Opportunities for an ISV Partnership Program in a Business Intelligence Software Company

by

Kumpon Paul Krisdaphongs
B.Sc. (Agr.), University of British Columbia, 1998

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

Master of Business Administration
MBA-MOT Program

in the Faculty

of

Business Administration

SIMON FRASER UNIVERSITY
March 2004

Approval

Name: Kumpon Paul Krisdaphongs

Degree: Master of Business Administration, MOT Program

Title of Project: Opportunities for an ISV Partnership Program in a Business Intelligence Software Company

Supervisory Committee:

Dr. Aidan Vining
Senior Supervisor
Faculty of Business Administration
Simon Fraser University

Dr. Ian McCarthy
Associate Professor
Faculty of Business Administration
Simon Fraser University

Date Approved: March 26, 2004

ABSTRACT

Crystal Decisions (Crystal) provides software solutions for the purposes of reporting and information delivery. Crystal is considering the implementation of a new partnership program targeted at Independent Software Vendors (ISVs) that develop software products that are complementary to Crystal products. Many ISVs are approaching Crystal and expressing an interest in developing partnerships with Crystal. Without a formal program in place with respect to ISVs, Crystal has not been able to realise on these opportunities.

There are potential benefits available to Crystal from forming ISV partnerships. Many ISVs are highly specialized in specific niche industries. ISVs can offer revenue generation opportunities for Crystal via royalties for sales of complementary products and licensing fees. Such opportunities could enable Crystal to leverage these ISV products and build a profitable business model around ISV partnerships.

This paper outlines the company, its products, Crystal's position within the business intelligence industry and its current partnership strategies. The impact of Crystal's existing partnership strategies on Crystal's success are examined.

This paper reviews the elements of a proposed ISV partnership program and determines the potential benefits to Crystal in establishing such a program. Strategic alternatives are evaluated using the company's strategic goals as criteria. Finally, the most appropriate strategic option is recommended for Crystal.

DEDICATION

I would like to dedicate this project to Sze-Mei, my wife, for her support and encouragement throughout the MOT MBA program.

ACKNOWLEDGMENTS

I would like to thank Dr. Aidan Vining and Dr. Ian McCarthy for their guidance and support. I would also like to thank Oz Greenberg and the other members of the Crystal Product Management team for sharing their insights.

TABLE OF CONTENTS

APPROVAL II

ABSTRACT III

DEDICATION IV

ACKNOWLEDGMENTS V

TABLE OF CONTENTS VI

LIST OF TABLES IX

LIST OF FIGURES X

1 OBJECTIVE OF THE STRATEGIC ANALYSIS 1

2 INTRODUCTION TO CRYSTAL DECISIONS 2

2.1 Background and History of Crystal Decisions 2
2.2 Managerial and Organizational Structure 4
2.3 Crystal's Products 7
2.3.1 The "Reporting" Product 8
2.3.2 The "Enterprise Information Delivery" Products 9
2.3.3 The "Analytics" Products 9
2.4 Crystal's End-User Customer Segments 10
2.5 Crystal's Corporate Customer Segments 12
2.6 Distribution of Crystal's Products 14
2.6.1 Resellers 14
2.6.2 Direct Distribution 14
2.7 Promotion Methods 15
2.7.1 Crystal's Sales Force 15
2.7.2 Internet Advertising 15
2.7.3 Personal Selling 16
2.7.4 Other Promotional Methods 16
2.8 Product Support Programs 16
2.8.1 Technical Support 16
2.8.2 Developer Zone 17
2.9 Summary 17

3 THE BUSINESS INTELLIGENCE INDUSTRY 18

3.1 Introduction to Business Intelligence 18
3.1.1 Introduction to OLAP 19
3.2 BI Industry Outlook 20
3.3 Industry Analysis 20
3.3.1 Rivalry in the BI Industry 20
3.3.2 Buyer Power 24
3.3.3 Supplier Power 24
3.3.4 Barriers to Entry 25
3.3.5 Threat of Substitutes 27
3.4 Summary 27

4 CURRENT PARTNERSHIP STRATEGY OF CRYSTAL DECISIONS 27
4.1 The Role of Complementors in Crystal's Strategy 28
4.2 OEM Strategy 30
4.2.1 Crystal's OEM Partner Program 30
4.2.2 Product Seeding Strategy 32
4.3 Solution Kits Strategy 33
4.4 Professional Service Partner Strategy 33
4.4.1 Solutions Partner Program (Training and Consulting) 33
4.4.2 Training Specialization Partners 34
4.4.3 Consulting Specialization Partners 34
4.4.4 Crystal xSP Partner program 35
4.5 Marketing Partner Strategy 36
4.5.1 Authorized Reseller Partner Program 36
4.5.2 VAR Partner Program 37
5 CRYSTAL'S KEY PARTNERSHIP ACCOUNTS 37
5.1 Microsoft Partnership 37
5.1.1 Microsoft Visual Studio .NET 2003 38
5.1.2 Microsoft CRM 38
5.1.3 Rationale for Microsoft Partnership 39
5.2 SAP Partnership 40
5.2.1 OEM Agreement 41
5.2.2 Solution Kit with SAP 41
5.2.3 Reseller Agreement 42
5.2.4 Rationale for SAP Partnership 42
5.3 IBM Partnership 43
5.3.1 Rationale for IBM Partnership 43
5.4 Crystal's Partnership Programs Growing in Members 43
5.5 Current Partnership Strategy a Significant Driver of Crystal's Success 44
5.6 Summary 45
6 CRYSTAL'S INTEREST IN AN ISV PROGRAM 45
6.1 Classification of Programs 46
6.1.1 Developer Programs 47
6.1.2 ISV Partner Programs 47
6.1.3 ISV Alliance Programs 47
6.1.4 Systems Integrator (SI) Partner Programs 47
6.1.5 SI Alliance Programs 48
6.2 Summary 48
7 THE ISV PARTNERSHIP PROGRAM 48
7.1 Introduction to ISVs and the Proposed ISV Partnership Program 48
7.2 Classification of ISV Complementary Products 49
7.2.1 Enhancement Add-on Product 49
7.2.2 Solution Kit or Modified Product 50
7.2.3 Compliant Product 50
7.3 Proposed ISV Program Elements 50
7.4 Crystal's Rationale for Launching the ISV Program 51
7.5 ISVs Can Meet Niche Demands Better Than Crystal 52
7.6 Analysis of the Strengths and Weaknesses of an ISV Program 53

7.6.1 Mitigating the Risks 53
7.7 A Benchmark ISV Program 54
7.7.1 The Cognos Technology Partner Program 54
7.8 Many ISVs Have Approached Crystal To Establish A Partnership 56
7.8.1 Sample Business Plan for Company A 57
7.8.2 Sample Business Plan for Company B 58
7.9 Summary 58

8 ASSESSMENT OF CRYSTAL'S CURRENT AND PROPOSED STRATEGY 58
8.1 Assessment of Crystal's Overall Current Strategy 59
8.2 Assessment of Crystal's Current Partnership Strategy 61
8.3 Assessment of Crystal's Proposed Strategy for an ISV Program 61

9 STRATEGIC ALTERNATIVES FOR CRYSTAL DECISIONS 63
9.1 Generating Alternatives for Crystal Decisions 63
9.1.1 Sole Provider of Complementary Products (Alternative 1) 63
9.1.2 Non-Selective ISV Program (Alternative 2) 64
9.1.3 Selective ISV Program (Alternative 3) 64
9.2 Utilizing Crystal's Goals To Develop Evaluation Criteria 65

10 ANALYZING THE ALTERNATIVES IN TERMS OF CRYSTAL'S GOALS 66
10.1.1 Analyzing Alternative 1 - Sole Provider of Complementary Products 67
10.1.2 Analyzing Alternative 2 – Non-Selective ISV Program 68
10.1.3 Analyzing Alternative 3 - Selective ISV Program 69
10.2 Multi-Goal Prediction Matrix For Crystal Decision 70
10.3 Multi-Goal Valuation Matrix for Crystal 72

11 RECOMMENDATIONS 73

12 BIBLIOGRAPHY 74

LIST OF TABLES

Table 1: Key Milestone Events 4
Table 2: Executive Management Team 5
Table 3: Functions of Departments 6
Table 4: Crystal Product Customer Segments 11
Table 5: Crystal Reports Editions 12
Table 6: Corporate Customer Segments 13
Table 7: Benefits of SAP and Crystal Reporting Solution 42
Table 8: ISV Program Products and Services 51
Table 9: Strengths and Weaknesses of an ISV Partnership Program 53
Table 10: Elements of the Cognos Technology Partner Program 56
Table 11: Crystal's Weighted Goals 66

LIST OF FIGURES

Figure 1: Boston Consulting Group's Growth-Share Matrix 60
Figure 2: Multi-Goal Prediction Matrix for Crystal Decisions 71
Figure 3: Multi-Goal Valuation Matrix for Crystal Decisions 72

1 OBJECTIVE OF THE STRATEGIC ANALYSIS

Crystal Decisions (Crystal) is a privately held company that provides a range of software solutions for the purpose of reporting and information delivery. Crystal is considering establishing a new partnership program targeted at Independent Software Vendors (ISVs).

ISVs develop software products that operate on computer hardware or operating systems platforms. It has been estimated that there are over 500 ISVs that develop products that are complementary to Crystal's products (Crystal, 2003i). This number is expected to grow. Many ISVs are approaching Crystal and expressing an interest in developing partnerships with Crystal. Without a formal program in place with respect to ISVs, Crystal has not been able to realise on these opportunities.

There are potential benefits to Crystal from forming ISV partnerships. Many ISVs are highly specialized in specific niche industries. ISVs have access to customers and industry segments that are not currently penetrated by Crystal. ISVs can offer revenue generation opportunities for Crystal, for example, royalties for sales of complementary products and licensing fees. These potential opportunities could enable Crystal to leverage ISV products and build a profitable business model around them.

This strategic analysis examines the company, the products, the business intelligence industry, and Crystal's current partnership programs. This first section analyzes how Crystal utilizes its partnerships to leverage partners' resources and capabilities to improve its competitive position. The analysis determines the impact that Crystal's existing partnerships have had in contributing towards Crystal's success, and Crystal's position in the market.

This is followed by an introduction of the ISV segment, and analysis of the proposed ISV partnership program. This section discusses the elements of an ISV program and evaluates the potential benefits to Crystal in establishing such a program. To conclude, this analysis provides a number of strategic alternatives and recommends the most appropriate strategic option in the context of Crystal's strategic goals.

2 INTRODUCTION TO CRYSTAL DECISIONS

This chapter provides an overview of Crystal Decisions by discussing the company's background and history, its managerial and organizational structure, its products and customer segments, its product distribution and promotion methods, and its product support programs.

2.1 Background and History of Crystal Decisions

Crystal Decisions is an information management software company with over 1,650 employees and 20 offices worldwide. The headquarters for Crystal is in Palo Alto, California. The company was established in 1984. Crystal is privately held. It is owned by New SAC, whose shareholders include Silver Lake Partners and Texas Pacific Group (Crystal, 2003p).

Crystal is one of the leading global providers of business intelligence software. To date, Crystal has more than 15 million licences of its software shipped. Crystal offers enterprise reporting, analysis, and information delivery solutions. Crystal's software solutions provide organizations with an efficient way for employees, partners and customers to access the information they need to make informed decisions, reduce costs, and increase productivity. Moreover, Crystal's software helps organizations improve return on investment from their existing data systems, which include Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) (Crystal, 2003p).

In 1992, the company introduced Crystal Reports, the first Windows based report writer software in the world. At that time, the company was called Crystal Services. In 1993, Microsoft bundled Crystal Reports with their software product Microsoft Visual Basic. Since then, Crystal Reports achieved status as the most widely used report writer software for

Microsoft Windows. In 1996, Seagate Technology acquired Crystal and renamed it Seagate Software. By this time, the company had expanded its software offerings beyond Crystal Reports to larger-scale reporting software applications that could distribute and share reports over a company's network. This resulted in additional reporting software applications with more complex functions such as multidimensional reporting (Crystal, 2003p).

In 1999, a milestone 5 million licenses were shipped worldwide of the company's products. In 2001, Seagate software changed the company's name to Crystal Decisions. By that time, Crystal achieved a record 10 million licenses shipped worldwide of the company's products. In 2002, Microsoft bundled Crystal Reports with their software product Microsoft Visual Studio.NET. In the same year, SAP also bundled their software product with Crystal Reports. Crystal is currently achieving sales at a record high rate. For fiscal year 2003, witch ended on June 27, 2003, Crystal's revenue was US$287.5 million. Crystal is continuing to experience consistent increases in revenue:

> Vancouver, BC, October 24, 2003--Crystal Decisions, a global provider of business intelligence software and services, announced results for the first fiscal quarter ended October 3, 2003. Revenues for the first quarter grew to $82.3 million, an increase of 26 percent from the $65.0 million in reported revenues for the comparable period in the prior year (bctechnology.com, 2003)

Table 1 summarizes key corporate events for Crystal since it was founded in 1984.

Milestone Dates	Key Events
1984	• Crystal Services (former name of Crystal Decisions) founded in Vancouver, British Columbia, Canada
1992	• Introduce Crystal Reports, the world's first Windows-based report writer
1993	• Microsoft bundles Crystal's reporting technology in Microsoft Visual Basic
1994	• Seagate Technology acquires Crystal Services and renames the company Seagate Software
1995	• Launch first-to-market enterprise business intelligence suite: Seagate Info (precursor to Crystal Enterprise) • Acquire UK-based OLAP vendor Holistic Systems
1999	• Record 5 million licenses shipped of the company's products worldwide
2000	• Seagate Technology privatization transaction complete; New SAC, whose shareholders include Silver Lake Partners and Texas Pacific Group, is the new owner of Seagate Software
2001	• Seagate Software changes company name to Crystal Decisions • Launches Crystal Enterprise, the first Web-based information infrastructure for reporting, analysis and information delivery • OEM and reseller agreement with SAP to bundle Crystal's enterprise reporting solutions • Record 10 million licenses shipped of the company's products worldwide
2002	• Microsoft bundles Crystal's reporting technology with Microsoft Visual Studio.NET • Launch Crystal Enterprise for the UNIX Platform • Jon Judge named President and CEO of Crystal. Judge succeeds Greg Kerfoot, who will serve as Chairman of the Board
2003	• Business Objects announces agreement to acquire Crystal • Record 15 million licences shipped of the company's products worldwide

Table 1: Key Milestone Events

(Crystal, 2003q)

2.2 Managerial and Organizational Structure

In order for Crystal to achieve its current success as one of the leading global providers of business intelligence software, Crystal has established a strong and talented senior management team to lead the company's business strategies and technology development. The organizational structure of Crystal maximises the efficiencies and expertise of different departments throughout the development, launch and commercialisation lifecycle of Crystal's software solutions. Crystal is organized into eleven departments. They are, Product, Research and Development, Finance, Human Resources, Sales, Professional Services Organization, Information Technology, Legal, Marketing, Technical Support, and E-Business. Crystal's offices are located in:

- Canada – Toronto, Vancouver
- USA – California
- Europe – Austria, Belgium, France, Germany, Ireland, Switzerland, United Kingdom
- Africa and Middle East – South Africa
- Asia Pacific – Australia, Hong Kong, Japan, Malaysia, New Zealand, Singapore
- Latin America and Caribbean

Table 2 summarizes Crystal's executive management team, and Table 3 summarizes the functions of each department within the Crystal organization.

