In this area Cognos has often lost out to Crystals Enterprise Reports, which provides a broad range of reports and report design capabilities to business managers and others monitoring day to day operational functions.

In 2003 Cognos launched its ReportNet product designed to allow it to compete in this broader reporting category. The product was very well received by the industry press and has allowed the company to sell reporting solutions to its existing install base as well as contend with Business Objects in deals primarily involving reporting needs. The only major shortcoming of the ReportNet product is that it requires a separate installation and infrastructure from other Cognos applications, requiring customers to maintain and integrate two distinct environments. Cognos has promised to address this shortcoming in the next release of ReportNet.

This Enterprise Reporting capability was the key driver in Business Objects acquiring Crystal as it enabled the company to briefly be the sole provider of analytics, dashboards and reporting products. The opportunity provided by reporting solutions can be seen in the following chart, Figure 2.4, (page 53) which illustrates the utility companies realize from the different segments of Business Intelligence. This chart essentially shows that internally customers realize the highest strategic value from information provided to Power Users and Executives. Functional managers who can access reports however add moderate amounts of strategic value in addition to the operational efficiencies accurate information can create. Although the Strategic value of the occasional consumer to a firm is low it represents a large opportunity to BI vendors as traditionally these occasional consumers and functional managers account for a significant number of licenses driven by the operational efficiencies accurate reporting can deliver.

Figure 2.4 Gartner Research – The Strategic Value of Business Intelligence[23]

Types of Users

	IT	Power Users	Executives	Functional Manager	Occasional Information Consumers	Extranet: Partners, Customers
Number of Users	Few	Dozens	Dozens	Dozens to hundreds	Hundreds to thousands	Hundreds to thousands
BI Tools and Functions	Developer Admin. Metadata Security Data management	Ad hoc query OLAP Reports Data mining Advanced analysis	Dashboard Scorecard Reports CPM	Reports Spreadsheet OLAP view BAM CPM	Reports Spreadsheet	Reports
Strategic Value		High	High	Medium	Low	High

Intranet — Extranet

BAM business activity monitoring
BI business intelligence
CPM corporate performance management
OLAP online analytical processing

Source: Gartner

Cognos has proven to be astute at managing its product roadmap and predicting changes in the market. Although capable of competing on a product feature basis, the company has managed to focus its efforts on rewarding industry segments such as Banking & Financial and Healthcare. It has also managed to strengthen its capabilities for these industries through acquisition of smaller niche companies such as the 2004 acquisition of Adaytum a provider of financial analysis software. Repackaged as Cognos

[23] H. Dresner, B. Hostmann, *Magic Quadrants for Enterprise BI Suites and Platforms, 2H04*, (Gartner Research November 29th, 2004), 3

Finance – the Adaytum product provides the company with a vertical solution that many BI vendors have difficulty providing due to the unique requirements.

The Cognos partner network seems to suffice for their needs, and all the requisite consulting firms (IBM Global, Bearing Point, Accenture, CAPGemini) are present.[24] Although the company does not have the depth of partnerships that Business Objects has in the OEM and Reseller channels, this is likely a conscious decision resulting from the nature of the products and solutions provided. Business Objects acquired most of its OEM and Channel partners from Crystal Decisions whose lower cost products lent themselves well to these kinds of distribution methods.

Cognos maintains the highest recognized name in Business Intelligence generally although this is dependent on geography. The company has excellent recognition and credibility in the market. Gartner Research's 2004 Business Intelligence Multi-Client Study[25] indicates that Cognos currently maintains a 31% unaided recognition score in North America and Europe (compared to Business Objects at 19% and 27% respectively).

In addition to the excellent name recognition Cognos is well respected for its ability to deliver products in accordance with its product roadmap. Analysts and journalists track this as a key indicator of a company's capability to execute and react to market changes as customer needs evolve. In the Gartner Research Multi-Client Study conducted in September, 2004, Cognos was rated as having Medium Clarity and High

[24] Cognos Partner Listing - http://partnernetwork.cognos.com/all_partners_list.html#I
[25] This study was commissioned by Business Objects and is confidential, however is available to Faculty upon request.

Credibility and Market Alignment[26]. Essentially in this study these results indicate that while there is some uncertainty around how Cognos will integrate its new ReportNet fully into its existing architecture, their past performance and the technical product details indicate that they have a high likelihood of meeting their targets and delivering the functions important to the market.

The final area Cognos appears to be outperforming the competition in is its financial metrics. Although the company has slightly lower revenues than Business Objects the majority of other figures are generally superior. Operating margins are higher and net incomes are almost double. Some of this is a result of the Business Objects and Crystal acquisition 'hang-over' but there is certainly an element of Cognos' superior execution as well.

Projections using Cognos' current growth rates in terms of market share and Quarterly License revenue year over year indicate that if Business Objects and Cognos continue along current trends Cognos will emerge as the #1 vendor in the space some time in 2007/2008. This would be viewed as catastrophic internally at Business Objects and as a significant missed opportunity by the analysts and financial markets.

2.4.2 MicroStrategy

MicroStrategy is the 5th largest BI vendor with an overall market share of approximately 3.7%. A public company (NASDAQ: MSTR) founded in 1989 MicroStrategy has had a chequered history in the last decade. Their technology has been widely acclaimed as the first true "Enterprise" capable solution, having introduced the

[26] This study was commissioned by Business Objects and is confidential, however is available to Faculty upon request.

first thin client (browser based) product line in 1994 and a fully integrated financial and operational integrated infrastructure since its inception (other vendors including Business Objects have had to integrate their products, even those developed together internally). During 1998 MicroStrategy had the largest market cap of any BI vendor despite a relatively small market share and was widely thought to be the provider of the next generation of solutions.

Unfortunately the company was forced to restate it earnings, reducing its share price from its high in 2000 of $314 to lows of $2 - $7 in 2001/2002. Besides the obvious impact on the company this plummet had a huge negative impact on the firms credibility in the market – not only did investors avoid the stock but analysts and press advised potential customers to steer clear until the future was more certain, advice customers heeded given their preference for established and stable vendors when purchasing software solutions.

However the firm has persevered and is back providing solutions that both analysts and customers feel are highly viable at meeting the markets needs. Financially the company is executing well – enjoying large operating margins (31% vs. Business Objects 10%) and fast growth (24% market share growth 2002 – 2003), both signs that the company is a viable concern. However, due to its small size and customers lingering doubt over its long term prospects the company is more likely an acquisition target than a potential #1 competitor.

2.4.3 Microsoft

Obviously Microsoft needs little background introduction as a software company. The giant has only recently entered the Business Intelligence market and yet it ranks 4th in overall unaided recognition as a provider in the BI market (14% - 18% worldwide). The fact that a company with a newly introduced and immature product can garner such large name recognition speaks to the advantage tier 1 vendors have in leveraging their size and influence when entering new markets. Furthermore there is no doubt in anyone's mind that Microsoft will remain a large and viable venture for the foreseeable future. Most firms already have significant investment in Microsoft tools and are able to leverage licensing agreements that provide the newly introduced tools at low to no cost.

The products themselves are relatively limited. They are focussed on two areas – Reporting Services for SQL and Maestro – a codename for a Performance Management dashboard that integrates into the Microsoft Sharepoint Portal Server. Maestro is currently in closed beta (as of May 2005) and no release date has been currently scheduled. The Reporting Services product is primarily aimed at developers who utilize SQL server in corporate applications and need basic reporting functionality and as such poses no immediate threat to the larger Enterprise focussed BI solutions offered by other vendors, although it is certain to detract from the Crystal Reports product that Business Objects has targeted at Microsoft Developers.

Microsoft has a number of challenges to overcome in entering the market, many of them internal. It is unclear how the company views the BI space in comparison to its core Operating System, Office and Server operations. While they certainly have the resources to deliver on almost any entry strategy they can envision, it is currently unclear whether these recent products are thin edges of the Microsoft wedge or simply complimentary features designed to help sell the servers they augment.

The company will have some challenges integrating its offerings amongst its own products as it will need to support all data sources it produces across a variety of Microsoft produced operating systems. However there is no doubt given their financial resources, extensive partnerships and vast customer installed base that Microsoft could enter this market through either acquisition (MicroStrategy seems a likely target) or development of their own products and should be taken seriously as a strategic threat by any vendor in the space.

2.4.4 Competitor Capability Comparison on Key Success Factors

Based on the identified Key Success Factors and the above assessment (2.4.1, 2.4.2, 2.4.3) of current competitor performance a basic matrix has been developed identifying each vendor's capability to deliver against the KSFs. An estimated percentile score has been assigned to each firm's ability in the 6 KSFs resulting in a final overall score. The estimated capabilities of each company were drawn primarily from the Gartner Research Magic Quadrants for Enterprise BI Suites and Platforms Report (2H04, H. Dresner, B. Hostmann, November 29th, 2004) and the IDC BI Market Share Analysis, 2004 (Dan Vesset, June 2005) as well as the authors personal experience in the industry after 8 years as a Crystal Decisions/Business Objects employee. Table 2.2 (page 59) indicates the capabilities of each company in respect to the Key Success Factors.

Table 2.2 Competitor capabilities in Key Success Factors[27]

Key Success Factor	Cognos	Microstrategy	Microsoft	Business Objects
Product Design and Functionality	85	75	25	95
Marketing Expertise and Segmentation	100	50	100	85
Partner Relationships	75	30	100	75
Sales force expertise	100	50	50	90
Analyst and Press relations	80	50	60	75
Service and Support capabilities	75	35	60	75
TOTAL CAPABILITY (Possible 600)	515	290	370	490

The product design and functionality score was created by looking at the breadth of offerings and the feature set of the product suites for each vendor. Cognos has a high score due to the fact they have an offering in every category of Business Intelligence (Enterprise Reporting, Query and Analysis, OLAP, Corporate/Enterprise Performance Management, Budget and Planning and Dashboards). Prior to the ReportNet product release Cognos was weak in the reporting segment but in the last 18 months has been able to offer a complete BI solution. However, the current release of the ReportNet product is not integrated on a single infrastructure with their other products. This means customers must maintain two separate installations of Cognos products and have integration points between them to present data to the end user in a single view.

Microstrategy has innovative technology, their reporting tool is praised as the easiest to use for mainstream business users[28] and the version 8 release integrates both reporting and basic analysis which traditionally require separate products, as is the case in both Cognos and Business Objects offerings. However Microstrategy has gaps in their

[27] By the author
[28] Dan Vesset, *Data Warehousing and Information Access Report* (IDC Research, June 2005), 2.

product line that limit their ability to compete in the Budget and Planning, Dashboards and Enterprise Performance Management segments of the industry.

Microsoft scores very low in this KSF as their current product offering is very limited in functionality. Microsoft reporting services only work when utilized with their SQL Server product and provides limited report design and distribution capabilities. Business Objects has the highest score, with proven products in every category with the exception of Budget and Planning tools. In addition to breadth, the Business Objects XI product – an integration of the Business Objects meta-layer (called the 'Universe') and Crystal Decisions Enterprise Reporting server – has proven to be a very scalable and functional product.[29] This integrated infrastructure reduces IT costs as it means that the customer can employ all the BI tools in a single environment, reducing maintenance and integration work.