Name	Title
John Judge	President and Chief Executive Officer
Bill Gibson	Chief Operating Officer
Eric Patel	Chief Financial Officer
Tony Wind	Chief Technology Officer

Table 2: Executive Management Team

(Crystal, 2003s)

Department Name	Department Function
Product	This department is comprised of Product Managers, Program Managers, and Product Marketing Managers. The Product Managers define the vision of the new products. They are involved in the planning, pricing and licensing issues of products and services. The Program Mangers drive the technology elements of new products. They develop the product roadmap and define the technical components of new products.
Research and Development (R&D)	This department includes teams that develop the software products, new versions and updates, and teams that test the software for bugs.
Finance	This department is responsible for the administration of financial activities within Crystal.
Human Resources	This department is responsible for the recruitment and internal training of employees.
Sales	This group is divided between inside corporate account managers, and outside corporate account managers. Sales offices are located in cities around the world. This group includes a presales subgroup, which performs presales activities such as developing demonstrations and technical specifications for potential customers.
Professional Services Organization	This team is comprised of consultants who are involved in systems integration for customers. They provide training services for customers that use Crystal products.
Information Technology (IT)	This department performs IT support services and equipment support such as telephone support for internal employees.
Legal	This department is responsible for handling legal issues and contracts within Crystal.
Marketing	This department is responsible for marketing activities, which include developing promotional materials for Crystal and Crystal's product lines.
Technical Support	This is a call centre providing support for customers using Crystal products. This group is divided into several teams, each specializing in different technical aspects of Crystal products.
E-business	This group develops and maintains the internal and external website and the website contents.

Table 3: *Functions of Departments*

(Crystal, 2003s)

2.3 Crystal's Products

This section examines Crystal's product line. Crystal's offers a suite of products that work together to create a common solution. Each of Crystal's products complement each other, and can be purchased together, or individually. The products work together to deliver a business intelligence solution for the customer. The term Business Intelligence is used to describe a function and an industry, and is explained in section 3.1. At a high level, Business Intelligence involves delivering information in a format that can be used by decision makers to help them make informed business decisions.

Crystal's products are divided into three categories: Reporting, Enterprise Information Delivery, and Analytics. Reporting involves creating views of data in a way that allows users to view information that informs them about their business situation. The views enable users to see trends, patterns, consolidated results and other information. Analytics brings this a step further and allows users to analyze data in more detail, and this involves using complex calculations to reveal patterns. Analytics allow users to view data in different dimensions. This is described in further detail in section 3.1.1. Enterprise Information Deliver is the method that the reports are delivered and shared across an enterprise. This involves managing reports, scheduling them, and delivering them to authorized users.

The current product lines offered by Crystal are Crystal Reports, Crystal Enterprise, Crystal Analysis, Crystal Applications, and Holos. Most of Crystal's revenue comes from sales of Crystal Reports and Crystal Enterprise. Crystal Applications and Holos are solutions customized to the needs of each customer, whereas the other Crystal product lines are marketed and can be sold as stand-alone products. As previously discussed, Crystal's products work collectively as an information delivery platform for the enterprise for making informed business decisions. Using Crystal's products, information is accessed, analyzed, transformed into reports, and shared within and across an organization. Crystal's marketing slogan is "access, analyze, report, share".

2.3.1 The "Reporting" Product

Crystal Reports, a reporting solution, is used to access data from multiple data sources and to generate reports that are designed for users to make informed decisions. Crystal Reports provides data connectivity to more than thirty-five commercial data sources, making it complementary to multiple data storing software products, including database and ERP systems. Crystal Reports enables users to "quickly transform almost any data into powerful, interactive content." It lets users "tightly integrate reporting into .NET, Java, and COM applications." It also lets "end users access and interact with reports via portals, wireless devices and Microsoft Office documents." Users can create presentation quality reports that have features such as groupings, sortings, graphs, and charts. Reports are viewed in Crystal Reports native format, exported to PDF, Excel or other format types, and can also be published to the web using Crystal Enterprise.[1]

Crystal Reports is available in Standard, Professional, and Developer editions. Each edition has variations in features. The product is sold mainly through channel sales, and through the Crystal online store. It is also sold through the Original Equipment Manufacturer (OEM) channel. It is available in multiple language versions. Crystal Reports is sold in seven languages: English, French, German, Japanese, Chinese, Spanish, and Italian.[2]

---

[1] Source: http://www.crystadecisions.com/products/crystareports/default.asp

[2] Source: http://www.crystadecisions.com/products/crystareports/default.asp

2.3.2 The "Enterprise Information Delivery" Products

Crystal Enterprise is an Enterprise Information Delivery software product that provides a web-based platform for distributing reports over an organization, and/or between organizations. It provides features such as scheduling, permission access, and storage systems for reports that can be accessed by targeted users within an organization. Crystal Enterprise is available for Windows NT/2000/.NET Server, and Unix (Sun Solaris, IBM AIX).

Crystal Enterprise provides companies with a single system that addresses reporting, ad-hoc query, or interactive data analysis requirements. Also, any capability of Crystal Enterprise is fully extensible through a Software Development Kit (SDK). An SDK is a set of tools that programmers can use to add advanced features and capabilities to the software. As a system, Crystal Enterprise is used to consolidate, accelerate, and enhance many of the information delivery projects in an organization. Often, each project in an organization is concerned with accessing data from a variety of disparate data systems and tools to provide reporting and analysis (Lucas & Sanborn, 2002, p. 12).

2.3.3 The "Analytics" Products

Crystal Analysis is an analytics solution product. Users are generally business professionals, such as financial analysts. Crystal Analysis provides analytical views of data to enable users to look for trends and patterns in data.

Crystal Applications are a group of analytical reporting tools that are customized for specific industries and organizations. The products have built-in functions that are used for analyzing information. Crystal Applications includes generic application templates, which are designed for business processes. Examples of templates are balanced scorecards, customer profiling, and budgeting. The applications are customized for specific business processes. Business managers can use the resulting analytical reports to drive their business decisions.

Crystal does not actively market the Crystal Applications product line. Crystal sells these products via partnerships with system integrators, and its professional services organizations. System integrators and consulting groups are able to customize the application for customers (Lucas & Sanborn, 2002, pp. 266-267).

Holos is a Business Intelligence platform that was originally acquired from Holistic Systems. Crystal Applications uses Holos as a platform for processing the data. Holos provides advanced analytic capabilities, which include trend analysis, data mining, and forecasting. This product line is not marketed as a stand-alone product. It is sold as a customized product for customer needs.

2.4 Crystal's End-User Customer Segments

Originally, Crystal's main target segment has been the developer segment. When Crystal Reports was initially bundled with Microsoft Visual Basic 3.0, there was significant adoption by the developer segment. Crystal Reports and Crystal Analysis are sold to a large number of developers. Crystal Analysis is positioned to be attractive for data analysts segments. Crystal Enterprise is positioned to attract Database Administrators of corporations who manage reports within an enterprise setting.

Crystal's customers can be segmented into three main categories – application developers, IT professionals, and business professionals. These segments are described in the following table.

Customer Segments	Description
Application Developers	Application developers are those who develop software applications. For example, application developers create .NET, Java, and COM applications, and use Crystal Reports to integrate content from data sources into the applications. They are "information producers."
IT Professionals	IT professionals use existing software products to perform functions. For example, IT professionals use the reports generation features in Crystal Reports to create customized reports. IT processionals include the individuals in a company responsible for maintaining and developing reports. They are "information producers."
Business Professionals	Business professionals are the people who view the reports generated by Crystal software and make business decisions based on the data presented in the reports. These include executive-level decision makers such as the chief executive officer, chief operating officer, chief financial officer, chief information officers, VPs, and directors. These also include operational managers. They are "information consumers."

Table 4: *Crystal Product Customer Segments*

Source: (http://www.crystaldecisions.com/products/crystalreports/default.asp)

For Crystal Reports, Crystal offers different editions to suit the needs of the users. The products vary in technical features; for example, an advanced developer would be attracted to the advanced editions that contain features that enable the user to create sophisticated functions. Standard editions would contain adequate features for the users who are not as technically adept. Higher versions offer a higher number of features, and often the level that the company wishes to invest in Crystal products determines the edition that they purchase. For example, a large enterprise that wishes to implement sophisticated reports may purchase the advanced developer edition, and hire consultants who are applications developers to develop reports. The following table illustrates the various versions of Crystal reports and the main targeted end-user segments for each edition.

Edition	Main Targeted Users
Advanced Developer	Application Developers
Developer	Application Developers, IT Professionals
Professional	IT Professionals
Standard	Business Users, IT professionals

Table 5: *Crystal Reports Editions*

Of the 15 million licences of Crystal Reports that has been sold, developers have purchased:

- 100% of Advanced Developer Edition
- 75% of Developer Edition
- 23% of Professional Editions

This relates to 15% of Crystal's total license revenue (Anonymous employee 1, 2003).

2.5 Crystal's Corporate Customer Segments

Corporate customer segments can be defined as organizations that implement and deploy business intelligence software. The extent of product capabilities that is required is dependent on the size and scope of the data sources and business user reporting requirements within it. Organizations that are small may only require desktop solutions that can be used on a stand-alone basis. For example, they would require Crystal Reports as a stand-alone product. Large organizations, on the other hand, may require enterprise-level applications to share information across the organization. For example, they would require Crystal Enterprise to deliver Crystal Reports across the enterprise.

The following specific corporate customer segments are of particular importance to Crystal. These segments are broadly classified as Global 2000 organizations and Small and Medium sized Businesses (SMB). These two segments usually have different requirements, and

Crystal uses different marketing strategies to target them. Global 2000 Organizations generally demand scalable, enterprise-wide solutions, whereas SMBs generally require only small-scale implementations. SMBs however, often require specialized functionality to meet their specific needs. These segments are described in Table 6.

Corporate Customer Segment	Description
Global 2000 Organizations	This segment is categorized as the 2000 largest public companies in the world, with annual revenues exceeding US $1 billion. Companies in the category have enterprise technology applications that extend across large geographical areas. They typically have Enterprise Resource Planning (ERP), Customer Relationship Management (CRM), and Data Warehouse implementations. Technology investment for these companies are usually high.
Small and Medium Sized Business	This segment includes public and private companies. Most of theses companies are specialized in a vertical industry. These companies are more localized, and do not usually require the large enterprise technology applications. Small businesses may only require desktop software. The scope of their technology investments is smaller than those of Global 2000 organizations.

Table 6: Corporate Customer Segments

There is a wide range of industries that make up Crystal's customers. Crystal develops marketing strategies to target key industry verticals, however, Crystal does not create products and services specific to industries.

2.6 Distribution of Crystal's Products

Crystal's products are distributed by software reseller distribution partners and directly from Crystal through its offices worldwide.

2.6.1 Resellers

Resellers are distribution partners that sell Crystal products to customers. Some customers prefer to purchase Crystal products from a third-party reseller, with whom the customer many have an existing business relationship. Resellers handle the shipping, invoicing, and logistics on behalf of Crystal. They may also provide first-line technical support for the products to their customers.

Crystal has an extensive network of national and international resellers who offer online, catalogue and/or direct mail service. These distribution partners specialize in customer sales and support of Crystal products. Crystal has over 1,000 distribution partners and consulting service providers worldwide that supply Crystal software to their clients, either directly or indirectly via a bundled product. Crystal Reports can be incorporated or bundled in a range of applications including accounting, help desk, telecommunications, healthcare, financial, banking, human resources, ERP, government, education and sales force automation.

Crystal also widened the Crystal distribution network by forming relationships with distributors who supply multiple resellers with Crystal products in various locations.

2.6.2 Direct Distribution

Crystal also offers the direct distribution of Crystal Reports via software download and direct mail. The e-store is an e-business capability that enables customers to purchase Crystal products online via the Internet. The e-store website provides information about Crystal products and pricing. Customers can either choose to have the products shipped to them in CD form, or to download the software directly from the Internet. The e-store also contains links to Crystal's distributor or reseller partners.

Crystal's websites offer customer service for Crystal products on a worldwide basis. International websites for Germany, Spain, France, Italy, Japan, China, and Asia Pacific exist for each of these regions, in their respective languages. Each office services customers within its geographic region and acts as a contact point for technical queries, service issues, product training and general information that customers may require before and after purchase.

2.7 Promotion Methods

Crystal uses several methods to promote its products. Among them are advertising through the Internet, personal selling, trade shows, journals, direct mail, press releases, and strategic alliances with other companies. Crystal's main promotional stance is informative advertising, geared towards promoting strong products, solid execution and generating brand recognition.

2.7.1 Crystal's Sales Force

The sales force is divided into Channel, Direct, and OEM Sales. Channel sales concentrates on Crystal Reports, and direct sales concentrates on Crystal Enterprise. OEM Sales concentrates on OEM versions of Crystal Reports to OEM clients, who re-sell the software to their customers.

2.7.2 Internet Advertising

Crystal has a strong Internet presence with detailed product information for all of Crystal's products available via its website. Crystal offers incentives via the Internet such as promotional Computer Based Training (CBT) with purchases of some of its newer products or versions. Online purchases are advertised as being immediately downloadable once payment is made, or a CD package can be shipped to the customer.

2.7.3 Personal Selling

Personal selling is used for Crystal's preferred clients. Crystal Decisions provides product seminars or presale presentations whenever new features are introduced to Crystal's key customers or major accounts. Sales people are regularly trained with the new products and new features offered, and are motivated by attractive compensation packages.