The marketing expertise score was generated primarily from the Gartner Groups Business Intelligence Multi-Client Study, by Howard Dresner and presented to Business Objects February 2005. This study was a series of interviews of 961 Enterprise BI customers worldwide (United States, Canada, UK, France, Germany, Australia, Japan and China) and focussed on awareness of vendors from a customer's perspective.[30]

Cognos leads the industry in *unaided awareness*, which is a measure of a customer's response when asked about BI without any prompting regarding the industry or vendors. Unaided awareness is considered to be a good measure of the effectiveness of

---

[29] Dan Vesset, *World Wide Business Intelligence Market Share Report* (IDC Research, June 2005), 6.
[30] This study was commissioned by Business Objects and is confidential, however is available to Faculty upon request.

advertising, event marketing and messaging. 31% of the North American customers surveyed in the Multi-client study responded that Cognos was top of mind when considering BI solutions. In Europe this number was a fraction lower at 30% and in Australia the figure was 29%. In Japan and China this drops sharply to 2% and 0% respectively.

Business Objects has a 19% unaided awareness score in North America and a 27% score in Europe, underscoring its presence there as a French founded company. In Australia Business Objects scored 20%, and like Cognos the Japan and China scores were significantly lower at 5% and 0% respectively. Microstrategy has not had the ability to create as large a name in the industry, scoring under 5% in all regions. Microsoft has consistently higher scores than would be expected from their product offering primarily due to their broad name recognition worldwide. Although Microsoft trails Cognos and Business Objects in America (14%), Europe (18%) and Australia (18%), they enjoy a greater presence in Japan (8%) and the leading awareness in China (37%).

Partner relationships are another KSF that Cognos and Business Objects have parity in. Both companies have agreements with significant vendors such as SAP and IBM, as well as being top tier partners with key consulting groups such as Accenture, Bearing Point, CapGemini and IBM Global Services. Microsoft scores highly here. Although they lack the vendor to vendor relationships the BI vendors enjoy with companies like Oracle, SAP and Teradata, Microsoft has the largest consulting partner network in the world and has more training, VAR and certified consultants than any other vendor. Since the initial BI offering is based on the SQL Server product, Microsoft is able to employee this network as these partners are generally qualified and experienced in

SQL implementations. Microstrategy scores the lowest in this KSF. Although it does have some good technology partnerships based on the OLAP product line with Oracle, Sun and IBM, it lacks the depth of relationships that the competitors enjoy when it comes to the purchase influencing consultants.

In the sales force KSF the key metric was the number of large license deals closed in the periods of Q4 – Q1, 2004 - 2005 (Calendar year). Cognos scored well here with 27 deals valued over $1 million, 231 deals valued at over $200,000 and 1377 deals worth greater than $50,000. Additionally, Cognos license revenue grew 26% and 24% over these two Quarters.[31] The volume of large deals is an important metric as these are the most complex and difficult sales and are a good indicator of the sales forces effectiveness as well as a good predictor of future maintenance revenue. Business Objects also performed well with 14 deals in the $1 million dollar and up range in late 2004, but faltered in the next quarter with only 9 $1 million or greater deals. Additionally while the firm doesn't report the number of deals over $200,000 license revenue grew only 6% in the last quarter and 1% in the first quarter of 2005 (year over year.)[32] Microstrategy has an efficient sales force, evident by their revenue growth rates over the last two years (24% and 32% - Table 1.1, page 11). However they are still a very small company in terms of market share and it remains to be seen if they can sustain the sales growth and penetrate Enterprise opportunities outside of their core targets, primarily retail, consumer products and financial services.

---

[31] Figures from Cognos earnings releases - http://www.cognos.com/news/releases/2004/1221.html, http://www.cognos.com/news/releases/2005/0623.html - July 19th, 2005

[32] Figures from Business Objects Investor relations site - http://phx.corporate-ir.net/phoenix.zhtml?c=77986&p=irol-IRHome for Q4/04 and Q1/05 July 19th, 2005

Microsoft does not report their revenue in a method that makes it easy to understand how their BI product is performing. However, based on an understanding of the companies traditional business model it is relatively easy to predict that although they have extensive Enterprise software sales experience and support, they will face difficulties selling a platform specific product to customers who have diverse data sources. As well the existing sales force is not likely to have much experience understanding the customer challenges and requirements common to BI opportunities, knowledge that is going to take time to build.

Analyst and press relations are a KSF related to the marketing KSF outlined above. However, it is important to assess on its own as the second most important decision criteria for customers in a BI venture are the credibility and viability of the vendor. Cognos fares well here, primarily due to the fact that it is consistently ranked as a market leader in analyst tools such as the Garnter Magic Quadrant. Additionally, a summary of quarterly reports from Eastwick Communications that Business Objects commissions to track press and analyst exposure for the firm shows that Cognos generated 214 positive press and analyst articles (not including company generated press releases) compared to 168 for Business Objects and 87 for Microstrategy. Microsoft is not counted in the Eastwick surveys however it can be assumed that they will continue to garner excellent industry press and analyst coverage due to their potential to have an impact of the space as a whole.

In the Service and Support KSF both Business Objects and Cognos lead the group. Cognos has won several awards such as being placed on the Customer Support Top Ten List from the Association of Support Professionals, a group that holds annual customer surveys in a variety of industries. As well the International Business Awards named Cognos as a finalist in the Best Customer Service Organization category in 2005[33]. The awards – known as the "Stevie Awards" – are significant as they are not specific to BI or even the software industry. Although Cognos did not win in this category, being named as a finalist is an important recognition from the customer base that was responsible for the nomination. Business Objects does not have as much public accreditation for its support capabilities but in 2003 the company began a process using a Customer Loyalty Index (CLI) survey performed by MarketBright Research to measure 200 of the top customer's satisfaction levels. The resulting metric is based on 20 questions designed to assess the customer's satisfaction with product support and likelihood to repurchase. At the time the survey began Business Objects had an average loyalty index of 3.2/6.0. This has increased over the last 24 months to an average of 4.7/6.0. In addition to implementing this survey, Business Objects has linked the employees responsible for support to the results by tying quarterly bonus payouts to the CLIs performance. The result seems to be a positive increase in customer's satisfaction with the service and support levels.

Microstrategy has had some challenges in this KSF. In 2004 the company was criticized in the press by industry watchers when it forced some customers who were unhappy with the level of technical support supplied to pay additional amounts over and above their existing maintenance agreements to resolve their issues. This appears to be a transitory issue and it appears that the company has resolved the complaints to the satisfaction of the affected customers. Microsoft gets a mediocre score in this KSF due

[33] Stevie Awards - http://www.cognos.com/news/releases/2005/0518_2.html - http://www.stevieawards.com/pubs/iba/awards/171_1829_11226.cfm - July 21, 2005

primarily to their incident based support pricing model whereby customers pay for support on a case by case basis. Although the company does offer Enterprise support contracts, these are not available for specific products or implementations and must be purchased as part of an overall Enterprise agreement that includes licensing for Operating Systems, Office applications and back-end server software. This lack of flexibility and Microsoft's reputation for mediocre service keeps the overall rating low.

2.5 Opportunities and Threats

Based on the competitor performance and competencies identified in section 2.4 opportunities and threats have been identified. The pre-eminent threat is in marketing and segmentation. Congos has proven extremely capable here outperforming Business Objects in developing a globally known brand despite being a smaller company. They have remained focussed on a small number of well-developed messages (ReportNet and industry targeted activities) resisting the temptation to be everything to everyone. Customers immediately think of Cognos first when considering Business Intelligence solutions, which in turn creates opportunities for their sales force – a key factor in their excellent revenue growth.

The second major threat is sales force effectiveness. Although Business Objects is performing well in this respect they trail Cognos in the number of large deals and in license revenue growth for the last 3 quarters. The latter point is critical as overall revenue includes services and maintenance but it is license growth that is a key indicator of how a company will perform in the future as well as their actual growth in installed customer base.

A third threat is the fact that companies like Microsoft are viewing the space as a opportunity for expansion. Although a major acquisition – such as Oracle or IBM purchasing Cognos – would take at least 18 months to 2 years to become effective it is quite likely that Microsoft or SAP will increase their presence in the industry by buying small firms for their technology, reducing the integration costs and timelines.

The largest opportunity facing Business Objects is the fact it has the best product offering in the industry at the moment. Although it lacks a finance and budgeting tool, it has a single unified product line that offers functionality across the other key areas required by customers. Business Objects needs to leverage this product superiority by communicating it to the market better and targeting Cognos customers and prospects. This, in addition to developing or acquiring a Budget and Planning tool, would allow Business Objects to slow Cognos down while increasing their revenue growth.

2.6 Strategic Alternative

Based on the analysis of the Key Success Factors and the resulting opportunities and threats the author suggests that Business Objects pursue a differentiation strategy focussed on reducing the primary competitor's ability to grow. This strategy will hinge on co-ordinating marketing and sales activities to better communicate Business Objects superior product offering to the market and raise awareness of the company in key regions – primarily the Americas and Europe. Additionally the company needs to focus on targeting Cognos in advertising and direct marketing activities, highlighting the lack of integration between the ReportNet product and the other tools as a weakness.

The marketing portion of this strategy needs to be global and cohesive. Marketing groups in all regions will have to unify activities so that the market sees only one or two consistent messages around Business Objects' superiority to Cognos. Industry or solution specific marketing can still occur but needs to do so in the larger context of the "Kill Cognos" campaign.

The desired outcome of this campaign is to increase the number of sales deals the organization enters that have Cognos as the primary competitor, and increase the win rate in these opportunities. Internal sales documentation shows that for deals tracked from July, 2004 until July, 2005 Cognos was encountered as the primary competitor in roughly 18%[34] of Business Objects direct sales deals. This figure is low as it only reflects the deals in which Cognos and Business Objects were the final two vendors in selection. Although the company doesn't track win-rates against secondary competitors, the Director of North American sales has suggested to the author that Cognos appears in some capacity in 30 – 40% of the large deals Business Objects is involved in. Of the deals in which Cognos was encountered as the primary competitor Business Objects was able to post a 38% win-rate. The goal of the "Kill Cognos" campaign should be to increase the opportunities in which Cognos is the primary competitor to 35% of the Business Objects direct sales deals with a 60% win-rate. (Appendix 2.1, has a table of 2004 – 2005 wins against Cognos with average deal size summary.)

Sales must align with this marketing push by focussing their efforts on key deals that have either Cognos as a competitor or are Cognos accounts. If the marketing portion of the strategy is effective, this sales alignment will occur naturally as the leads and

---

[34] Appendix 2.1, page 99, Cognos Win Rates, Business Objects internal document, Q2 2004

opportunities produced by the marketing campaign should be in industries and companies that Cognos competes in.