2.7.4 Other Promotional Methods

Other methods routinely used to promote Crystal products are trade shows, journal publications, direct mail and press releases. Crystal regularly attends technology and software trade shows to attract new customers and to present new product features. Press releases, journal publications and direct mail are used to advertise the company's name and products and to reinforce or introduce the products. The company routinely places promotional materials in computer trade magazines.

2.8 Product Support Programs

Crystal has two programs to support its products, Developer Zone and Crystal Care.

2.8.1 Technical Support

Crystal Care is the name given to the technical support services provided by Crystal to its customers. Crystal Care receives the customer's requests for support of Crystal's products. Support requests are first handled by first-line support representatives, and may be escalated to higher-level support representatives. Crystal Care representatives provide support to customers via phone, email, and facsimile. They also generate supporting documentation and publish them on the knowledge base website.

2.8.2 Developer Zone

Developer Zone is a website that is an extension of the technical support knowledge base, whose purpose is to meet the specific needs of developers. It provides tools for developers, which include sample applications and information about training. Through this site, developers can obtain sample code, download free software such as software development kits (SDK), and download documentation regarding Crystal software.

The site has three content areas (1) .NET Zone for .NET developers, (2) Java Zone for Java Developers, and (3) COM/ASP Zone for Visual Basic, ASP and Delphi developers (Crystal, 2003g). The site also includes discussion forums, which are not moderated. This program has contributed to increase in complementary products with Crystal, as it provides resources to developers. However, since the site has limited technical resources, it is not considered to be a "developer program" (Crystal, 2003g).

2.9 Summary

Crystal Decisions is a software vendor that offers a suite of products used for reporting and information delivery. In the past two decades, Crystal has emerged to become a large and profitable company. Crystal's customers are mainly business analysts, IT professionals, and developers, who come from a diverse range of vertical industries and from companies of different sizes. Crystal uses a variety of methods to distribute and promote its products. Crystal leverages the use of partnerships in order to distribute, promote, and provide services for its products. This is described in more detail in chapter 10. The next section discusses the business intelligence industry, the relevant industry for Crystal. Understanding business intelligence provides additional insight into the types of software that Crystal develops. The discussion of the business intelligence industry also provides insights into the nature of Crystal's competitive position in the market.

3 THE BUSINESS INTELLIGENCE INDUSTRY

This chapter begins with an introduction to the business intelligence industry. It includes an industry analysis using Michael E. Porter's Five Forces of Competition (Porter, 1979, pp. 137-145). Porter's Five Forces model is used as a model to classify and analyze the five factors. The Five Forces used in this analysis are: industry rivalry, buyer power, supplier power, threat of entry, and threat of substitutes.

3.1 Introduction to Business Intelligence

Business Intelligence (BI) is a category of software that is used for extracting, storing, analyzing, and delivering data that helps users make informed business decisions. The software addresses the gap between the accumulation of an organization's data and an increasing amount of business decisions that must be made. BI tools include query and reporting software, decisions support systems, statistical analysis packages, forecasting tools, data mining software and Online Analytical Processing Applications (OLAP). OLAP is a processing technology that enables users to analyze data from many views, or dimensions, by "slicing and dicing " data into many different sorting and groupings (Source: www.whatis.com).

Analytic applications are defined as applications that perform functionality that incorporate business rules of a particular function. Examples include budgeting, forecasting, and balanced scorecard applications, which may be customized for certain types of business. BI software can access data from disparate data sources and incompatible applications across an organization and transform the data into valuable business information in the form of reports. These reports include useful tables, charts and maps that graphically display the information.

BI software can be used to combine data for strategic decision-making. Access to information that enables organizations to make better business decisions can reduce costs and increase productivity. Databases and data sources such as ERP systems hold magnitudes of data that has the potential to help companies make better business decisions if the information is leveraged using BI software. BI software centralizes data in a way that provides the end-user with the aggregated view of enterprise data sources needed to make informed business decisions, gain strategic insights, and acquire competitive advantages in the market.

The BI market is rapidly progressing as a core requirement for IT departments in large and small companies. In the last thirty years, companies have invested billions of dollars in application software, databases, and operating systems to help run their businesses. Many companies find it difficult to find a return on investment (ROI) on these technological investments. Many of these companies own hundreds of applications, few of which are designed to share information with one another. As a result, in the last decade, the BI software market has grown significantly (Crystal, 2003s).

3.1.1 Introduction to OLAP

The term Online Analytical Processing, or OLAP, was introduced in the late 1980s to: "describe systems that enabled the analysis of huge volumes of data in real time" (Lucas & Sanborn, 2002, p. 268). OLAP technology enables business analysts to find answers to complex questions:

> Business analysis problems are inherently multidimensional. A regional sales manager might ask questions such as "What were the top five selling products in my region this month?" or "How do costs this month compare to last month?" and "How do my sales compare to similar regions?" (Lucas & Sanborn, 2002, p. 268).

The benefits of OLA include:

- It makes it easier for business users to find the data they need
- Data is aggregated in a way that makes it suitable for generating queries and receiving quick responses
- It offers a rich range of analytical calculations. This includes sophisticated sorting and filtering. (Lucas & Sanborn, 2002, p. 268)

3.2 BI Industry Outlook

The BI industry is expected to experience continuous growth in the next few years:

> In spite of a tough economic climate, the business intelligence (BI) industry continues to experience strong growth—IDC estimates that it will reach $7.5 billion in 2006. BI implementation projects show consistently high return on investment (ROI) and are increasingly recognized as key for business success (Business Objects2004a).

3.3 Industry Analysis

The five forces are examined in this section.

3.3.1 Rivalry in the BI Industry

Analysis of the degree of rivalry in the BI industry indicates minimal rivalry. The market share for BI is controlled by few vendors, and is therefore highly concentrated. Consolidation of BI software vendors in recent years has resulted in fewer rivals. This consolidation trend is expected to continue in the future. Vendors have incentives to consolidate with current economic conditions. As stated by Gartner Research:

> Most recently, Business Objects announced its intention to acquire Crystal Decisions, and Hyperion Solutions announced its intention to acquire Brio Software. We expect that as the economy continues to be soft, the smaller, less-stable vendors will falter, while larger, public vendors will attempt to acquire new revenue sources to maintain higher market valuations. All of this means additional acquisitions are likely through 2003 and into 2004, until the economy rebounds (Dresner, 2003).

High switching costs for customers that invest in BI software also decrease the intensity of rivalry. A significant segment of customers are medium-to-large organizations that purchase multiple licences of reporting and analysis software for multiple users, as well as information delivery software to distribute the reports to employees. The costs of switching to other products once a software package is selected by an organization is high, as it involves expenditures in IT development, end user training, and transition costs to the new software.

The high level of differentiation among BI vendors is another factor that decreases the intensity of rivalry. Crystal differentiates its products based upon their strength in information delivery and rich features in report design functions for developers. Cognos, Crystal's main competitor, differentiates its products using their strong analytical functionality features.

The leading vendors in the BI Industry have developed system lock-in over many years based on the existence of network externalities. These two occurrences are a major factor in dampening rivalry. These strategic concepts are discussed next.

3.3.1.1 Network Externalities

Network externalities are the main driver of success for today's leading software products. One definition of this concept is: "Classic network externalities are typically defined as an increase in the value of a product as the number of users of that product increases" (Farrell and Saloner, 1985). Another is: "Network externalities are defined as the increasing utility that a user derives from consumption of a product as the number of other users who consume the same product increases" (Katz and Shapiro, 1985). Crystal software products are consistent with these definitions. They exhibit positive network externalities in that the value of the Crystal product to an incremental user increases as more people use it. New users prefer popular software products to less popular ones because "They will benefit from a greater abundance of third-party training opportunities and materials, complementary or compatible products, and user groups, and from an increased likelihood of vendor viability" (Brynjolfsson, 1996, p. 1631).

In 1992, Crystal introduced Crystal Reports, the world's first Windows-based report writer. This gave Crystal a first-mover advantage in this market. This allowed Crystal to take advantage of network externalities. In a short period of time, Crystal became the standard report writer and achieved a critical mass of customers. Demand for Crystal Reports grew rapidly after a critical mass of customers was established (Vining, 2000, 78). Crystal Reports is still considered today as "The de facto standard product in reporting" (Business Objects 2004b). As the number of installations of Crystal Reports increased on desktops and more people started using the software, the value to the incremental user increased, due to increased compatibility with users and organizations using the product. These network externalities tended to lock consumers into purchasing Crystal products for their reporting needs once they have obtained Crystal products. "Lock-in" refers to the situation when it is difficult or not feasible for a customer to replace the existing product with something else, often because the product has the highest economic value to them. The result of lock-in from Crystal and its main competitors resulted in an industry concentration, where a few BI software companies provided network benefits in the BI Market (Vining, 2000, p. 80). The next section describes the major BI software companies that comprise this concentration of BI software leaders.

3.3.1.2 An Analysis of Crystal's Main Competitors

This section describes Crystal's main competitors, or rivals. It provides insights into the competitors' current position in the BI market.

3.3.1.2.1 Cognos

Cognos is Crystal's main competitor. Cognos was founded in 1969. Cognos began as a developer of custom information systems for government agencies. Cognos has reinvented itself a number of times over the last three decades to emerge as a pioneer and leader in the BI market. Its current focus is on packaged applications, particularly those that support Corporate Performance Management (CPM). Cognos is publicly traded on the Toronto Stock Exchange and NASDAQ. Cognos has over 22,000 customers in 135 countries. Its target markets are Global 3500 organizations and the public sector. Cognos has approximately 3,000 partners and resellers. The company's annual revenue was US $551 million for the 2003 fiscal year. The company has 2,926 employees.

Cognos is considered to be the leading vendor in the BI industry by a number of analysts, including Forrester Research and the Meta Group. Cognos competes with Crystal in two competitive spaces, the Enterprise Business Intelligence Suite (EBIS) space and in the CPM area. Most of Cognos' revenue growth has come from sales of its flagship OLAP software tool, PowerPlay, and its managed reporting tool, Impromptu. Cognos provides a breadth of applications, covering ETL, Query, Reporting and Analysis, Score carding, Event Detection, Visualization, Performance Planning, and Analytic Applications. Cognos has also recently released a new web-based enterprise-reporting tool, ReportNet (Crystal, 2003c).

3.3.1.2.2 Brio Software Inc.

Brio was founded in 1989 and its headquarters are in Santa Clara. Brio offers a suite of BI analysis and reporting tools. Over 2 million people, including 75 percent of the Fortune 100 companies, use Brio's products. Brio claims that customers choose Brio Performance Suite for its ease of use, scalability and ability to provide employees with timely, usable reports for making informed business decisions. Brio had revenues of $110 million for F2001. Brio has placed their products under the umbrella of Brio Performance suite to enhance the product integration. They have introduced Brio Metrics Builder 7.0 to shift their application deployment form the desktop to the server (Crystal, 2003b).

3.3.1.2.3 Information Builders

Information Builders Inc. (IBI) is a private company founded in 1975. IBI claims to be the world leader in providing enterprise data access and information delivery solutions. The company has over 11,000 global customer sites, over 350 business partners, 1,800 employees and 60 offices worldwide. Revenues for fiscal 2000 were $350 million. IBI sells BI and data integration software solutions. It has consolidated and enhanced their offerings into the WebFocus BI Suite while creating their iWay subsidiary for its middleware products. IBI has a monopoly for mainframe reporting (Crystal, 2003h).

3.3.2 Buyer Power

Customer, or in Porter's terminology, "buyer" bargaining power is high. In relation to the buyer's total IT spending, BI expenditure makes up a small proportion of the buyer's costs. Buyers also have access to reliable information for selecting BI products. Analyst reports and media coverage about BI vendors and BI products are available through many research firms and industry journals. This makes buyers well equipped to negotiate with vendors. In addition, buyers that have technical competencies, such as ISVs, may have the capability to develop their own BI functionality. All these factors strengthen a buyer's bargaining position.

3.3.3 Supplier Power

Supplier bargaining power is weak in the BI industry. BI firms are rich in intellectual and technology competencies. The main suppliers are software developers. With the economic downturn in the IT sector, there is a surplus of qualified software developers. This reduces the bargaining power of human capital suppliers.

3.3.4 Barriers to Entry

Brand identity is one of the factors that create a barrier to entry. Leading BI vendors such as Crystal and Cognos are widely recognized for their reporting and information delivery expertise. The incumbent vendors were "first movers" in the BI industry and have generated customer lock-in. The resulting high switching costs also discourage new entrants. Customers have established a high degree of loyalty to the leading BI vendors. Through many years of research and new releases of software editions, BI vendors have developed software that is well suited for the information needs of customers.

A high barrier to entry is the requirement to develop a distribution network. The BI vendors have established extensive distribution networks over many years. This includes distribution channels through resellers, distributors, direct sales, OEMs and system integrator partners.

BI vendors already own significant intellectual property rights in this area. Patents, non-disclosure agreements, copyrights, trademarks, and licensing policies are in place. This creates another barrier to entry.

The incumbent leaders in the BI industry are competing between them to define the industry standard for BI software. Crystal and Cognos are considered by many analysts to be the standard-defining BI software vendors. This creates a significant barrier to entry, much in the same way that the Windows and Linux have become the standard for operating systems, which have created a significant barrier to entry in the operating systems market. The theoretical concept of industry standard is discussed next.

3.3.4.1 Maintaining Crystal's Products as the Industry Standard

Maintaining Crystal's products as the industry standard is a critical determinant of Crystal's long-term competitive position and success. Crystal's software, especially Crystal Reports, is currently considered standard software for reporting with over 15 million licences sold worldwide. It is important for Crystal to maintain its status as a company that is the standard for reporting software. Hill (1997, p. 8) states, "...in industries where standards are important, the ability of a firm to establish its technology as the standard is a critical determinant of its long-term competitive position and success." In order to maintain future leadership, Crystal must continue to make its products the standard software. Shapiro & Varian (1999, p. 10) also state, "Seceding from the standard-setting process can leave you in a weak market position in the future." Crystal must develop well-planned business strategies in order to promote and maintain its product lines as the industry standard:

> The ability of a firm to establish its technology as an industry standard is a critical determinant of its long-term competitive position and success ...the strategic options that a firm might adopt in order to establish its technology as a standard include licensing, entering into strategic alliances, adopting an appropriate positioning strategy, and diversifying into the production of complementary products (Hill, 1997, p. 7).

According to Shapiro & Varian (1999, p. 16), in order to be successful in an situation where companies are competing on the status of being the standard, the ownership of seven key assets are important to do this:

- Control over an installed base of users;
- Intellectual property rights;
- Ability to innovate;
- First-mover advantages;
- Manufacturing capabilities;
- Strength in complements; and
- Brand name and reputation

Shapiro & Varian (1999, p. 16) also adds "no one asset is decisive." Hence, Crystal must maintain a portfolio of product lines and strategies in order to maintain its competitive position.

3.3.5 Threat of Substitutes

Few substitutes exists that can match the reporting and information delivery functionality of BI software. There are other software products outside of BI that can perform some of the functions of BI. However, BI software is highly specialized and other categories of software cannot substitute its functionality. Overall BI technology is unique as it provides customers with views of data that provides them with information in a way that cannot be matched by any other technologies.

3.4 Summary

In this chapter, we have learned that Crystal is in an industry that has a positive outlook for growth and profitability. Crystal has a strong and competitive position as one of the leading vendors in the BI industry. The company established itself as a leader through many years of experience in this industry, which allowed Crystal to develop products that are well suited for its customers. The next chapter examines Crystal's partnership strategies. As a global company with millions of customers, Crystal leverages its partners to distribute, market, promote, and provide services for its products. One of the intentions of the next chapter is to examine the significance of partnership strategies for Crystal.

4 CURRENT PARTNERSHIP STRATEGY OF CRYSTAL DECISIONS

Crystal's network of partners enables the company to reach millions of customers over the globe, for the purpose of distribution, selling or support of its products. Crystal has a long history of strategic partnerships with key industry leaders. These industry leaders include Microsoft, SAP, IBM, PeopleSoft, and Baan. Crystal has OEM partnerships with more than 360 software vendors to incorporate its business intelligence solutions as core components to their applications. Their applications include accounting, ERP, CRM, SCM, financial, healthcare, telecommunications, human resources, and education applications (Crystal 2003r).

The development of strategic partnerships has been a major factor in Crystal's growth and profitability. Crystal carefully selects the companies who they partner with. When making a decision whether to partner with a company, Crystal considers the software adoption growth potential of the potential partner, the complementary "fit" of Crystal's software with the other vendor's software, and many other factors. Microsoft has been the most significant strategic partner for Crystal. With the partnership with Microsoft, Crystal has been able to leverage Microsoft's market reach to its developer segment. The alliance also has positive impacts on customer perceptions of Crystal products.

Crystal's network of customers and partners facilitates the dissemination of Crystal products and services into the market. This helps to accelerate the adoption of Crystal products.

4.1 The Role of Complementors in Crystal's Strategy

In the marketplace, there are a significant number of companies in different industries that have products and services complementary with Crystal's products, services and business. Recognising this situation, Crystal has developed partnership strategies that are instrumental in increasing its capabilities of creating value for its customers, generating higher profits, and expanding its market base. A complementor is a company, product, or element that has the effect of increasing the value of another product. Using an analogy that describes a company as a player in a game, "A player is a *complementor* if customers value your product *more* when they have that player's product than when they have your product alone" (Nalebuff and

Brandenburger, 1997, p. 30). The availability of complementary products increases the value of Crystal software through compatibility, leading to higher demand for products. The following statement describes this situation:

> In industries where compatibility is important, the value to a consumer of owning a product is an increasing function of the availability of compatible products ...A larger installed base leads to a greater availability of software applications. This has a positive impact on the value of a particular machine to consumers, and leads to greater demand for those machines, which translates into a greater installed base (Hill, 1997, p. 8).

Earlier, this analysis discussed how network externalities tend to lock consumers into purchasing Crystal products for their reporting needs once they have obtained Crystal products. As previously described, "lock-in" refers to the situation when it is difficult or not feasible for a customer to replace the existing product with something else, often because such product has the highest economic value to them. The demand for Crystal's complementary products adds value to network externalities, by increasing the value of Crystal products for users. Hax & Wilde (1999, p. 13) state that in system lock-in strategy, instead of focusing only on the product or the customer, a company "considers all the meaningful players in the system that contribute to the creation of economic value." Hax & Wilde further emphasise the importance of developing strategies around complementors as follows:

> In this strategic position, bonding plays its most influential role. The company is particularly concerned with nurturing, attracting, and retaining so-called "complementors," along with the normal industry participants. (A complementor is not a competitor but a provider of products and services that enhance a company's offering.) ...The critical issue here is looking at the overall architecture of the system: How can a company gain complementors' share in order to lock out competitors and lock in customers? The epitome of this position is achieving the de facto proprietary standard (Hax & Wilde, 1999, p. 13).

The next section describes Crystal's partnership strategies. Crystal expends considerable effort and resources in developing and maintaining effective partnership strategies. These partnerships have had a significant impact on the success of the company.

4.2 OEM Strategy

In OEM relationships, partners bundle Crystal products with their own products. The partners enter into licence agreements with Crystal to embed Crystal software into their software. Revenue is received directly by the OEM partner. In most cases, Crystal receives a royalty per user license that is sold by the OEM partner. Crystal may also negotiate the right to co-brand their technology within the partner's product, for example using the branding phrase: "Powered by Crystal."

4.2.1 Crystal's OEM Partner Program

The OEM Partner Program allows eligible ISVs who develop software applications and products to obtain an OEM version of Crystal Reports, Crystal Analysis, and Crystal Enterprise for bundling or reselling with their own software applications. There are restrictions associated with the OEM bundled product. First, the OEM partner can only bundle or resell Crystal products with the specified applications that are listed in the OEM agreement. Under the license agreement, the OEM partner cannot provide Crystal products to customers who have not purchased the OEM application. Second, the Crystal product license can only be used with the software application and can only report off the data that the application creates. Any use of an OEM Crystal product that is beyond this is in violation of the license agreement (Crystal, 2003a). Crystal's OEM partners benefit from "improved development time, reduced R&D costs, new revenue streams through new license and service revenue streams, marketing support, and a dedicated OEM technical support team" (Crystal, 2003f).

The OEM Partner Program has three levels. Tier 1 is the "Premier OEM Business Partner". There are 26 premier OEM business partners. In order to reach this level, the OEM must have met minimum sales volumes of Crystal products of at least $150,000 annually. These partners receive premier level benefits from Crystal such as dedicated account management, dedicated marketing support, possible sponsorship of OEM events, priority technical support, access to Crystal's private partner website, electronic partner newsletter, invitation to Crystal's annual partner conference, and a dedicated technical support contact (Crystal, 2003a).

Tier 2 is the "OEM Business Partner". There are 95 OEM business partners. These OEM's must have met minimum distribution volumes of Crystal products of at least 500 units annually. These partners receive benefits from Crystal such as dedicated account management, priority technical support, access to the Crystal private partner website, electronic partner newsletter and an invitation to Crystal's annual partner conference (Crystal, 2003a).

Tier 3 is the "Authorized Application Provider (AAP)". The AAP partner is not an OEM. It is typically the smaller software company that is unable to meet the sales volume requirements of the OEM program. Crystal provides the AAP partner with access to a broad range of Crystal's product and service offerings and purchases at fixed discount levels. APP partners make purchases directly through Crystal and must purchase at specified minimum quantities (Crystal, 2003a).

The benefits experienced by Crystal's OEM partners include improved development time, reduced R&D costs, new revenue streams through new license and service revenue streams, marketing support and a dedicated OEM technical support team (Crystal, 2003a).

As stated on Crystal's web site:

> Since the inception of the partnership program, technology from Crystal Decisions has been incorporated into a wide variety of leading enterprise systems, including Accounting, Human Resources, ERP, CRM, SCM, Database, Healthcare, Telecom, and Network Management applications. Today, Crystal

Decisions has more than 360 OEM partners worldwide, including Baan, ESRI, Lawson, Microsoft, PeopleSoft and SAP (Crystal, 2003f).

4.2.2 Product Seeding Strategy

Crystal "seeded" versions of Crystal Reports that only have the basic features in software for application development. This strategy was used to create visibility and adoption of the product in a large user base. Crystal Reports was exposed to the over two million developers using the Microsoft product with Crystal Reports being bundled in Microsoft's Visual Studio. This created brand awareness and promoted adoption of the Crystal Reports tool. Currently, Crystal Reports is bundled with Microsoft's Visual Studio .NET software. Over one million copies of Crystal Reports have been distributed during the .NET product launch (Crystal, 2003l). The strategy of seeding Crystal Reports in other products initiates a "virtuous cycle", by leveraging the market distribution of major software vendors.

Strategic seeding is used with partners that are larger than Crystal. In the past, seeding has been very effective to generate brand recognition for Crystal. In a seeding arrangement, Crystal bundles it product with partner products. Usually, no money is exchanged in the agreement, and Crystal earns no royalties. Through bundling Crystal product, the partner obtains BI features without needing to invest in building their own capabilities. Crystal gains the advantage of having access to a new distribution channel. Both companies benefit.

Two types of revenue streams are achieved through seeding agreements. They are up-sell and cross-sell. The up-sell opportunity occurs when customers desire to have features that are more advanced than the entry-level seeded features. In this case Crystal sells advanced versions of the same product to these customers. Cross-sell opportunities occurs when customers wish to purchase additional products from Crystal's product suite after the customer has successful experience with the bundled product. An example is with Crystal Enterprise. The customer's need to manage reports from a central server and share the reports over the enterprise is a complementary need. Crystal Enterprise can meet this need. This is a cross-sell opportunity.

4.3 Solution Kits Strategy

In a solution kits relationship, Crystal and its partner collaborate efforts to develop a Crystal add-on product to the partner's software. The add-on product is marketed as a solution kit for the partner's software, and is endorsed by the partner. The solution kit is marketed directly to the partner's customers. Partners include the solution kit in their list of complementary products. This list may be on the partner's website, with a hyperlink to Crystal's e-store.

4.4 Professional Service Partner Strategy

Crystal forms alliances with partners that provide professional services to their customers. The benefit that Crystal receives is that through such partnerships, Crystal can provide a wider range of services and support for Crystal products, and also provides opportunities for Crystal to reach the strategic partner's customer segments. Consulting partners can also promote Crystal's products with no competitive concerns as such partners are in the business of professional services and not software products.

4.4.1 Solutions Partner Program (Training and Consulting)

The Solutions Partner Program is for partners that provide training and consulting services for Crystal's products and solutions. The program provides an intensive technical certification program. Once a partnering company has qualified for the program, the company may select individuals from the partnering company to become "Crystal Decisions Certified Professionals". The certification program is specifically designed for existing trainers and consultants. The certification program provides technical training and hands-on experience with the Crystal product line.

Solutions Partners are provided with access to marketing collateral, sales tools and logos to leverage the Crystal brand name. They are kept up-to-date with product information and training materials. Solutions Partners are also listed on Crystal's corporate web site (Crystal, 2003o).

4.4.2 Training Specialization Partners

Training partners are companies that deliver classroom training to business and power users. They increase their profit margins by providing training services for Crystal Reports, Crystal Enterprise and Crystal Analytic Applications. Training partners are provided with training courses developed by Crystal, and materials that help them deliver training solutions to their customers (Crystal, 2003o).

4.4.3 Consulting Specialization Partners

The typical consulting partner profile is an organization that is experienced in data warehousing and BI implementations. Crystal seeks organizations with the following criteria to become Crystal's strategic partners: a BI practice focused on enterprise solutions; resources for supporting and marketing to organizations with more than 100 users; demonstrated competency in Crystal Decisions products and enterprise deployment practices; supports common development tools and common databases; a staff with a variety of certification, vertical skill set experience and project management skills. Crystal also looks for organizations that support or currently partner with one or more of the following companies: Microsoft, SAP, Lotus, Oracle, or others.

When an organization becomes a Crystal Decisions Consulting Partner, they assign individuals within their company to become certified consultants. Crystal offers a Crystal Certified Consultant program, which provides technical certification training, and education program for qualified consultants (Crystal, 2003o).

4.4.3.1 New partnership with a consulting organization

In September 2003, Crystal announced an alliance agreement with Cap Gemini Ernst & Young US LLC (CGE&Y). The strategic partnership encompasses joint product development, co-marketing and reseller capabilities. CGE&Y will have a core team of consultants who are certified in Crystal products and proactively markets joint solutions to its customers.

The alliance helps to complement Crystal in marketing and delivering solutions directly to the customers in certain industry segments. The partnership combines CGE&Y's domain expertise with Crystal technology. CGE&Y is able to demonstrate the value of Crystal and deliver a solution through a consultative engagement with their customers. As the press release explains:

> The new alliance will help expose a broader range of organizations to the power of Crystal Decisions' enterprise reporting solutions. Together, Crystal Decisions and CGE&Y are rolling out the BI Index to customers globally. The BI Index is a jointly developed solution that shows organizations where they stand in terms of their BI readiness and integration. Customers are taken through a 6-step process to help them define, predict and measure the value of a proposed BI initiative. Additionally, they learn how to effectively leverage analytical, reporting and predictive capabilities across their organizations and monitor their return on investment through a built-in ROI calculator (Crystal 2003e).

4.4.4 Crystal xSP Partner program

The Crystal xSP Partner Program offers two levels of partnership – Certified and Authorized. This partner program is designed to meet the needs of nationally and internationally focused service providers who build or host business solutions and provide BI solutions to their customers. The partners specialize in offering horizontal or vertically focused solutions to their customers. Areas of specialization include financial, human resources, customer relationship management, e-business, enterprise resource planning, supply chain management, Oracle, Lotus, and data warehousing (Crystal, 2003o).

4.5 Marketing Partner Strategy

Crystal forms alliances with partners that market and sell Crystal products to customers. The benefit that Crystal receives is that through such partnerships Crystal can penetrate their partner's customer segments.

4.5.1 Authorized Reseller Partner Program

Partners enrolled in Crystal's Authorized Reseller partner program promote and sell a wide range of Crystal solutions to their customers and prospects. Partners are expected to educate and train their sales force on Crystal products and services. Partners renew their authorized reseller application on an annual basis.

Crystal authorized resellers are typically companies that are software resellers or value-added resellers with an established purchasing relationship with a distributor. Resellers may have customers that include developers, IT professionals and business users in small to medium sized companies. Partners have access to Crystal's Private Partner website and receive periodic emails from Crystal regarding information related to the sale and promotion of Crystal products and/or company information. The website contains Crystal resources, including product and service information, technical information and sales tools (Crystal, 2003o).