Finally the product group has to continue delivering against the published product roadmap while also supporting the Kill Cognos initiative. The largest activity to support an Anti-Cognos effort is the development or acquisition of tools to support Budget and Financial Planning applications. Cognos has made this a priority asserting that Enterprise BI must incorporate these functions to be useful for Performance Management applications.[35]They have managed to deliver this message in the market place through advertising and commissioned studies such as an Aberdeen Research Study that states that companies who incorporate Budgeting and Planning as part of a BI solution perform better than companies without – by a measure of "5.0 percentage points gain in return on assets (ROA) and 4.9 percentage points gain in Percent Gross Margin"[36]

Given the advantage this single product addition seems to be conferring to Cognos, Business Objects should address this gap in this revised strategy. Doing so would not entail developing a completely new product from scratch. The new product will be an extension of the existing **BusinessObjects Finance Intelligence** product which consists of six reporting modules designed to help managers analyze a variety of financial activities including compliance management, cash flow analysis, company cost structures and financial statement metrics and ratios. The main task to create the Budget and Planning tool is to develop the planning and forward looking functionality – the

---

[35] Corporate Performance Management - http://www.cognos.com/products/corporate_performance_management/index.html
[36] Aberdeen Group – Corporate Performance Management Benchmark Report, Stan Elbaum, September, 2004- http://www.aberdeen.com/summary/report/benchmark/PerfMgmt_093004b.asp?spid=30410016

current Financial Intelligence product is essentially a reporting product useful for historic analysis but incapable of supporting forward looking activities.

The Budget and Planning tool has to provide financial analysts with ad-hoc access to information as well as supporting Enterprise budgeting and payroll planning, capital planning and multi-year forecasting. This product should enable a revenue growth of 10-15% in Enterprise Performance Management deals.[37]

---

[37] Aberdeen Group – Corporate Performance Management Benchmark Report, Stan Elbaum, September, 2004- http://www.aberdeen.com/summary/report/benchmark/PerfMgmt_093004b.asp?spid=30410016

3 ANALYSIS OF INTERNAL ENVIRONMENT AND CAPABILITIES

Chapter 2 focussed on the Key Success Factors in the Business Intelligence industry and proposed a marketing, sales and product strategy designed to slow the growth of the nearest competitor, Cognos, while accelerating the revenue and license growth of Business Objects.

To be able to implement the strategic alternative Business Objects needs to ensure that it has the capabilities and resources to apply to a new direction. This chapter will examine the company in terms of its resources, management bias, and organizational abilities with respect to the new strategy.

3.1 Analysis of Management Preferences

In this portion the existing management preferences are analyzed to ascertain if the required preferences for the proposed strategy are present and if not what may be required to succeed with the proposed change.

3.1.1 Existing Management Preferences Comparison

The current management preference in respect to capabilities and the proposed strategy of either developing or acquiring a Budget and Planning tool is well aligned with the existing Product Management philosophy. The company has a long history of trying to deliver the most complete end-to-end product line in the industry and has traditionally been aggressive in developing products as the market demands them or acquiring products to accelerate the delivery of solutions to customers, as was the case in the

Crystal Decisions acquisition and the smaller OLAP@Work acquired in 2002. Similarly the company has historically been united on product introductions with Marketing, Sales and the Support groups supporting the release of new products with campaigns, sales training programs and support blitzes to prepare for customer implementation requirements.

The Product Management groups existing preference is very much aligned with the proposal. This group is focussed on creating the complete product line mentioned above and is usually the corporate driver in developing new products or pushing for acquisition of technologies to improve the solution offering. The only risk observable in the Product Group is the current projects may take priority over new initiatives. This risk is believed to be low, however, given that the Product Management Group is currently advocating the creation of new solution packages (Business Objects Enterprise for Healthcare for example) to try and broaden the potential customer base.

The sales group is also considered to be supportive of this proposal based on their current strategy and preferences. The North America and European sales managers in particular are advocates of a "Kill Cognos" campaign. Departmentally they have begun a program called "Fight Club" that awards increased compensation to sales representatives who win deals where Cognos, Microstrategy or Hyperion is involved, or for deals that are over $200,000 USD. The risk here is that existing sales initiatives targeting segments such as Small and Medium Business or IT specific solutions may take precedence over targeted deals that involve Cognos, particularly late in a quarter or fiscal year as reps strive to meet their sales quotas. This risk seems small given that the North American and European regions are already focussing efforts on specific competitors.

The final component of the proposal is the significant marketing activity needed to generate sales opportunities against Cognos accounts and prospects and to support any launch of a Budgeting and Planning tool. While the Corporate marketing group is well aligned with the proposal, already being accustomed to top down driven corporate campaigns, the existing regional groups will need to be brought onside with the strategy. Although they are in favour of any initiative that increases market awareness in their region and are supportive of global campaigns, the responsibility they have to generate opportunities and fill the sales pipeline may risk their commitment to a new marketing strategy if they feel that the results will not be equal to or greater than the current activities. The risk is that the field (regional) marketing groups could abandon the new initiative for more status quo activities that might perform better in a tough quarter. This risk is moderate to high depending on the region – higher in Southern Europe and Asia where fewer established customers exist and satisfactory performance is harder to sustain.

3.1.2 Management Preference Gap Analysis

The Product Management group has very little in terms of gap closing requirements to meet the needs of the strategic proposal. As advocates of a complete product offering this team will need minimal convincing to provide materials to support an anti-Cognos initiative and are supporters of either development or acquisition of the missing Budgeting and Planning functionality. However they will require the support of the marketing and sales groups to successfully launch a new product and generate the revenues required to make any acquisition worthwhile.

To close the gap in the Marketing management preferences, there will be some necessary changes to the Trans-National model. If the regional field marketing groups were under the direction of the Corporate Marketing organization – reporting to the CMO – in either a direct or dotted line fashion, the daily and quarterly pressure of meeting short term targets would be somewhat mitigated allowing the groups to commit more significantly to the new marketing direction. To ensure that the senior regional managers are supportive of this plan additional budget for these activities should be the responsibility of the Corporate Marketing group while the regional VP's or General Managers should be involved in the setting of metrics to determine how the new marketing initiatives are measured in their regions.

The Sales Groups, like Product Management, are already well aligned with the new strategy. The only requirement in this function is for senior management to formalize the new initiative by embedding it in the sales and compensation processes. Sales needs to be involved in the definition of the target customers and opportunities as management is unlikely to support any reduction in quotas, but given the size of sales opportunities that would result from the new proposal it is likely sales will be an advocate for the change.

3.2 Organizational Capability Analysis

This section analyzes the current Business Objects organization in terms of its culture, systems and structure. Gaps that need to be filled in order to successfully execute the proposal have been identified.

3.2.1 Cultural Influences and Capabilities

The culture at Business Objects is an amalgamation of the Crystal culture and the traditional Business Objects culture. The cultural characteristics that I think drive the company at a fundamental level are resilience, an aptitude for speed and a preference for trans-nationality.

The company has demonstrated a capability to deal with significant change, while still delivering. The acquisition of Crystal was difficult as the two firms were not significantly different in size but had very different cultural environments. Although it posed challenges, most analysts and press agree that the integration was largely successful, at least based on performance to date. This resilience and ability to perform during periods of drastic change has become a cultural capability and extends into the workforce as a preference for decentralized decision-making and delegation. This has emerged in the employee base as a sense of pride and an attitude that the firm can survive any kind of change.

The aptitude for speed and desire to move quickly is firmly ingrained in the company as it was a trait of both Business Objects and Crystal and is a common characteristic at software companies in general. At Business Objects however this is taken to a new level – with most departments often setting extremely aggressive timelines for major initiatives. An example of this is the current implementation of a new Sales Force Automation system for the corporate sales force. This large multi-departmental project could be expected to take 12 – 18 months in some organizations. At Business Objects the project was kicked off in March, the first phase (Asia Pacific) was delivered in May and the final phase is scheduled to be complete in early August. This focus on speed has created an 'a good decision today is better than a great decision next week' attitude and has resulted in the need for some groups such as Product to have processes put in place to minimize any potential impacts on quality that this accelerated pace may create.

The final characteristic of the company is a belief in the Trans-National model. This preference is similar to the Canadian ideal of the multi-cultural society vs. the melting pot ideology present in the United States. Business Objects believes that global companies can exist while retaining geographic cultural differences in the organizations. This results in regional organizations having different processes and structures as dictated by the regional culture and a less homogeneous corporate entity.

This last cultural tendency is most likely going to require some gap bridging. The ability to embrace change and the aptitude for acting quickly are both well aligned with the proposal. However the trans-national nature of the company will need to be mitigated so that regional preferences are placed at a lower priority than the overall corporate objective.

3.2.2 Systems

Business Objects has some key systems either in place or under development to support the proposed strategy. The most important of these is the new global Sales Force Automation (SFA) system that is launching on August 3rd. This tool is vital as it will enable a consistent world-wide tool available from any web browser for the sales force. As such, the entire corporate sales team will be aligned with the Customer Centric Selling (CCS) process as it is the model on which the SFA was designed. In keeping with the cultural preference for fast execution Salesforce.com, an ASP vendor, was chosen as the platform for this new tool. The other distinct advantage of this tool is that it will allow marketing teams to coordinate global campaigns across regions and have them roll up into overall parent campaigns to be able to assess and measure budget proposals, actual budgets and campaign results. This is important as it will show the regional marketing managers quantitative figures on the benefits of these global campaigns and will provide senior management, such as the CMO and CEO with quick overviews of marketing performance.

Additionally the company has the Customer Centric Selling model mentioned above which is a process that focuses on selling to customers' needs. The following is an excerpt from internal Sales Methodology training material describing the CCS[38], illustrating the systematic values regarding customer service the company has developed. This CCS system may seem frivolous when presented in a summary format as below, but when applied to the sales cycle with the accompanying sales tools (customer ROI calculators, solution needs assessment documents) it has a significant impact on developing positive relationships with customers during the important sales and negotiation process.

> What makes a Business Objects Sales Professional different than everyone else?
> While the competition attempts to sell by:
>
> 1. Convincing/Persuading
>
> 2. Handling objections

[38] Internal Business Objects CCS Training Manual

3. Overcoming resistance

Business Objects sells by empowering buyers to:

1. Achieve goals

2. Solve problems

3. Satisfy needs

The Customer Centric Selling process empowers organizations to architect executive conversations by providing Sales Ready Messaging. Sales people learn how to initiate opportunities at executive levels and use proven prompters aligned with the needs of each executive title. Predefined questions help uncover the barriers to goal attainment, the metrics associated with those barriers, and the corresponding capabilities needed to resolve them. This process allows the executive and the seller to mutually determine if a solution exists, calculate the value to the executives' organization, and create opportunities that are truly qualified. **CCS teaches sales skills that can be applied to any opportunity, any size!**

1 How to orchestrate Situational Conversations - Engage buyers in relevant, situation specific conversations that lead to decisions being made.

2. Determine Relevant Questions to ask - People love to buy, but hate feeling sold ó focus on understanding the vision and how it is done today.

3. Focus on Solutions - Be confident enough to converse with decision makers about product usage.

4. Target Business People - Map out sales ready messaging for targeted conversations.

5. Relate Product Usage - Figure out how to get prospects who don't know they need Business Objects offerings and don't have a vision of how they would use it, to buy.

6. Manage the Opportunity -Use the process to focus on the quality of activity instead of the quantity.

7. Empower the Buyer

Other systems in the organization are in varying degrees of capabilities. The company currently has two ERP installations – Business Objects PeopleSoft 8.0 and Crystal Decisions PeopleSoft 8,4, This is far from ideal but the two financial environments are synchronized to provide accurate financial reporting and sales compensation functions. Additionally a project to consolidate on a single system is underway and is expected to deliver in 2006.

The largest gaps in the current systems that would be an impediment to the proposal are the lack of a global Sales Force and Marketing Automation tool and the duplicate financials – the former due its direct impact on the ability to execute global sales and marketing initiatives and the latter due to its importance and visibility which could drain resources from any other required system changes. However since both these issues are in process of being addressed this gap is considered relatively small.

3.2.3 Structure

The Business Objects organization chart is shown in Section 1 (Figure 1.2 – page 6). The company is structured in a manner that imparts significant power and responsibility to the regional groups through the reporting structure – each regional General Manager reports directly to the CEO. As a result these managers run each regional business as an almost stand-alone entity. This creates a significant gap for the proposal, as the success of the initiative will rely on a cohesive global marketing and sales execution to get the best results. If the company only targets Cognos in certain regions and doesn't support this with the required product releases and technology it will be far less effective at raising awareness across the board which in turn reduces the necessary sales opportunities. Countering this gap is the recent hire of the Chief Marketing Officer who has been given greater responsibilities and capabilities in driving corporate marketing initiatives. Although a relatively new hire, the stated purpose of this role internally is to create better alignment of marketing initiatives executed in the field and to increase the overall effectiveness of marketing world-wide. As a result this gap, while still present, is less challenging to overcome than in the structure prior to the CMO's arrival.

The other gap identified in the lack of a Chief Operating Officer. The main impact of this gap is the fact that it increases the CEO's span of control significantly, which may result in the proposal getting less top level corporate sponsorship than required to succeed. Furthermore, the COO's span of control prior to the positions vacancy consisted of 'dotted line' responsibility to the sales groups in each region. This had the effect of enabling the Executive Committee to allow regions autonomy while still driving corporate top-down initiatives. This gap is problematic, however the company is currently searching for a 'world-class' COO and the assumption is that this gap will be closed to due its overall strategic importance irrespective of this proposal or any single initiative.

3.2.4 Organization Gap Analysis and Bridging

The proposal will require some organizational change to be effectively implemented. The most significant change is a cultural and structural one and impacts the regional marketing teams and the Corporate Marketing Officer and his organization. The change required is a matrix reporting structure that allows the CMO to both drive priorities and have responsibility for the activities of the regional marketing groups. This 'dotted line' reporting structure is not new to Business Objects – prior to the COO's departure the sales groups had a similar relationship with his organization and many of the regional IT and Alliance groups have official or unofficial matrix relationships with their corporate counterparts. Figure 3.1 (page 81) highlights the groups that would be required to have a dotted line relationship with the Corporate Marketing Officer.

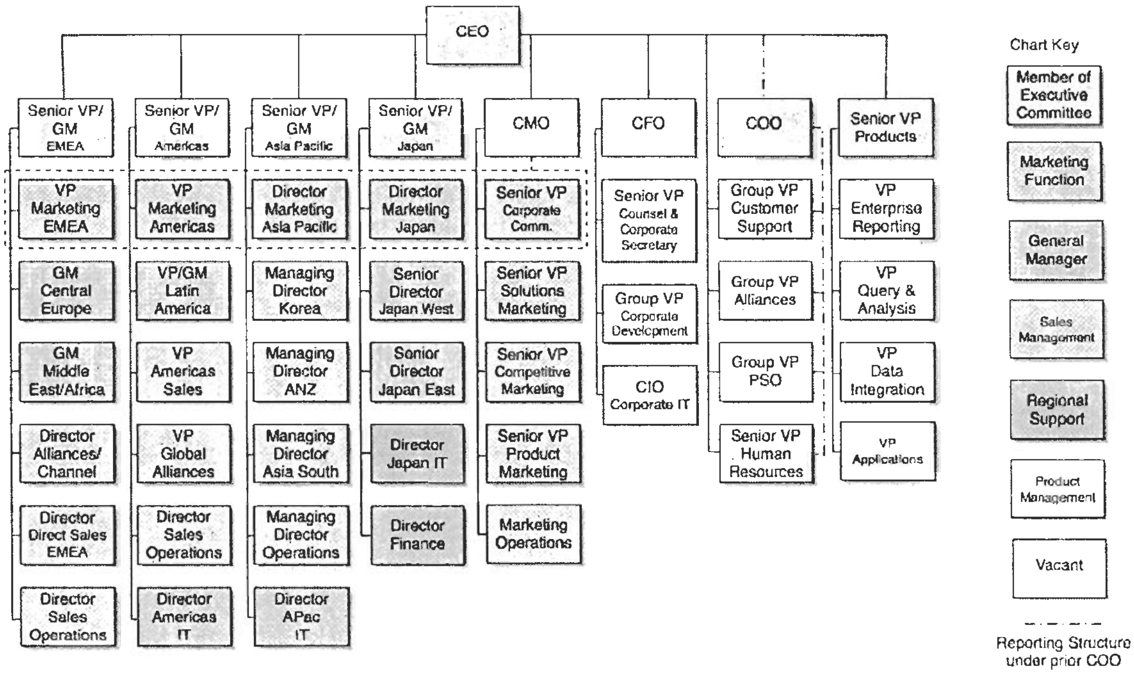
Another requirement is the successful implementation of the Sales and Marketing Automation system. The capability to manage global campaign budgets, resulting leads and sales opportunities in a single centralized system is fundamental to the organizations capability to deliver a global marketing strategy. This gap seems relatively small given the current project underway to deliver such a system with Salesforce.com, however should anything impede its success or restrict its usage to a single region the proposal will be unable to succeed.

3.3 Resource Analysis

The final section of the Internal Analysis is designed to identify what resources are available in the company, what resources are required to support the proposal and what gaps exist between the two.

This analysis will result in a determination of the costs and risks associated with any new resource requirements that might exist should the existing resources prove inadequate.

Figure 3.1 Organizational Chart Highlighting Marketing Matrix Reporting[39]



3.3.1 Resource Requirements

In order to execute on the proposal a number of resources need to be put in place in distinct parts of the organization.

Firstly, the initiative will require a team responsible for global campaign creation, execution and management. This team will need a senior leader who can liaise with other VP level marketing managers to leverage the expertise in the Corporate Communications group, the Competitive Marketing department and the various regional field marketing teams. This leader will ideally have a background in both areas of the marketing business, the strategic corporate group and the tactical field groups. Experience in the company leads the author to believe that not only are there several senior candidates capable of

[39] By the author

doing this job but also that it would ideally be an internal resource that already exists as this would drastically reduce the ramp-up time for this senior resource.

It will be necessary to have a team underneath this manager that is responsible for the execution of these campaigns. There should be two Marketing Managers responsible for co-ordinating the implementation of global campaigns with the marketing resources in the field. These two resources would be available to the regional groups for support and planning, dealing with issues related to localization, message appropriateness, timing, and defining success metrics for campaign deliverables such as events, tradeshows, and direct mail communications. An additional resource to manage advertising should be included as large scale advertising will be required in publications such as the Wall Street Journal, Fortune, Business Week, Le Monde, The Independent, Business 2.0 and others. Although corporate advertising is the responsibility of the Corporate Communications group, it will be necessary to have a resource whose sole focus is managing advertising budgets and deliverables for these global campaigns. The last resource on this team is an administrative position to manage internal budgets, travel, and the 'care and feeding' of the team.

Marketing at Business Objects currently employees approximately 410 people world-wide across all marketing functions, slightly over 10% of the overall workforce[40]. As a result, the author believes that these positions could be filled internally. However, the majority of these marketing resources exist in the regional field groups and would require relocation to San Jose (CMO & Corporate Marketing are in San Jose, CA). As

---

[40] Business Objects Annual Report 2004 - http://www.sec.gov/Archives/edgar/data/928753/000095013405005245/f06672e10vk.htm

such, recruitment might be viewed negatively by the regions as 'poaching'. As a result the author recommends hiring the 4 necessary resources for the Global Marketing group externally, ideally in San Jose and from another global software firm.

An additional resource required in marketing will be an addition to the Marketing Operations team. This team is responsible for the development of customer data mining tools, lead management and the infrastructure for reporting campaign success metrics. Global campaigns will require very accurate and timely reporting on a larger scale than is currently necessary and the management of lead flow combined with the requirement for segmenting target companies by competitor and industry will increase the workload on the Marketing Operations team. The skill-set for this position exists in the company and can be filled internally.

There will need to be a new product marketing resource to support the new Budgeting and Planning tool. This team is responsible for liaising with Product Management and Sales around product capabilities, developing materials regarding the product for use by other marketing groups and providing feedback to the organization on customer satisfaction with the product. Since the Budget and Planning tool is a relatively small product when compared to the larger core products, 1 Marketing Manager would suffice for this function. Given Product Marketing's relatively small size (22 positions) this person should likely be hired externally.

The sales force requirements for the proposal are not significant. The sales and presales teams are well-staffed – approximately 1100 people worldwide – and are accustomed to executing against a variety of marketing initiatives. Furthermore, the current "Fight Club" program in Europe and the Americas has equipped the sales teams with some experience in competitive selling against Cognos. The primary resource requirement for the sales force is training which is estimated at 2-3 days in the first quarter of the proposals execution. The company currently has a policy of providing 5 days of mandatory product training per quarter for every sales representative so there should be no additional cost for this training to the sales force.

The product group will require resources to develop the Budget and Planning tool. This product is not a completely new effort but is a repurposing and extension of existing technologies to meet the requirements of financial departments. It is however a complicated product and should be resourced appropriately. The development of this product will require a team of application developers familiar with Business Objects products and architecture. This team will be appended to the existing Financial Intelligence team and will sit in the R&D department.

There will be the need for 6 Software Engineers to work on this project with the Financial Intelligence team. These developers need to be experienced in the Business Objects product architecture and understand the Financial Intelligence modules. This skill set is available in the company in both the product and support organizations and should not require any new hiring. These 6 developers are responsible for building the core framework and documentation for the product that is then distributed to the larger R&D resource pool. This larger resource pool follows the documentation and code spec to develop functionality according to their area of expertise (OLAP, reporting, etc.).

The Software Engineers should report to a Product Manager. This resource is responsible for development timelines, feature set requirements, beta programs and testing plans and working with Product Marketing. This resource reports in to the Product Management group and should be somewhat familiar with the market the product is targeted at. Although this skill set is available in-house in the Financial Intelligence team, it should be hired externally – ideally from a niche provider of Budgeting and Planning software, or from an application provider such as Oracle. An external hire will bring new perspective on what exists in the market and challenges other product vendors may have experienced developing Budgeting and Planning software.