4.5.2 VAR Partner Program

The Value Added Reseller (VAR) partner program partners Crystal with experienced system integration companies and consulting companies. These companies have existing sales and marketing support and their own product lines and services. VAR partners use Crystal products to incrementally increase sales by adding value to their own products and services (Crystal, 2003o).

5 CRYSTAL'S KEY PARTNERSHIP ACCOUNTS

This section describes Crystal's three key partners: Microsoft, SAP, and IBM. Crystal's partnerships with these companies have contributed significantly to Crystal's revenue generation.

5.1 Microsoft Partnership

Since Crystal Reports was first bundled with Microsoft Visual Basic in 1993, Crystal has had a successful relationship with developers using Microsoft products. Crystal is a member of the Microsoft Data Warehousing Alliance and is also a Microsoft Gold Certified Partner. Crystal offers a suite of information delivery solutions for the Microsoft platform (Crystal, 2003n). According to Crystal, "it has been determined that over 80% of the 5 million Crystal Reports copies have been distributed through Microsoft bundles" (Crystal, 2003m).

The Microsoft partnership provides Crystal with the following revenue-generating opportunities:

- Up sell developers to .NET sever licensing, training and consulting, technical support, stand-alone copies of Crystal Reports and Crystal Enterprise
- Up sell Microsoft CRM customers to the advanced version of Crystal Enterprise
- Conduct direct marketing campaigns to reach Microsoft customers
- Work with Microsoft sales force in solution selling to enterprise customers

- Conduct joint Microsoft and Crystal promotions with Crystal's channel partners

Crystal's membership in the Microsoft partner programs gives Crystal access to Microsoft's technical staff for product development and gives Crystal the opportunity to conduct joint marketing programs (Crystal, 2003m).

5.1.1 Microsoft Visual Studio .NET 2003

In a partnership with Microsoft, a custom edition of Crystal Reports is included in the default installation of all major editions of Visual Studio .NET 2003 and in nine different languages. Crystal is the only third party in the Microsoft product and acknowledged on the splash screen install as follows: "Crystal Reports for Visual Studio .NET 2003 lets developers create presentation-quality, interactive reports quickly and integrate them into almost any application." Also, Crystal Enterprise 9 has been integrated in the Visual Studio.NET IDE: "Accessible from directly within the Server Explorer in the Visual Studio .NET IDE, Crystal Enterprise 9 helps you separate the application coding, report development and application maintenance processes and, in turn, increase productivity, reduce time to market and manage applications more comprehensively" (Crystal, 2003k).

5.1.2 Microsoft CRM

A customized version of Crystal Enterprise is bundled with the Microsoft CRM (Customer Relationship Management) product. Crystal Enterprise is the only third party component installed. Crystal Enterprise for Microsoft CRM provides users with the tools for creating web-based reporting, analysis, and information delivery. Crystal's bundled software is used in the CRM application as follows:

- *Discover trends, opportunities, and issues*
- *Select and act upon high-value opportunities*

- *Analyze and forecast revenue and sales*
- *Satisfy demands for comprehensive, high-quality customer insi*ght

(Crystal, 2003j)

5.1.3 Rationale for Microsoft Partnership

The Microsoft partnership provides value to Crystal in several ways:

5.1.3.1 Seeding

Microsoft has entered into agreements to bundle Crystal products in a number of core Microsoft products. For example, the bundling of Crystal products in Microsoft CRM provides a seeding strategy for Crystal Enterprise in the small and medium sized businesses (SMB) market. These bundled products are then delivered to the market via the vast Microsoft distribution channels. This provides Crystal with a high degree of access to the various markets that Microsoft is targeting. This also delivers a higher level of customer adoption of Crystal products within Microsoft's customer base. As a result, Crystal has a highly valuable go-to-market channel with each technology partnership (Crystal, 2003m). The strategy also helps to block other competitive software within the Microsoft customer base.

5.1.3.2 Revenue

The developer segment of customers account for 15% of Crystal's current total revenue. Crystal receives significant revenue from the technology partnership. Crystal's products are widely adopted by companies that embrace Microsoft products, including Windows, Windows Server, Office, SQL Server and Visual Studio. Revenue is generated by:

1. Developers upgrading from the bundled edition of Crystal Reports that is included with Visual Studio .NET to a more advanced version of Crystal Reports.

2. Server licensing for application developed that integrate the Crystal Reports .NET technology and which require additional scalability.

3. Crystal Enterprise sales to large organizations requiring report server technology.

(Crystal, 2003m)

5.1.3.3 Credibility

Crystal receives credibility for its products as a result of Microsoft bundling Crystal's technology with Microsoft products. "This speaks volumes about the breadth and depth of the partnership, and influences the opinion of buyers that Crystal Decisions technology is endorsed by Microsoft" (Crystal, 2003m).

5.2 SAP Partnership

Crystal is a Global Software Partner of SAP. This is a category for SAP comprising software partners that have a strong relationship with SAP. As of March 2003, there are only two companies worldwide with this status, one being Crystal, and the other being IXOS. This partnership differentiates Crystal from its competitors, such as Cognos. Crystal is the only BI vendor to have this type of partnership with SAP.

Crystal's relationship with SAP goes back five years during which time Crystal had developed different categories of partnerships with SAP AG and SAP Portals based on different product offerings. In the partnership, Crystal's SAP solutions is divided into 2 categories – a solution kit for SAP, and the OEM partnership agreement.

The following is a list of all the Crystal SAP products:

- Crystal Enterprise Solution Kit for mySAP.com. This is an add-on product that enables reporting from SAP

- Crystal Enterprise – SAP Edition. This is bundled with SAP BW 3.0 and enables SAP users to view, manage, and deploy pre-defined reports with limited functionality in a production environment
- Crystal Enterprise – Enhanced SAP Edition, is part of a resell agreement with SAP. This edition provides unlimited report creation and design.

(Crystal, 2003t)

5.2.1 OEM Agreement

Crystal Decisions and SAP collaborated on research and development to integrate Crystal products with SAP BW, which is a data warehouse solution on the market for SAP customers.

A customized edition of Crystal Enterprise is bundled with SAP BW 3.0b. This is available at no extra cost to the customer. The bundled Crystal product enables customers to deploy reports to their business users on their production system. Customers have access to pre-defined report templates. 35 reports were shipped with SAP BW 3.0b. With the new content release of SAP BW 3.2, an additional 80 reports have been included. This brings the total of re-defined Crystal report templates to 112. Customers can create and modify up to a maximum of 10 Crystal Reports and deploy them in their production environment (Crystal, 2003t).

5.2.2 Solution Kit with SAP

The solution kit for SAP is a customized version of Crystal Enterprise that comes with capabilities for connectivity to SAP BW and R/3. Specifically, Crystal has a partnership status on two of these features: certification of connectivity with SAP BW, and SAP WorkPlace Integration (Crystal, 2003t).

5.2.3 Reseller Agreement

SAP sales reps can sell Crystal Enterprise (Enhanced SAP Edition). This product is on their price list. This version of Crystal Enterprise includes the full version of Crystal Enterprise and Crystal Reports. It also includes the SAP R/3 connectivity allowing access to information in the SAP R/3 system (Crystal, 2003t).

5.2.4 Rationale for SAP Partnership

The partnership gives Crystal access to SAP's vast enterprise market. It also validates Crystal as a vendor with proven abilities, by having the exclusive endorsement by SAP for its reporting software. This differentiates Crystal from its competitors, including Cognos. This strategy also promotes Crystal as a standardized technology for global systems integrators.

Together SAP and Crystal offer a complete reporting solution that empowers organizations to make better business decisions that lead to cost savings, increased productivity, and competitive advantage. Table 7 summarizes the benefits to customers of using the complete reporting solution jointly provided by SAP and Crystal.

Benefit	Description
Cost Savings	One solution meets all reporting needs (SAP and non-SAP), eliminating the need to manage multiple solutions.
Productivity	When end users can easily create, schedule, and distribute their own presentation-quality reports, reporting backlog is eliminated and costly IT resources can be reallocated.
Competitive Advantage	Smarter decisions, faster. Together with SAP, Crystal's solution gives customers the information they need, when they need it, and in a format they can use.

Table 7: Benefits of SAP and Crystal Reporting Solution
(Crystal, 2003t)

5.3 IBM Partnership

Crystal has a long-standing and successful relationship with IBM. Crystal has been an IBM Business Partner since 1993 and presently has "Advanced" status, which provides Crystal with technical, business and marketing services. The relationship was advanced in 2001 through IBM's investment in the Crystal Enterprise product. IBM funded connectivity of Crystal Enterprise to one of their products (CE AIX) and has provided hardware and services resources to ensure the success. In joint efforts to drive a go-to-market strategy for CE AIX and other products optimized for the IBM platform, IBM and Crystal finalized a Master Relationship Agreement (MRA). The MRA contemplates a long-term strategic relationship with sales, marketing and technology commitments by the parties and the objective of driving business together. Under the MRA, IBM and Crystal will actively market joint solutions and services to existing and new customers (Crystal, 2003u).

5.3.1 Rationale for IBM Partnership

IBM has a diverse offering of products that target a wide range of customer segments. Crystal supports a wide range of IBM products and through the partnership, has the ability to sell its software to IBM's channels. The revenue potential is significant, and drives adoption of Crystal products in many of IBM's customer segments. IBM is one of the largest software companies worldwide with many licenses purchased (Crystal, 2003u).

5.4 Crystal's Partnership Programs Growing in Members

It is clear that Crystal has developed many partnerships. In September 2003, Crystal announced that it has signed up more than 121 new partners and renewed many existing OEM relationships. The newly developed partnerships increased Crystal's total number of OEM partnerships to more than 350 worldwide. Wyatt Mullin, Crystal's director of business development stated, "These strategic partnerships are instrumental to our continued growth and success, and to the success of our customers. We are committed to further strengthening our OEM partnerships in FY 2004" (Crystal, 2003f).

5.5 Current Partnership Strategy a Significant Driver of Crystal's Success

Greg Kerfoot, former CEO and president of Crystal Decisions, quoted that "Our industry –leading revenue growth is due to three main factors: the strength of our enterprise products, the achievement of our sales force in expanding enterprise level deployments, and the continued success of our major partnerships, including those with SAP and Microsoft's .NET initiative" (Crystal, 2002).

On September 2, 2003, Crystal Decisions announced that it has shipped more than 15 million licenses of its products worldwide. As the following quote mentions, Crystal's partnership strategies have been a major force in driving customer adoption of Crystal products. Mark Smith, SVP Research and CEO of Venting Research, stated that:

> Crystal Decisions has hit an important milestone through shipping 15 million licenses making it a leader in enterprise reporting...the broad distribution channels and strategic partnerships with Microsoft and SAP are key parts of success along with Crystal Decisions experience in delivering enterprise reporting for business today and in the future (Crystal, 2003d).

Mike Schiff, Vice President of Data Warehousing and Business Intelligence at Current Analysis, Inc., also emphasis the importance of partnerships:

> With more than 15 million licenses shipped, Crystal Decisions has confirmed our opinion that, with the exception of spreadsheets, its toolset is one of the most ubiquitous in the business intelligence marketplace...Strategic alliances with companies such as Microsoft and SAP, combined with a loyal installed base, should enable Crystal Decisions' products to continue their impressive growth, especially in the true enterprise reporting market segment (Crystal, 2003d).

5.6 Summary

In this chapter, we have examined the many different types of partnership arrangements that Crystal uses to distribute, promote, sell, and provide services for its products. We have looked at Crystal's three most valuable partners – Microsoft, SAP, and IBM. The partnerships with three of these vendors who are leaders in the software industry has had a major role in Crystal's success, and is currently a major factor in Crystal's ongoing success. The next section of this analysis examines the proposed ISV program that Crystal is considering establishing. The section begins by explaining what Crystal is considering, and then examines in detail the elements of the program and what this program can achieve.

6 CRYSTAL'S INTEREST IN AN ISV PROGRAM

A missing element of Crystal's current partnership strategy is that Crystal has not yet established an OEM "inbound" program, in which other ISVs can form a partnership with Crystal using Crystal as the platform provider. The proposed ISV partnership program (the "ISV Program") would fit into this gap in Crystal's partnership strategy. It is anticipated that an increasingly number of customers will demand software solutions that meet their specific needs. These needs can be met by ISVs who develop specialized software for niche markets.

The following points summarizes the analysis:

- Customer value is moving to more vertical, customized solutions
- Customers spending more on what is closest to their business
- ISVs are adapting to this shift in customer needs and proving more specific solutions
- An ISV Program would increase the opportunity for Crystal to be a platform provider to these industry specific ISVs. Complementary products would increase.

(Anonymous Employee 3, 2003)

The ISV Program would involve Crystal having a "pull" strategy, by attracting ISVs to enrol in Crystal's ISV Program. Implementation of an ISV Program would encourage and support ISVs that develop software complementary to Crystal's products to use Crystal as the main platform provider and develop specialized software which enhances Crystal's products and market share.

Many companies already exist in the marketplace that make products that are complementary to Crystal's products. However, such products are not being developed in conjunction or in partnership with Crystal's business strategies. The value to Crystal of an ISV Program is that ISVs generally develop software products that are specialized, for example, for particular industry areas, which have not been penetrated, by Crystal products. As Crystal does not have the expertise and capability of customizing its products for each of these industries, partnering with ISVs would allow Crystal products to reach a wider market and be used for more specialized applications. As this could lead to potentially large opportunities for Crystal, implementation of an ISV Program should be carefully considered.

Enrolling ISVs in Crystal's ISV Program could potentially create a "virtuous cycle" of customer adoption, which leads to an exponential growth in the market for complementary products around Crystal software. Ultimately, this leads to increased consumer demand for Crystal software, and profit for Crystal.

6.1 Classification of Programs

There are five groups of developer relationship programs identified by IDC. The following categories of programs are based on the generic purpose of the programs.

6.1.1 Developer Programs

Developer programs are targeted at individual developers and small ISVs. They often provide the framework for ISV programs. The focus of these programs are on technical resources, such as software downloads and developer kits, technical support, and training (Carr, 2003, p. 1).

6.1.2 ISV Partner Programs

ISV partner programs are targeted at companies that possess compatible products and solutions. These complementary products and solutions are either already in development or completed. These programs include the types of resources that are usually provided to individual developers. They also include resources that help partners market and sell the end products and services of their development efforts (Carr, 2003, p. 1).

6.1.3 ISV Alliance Programs

ISV alliance programs are designed for "key strategic ISV partners that usually have their own brand clout" (Carr, 2003, p. 1). A commitment on both sides are usually involved in these programs. "The resources provided at other levels of relationship are topped off with dedicated marketing and sales support and a go-to-market plan" (Carr, 2003, p. 1).

6.1.4 Systems Integrator (SI) Partner Programs

Systems integrator (SI) partner programs are designed for "services firms that implement and extend vendor solutions but do not build or sell their own packaged solutions." These programs offer resources to help "build out the skills and implementation capabilities" of SI companies. They typically "include incentives for leading with a vendor's solutions" (Carr, 2003, p. 1).

6.1.5 SI Alliance Programs

SI alliance programs are designed for "key strategic services partners that have the industry expertise or geographic presence to open and/or substantially extend a software vendor's market" (Carr, 2003, p. 1). "The resources provided at other levels of relationship are augmented with a go-to-market plan as well as dedicated marketing and sales support" (Carr, 2003, p. 1).

6.2 Summary

Looking at the five groups of developer relations, Crystal has in place an ISV alliances program, a Systems Integrator partner program, and a Systems Integrator alliance program. Crystal does not currently have in place a Developer Program or an ISV Partner Program. However, Crystal's Developer Zone website, which offers software downloads and technical resources has some of the elements of a Developer Program and could serve as a foundation to a developer program. The ISV Program that Crystal is considering fits into the category of ISV Partner Program.

7 THE ISV PARTNERSHIP PROGRAM

First, this chapter explains the meaning of ISV, and ISV Ecosystem, and then describes the program that Crystal is envisioning.

7.1 Introduction to ISVs and the Proposed ISV Partnership Program

Independent Software Vendors (ISVs) are companies that develop and sell software products that run on one or more computer hardware or operating systems platforms. The companies that make the platforms, such as Microsoft, IBM and Hewlett-Packard, often encourage and support ISVs. Generally, the more applications that run on a platform, the more value the platform will offer to customers[3]. An ISV Ecosystem is a community of companies, varying in size and business models that develop software products. It has been estimated that there are over 500 ISVs that develop products complementary to Crystal's products.

The objective of the proposed ISV Program is to encourage and support ISVs that use Crystal software as a platform for their complementary software products. The proposed ISV Program is targeted at two tiers of ISV companies:

- Tier 1: ISVs who wish to integrate and certify their products with Crystal's products. This makes their products complementary with Crystal's products
- Tier 2: ISVs who develop complementary tools that extend Crystal's product offerings

7.2 Classification of ISV Complementary Products

Complementary products developed by ISVs are products that are compatible with Crystal software. ISVs develop and sell three types of complementary products to Crystal software: enhancements, solutions kits and compliant products.

7.2.1 Enhancement Add-on Product

These products are specifically designed to work with Crystal software as an attachment that may enhance, modify or improve the usability of Crystal software, or alternatively, add new features to the original Crystal software. They do not function alone, and have no commercial value as a stand-alone product. They are marketed and sold as enhancements or add-on products to Crystal software (Anonymous employee 2, 2003).

[3] Source: http://whatis.techtarget.com/definition/0,,sid9_gci214047,00.html

7.2.2 Solution Kit or Modified Product

These products are software applications that are originally sold as stand-alone products by the ISV. These products are compatible with Crystal software and can therefore be re-packaged and sold as a customized extension to Crystal software. The product is packaged as a solution kit, which may contain code samples and support documents. This is opportunistic branding (Anonymous employee 2, 2003).

7.2.3 Compliant Product

These are products that are sold stand-alone. The companies that produce these products usually have their own distribution channels, and work with other companies, including those that are competitors to Crystal. These products are can be connected with Crystal software but also work with software of competitors of Crystal. Their compatibility with Crystal software is not a requirement, but a value-added feature. The main objective is co-marketing with Crystal, and to receive endorsement from Crystal for the product (Anonymous employee 2, 2003).

7.3 Proposed ISV Program Elements

The proposed ISV Program would provide the targeted ISVs with the types of products and services set out in Table 8. The package of products and service would comprise the ISV Program benefits. The ISV would be required to pay a fee to Crystal to become a member of the ISV Program. The ISV Program would likely have a range of different program packages to offer, the higher the cost, the more that is included in the package. As part of the ISV Program, the ISV would need to pay a licensing fee to Crystal in order for the ISV to obtain a license to use and sell Crystal products.

ISV Program Element	Offerings	Benefit to ISV
Technical	• Access to source code in Crystal products • Access to sample code and technical solutions information • Software Development Kits (SDK) • Access to technical support staff and information	• Enables ISVs to create more products which are complementary with Crystals • Enables ISVs to integrate their existing products with Crystal's products
Community	• Partner Conferences • User Groups • Dedicated user group Web site • Training for partners	• Interact with other ISVs and with Crystal • Get answers to questions
Marketing	• Product marketing resources • Usage of a logo communicating endorsement/licensing by Crystal • Listed by Crystal on website and media as partner • Sold on Crystal e-Store	• Advertising for ISV through Crystal • Increased Brand awareness for ISV • Access to Crystal's distribution channel through e-store • Crystal endorsement through logos and advertising portrays credibility of complementary ISV • Referrals from Crystal

Table 8: ISV Program Products and Services

7.4 Crystal's Rationale for Launching the ISV Program

Crystal has identified the following reasons for launching the ISV Program:

- Increase customer satisfaction and customer loyalty by ensuring third party products work with Crystal Enterprise, Crystal Reports, and Crystal Analysis
- ISVs delivering complementary solutions that can expand Crystal's business
- Crystal can leverage partners' customer base to reach new markets and expand its own customer base
- Fulfill a demand by partners to have their products acknowledged by Crystal

- Provide Crystal with the information to develop an extensive library of demos, sample reports and scenarios of how Crystal products are used, and showcase these solutions on the Crystal website

- Drive mind-share and adoption leading to increased market share

- Customer satisfaction – provides end to end solutions for the customer

- Gain market intelligence and innovation

(Crystal, 2003i)

7.5 ISVs Can Meet Niche Demands Better Than Crystal

The targeted companies are ISVs that develop specialized software for vertical business niche markets. These ISVs work closely with their clients in specific industries, and can best meet the needs of these customers.

"...in this market today, customers are buying based upon highly quantifiable returns on investments, and the guys who can make that the fastest are the ones that are closest to the applications that solve their business problems" – Chuck Roberts, vice president of US channels at Cisco Systems (Zarley, 2003, p. 20).

"Chris Easton, director of ISV market development at Progress states: "Applications have to fit [nearly] 90 percent [of customers' needs] or people won't buy them..." (Darrow, 2003, p. 1).

7.6 Analysis of the Strengths and Weaknesses of an ISV Program

Table 9 describes the strengths and weaknesses of an ISV Program.

Strengths	Weaknesses
• Membership and Licensing Fees collected by Crystal contribute to revenues	• Increased costs to establish the program
• Leverage partners' customer base to reach new markets and expand Crystal's customer base • Joint marketing with ISVs to penetrate new customers • Cross-sell opportunities with ISV products sales	• Intellectual Property of Crystal: by giving source code and knowledge, there is a risk that the ISVs could develop their own competitive products
• Knowledge base: Crystal will find out more about how their products are used	• ISV products may become substitutes for Crystal's products – threat of substitutes may increase.
• Better visibility to acquire complementary technology/ acquire ISV companies	• Offering tech resources may lower barriers to entry in the BI market, creating rivals in the BI industry
• Encourage ISVs to develop complementary products around Crystal products, as opposed to Crystal's competitor's products.	• Other than the collection of membership and licensing fees, it could be potentially difficult to measure the Return on Investment (R.O.I.) of the program due to an indirect revenue model

Table 9: Strengths and Weaknesses of an ISV Partnership Program

7.6.1 Mitigating the Risks

The recommended approach in launching an ISV Program is to include elements in the ISV Program that would mitigate the risks. One risk is that ISV complementary products that are poor in quality could develop negative impacts on the consumer's perception of quality of Crystal's products. An ISV complementary product that has problems would adversely affect the perception of Crystal's products, particularly in situations where the source of the problem is difficult to trace. The ISV Program should have an established set of criteria to facilitate selective partnering through rigorous testing of the ISV complementary products to ensure consistently high quality in functionality of these products. The ISV partners would be required to meet a set of criteria to validate that they meet Crystal's standards of quality. This would maintain Crystal's credibility without having a negative impact on Crystal's reputation for reliable software.

Another risk is that by providing ISVs with Crystal's information and resources, this could potentially enable ISVs to become competitors. Effective legal planning can be used to develop policies to be included in the ISV Program regarding licensing of any intellectual property owned by Crystal.

7.7 A Benchmark ISV Program

Crystal's number one competitor, Cognos, has already established an ISV technology partnership program that is comparable to Crystal's proposed ISV Program. This is a competitive advantage for Cognos as it has already formed many ISV partnerships, whereas Crystal currently has no similar program in place. This indirectly results in a loss of customers in specialized niche-markets to Cognos. The ISV Program would keep Crystal on par with Cognos. However, Cognos may still have a stronger competitive advantage given that its ISV program was formed earlier and may already have some significant members.

The following section describes the details of Cognos' ISV program. The Cognos ISV program could serve as a benchmark for Crystal's proposed ISV Program.

7.7.1 The Cognos Technology Partner Program

"Cognos technology partners consist of software and platform vendors who offer software that complements a single Cognos product or the entire Cognos solution suite. Technology partners are required to demonstrate the interoperability of their solution with Cognos" (Cognos, 2003).

The Cognos Technology Partner Program has two main partner levels, referred to as (1) Technology Partner, and (2) Strategic Technology Partner. At the Technology Partner level, the

ISV agrees to integrate their products and/or solutions with one or more products in the Cognos suite. Technology partners are reviewed annually to determine their eligibility in the program. At the Strategic Technology Partner level, ISVs are technology solution leaders and have significant market share in their respective fields. Their product integration with Cognos is designed to lead to co-operative opportunities to sell the solution to joint customers through co-operative marketing initiatives. In the partnership arrangement, the partners commit funds to joint marketing efforts, and the partner must designate an alliance manager to manage the relationship. The partner is required to certify the interoperability of their solution with Cognos (Cognos, 2003).

The requirements for ISVs to become a member of the program has three components: (1) strategic investment, (2) technical investment, and (3) marketing investment. The strategic investment requires an annual fee, a signed Cognos Technology Partner agreement, a completed company profile on Cognos PartnerNetwork, an identified executive sponsor, and a Partner Management liaison. The technical investment component requires that the ISV achieve a certified partner solution status. The marketing investment requires that the ISV partner participates in Cognos' marketing programs, completes an annual business plan, and publicizes a required number of success stories (Cognos, 2003).

Table 10 is a list of the benefits, support, and services available to members of the Cognos Technology Partner Program.

Marketing Support	Events
• Company profile on Cognos website and Partner Solution Guide • Cognos Partner logo • Joint success stories • Access to Cognos marketing programs • Cognos product collateral • Co-Branded solution white paper • Joint branded partner fact sheet • Advertising in Cognos Supportlink (magazine distributed to over 27,000 Cognos customers) • Access to Cognos store • Access to Cognos PartnerNetwork	• Sponsorship opportunity at Cognos events • Invitation to Cognos Partner Summit • Cognos participation at partner events • Access to exclusive partner Webcasts • Opportunity to participate in joint Webcasts to Cognos customers and prospects • Partner Webcasts to Cognos field
Communication and PR	**Sales Support**
• Cognos Press Release • Subscription to Cognos newsletter • Access to Partner Feedback Forum and participation in partner focus groups	• Assigned Partner Manager • Discounted Cognos Professional Services • Annual meeting with Cognos Executive
Technical Support	**Training**
• Access to Cognos software for training, demonstration and integration purposes • Access to online technical support and knowledge base • Access to Cognos software upgrades and patches • Telesupport Access • Subscription to Supportlink magazine	• Exclusive Partner Training subscription • Discount on product training and eLearning • Access to certification training

Table 10: Elements of the Cognos Technology Partner Program

(Cognos, 2003)

7.8 Many ISVs Have Approached Crystal To Establish A Partnership

Many ISVs are increasingly approaching Crystal with business plans. The common proposition delivered is that there is an opportunity for partners to add value to Crystal products without significant investment on Crystal's part but with the potential for high return. There are three types of ISVs that have approached Crystal: small ISVs, medium sized ISVs, and IT consulting companies that have built software tool kits for their clients. The following is a summary of the most common requirements requested by ISVs from Crystal:

- Access to Beta Software
- Access to Support
- Access to Training
- Access to Certification (Logo)
- Access to Web Site, Newsletter, DM advertising
- Access to Crystal Sales and Pre-sales staff
- Access to Crystal customers (Provision of Leads)
- Access to partnering / resale opportunities

(Crystal, 2003v)

The following is a summary of two business plans for unnamed ISVs that have approached Crystal. They are labelled Company A and Company B.

7.8.1 Sample Business Plan for Company A

Company A has a product that is complementary with Crystal products, and which sells in the market for $295. Company A would like Crystal to promote Company A's product through the Crystal e-store or other Crystal distribution channels. If Company A is able to sell its product to 1% of Crystal customers, this would equate to 100,000 units in 18 months. The company proposes that Crystal receives a 30% ($88.50) royalty be paid to Crystal of what is sold through Crystal. Based on estimated projections, this would amount to potentially $4.4 million in revenue for Crystal if 50% of the ISV product were sold (Crystal, 2003v).

7.8.2 Sample Business Plan for Company B

Company B has a product that is an enhancement to Crystal Reports, which sells in the market for $199 per unit. They would like to place the Crystal logo on their product, to give the product credibility and make it attractive to customers. They are offering to pay Crystal a 40% royalty for each unit sold. Based on 25,000 units/year sold, this could amount to $281,000 per year in revenue for Crystal (Crystal, 2003v).

7.9 Summary

As has been demonstrated, ISVs that approach Crystal have attractive propositions that do not require much investment from Crystal, and could potentially result in significant additional revenue for Crystal. As Crystal does not have a program or policy in place that caters for ISVs that approach Crystal, it has been a challenge to Crystal to make decisions with regard to these propositions. These are compelling reasons for Crystal to develop a strategy to address this.