Two Quality Assurance team leads will be required for this project to work with the development team during development and document the required functionality for testing later in the process. These QA team leads will also manage the workflow between the larger QA group and the development team. The general Quality Assurance team is capable of supporting this project without additional resources.

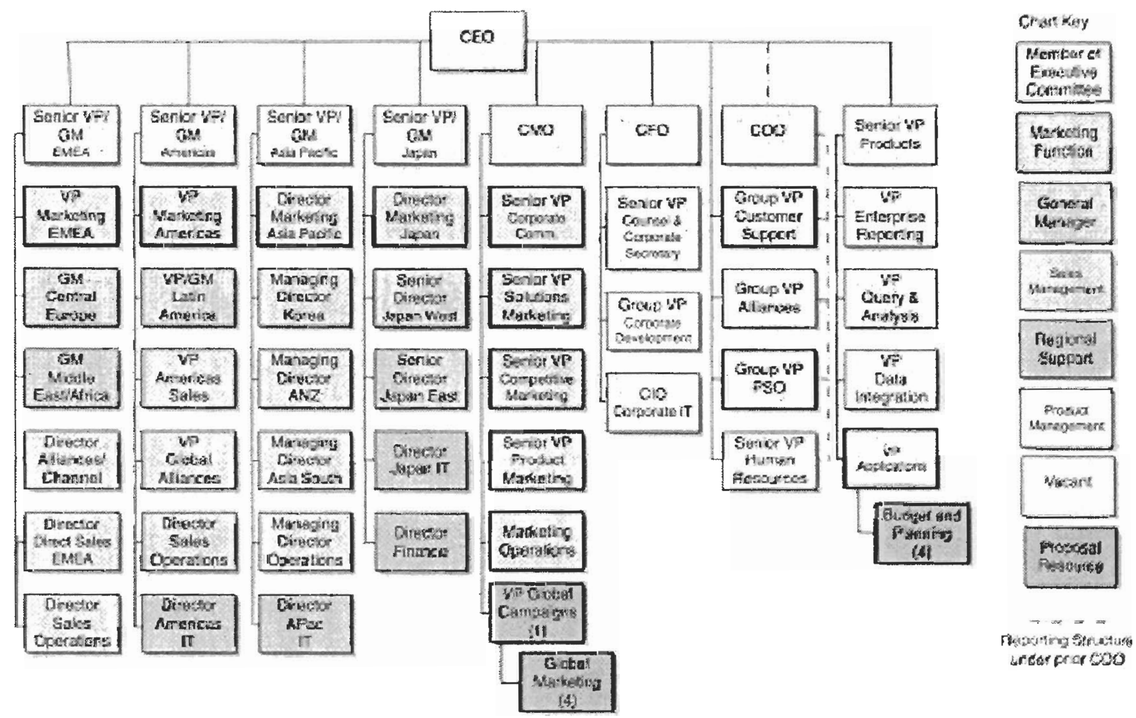
The other resources required for the product development and subsequent launch are related to the support and services groups and the general marketing groups. Support and services currently employee 987 (425 in Professional Services and the remainder in support) resources who share responsibility for resolving customer issues and providing implementation consulting. While no new resources are required in these groups for the product a full time consultant to provide training to the services and support teams is required. This function is usually hired externally on a contract basis, as professional trainers are able to create the best curriculum for a training program.

3.3.2 Resource Gap Closing Analysis

Based on the resources required and the existing resources identified above there will be a requirement to invest in new positions to execute on the proposal. Figure 3.2 shows the additional resources required to implement the proposal and their respective location in the organization.

Resources to be hired externally are indicated in parentheses – teams that will be involved in supporting the initiative directly are highlighted with a **bold** stroke. This chart does not illustrate the support required from the management of the regions or the sales force – these are assumed by acceptance of the proposal by management.

Figure 3.2 Organizational Chart Highlighting New Resources for Proposal[41]



[41] By the author

The cost for these additional resources is outlined in Table 3.1. These costs are annual –salaries and expenses that are related to travel. The travel is primarily required for the marketing group, which will be required to work with Europe and Asia extensively. Additionally there is a trainer budgeted for working with the Service, Support and Sales teams. This trainer would be retained for 6 weeks at a cost of $65 an hour and would have an additional $30,000 allocated for travel. Some training to more remote regions such as South East Asia and the Middle East will be delivered to the sales force via online 'webinars' as these regions have a small number of sales representatives and the cost of travel is high.

Table 3.1 Additional Costs for New Resources[42]

Position	Salary (USD)	Expenses* (USD)	Difficulty
VP of Global Campaigns	200,000	45,000	Moderate
Marketing Manager (x2)	140,000	20,000	Low
Advertising Manager	75,000	20,000	Low
Marketing Administrator	55,000	0	Low
Product Marketing Manager (PMM)	70,000	20,000	Low
Product Manager	80,000	0	High
Quality Assurance Lead (x2)	120,000	0	Low
Trainer (Contract - $65/hr)	10400	30,000	Low
SUBTOTALS	750,400	135,000	
TOTAL RESOURCE COST	**885,400**		
* Travel, relocation, training			

The only position identified that may pose difficulty in recruiting is the Product Manager, primarily due to the desired background for the position. However, Budget and Planning product experience is preferred but not mandatory and based on past recruitment experience the author believes that this position could be recruited in a

[42] By the author

manner that poses no risk to the proposal, although with a slightly less qualified candidate.

Table 3.2 identifies the total resource costs for the proposal. An additional **$500,000 (USD)** has been added to the product cost to account for the pooled development resources absorbed by the product implementation for a total product cost of **$776,460.** In addition to the cost of resources outlined in Table 3.1 an additional 15% should be added to account for the costs associated with recruitment, orientation and training that all employees take. This additional cost raises the **Total New Resource Cost** to **$1,018,210** (USD). The additional 15% is only applicable in the first year as is the Training contractor. The annual additional cost of the new resources is **$845,000.** The $500,000 in product team resources bring these costs to $1,512,150 and $1,345,000 respectively.

Table 3.2 Total Proposal Costs[43]

Category	Cost
Product Team Resources	200,000
Marketing Resources	645,000
Product Implementation Costs	500,000
Training	40,400
First Year Overhead	126,750
TOTAL FIRST YEAR COSTS	1,512,150
TOTAL ANNUAL COSTS YEAR 2+	1,345,000

[43] By the author

3.4 Financial Rationale

This section is going to analyse the basic financial rationale for the proposal. Although the marketing "Kill Cognos" campaign should generate greater license revenues than current practices based on the fact Cognos has greater numbers of $50,000+ deals, the financial analysis will conservatively assume that the new campaign generates exactly the same number of leads and opportunities as current practices. The new marketing campaign will simply shift sales opportunities from existing competitors and industries to Cognos opportunities, keeping the actual number of deals Business Objects is involved in at current growth rates, but reducing Cognos growth rates. As such, the "Kill Cognos" marketing initiative will conservatively be looked upon as primarily a cost to reduce Cognos' ability to sell. The other deliverable outlined in section 2.6 (Strategic Alternative, page 62) is the creation of the new Budgeting and Planning product, which will assist in selling against Cognos as well as generate new revenues in Enterprise Management Deals and Business Analytic Application opportunities. Table 3.3 below illustrates the predicted revenue increase in Enterprise Performance Management opportunities.

Table 3.3 Revenue and Income Figures for New Budgeting and Planning product[44]

	Current State	Budget & Planning (estimated)	Proposal Totals
License Revenue	28,000,000	2,800,000	30,800,000
Service Revenue	26,600,000	2,660,000	29,260,000
Total Revenue	**54,600,000**	**5,460,000**	**60,060,000**
Operating Expenses	**37,674,000**	**3,767,400**	**41,441,400**
Income	**16,926,000**	**1,692,600**	**18,618,600**

License revenue is based on the 2004 Annual Report figures for the Enterprise Analytic Applications – Business Objects suite of tools for Enterprise Performance

[44] By the author

Management.[45] The middle column indicates revenue increase in these deals at a rate of 10%. This is the low end of the analyst predicted 10 – 15% primarily to remain conservative in predictions. The additional revenue does not account for sales that are initiated by the presence of the new product or sales generated solely by selling the Budget and Planning application. However, the assumption is that this product will be sold into every EPM opportunity.

As can be seen from the above estimates, the product will generate an additional $2.8 Million dollars in license revenue and an additional $2.66 Million in service revenue. Although these are relatively small annual figures, it should be noted that this portion of the business is growing at 23% annually and represents a new opportunity to both Business Objects and Cognos – hence the current focus on this area. If these figures are calculated at 15% - the additional revenue is $8,190,000.

Operating expenses and Service Revenue are calculated using the current percentages in the 2004 annual report. Service revenue across all products is 95% of license revenue, 48% of total revenue. Operating expenses and costs of sales are 69%.

Table 3.4 (page 91) provides Net Present Value (NPV) and Internal Rate of Return (IRR) calculations for two perspectives on the proposal, a 3 year and a 6 year term. A 9% discount rate was used for the NPV calculations.

---

[45] Definition and figures from Business Objects 2004 Annual Report – EDGAR Online, http://www.sec.gov/Archives/edgar/data/928753/000095013405005245/f06672e10vk.htm , July 15, 2005

Table 3.4 Net Present Value and Internal Rate of Return[46]

	Expense	Revenue	Cash Flow
Year 0	-1,512,000	0	-1,512,000
Year 1	3,767,400	5,460,000	1,692,600
Year 2	4,633,902	6,715,800	2,081,898
Year 3	5,699,699	8,260,434	2,560,735
Year 4	7,010,630	10,160,334	3,149,703
Year 5	8,623,075	12,497,211	3,874,135
Year 6	9,226,691	15,371,569	6,144,878
NPV (6yr./3yr.)	$12,183,734.56	$1,947,167.74	
IRR (6yr./3yr.)	133%	114%	

In conclusion, given the positive NPV and 114% to 133% IRR this proposal should be executed when evaluated on a financial basis. It is important to note that the company realizes a positive NPV and an IRR of 114% when evaluating the Budget and Planning product's ability to finance the entire proposal over a 3 year period. This is a very good indication that the product and organization can support the initiative.