8 ASSESSMENT OF CRYSTAL'S CURRENT AND PROPOSED STRATEGY

Leveraging partners to provide access to distribution channels for selling, promotion, and services is a critical key success factor for Crystal. The ISV Program would be an opportunity to leverage ISVs' distribution channels, gain more customers, and receive additional revenue through royalty agreements by agreeing to endorse ISV products.

This section discusses Crystal's current and proposed strategy. First, it is determined if Crystal is in a suitable position to invest resources into establishing the proposed ISV Program. As the ISV Program is an opportunity to gain additional revenue, it is a value-added strategy that should only be pursued if Crystal is in a strong position to do so.

Second, Crystal's partnership strategy is assessed. This section determines if the ISV Program addresses needs that are not currently met with Crystal's existing partnerships. There should not be significant duplication between the ISV Program and the current partnership programs.

8.1 Assessment of Crystal's Overall Current Strategy

As previously discussed, network externalities are the main driver of success for today's leading software products. In the software market, a large and growing market share indicates that incremental purchases are made, and lock-in occurs for products that are standardized. Hence, a large and growing market share is an indicator that there are strong network externalities.

The assessment of Crystal's current strategy in this analysis is performed using the Boston Consulting Group's (BCG) growth-share matrix (Grant, 1995). The BCG matrix concentrates on market share of the company or business unit and the market growth rate. The BCG matrix serves as an indicator of the current performance of Crystal in the Business Intelligence software industry.

The BCG growth-share matrix shown in Figure 1 examines the industry growth rate and compares it to Crystal's relative market share, relative to its competitors. This reflects the attractiveness of the BI industry and Crystal's position in this industry. This matrix has four quadrants that are used to predict the profitability, cash flow, and a recommended strategy. The "Stars" quadrant indicates a high relative market share and that the industry has positive growth rates. "Stars'" earnings are predicted to be high, stable and growing, although cash flow may be neutral. The recommended strategy for "Stars" is to invest for growth. The "Cash Cows" quadrant indicates a high relative market share and that the industry has less attractive growth rates. "Cash Cows'" earnings and cash flow are expected to be stable and high. The "Dogs" quadrant indicates a low relative market share and that the industry has lower growth rates. Their earnings and cash flow are estimated to be low and unattractive. The recommended strategy for "Dogs" is to divest or exit. The "Question Marks" quadrant indicates a market share that is relatively low and that the industry has attractive growth rates. Their earnings are estimated to be low, unstable but growing, with negative cash flow. The recommended strategy for the "Question Marks" is to develop a strategy so they can become "Stars". Without a good strategy, they may become "Dogs" (Grant, 1995).

Based on the position of Crystal on the BCG matrix in Figure 1, Crystal currently has a large market share in the BI software market, which is a growing industry. To maintain Crystal's leadership position in the growing BI industry, the recommended strategy for Crystal is to continue to invest in its business for growth. Crystal's investment in the ISV Program would be consistent with this approach, and assist in fuelling further growth for Crystal in the competitive BI industry.

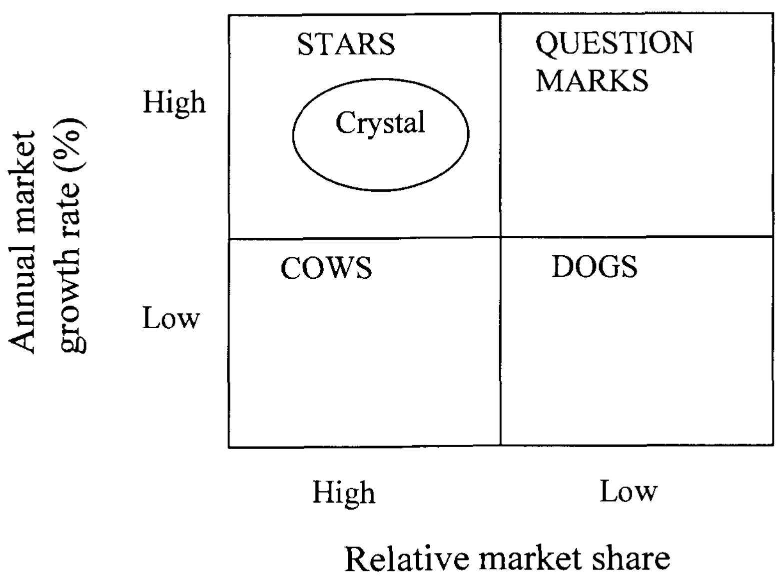

Figure 1: Boston Consulting Group's Growth-Share Matrix

8.2 Assessment of Crystal's Current Partnership Strategy

The three main categories of Crystal's current partnership programs are: Reseller, OEM, and Consulting Partner Programs. From the product side, Crystal's partnership allows Crystal to pursue a seeding strategy of placing Crystal's products in widely used software such as SAP, Microsoft and other platform vendors as a bundled product. This existing OEM partnership program is very effective and has contributed largely to Crystal's success, and wide adoption of its software products in the market. The current OEM partnership program could be considered an "outbound" program, bundling Crystal products with platform vendors. The focus of this program has been on sales - it is a "push strategy".

Overall, Crystal's current partnership strategy is very effective and has contributed to Crystal's success. This strategy has the potential to continue to generate significant revenues, market share and profitability for Crystal. Crystal's competitive advantage over its competitors is attributed to its partnerships with major vendors such as Microsoft and SAP.

However, Crystal does not have the resources and capabilities to deliver specialized software products that meet the needs of niche industries. Due to the specialized nature of their products, ISVs have the connections and distribution channels with these customers. Moreover, Crystal's main competitor, Cognos, has established a technology partnership program which allows Cognos to develop relationships with ISVs and penetrate these markets.

8.3 Assessment of Crystal's Proposed Strategy for an ISV Program

Crystal's current OEM partnerships are "outbound" or "push" programs. Crystal does not yet have in place an ISV "inbound" or "pull" program, in which ISVs can form a partnership with Crystal using Crystal as the platform provider. Therefore, the proposed ISV Program does not duplicate any of Crystal's existing partnerships.

As previously discussed in section 6, customer value is moving to more vertical, customized solutions. Technology investments are increasingly becoming more niche-based, and customers are depending more on what is closest to their business. ISVs are adapting to this shift in customer needs by providing more specific software solutions for niche markets. An ISV Program would increase the opportunity for Crystal to become a platform provider to these industry-specific ISVs. As a result, products that are complementary with Crystal products would increase.

The ISV Program would involve Crystal having a "pull" strategy, by attracting ISVs to Crystal's ISV Program. Implementation of an ISV Program would encourage and support ISVs to use Crystal as the main platform provider and develop specialized software which enhances Crystal's products and market share.

Many companies already exist in the marketplace that make products that are potentially complementary to Crystal's products. However, such products are not being developed in conjunction or partnership with Crystal. The value to Crystal of such a program is that ISVs generally develop software products that are highly specialized, for example, for particular industry areas which have not been penetrated by Crystal's products. As Crystal does not have the expertise and capability of customizing its products for each of these industries, partnering with ISVs would allow Crystal products to reach a wider market and be used for more specialized applications.

Crystal can leverage the ISVs' distribution channels to penetrate new market segments. Enrolling ISVs in Crystal's partnership program could potentially create a "virtuous cycle" of customer adoption which leads to an exponential growth in the market for complementary products around Crystal software. This would lead to increased consumer demand for Crystal software, and profit for Crystal.

Therefore, Crystal can improve its competitive position and realise on these market opportunities with the addition of an ISV Program.

9 STRATEGIC ALTERNATIVES FOR CRYSTAL DECISIONS

This chapter provides three strategic alternatives for establishing an ISV Program. Crystal's business goals for the ISV Program are stated. These goals are utilized to develop evaluation criteria that are used to analyze the alternatives. The alternatives are analyzed in the next chapter.

9.1 Generating Alternatives for Crystal Decisions

In this section, strategic alternatives for developing an ISV Program for Crystal are generated.

9.1.1 Sole Provider of Complementary Products (Alternative 1)

The first alternative available to Crystal is for Crystal to become the sole provider for complementary products. This would mean that Crystal would not develop a partnership program with multiple ISVs. To meet market demands for industry-niche complementary products, Crystal could either: (1) develop complementary products on its own, or (2) acquire ISVs with attractive complementary products or acquire the complementary products. The benefit of this alternative is that Crystal would control and define the standard and quality of complementary products that they endorse. This would mitigate the risk of poor quality complementary products which could have a negative effect on Crystal's reputation for high quality products. Crystal would receive all, instead of a share of, the profits earned from the sale of complementary products. Crystal would also expand its vendor product offering, and have a more complete product line to offer to its customers.

9.1.2 Non-Selective ISV Program (Alternative 2)

The second alternative available to Crystal is for Crystal to establish a non-selective ISV Program, which endorses and supports all ISVs that approach Crystal. Crystal would not sell these products via Crystal's e-store or distribution channels. Instead, Crystal would list a directory of ISVs who are members of their ISV Program on a referral section of Crystal's website or other media for customers seeking complementary products. Crystal would provide technical support to all these ISVs, where the level of support is relative to the fees that they pay in a tier structure program. Crystal would not monitor the complementary products. The end customer would purchase the complementary products directly from the ISVs at their own discretion.

9.1.3 Selective ISV Program (Alternative 3)

In this alternative, Crystal would establish a selective ISV Program. ISVs that approach Crystal would be required to comply with standards for quality. Crystal would pre-approve ISVs before they are accepted into the ISV Program. Crystal would establish a testing facility for both the marketing and the technical element. For the marketing element, ISVs would need to demonstrate that their product would be attractive in the market. They would provide a business plan. For the technical element, candidate complementary products would be tested by Crystal or through a partnering testing facility. The products would be verified for quality, operability, performance, and compatibility. Once ISVs have passed the testing procedures and met the requirements, they would be entitled to receive endorsement and support from Crystal. The ISV Program would require ISVs to enter into licensing agreements with Crystal to use Crystal's endorsement logo, and for Crystal to co-market and sell their products. ISVs would also receive technical support and training.

9.2 Utilizing Crystal's Goals To Develop Evaluation Criteria

In this section, Crystal's goals regarding the ISV Program are examined for the purpose of generating evaluation criteria for the strategic alternatives. Crystal's short-term and long-term goals are considered in the evaluation of the alternatives. This evaluation includes a prediction and a valuation. A prediction is a forecast of the future impacts associated with the alternatives. A valuation is a derived by assigning a value to each impact associated with the alternatives, based on the weight of each of the goals.

Crystal's goals for the ISV Program are as follows: (1) to increase customer satisfaction and customer loyalty by ensuring that third party products work with Crystal's products; (2) to increase customer satisfaction and customer loyalty by providing end to end solutions for the customer; (3) to gain profit via collecting membership fees; (4) to increase sales through cross-sell strategies with complementary products; (5) to increase sales through leveraging partners' customer base to reach new markets and expand Crystal's customer base; (6) to gain market intelligence; and (7) to maintain Crystal's reputation for quality products and services. These goals are ranked according to priority as a percentage. Table 11 summarizes these goals and this weighting.

Goals	Short Term	Long Term	Average
Increase customer satisfaction and customer loyalty by ensuring third party products work with Crystal's products.	10	10	10%
Increase customer satisfaction and customer loyalty by providing end to end solutions for the customer	15	15	15%
Gain profit via collecting membership fees	20	5	12.5%
Increase sales through cross-sell strategies with complementary products	20	20	20%
Increase sales through leveraging partners' customer base to reach new markets and expand Crystal's customer base	20	25	22.5%
Gain market intelligence	5	5	5%
Maintain Crystal's reputation for quality products and services	10	20	15%
	100%	100%	100%

Table 11: Crystal's Weighted Goals

In Table 11, the average column is calculated from the short-term and long-term perspectives. The table shows that Crystal's primary goal is to increase sales through leveraging partners' customer base to reach new markets and expand Crystal's customer base, ranking 20% in the short-term, 25% in the long-term, resulting in an average of 22.5%. Another important goal for Crystal is to increase sales through cross-sell strategies with complementary products, with an average of 20%. The next section evaluates the strategic alternatives using these weighting criteria.

10 ANALYZING THE ALTERNATIVES IN TERMS OF CRYSTAL'S GOALS

In this section, the strategic alternatives are analyzed using the evaluation criteria derived from Crystal's goals. First, the predicted impact of each strategic alternative is given. Second, the Multi-Goal Prediction Matrix (Vining & Meredith, 2000) is shown to illustrate the predicted impact of each alternative on Crystal's goals. Third, in a Multi-Goal Valuation Matrix (Vining & Meredith, 2000), the evaluation criteria is weighted to reference how effectively each alternative meets Crystal's goals.

10.1.1 Analyzing Alternative 1 - Sole Provider of Complementary Products

In the short term, it would be time-consuming for Crystal to either begin the development of new complementary products on its own and launch these products into the market, or alternatively, to choose which complementary products to acquire. A benefit of this alternative is that Crystal would control and define the standard and quality of complementary products that they endorse. This would mitigate the risk of poor quality complementary products which could indirectly have a negative effect on Crystal's reputation for high quality products. Crystal would receive all of the profits earned from the sale of the products. Crystal would also expand its vendor product offerings and have a more complete product line to offer to its customers.

The disadvantages of this alternative are that the range of products would be small and Crystal would only meet the needs of a small segment of the customers. Crystal does not have the experience and knowledge to develop specialized complementary products that can satisfy many of the diverse customer segments and needs. In addition, Crystal would not have the resources and capability to constantly improve its complementary products at the same pace as customer demands change. Maintaining complementary products in accordance with increasing technological advances would require significant resources, such as a dedicated research and development team. As Crystal does not work closely with industry-niche customers, it lacks the marketing intelligence that industry-specialized ISVs have.

10.1.2 Analyzing Alternative 2 – Non-Selective ISV Program

This alternative would drive the proliferation of complementary products in the market. Many ISVs would have the incentive to produce complementary products, and easily gain visibility through Crystal's website. Crystal can earn revenue in membership fees and royalty agreements through numerous ISVs that apply for membership. This option would also require very few resources from Crystal to establish the ISV Program. The range of end-to-end products would be large. The time to launch the ISV Program and establish a referral section on its website for complementary products would be relatively fast, and easy to constantly update. Customers would have many complementary products to choose from.