46 By the author

4 RECOMMENDATIONS

4.1 Strategic Adjustments

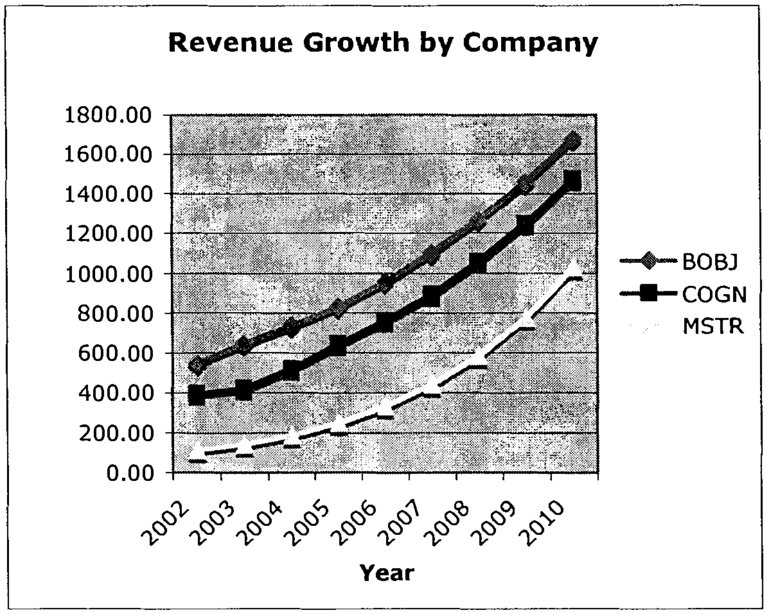
Business Objects should begin to implement the Strategic Alternatives presented in 2.4 immediately. Given the lead time on recruitment and the product development requirements the company will have greater success with the proposal the sooner it begins to execute.

The company should begin a realignment of the regions under a global model. The current decentralized model is not allowing the company to scale due to the reduction in corporate operating departments such as IT and Corporate Marketing ability to mandate standards and overall directions. The fact that regional managers are directly responsible for P&L to the CEO eliminates the benefits accrued from large-scale operations and systems, as current regional commitment to these efforts is optional. The organization should create a matrix relationship between the corporate marketing group and the field marketing groups operating in the regions. This matrix doesn't immediately necessitate a change of budget structure, but it will require the CMO to have control over activities performed in the region that are currently under the direction of the regional VP or GM.

This allows the firm to align behind a "Kill Cognos" strategy. More than simply a marketing initiative, the company needs to acknowledge and react to the imminent threat posed by this competitor. Every department and function needs to see this as an objective that they have some direct responsibility to achieve. Immediate activities include marketing initiatives that exploit any comparative weakness in Cognos' solutions that customers may have a concern about – scalability, integrated platform, and cost. These comparative attacks require support from analyst and press that can then be further leveraged as proof of the inferiority of the Cognos solutions. Groups internally responsible for things like positive press, favourable analyst reports and public exposure should be held accountable for results utilizing tools such as bonus structures and option grants. Similarly sales needs to be focussed on beating Cognos by ensuring that they are competing in the same deals that Cognos is. A hotline should be created for the sales force that allows them to alert pre-sales, marketing and sales management whenever they enter a deal that has Cognos as a competitor. To ensure that sales execute on this strategy the company should compensate sales representatives at a higher rate for won deals that had Cognos as the primary competitor than compensation for general mid-market or new customer deals.

Figure 4.1 (page 94) illustrates the effect of a successful campaign effort. This chart assumes that the current Business Objects growth rate is increased moderately (1%) and that the Cognos growth rate is reduced (-4%). This would be achieved if Business Objects stopped executing on the opportunities where Cognos was not a competitor and focussed its energies on deals where Cognos was present. When compared to Figure 1.3 (page 12) Figure 4.1 (page 94) illustrates that relatively small and achievable changes to revenue growth rates can greatly effect the longer term standing of these two companies. Based on this projection the campaign would effectively eliminate Cognos as a threat to the #1 position in the market until past 2010 assuming the growth trend was sustained.

Figure4.1 Growth Rate Results of Successful Campaign[47]



BOBJ: Business Objects, COGN: Cognos, MSTR: Microstrategy

To further support the "Kill Cognos" campaign, and to take advantage of the growing Budget and Planning financial segment of the industry – a current gap in the product line – the product team should develop a Budget and Planning application that is integrated with the existing Business Objects offerings. Properly executed this product performs multiple strategic roles, removing a gap that can be exploited in competitors marketing efforts while generating revenue to support itself and the additional initiatives.

The Budget and Planning product has been assessed at an initial start-up cost of $800,000 - $1,500,000 approximately and is assumed to grow at the same rate as the market segment – 23%. Given current expense rates of 69% the product returns a positive NPV and a rate of return between 114% - 133% dependent on timeframe.

---

[47] By the author

The last recommendation is that the company must be alert for acquisition trends and threats. Although it is impossible to predict when a large scale acquisition may occur without an analysis of the prospective buyers – a task outside the scope of this paper – it is likely to occur at some point in the next 3 years based on analyst opinion and market history. The task of Business Objects is to execute against this proposal and to continue to deliver on its published roadmaps as efficiently as possible. By doing so the organization can create the prospect of increased returns for shareholders, encouraging the owners to remain independent of a buyer and making a competitor, such as Cognos, the more attractive target.

APPENDICES

Appendix 1 – Financials

Appendix 1.1 - Business Objects Financial Summary

VALUATION MEASURES	
Market Cap:	2.45B
Enterprise Value (4-Jul-05)[3]:	2.07B
Trailing P/E (ttm, intraday):	40.59
Forward P/E (fye 31-Dec-06)[1]:	20.08
PEG Ratio (5 yr expected):	1.54
Price/Sales (ttm):	2.56
Price/Book (mrq):	1.7
Enterprise Value/Revenue (ttm)[3]:	2.16
Enterprise Value/EBITDA (ttm)[3]:	12.928
FINANCIAL HIGHLIGHTS	
Fiscal Year	
Fiscal Year Ends:	31-Dec
Most Recent Quarter (mrq):	31-Mar
Profitability	
Profit Margin (ttm):	6.15%
Operating Margin (ttm):	10.02%
Management Effectiveness	
Return on Assets (ttm):	3.21%
Return on Equity (ttm):	4.20%
Income Statement	
Revenue (ttm):	957.17M
Revenue Per Share (ttm):	10.761
Qtrly Revenue Growth (yoy):	14.50%
Gross Profit (ttm):	465.87M
EBITDA (ttm):	160.01M
Net Income Avl to Common (ttm):	58.87M
Diluted EPS (ttm):	0.65
Qtrly Earnings Growth (yoy):	360.30%
Balance Sheet	
Total Cash (mrq):	378.30M
Total Cash Per Share (mrq):	4.066
Total Debt (mrq):	0
Total Debt/Equity (mrq):	0
Current Ratio (mrq):	1.342
Book Value Per Share (mrq):	15.444

Appendix 1.2 – Business Objects Financial Summary Continued

Cash Flow Statement	
From Operations (ttm):	165.94M
Free Cashflow (ttm):	131.11M
Free Cashflow (ttm):	131.11M
Abbreviation Guide: K = Thousands; M = Millions; B = Billions	
mrq = Most Recent Quarter (as of 31-Mar-05)	
ttm = Trailing Twelve Months (as of 31-Mar-05)	
yoy = Year Over Year (as of 31-Mar-05)	
lfy = Last Fiscal Year (as of 31-Dec-04)	
fye = Fiscal Year Ending	

Figures from Yahoo Finance – http://finance.yahoo.com

Appendix 1.3 - Business Objects Quarterly Financials – Income Statement

Business Objects Income Statement	All figures in thousands			
PERIOD ENDING	31-Mar-05	31-Dec-04	30-Sep-04	30-Jun-04
Total Revenue	248,775	266,688	219,470	222,238
Cost of Revenue	58,549	54,091	49,587	47,415
Gross Profit	190,226	212,597	169,883	174,823
Operating Expenses				
Research Development	40,274	38,979	35,339	36,541
Selling General and Administrative	128,535	135,436	117,909	118,505
Non Recurring	-	677	-	1,492
Others	-	-	-	-
Total Operating Expenses	168,809	175,092	153,248	156,538
Operating Income or Loss	21,417	37,505	16,635	18,285
Income from Continuing Operations				
Total Other Income/Expenses Net	4,400	-4,220	-	-
Earnings Before Interest And Taxes	25,817	33,285	16,635	18,285
Interest Expense	-	-2,670	-1,137	-261
Income Before Tax	25,817	35,955	17,772	18,546
Income Tax Expense	10,811	14,609	6,743	7,058
Minority Interest	-	-	-	-
Net Income From Continuing Ops	15,006	21,346	11,029	11,488
Non-recurring Events				
Discontinued Operations	-	-	-	-
Extraordinary Items	-	-	-	-
Effect Of Accounting Changes	-	-	-	-
Other Items	-	-	-	-
Net Income	15,006	21,346	11,029	11,488
Preferred Stock And Other Adjustments	-	-	-	-
Net Income Applicable To Common Shares	$15,006	$21,346	$11,029	$11,488

Figures from Edgar – http://www.edgar.com

Appendix 1.4 - Business Objects Quarterly Financials – Balance Sheet

Business Objects Balance Sheet	All figures in thousands			
PERIOD ENDING	31-Mar-05	31-Dec-04	30-Sep-04	30-Jun-04
Assets				
Current Assets				251,897
Cash And Cash Equivalents	388,579	307,528	259,720	-
Short Term Investments	3,765	3,831	-	205,506
Net Receivables	190,651	257,285	193,766	-
Inventory	-	-	-	42,697
Other Current Assets	49,002	46,575	40,588	
Total Current Assets	**631,997**	**615,219**	**494,074**	**500,100**
Long Term Investments	-	-	-	-
Property Plant and Equipment	62,647	64,053	61,927	61,105
Goodwill	1,067,690	1,067,694	1,061,236	1,061,201
Intangible Assets	113,133	124,599	125,388	131,193
Accumulated Amortization	-	-	-	-
Other Assets	45,441	49,296	35,721	32,853
Deferred Long Term Asset Charges	2,505	2,067	25,454	26,830
Total Assets	**1,923,413**	**1,922,928**	**1,803,800**	**1,813,282**
Liabilities				
Current Liabilities				
Accounts Payable	185,472	217,511	191,344	200,014
Short/Current Long Term Debt	6,687	-	6,645	-
Other Current Liabilities	278,836	284,226	231,691	242,263
Total Current Liabilities	470,995	501,737	429,680	442,277
Long Term Debt	-	-	-	-
Other Liabilities	6,411	6,448	6,314	5,298
Deferred Long Term Liability Charges	10,143	7,599	-	-
Minority Interest	-	-	-	-
Negative Goodwill	-	-	-	-
Total Liabilities	**487,549**	**515,784**	**435,994**	**447,575**
Stockholders' Equity				
Misc Stocks Options Warrants	-	-	-	-
Redeemable Preferred Stock	-	-	-	-
Preferred Stock	-	-	-	-
Common Stock	10,409	10,312	10,194	10,136
Retained Earnings	264,726	249,720	228,374	217,345
Treasury Stock	-53,335	-53,335	-53,335	-34,065
Capital Surplus	1,179,290	1,167,336	1,149,301	1,142,620
Other Stockholder Equity	34,774	33,111	33,272	29,671
Total Stockholder Equity	**1,435,864**	**1,407,144**	**1,367,806**	**1,365,707**
Net Tangible Assets	$255,041	$214,851	$181,182	$173,313

Figures from Edgar – http://www.edgar.com

Appendix 1.5 - Business Objects Quarterly Financials – Cash Flow

Business Objects Cash Flow	Figures in Thousands			
PERIOD ENDING	**31-Mar-05**	**31-Dec-04**	**30-Sep-04**	**30-Jun-04**
Net Income	**15,006**	**21,346**	**11,029**	**11,488**
Operating Activities, Cash Flows Provided By or Used In				
Depreciation	16,963	14,964	16,761	15,410
Adjustments To Net Income	1,227	39,837	-1,139	3,195
Changes In Accounts Receivables	61,048	-55,358	18,398	-20,067
Changes In Liabilities	-19,381	49,596	-16,706	558
Changes In Inventories	-	-	-	-
Changes In Other Operating Activities	516	-22,400	-685	4,331
Total Cash Flow From Operating Activities	75,379	47,985	27,658	14,915
Investing Activities, Cash Flows Provided By or Used In				
Capital Expenditures	-7,480	-6,112	-7,889	-8,606
Investments	-	-	-	-
Other Cashflows from Investing Activities	-	-279	-	-
Total Cash Flows From Investing Activities	-7,480	-6,391	-7,889	-8,606
Financing Activities, Cash Flows Provided By or Used In				
Dividends Paid	-	-	-	-
Sale Purchase of Stock	12,277	12,395	-11,825	-14,097
Net Borrowings	-	9	9	-3,092
Other Cash Flows from Financing Activities	27	23,061	12,176	-30,042
Total Cash Flows From Financing Activities	12,304	35,465	360	-47,231
Effect Of Exchange Rate Changes	842	-6,190	-130	-2,331
Change In Cash and Cash Equivalents	**$81,045**	**$70,869**	**$19,999**	**($43,253)**

Figures from Edgar – http://www.edgar.com

Appendix 1.6 Cognos Financial Summary

VALUATION MEASURES	
Market Cap (intraday):	3.08B
Enterprise Value (5-Jul-05)[3]:	2.59B
Trailing P/E (ttm, intraday):	22.51
Forward P/E (fye 28-Feb-07)[1]:	18.76
PEG Ratio (5 yr expected):	1.3
Price/Sales (ttm):	3.66
Price/Book (mrq):	4.65
Enterprise Value/Revenue (ttm)[3]:	3.04
Enterprise Value/EBITDA (ttm)[3]:	13.915
FINANCIAL HIGHLIGHTS	
Most Recent Quarter (mrq):	31-May-05
Profitability	
Profit Margin (ttm):	16.47%
Operating Margin (ttm):	18.65%
Management Effectiveness	
Return on Assets (ttm):	11.14%
Return on Equity (ttm):	23.49%
Income Statement	
Revenue (ttm):	851.99M
Revenue Per Share (ttm):	9.387
Qtrly Revenue Growth (yoy):	15.20%
Gross Profit (ttm):	676.40M
EBITDA (ttm):	185.92M
Net Income Avl to Common (ttm):	140.30M
Diluted EPS (ttm):	1.5
Qtrly Earnings Growth (yoy):	18.40%
Balance Sheet	
Total Cash (mrq):	496.04M
Total Cash Per Share (mrq):	5.432
Total Debt (mrq):	0
Total Debt/Equity (mrq):	0
Current Ratio (mrq):	2.18
Book Value Per Share (mrq):	7.337
Cash Flow Statement	
From Operations (ttm):	160.04M
Free Cashflow (ttm):	115.04M
Abbreviation Guide: K = Thousands; M = Millions; B = Billions	
mrq = Most Recent Quarter (as of 31-May-05)	
ttm = Trailing Twelve Months (as of 31-May-05)	
yoy = Year Over Year (as of 31-May-05)	
lfy = Last Fiscal Year (as of 28-Feb-05)	
fye = Fiscal Year Ending	

Appendix 1.7 – Cognos Quarterly Financials – Income Statement

Cognos Income Statement	Figures in Thousands			
PERIOD ENDING	28-Feb-05	30-Nov-04	31-Aug-04	31-May-04
Total Revenue	**256,326**	**210,366**	**185,220**	**173,619**
Cost of Revenue	43,124	37,660	35,077	33,271
Gross Profit	**213,202**	**172,706**	**150,143**	**140,348**
Operating Expenses	29,244	26,987	25,382	24,325
Research Development	122,630	102,206	90,230	90,509
Selling General and Administrative	-	-	-	-
Non Recurring	1,818	1,672	1,369	1,372
Others	153,692	130,865	116,981	116,206
Total Operating Expenses	59,510	41,841	33,162	24,142
Operating Income or Loss				
Income from Continuing Operations				
Total Other Income/Expenses Net	2,386	1,909	1,781	1,404
Earnings Before Interest And Taxes	61,896	43,750	34,943	25,546
Interest Expense	808	22	8	71
Income Before Tax	61,088	43,728	34,935	25,475
Income Tax Expense	6,753	9,183	7,336	5,350
Minority Interest	-	-	-	-
Net Income From Continuing Ops	**54,335**	**34,545**	**27,599**	**20,125**
Non-recurring Events				
Discontinued Operations	-	-	-	-
Extraordinary Items	-	-	-	-
Effect Of Accounting Changes	-	-	-	-
Other Items	-	-	-	-
Net Income	**54,335**	**34,545**	**27,599**	**20,125**
Preferred Stock And Other Adjustments	-	-	-	-
Net Income Applicable To Common Shares	**$54,335**	**$34,545**	**$27,599**	**$20,125**

Figures from Edgar – http://www.edgar.com

Appendix 1.8 – Cognos Quarterly Financials – Balance Sheet

Cognos Balance Sheet	Figures in Thousands			
PERIOD ENDING	28-Feb-05	30-Nov-04	31-Aug-04	31-May-04
Assets				
Current Assets				
Cash And Cash Equivalents	378,348	313,937	364,782	327,441
Short Term Investments	144,552	125,430	75,628	88,921
Net Receivables	193,458	144,419	116,639	108,463
Inventory	-	-	-	-
Other Current Assets	18,941	14,832	16,495	15,601
Total Current Assets	735,299	598,618	573,544	540,426
Long Term Investments	-	-	-	-
Property Plant and Equipment	73,566	73,622	69,048	68,171
Goodwill	221,490	222,883	172,323	172,323
Intangible Assets	27,234	28,846	21,431	22,341
Accumulated Amortization	-	-	-	-
Other Assets	6,378	-	-	-
Deferred Long Term Asset Charges	-	-	-	-
Total Assets	**1,063,967**	**923,969**	**836,346**	**803,261**
Liabilities				
Current Liabilities				
Accounts Payable	82,900	77,748	52,640	49,210
Short/Current Long Term Debt	-	-	-	-
Other Current Liabilities	308,163	221,713	207,990	207,980
Total Current Liabilities	391,063	299,461	260,630	257,190
Long Term Debt	-	-	-	-
Other Liabilities	-	-	-	-
Deferred Long Term Liability Charges	17,083	23,357	20,176	18,514
Minority Interest	-	-	-	-
Negative Goodwill	-	-	-	-
Total Liabilities	**408,146**	**322,818**	**280,806**	**275,704**
Stockholders' Equity				
Misc Stocks Options Warrants	-	-	-	-
Redeemable Preferred Stock	-	-	-	-
Preferred Stock	-	-	-	-
Common Stock	252,561	237,540	224,676	216,146
Retained Earnings	402,020	361,707	334,608	316,197
Treasury Stock	-1,199	-1,199	-1,199	-980
Capital Surplus	-	-	-	-
Other Stockholder Equity	2,439	3,103	-2,545	-3,806
Total Stockholder Equity	**655,821**	**601,151**	**555,540**	**527,557**
Net Tangible Assets	$407,097	$349,422	$361,786	$332,893

Figures from Edgar – http://www.edgar.com

Appendix 1.9 – Cognos Quarterly Financials – Cash Flow

Cognos Cash Flow	Figures in Thousands			
PERIOD ENDING	28-Feb-05	30-Nov-04	31-Aug-04	31-May-04
Net Income	**54,335**	**34,545**	**27,599**	**20,125**
Operating Activities, Cash Flows Provided By or Used In				
Depreciation	5,944	7,767	6,724	6,690
Adjustments To Net Income	-5,136	-1,240	1,408	1,017
Changes In Accounts Receivables	-45,790	-14,405	-8,472	44,933
Changes In Liabilities	92,556	7,677	2,854	-40,546
Changes In Inventories	-	-	-	-
Changes In Other Operating Activities	-4,269	3,980	-699	870
Total Cash Flow From Operating Activities	**97,640**	**38,324**	**29,414**	**33,089**
Investing Activities, Cash Flows Provided By or Used In				
Capital Expenditures	-5,545	-4,261	-4,637	-3,073
Investments	-19,123	-49,563	13,515	74,198
Other Cashflows from Investing Activities	-8,765	-49,948	-460	-69
Total Cash Flows From Investing Activities	**-33,433**	**-103,772**	**8,418**	**71,056**
Financing Activities, Cash Flows Provided By or Used In				
Dividends Paid	-	-	-	-
Sale Purchase of Stock	999	5,583	-1,218	300
Net Borrowings	-	-	-	-
Other Cash Flows from Financing Activities	-	-	-	-
Total Cash Flows From Financing Activities	**999**	**5,583**	**-1,218**	**300**
Effect Of Exchange Rate Changes	-795	9,020	727	-1,834
Change In Cash and Cash Equivalents	**$64,411**	**($50,845)**	**$37,341**	**$102,611**

Figures from Edgar – http://www.edgar.com

Appendix 2 – Cognos Win/Loss Rates

Appendix 2.1 – Business Objects wins against Cognos, 2004 – 2005

Customer	Competitor	Customer Requirement	Region	Country	Industry	Deal Size
A.M. Castle and Co.	Cognos	Enterprise Reporting	Americas	United States	Manufacturing	$111,843
ACN, Inc.	Cognos	Enterprise Reporting	Americas	United States	Telecommunication Services and Equipment	$19,000
Amalgamated Holdings Limited P/L	Cognos	BI Standardization	AsiaPac	Australia	Media, Publishing, Entertainment, Leisure	$166,000
American Medical Response	Cognos	Enterprise Performance Management	Americas	United States	Health Care	$906,000
Apotheker und Ärztebank	Cognos	Enterprise Reporting	EMEA	Germany	Financial Services, Banking, Insurance	$17,550
Arcelor Tubes	Cognos	Enterprise Performance Management	EMEA	France	Energy, Natural Resources	$95,760
Art.com	Cognos	Ad Hoc Query Analysis	Americas	United States	Retail (Online)	$35,000
Assurant	Cognos	Enterprise Reporting	Americas	United States	Financial Services, Banking, Insurance	$122,880
AT&T Laboratories	Cognos	Enterprise Reporting	Americas	United States	Telecommunication Services and Equipment	$410,760
Aurora Energy Pty Ltd.	Cognos	Enterprise Performance Management	AsiaPac	Australia	Utilities	$250,000
Aviva	Cognos	Enterprise Reporting	EMEA	United Kingdom	Financial Services, Banking, Insurance	$164,755
Banque Nationale du Canada	Cognos	Ad Hoc Query Analysis	Americas	Canada	Financial Services, Banking, Insurance	$219,000
BMW Italia	Cognos	Enterprise Performance Management	EMEA	Italy	Automotive	$45,000
Boeing	Cognos	Enterprise Reporting	Americas	United States	Manufacturing	$100,000
Bowman Systems	Cognos	Ad Hoc Query Analysis	Americas	Canada	Government, Education, Non-profit	$121,000
Bridgestone Firestone	Cognos	Enterprise Reporting	Americas	United States	Manufacturing	$200,000
Brighthouse Networks	Cognos	Ad Hoc Query Analysis	Americas	United States	Media, Publishing, Entertainment, Leisure	$50,000
Bureau Veritas	Cognos	Enterprise Performance Management	Americas	United States	Services	$240,000