The main problem with this alternative is that Crystal would have little control in the standard of quality of complementary products that they endorse. Without any monitoring of product quality, there is a high risk of poor quality complementary products being endorsed on Crystal's website. Customers may encounter problems with untested complementary products with poor synergy with Crystal software.

For example, an untested complementary product may conflict with portions of Crystal's source code, render Crystal's code dysfunctional, or interfere with Crystal's software performance. Only though rigorous testing can these incompatibilities be detected and resolved. Once a problem occurs, it is difficult to trace if the technical problem originated from Crystal or the complementary product since they operate together in synchronization. This could also place an increased burden on Crystal's technical support team if customers experience technical problems using complementary products. This could result in a negative effect on Crystal's reputation for high quality products by association with poor quality products.

In the short term, customers would be satisfied with the large range of choices they have in selecting complementary products. Increased sales of Crystal products would occur through cross selling and leveraging of ISVs' customer bases. However, in the long term, there is a high risk that this non-selective strategy could potentially affect Crystal's reputation for high quality products. This would have a negative impact on Crystal's sales and reputation.

10.1.3 Analyzing Alternative 3 - Selective ISV Program

In this alternative, Crystal would develop selective criteria to determine the type of complementary products to endorse, and the appropriate profile of ISVs to admit into Crystal's ISV Program. Crystal would conduct research into what industry segments to target, one of the deciding factors when choosing complementary products. The time required to launch the ISV Program would be longer than alternative 2, but faster than alternative 1. Through collaboration and monitoring of selected ISVs, Crystal would also ensure that the technologies are consistent with technology trends and customer needs.

Based on the screening process and evaluation of ISVs' marketing plans, Crystal would identify the most promising ISV partners. Crystal would have control in the standard of quality of complementary products that they endorse. Customers would be satisfied as they would have a range of reliable complementary products available to them, which have been tested and endorsed by Crystal. A high quality of complementary products would minimise software conflicts. Increased sales of Crystal products would occur through cross selling. Crystal would leverage the ISVs' customer bases to reach new markets. In the long term, Crystal's reputation for quality products and services would be maintained. Customers' purchasing confidence would be high.

ISV partners would also generate revenue for Crystal through membership fees, royalties and licensing fees. With a smaller number of ISV partners, Crystal can allocate more resources to those that are selected, such as joint marketing and sale initiatives and more individualized technical support. Working closely with ISVs would also enable Crystal to gain increased marketing intelligence which can be applied in Crystal's general marketing strategies. Another benefit is that Crystal would be able to control the product mix and number of complementary products, to ensure a suitable balance of products that they endorse. With period monitoring of its ISV Program, Crystal can continuously ensure that the range of complementary products offered within the program is up-to-date with market demands.

10.2 Multi-Goal Prediction Matrix For Crystal Decision

In this section, the Multi-Goal Prediction Matrix (Vining & Meredith, 2000) is used to evaluate the three alternatives generated for Crystal. A low-medium-high ranking scale is used to evaluate the expected outcome of each alternative. The probability or likelihood that each strategic alternative would meet each evaluation criteria or goal is illustrated in this matrix. The Multi-Goal Prediction Matrix for Crystal's strategic alternatives is shown in Figure 2.

		Strategic Alternatives		
		Sole Provider of Complementary Products	Non-Selective ISV Program	Selective ISV Program
Goals	Increase customer satisfaction and customer loyalty by ensuring third party products work with Crystal's products.	H	L	H
	Increase customer satisfaction and customer loyalty by providing end to end solutions for the customer	L	H	H
	Gain profit via collecting membership fees	L	H	M
	Increase sales through cross-sell strategies with complementary products	M	M	H
	Increase sales through leveraging partners' customer base to reach new markets and expand Crystal's customer base	L	H	H
	Gain market intelligence	L	H	H
	Maintain Crystal's reputation for quality products and services	H	L	H

H = High
M = Medium
L = Low

Figure 2: Multi-Goal Prediction Matrix for Crystal Decisions

Referring to Figure 2, Crystal's goal to increase sales through leveraging partners' customer base to reach new markets and expand Crystal's customer base is best met by the Non-Selective ISV Program and the Selective ISV Program. The Selective ISV Program also has a high evaluation likelihood of meeting the goal of increasing Crystal's sales through cross-sell strategies with complementary products. The next valuation matrix provides a more comprehensive and useful evaluation of the most suitable strategic alternative for Crystal.

10.3 Multi-Goal Valuation Matrix for Crystal

The weight evaluation criterion that was established in section 9.2 is used in the Multi-Goal Valuation Matrix (Vining & Meredith, 2000). This matrix measures how well each strategic alternative meets each goal. The Multi-Goal Valuation Matrix is shown in Figure 3.

		Strategic Alternatives						
		Sole Provider of Complementary Products		Non-Selective ISV Program		Selective ISV Program		Weighting
Goals	Increase customer satisfaction and customer loyalty by ensuring third party products work with Crystal's products.	H	10.0	L	3.3	H	10.0	10.0
	Increase customer satisfaction and customer loyalty by providing end to end solutions for the customer	L	5.0	H	15.0	H	15.0	15.0
	Gain profit via collecting membership fees	L	4.2	H	12.5	M	8.3	12.5
	Increase sales through cross-sell strategies with complementary products	M	13.3	M	13.3	H	20.0	20.0
	Increase sales through leveraging partners' customer base to reach new markets and expand Crystal's customer base	L	7.5	H	22.5	H	22.5	22.5
	Gain market intelligence	L	1.7	H	5.0	H	5.0	5.0
	Maintain Crystal's reputation for quality products and services	H	15.0	L	5.0	H	15.0	15.0
	Sum of the Utilities		57%		77%		96%	100%

H = High
M = Medium
L = Low

Figure 3: Multi-Goal Valuation Matrix for Crystal Decisions

Figure 3 shows the scores for each strategic alternative. The Selective ISV Program is the alternative that best meets the evaluation criteria. It rates 96%. The Non-Selective ISV

Program alternative has a rating of 77%, and the Sole Provider of Complementary Products alternative has a rating of 57%.

11 RECOMMENDATIONS

To date, partnership strategies have been a major factor in Crystal's success. An ISV partnership program would target ISVs that develop complementary products. There is a significant number of existing ISVs that develop products complementary to Crystal's products. ISVs are interested in developing partnerships with Crystal and have access to specialized niche industries and customers. Crystal currently has not penetrated these markets whereas some of its competitors have successfully done so via ISV partnerships.

This analysis determined that Crystal is in a good position to invest resources into establishing an ISV partnership program. Three strategic alternatives were generated in regard to establishing an ISV Program. They are for Crystal: (1) to be a Sole Provider of Complementary Products, (2) to establish a Non-Selective ISV Program, or (3) to establish a Selective ISV Program.

This paper recommends that Crystal pursue the strategic alternative of the Selective ISV Program. A Selective ISV Program would require a screening and product testing process using quality standards established by Crystal for ISVs to be accepted into the ISV Program. Once accepted, ISV partners would receive product endorsement, customized support, licensing rights and joint marketing benefits from Crystal. This alternative best meets Crystal's goals for the ISV Program, including the most important goal of increasing sales through leveraging partners' customer base to reach new markets and expand Crystal's customer base. The Selective ISV Program would also maintain Crystal's credibility without having a negative impact on Crystal's reputation for reliable software. Crystal would improve its competitive position in the marketplace by pursuing this strategic alternative.

12 BIBLIOGRAPHY

Anonymous employee 1, 2003, Informal discussion, October 9, 2003.

Anonymous employee 2, 2003, Personal interview, October 8, 2003.

Anonymous employee 3, 2003, Personal interview, October 12, 2003

Boardman, A.E. & Vining, A.R. (2003). *A framework for comprehensive strategic analysis*.Vancouver.

Brynjolfsson, E. & Kemerer, C.F. (1996). Network externalities in microcomputer software: An econometric analysis of the spreadsheet market. *Management Science, 42(12)*, 1627-1647.

Business Objects (2004a). *Business intelligence standardization*. Retrieved January 20, 2004 from, http://www.businessobjects.com/products/bistandardization/default.asp

Business Objects (2004b). *The New business objects, introducing the clear market leader in business intelligence*. Retrieved March 5, 2004, from, http://www.businessobjects.com/jump/bi_standard/default.asp

Carr, M. (2003). Worldwide developer partner programs competitive analysis. (*IDC Study No. 29516*).

Cognos. (2003). *Cognos technology partner program guide (Version 1.0)*. Retrieved January 30, 2004, from, http://www.cognos.com/partners/technology_program_guide.pdf

Crystal Decisions. (2002). Crystal decisions announces general availability of its reporting technologies in my SAP business intelligence. *Press Release* (June 5 2002), Retrieved November 10, 2003 from,http://www.crystadecisions.com/about/press/releases/2002/060502.asp

Crystal Decisions. (2003a). *Bizdev: OEM partner programs*. Retrieved November 10, 2003, from, http://bizdev.crystaldecisions.com

Crystal Decisions. (2003b). Brio company and products overview. Company file document.

Crystal Decisions. (2003c). Cognos: Competitor brief – organizational overview. Company file document.

Crystal Decisions. (2003d). Crystal decisions achieves milestone with 15 million licenses shipped worldwide. *Press release* (September 2, 2003). Retrieved September 29, 2003, from, http://www.crystaldecisions.com/about/press/releases/2003/090201.asp

Crystal Decisions. (2003e). Crystal decisions and Cap Gemini Ernst and Young form strategic alliance to deliver market leading business intelligence solutions. *Press release* (September 24, 2003). Retrieved November 5, 2003 from, http://www.crystadecisions.com/about/press/releases/2003/092402.asp

Crystal Decisions. (2003f). Crystal decisions strengthens oem channel with new partners. *Press release* (September 9, 2003). Retrieved October 17, 2003 from http://www.crystaldecisions.com/about/press/releases/2003/090301.asp

Crystal Decisions. (2003g). *Developer zone*. Retrieved November 10, 2003, from, http://www.crystaldecisions.com/products/dev_zone

Crystal Decisions. (2003h). IBI summary. Company file document.

Crystal Decisions. (2003i). ISV partnerships. PowerPoint presentation, September 1, 2003.

Crystal Decisions. (2003j). *Microsoft business solutions, customer relationship management*. Retrieved November 10, 2003 from, http://www.crystaldecisions.com/partners/strategic/microsoft/mbs/default.asp?ref=MS_MSHome

Crystal Decisions. (2003k). *Microsoft business solutions, .NET*. Retrieved November 10, 2003 from, http://crystaldecisions.com/products/crystalenterprise/net/

Crystal Decisions. (2003l). Microsoft .NET partnership. Company file document.

Crystal Decisions. (2003m). Microsoft partner overview. Company file document.

Crystal Decisions. (2003n). *Microsoft strategic partner*. Retrieved November 10, 2003. from, http://www.crystaldecisions.com/partners/strategic/microsoft/net/default.asp?ref=MS

Crystal Decisions. (2003o). *Partner programs*. Retrieved November 10, 2003 from, http://www.crystaldecisions.com/partners

Crystal Decisions. (2003p). *Sales central*. Retrieved November 10, 2003, from, http://salescentral.crystaldecisions.com

Crystal Decisions. (2003q). *Sales central: A brief history*. Retrieved November 10, 2003, from,http://salescentral.crystaldecisions.com

Crystal Decisions. (2003r). *Sales central: Company descriptions*. Retrieved November 10, 2003, from, http://salescentral.crystaldecisions.com

Crystal Decisions. (2003s). *Sales central: Corporate profile*. Retrieved November 10, 2003,from, http://salescentral.crystaldecisions.com

Crystal Decisions. (2003t). SAP partner document. Company file document.

Crystal Decisions. (2003u). Strategic alliances partner summary. Company file document.

Crystal Decisions. (2003v). Technology partner program, PowerPoint presentation, September 9, 2003.

Darrow, B. (2003). Progress sticking to its ISV guns. *CRN, 1042*, 1-2.

Dresner, H.J., Hostmann, B. Buytendijk, F. & Tiedrich, A. (2003) Magic quadrants for EBIS/reporting and BI platforms, 2H03. *Gartner*. Retrieved January 3, 2004 from, http://www.cognos.com/news/analyst_reviews.html

Farrell, J. and Saloner, G. (1985) Standardization, Compatibility, and Innovation. *Rand Journal of Economics, 16(1),* 442-455.

Grant, R.M. (1995). *Contemporary Strategic Analysis: Concepts, Techniques, Applications. (2nd ed.)*. Cambridge, MA: Blackwell Publishers Inc.

Hax, A.C. & Wilde II, D.L. (1999). The delta model: Adaptive management for a changing world. *Sloan Management Review, 40(2)*, 11-28.

Hill, C.W.L. (1997). Establishing a standard: Competitive strategy and technological standards in winner-take-all industries. *Academy of Management Executives, 11*(*2*), 7-25.

Katz, M. & Shapiro, C. (1985). Network externalities, competition and compatibility. *American Economic Review 75(3)*, 424-40.

Lucas, S. & Sanborn, R. (2002). *Using crystal enterprise 8.5* (*Special edition*). Indianapolis, Indiana, USA: QUE Corporation.

McGee, J. & Sammut Bonnici, T.A. (2002). Network industries in the new economy. *European Business Journal, 14(3)*, 116-132.

Nalebuff, B.J. & Brandenburger, A.M. (1997). Co-opetition: Competitive and cooperative business strategies for the digital economy. *Strategy & Leadership, 25(6),* 28-35.

Parise, S. & Henderson, J.C. (2001). Knowledge resource exchange in strategic alliances. *IBM Systems Journal, 40(4)*, 908-924.

Porter, M.E. (1979). How competitive forces shape strategy. *Harvard Business Review*, 57(2), 137-145.

Shapiro, C. & Varian, H.R. (1999). The art of standard wars. *California Management Review, 41(2)*. 8-32.

Shaw. M.J. (2000). Information Rules: "A Strategic guide to the Network Economy". Book Review. *The Academy of Management Review, 25 (2)*, 441-443.

T-net (2003). Crystal decisions reports first fiscal quarter results. *Today's news* (October 24, 2003). Retrieved October 24, 2003, from, www.bctechnology.com

Vining A. (2000). Managing in a complex ownership environment, 4. external analysis. PowerPoint presentation.

Vining, A. & Meredith, L. (2000). Metachoice for strategic analysis. *European Management Journal, 18(6),* 605-618.

Zarley, C. & Campbell, S. (2003). In the driver's seat. *CRN, 1037*, 18-22.