Appendix 2.2 – Business Objects wins against Cognos, 2004 – 2005, Continued

Customer	Competitor	Customer Requirement	Region	Country	Industry	Deal Size
Capita Insurance Services Group Ltd	Cognos	Enterprise Reporting	EMEA	United Kingdom	Financial Services, Banking, Insurance	$750,000
Capital BlueCross	Cognos	Ad Hoc Query Analysis	Americas	United States	Financial Services, Banking, Insurance	$296,000
Celedon Trucking	Cognos	Enterprise Performance Management	Americas	United States	Transportation Services	$101,365
Charles Schwab (01)	Cognos	Enterprise Reporting	Americas	United States	Financial Services, Banking, Insurance	$65,000
Columbia University	Cognos	Enterprise Reporting	Americas	United States	Government, Education, Non-profit	$406,685
Cross Country Healthcare	Cognos	Enterprise Reporting	Americas	United States	Health Care	$148,922.90
DAB BANK AG	Cognos	Enterprise Reporting	EMEA	Germany	Financial Services, Banking, Insurance	$114,000
David Jones	Cognos	Enterprise Performance Management	AsiaPac	Australia	Retail (Online)	$436,920
Deutsche Woolworth GmbH & Co. OHG	Cognos	Enterprise Reporting	EMEA	Germany	Computer Products, Distribution and Retail	$112,585
DHL Express Italy	Cognos	BI Standardization	EMEA	Italy	Transportation Services	$350,000
Domestic and General	Cognos	BI Standardization	EMEA	United Kingdom	Financial Services, Banking, Insurance	$25,000
Emergency Physicians Medical Group	Cognos	Enterprise Reporting	Americas	United States	Health Care	$31,205
ESPN, Inc.	Cognos	BI Standardization	Americas	United States	Media, Publishing, Entertainment, Leisure	$390,000
Fairfield Residential LLC	Cognos	BI Standardization	Americas	United States	Financial Services, Banking, Insurance	$227,000
FedEx Corporation	Cognos	Enterprise Reporting	Americas	United States	Services	$1,037,350
Fosters Group	Cognos	BI Standardization	AsiaPac	Australia	Manufacturing	$390,000
France Télévision	Cognos	Enterprise Reporting	EMEA	France	Media, Publishing, Entertainment, Leisure	$340,000
General Motors	Cognos	BI Standardization	Americas	United States	Automotive	$800,000

Appendix 2.3 – Business Objects wins against Cognos, 2004 – 2005, Continued

Customer	Competitor	Customer Requirement	Region	Country	Industry	Deal Size
Hilton Reservations Worldwide	Cognos	Ad Hoc Query Analysis	Americas	United States	Media, Publishing, Entertainment, Leisure	$23,000
Immucor	Cognos	BI Standardization	Americas	United States	Pharmaceutical and Medical Devices	$129,000
Insurance Australia Group	Cognos	Ad Hoc Query Analysis	AsiaPac	Australia	Financial Services, Banking, Insurance	$603,000
Interpublic Group	Cognos	Enterprise Performance Management	Americas	United States	Media, Publishing, Entertainment, Leisure	$545,000
Interval International	Cognos	Enterprise Performance Management	Americas	United States	Media, Publishing, Entertainment, Leisure	$240,000
ITS, Inc (Shazam)	Cognos	Enterprise Reporting	Americas	United States	Financial Services, Banking, Insurance	$172,000
Kaiser Permanente	Cognos	Enterprise Reporting	Americas	United States	Health Care	$130,000
Lucent Technologies	Cognos	Enterprise Reporting	Americas	United States	Computer Hardware Software, Services	$4,075,532
Mazda North America	Cognos	BI Standardization	Americas	United States	Automotive	$154,000
Ministry of Health, Italy	Cognos	Ad Hoc Query Analysis	EMEA	Italy	Government, Education, Non-profit	$320,000
Mosaic Sales Solutions	Cognos	Enterprise Reporting	Americas	United States	Services	$376,500
Mutuelle Nationale Territoriale	Cognos	BI Standardization	EMEA	France	Financial Services, Banking, Insurance	$60,000
National Starch & Chemical Company	Cognos	Enterprise Reporting	Americas	United States	Manufacturing	$149,000
Nomura	Cognos	Enterprise Reporting	Americas	United States	Financial Services, Banking, Insurance	$225,000
Ohio Department of Education	Cognos	Enterprise Reporting	Americas	United States	Government, Education, Non-profit	$145,483
Orica Australia	Cognos	BI Standardization	AsiaPac	Australia	Chemical	$249,540
Otis Spunkmeyer	Cognos	Enterprise Reporting	Americas	United States	Services	$120,000
Oxford Health Plans	Cognos	BI Standardization	Americas	United States	Health Care	$475,000

Appendix 2.4 – Business Objects wins against Cognos, 2004 – 2005, Continued

Customer	Competitor	Customer Requirement	Region	Country	Industry	Deal Size
Pfizer, Inc. (USA)	Cognos	Enterprise Performance Management	Americas	United States	Pharmaceutical and Medical Devices	$200,000
R+V Versicherung	Cognos	BI Standardization	EMEA	Germany	Financial Services, Banking, Insurance	$1,200,000
Rural Metro Corporation	Cognos	Enterprise Reporting	Americas	United States	Health Care	$95,547
SCANA Corporation	Cognos	BI Standardization	Americas	United States	Energy, Natural Resources	$450,000
Secura Investments Company	Cognos	Enterprise Performance Management	Americas	United States	Financial Services, Banking, Insurance	$73,000
SEI Investments	Cognos	Enterprise Reporting	Americas	United States	Financial Services, Banking, Insurance	$770,000
Sint Franciscus Gasthuis	Cognos	BI Standardization	EMEA	Netherlands	Health Care	$70,000
SkillSoft	Cognos	Enterprise Reporting	Americas	United States	Computer Hardware Software, Services	$156,000
Smart and Final	Cognos	Enterprise Reporting	Americas	United States	Retail (Online)	$120,000
Southwest Airlines	Cognos	Enterprise Performance Management	Americas	United States	Transportation Services	$1,200,000
Teva Neuroscience	Cognos	Enterprise Reporting	Americas	Canada	Pharmaceutical and Medical Devices	$20,000
The Capital Group	Cognos	Ad Hoc Query Analysis	Americas	United States	Financial Services, Banking, Insurance	$258,000
The Greater London Authority	Cognos	Enterprise Reporting	EMEA	United Kingdom	Government, Education, Non-profit	$120,000
The HUB Group	Cognos	Ad Hoc Query Analysis	Americas	United States	Transportation Services	$280,000
The Regence Group	Cognos	BI Standardization	Americas	United States	Financial Services, Banking, Insurance	$2,180,000
Thomson Consumer Electronics	Cognos	BI Standardization	Americas	United States	Retail (Online)	$110,000
Tibotec (Johnson & Johnson)	Cognos	Ad Hoc Query Analysis	EMEA	Belgium	Pharmaceutical and Medical Devices	$65,000
Tillamook County Creamery Association	Cognos	Enterprise Reporting	Americas	United States	Manufacturing	$25,000

Appendix 2.5 – Business Objects wins against Cognos, 2004 – 2005, Continued

Customer	Competitor	Customer Requirement	Region	Country	Industry	Deal Size
Toyota Motor Marketing Europe	Cognos	Ad Hoc Query Analysis	EMEA	Belgium	Automotive	$13,664
Trane (American Standard Europe)	Cognos	Ad Hoc Query Analysis	EMEA	Belgium	Manufacturing	$332,215
Trustmark Insurance	Cognos	Ad Hoc Query Analysis	Americas	United States	Financial Services, Banking, Insurance	$120,000
UBS AG (01)	Cognos	Enterprise Reporting	EMEA	Switzerland	Financial Services, Banking, Insurance	$960,000
UBS AG (02)	Cognos	Enterprise Performance Management	EMEA	Switzerland	Financial Services, Banking, Insurance	$984,000
Unicible	Cognos	BI Standardization	EMEA	Switzerland	Financial Services, Banking, Insurance	$450,000
Unilever	Cognos	Enterprise Performance Management	AsiaPac	Malaysia	Manufacturing	$68,158
United Health Group	Cognos	Enterprise Reporting	Americas	United States	Health Care	$238,000
US Army Criminal Investigation Division	Cognos	Ad Hoc Query Analysis	Americas	United States	Government, Education, Non-profit	$506,401
US Defense Logistics Agency (DLA)	Cognos	Enterprise Reporting	Americas	United States	Government, Education, Non-profit	$1,800,000
Vestia Estrada Group	Cognos	Enterprise Reporting	EMEA	Netherlands	Services	$295,000
Virgin Holidays	Cognos	Enterprise Performance Management	EMEA	United Kingdom	Media, Publishing, Entertainment, Leisure	$511,411
VUM (Vlaamse Uitgevers Maatschappij)	Cognos	Ad Hoc Query Analysis	EMEA	Belgium	Media, Publishing, Entertainment, Leisure	$98,216
Woolworths, Ltd. (AU)	Cognos	Ad Hoc Query Analysis	AsiaPac	Brunei	Retail (Online)	$700,000
Yahoo! Inc.	Cognos	Enterprise Reporting	Americas	United States	Computer Hardware Software, Services	$609,000
AVERAGE DEAL SIZE						**$380,131.82**

REFERENCE LIST

H. Dresener, B. Hostmann, F. Buytendijk, Magic Quadrants for Enterprise BI Suites and Platforms, 2H04. (Gartner Research, Research Note, 29 November, 2004.)

H. Dresener, Business Intelligence Multi-Client Study. (Gartner Research, Commissioned Study, February, 2005)

D. Vesset, Worldwide Business Intelligence 2004 Vendor Shares. (IDC Research, Competitive Analysis, June, 2005)

E. Keller, Tech Spending Shortfall is Not Temporary. (AMR Reasearch, Research Brief, August 30, 2004)

M. Crossan, Strategic Analysis and Action. (Prentice Hall, 2005)

S. Elbaum, Corporate Performance Management Benchmark Report: Improving Corporate Decision Making Through Pro-active Analysis. (Aberdeen Research Group, Report, September, 2004)

Michael E. Porter, Competitive Strategy: Techniques for Analyzing Industries and Competitors. (New York: Free Press, 1980)