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Marketing Niche Software Products: An Analysis of How software Products Are Marketed Through the Channels of the Computer Industry

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MARKETING NICHE SOFTWARE PRODUCTS
AN ANALYSIS OF HOW SOFTWARE PRODUCTS ARE MARKETED THROUGH THE CHANNELS OF THE COMPUTER INDUSTRY

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ABSTRACT

This thesis will focus on the study of marketing software products into niche segments of the computer industry worldwide. The segment of focus will be on the Uninterruptible Power Supply (UPS) and power management field within the computer industry.

Research has shown that companies who focus on marketing and selling products into specific segments of an industry are capable of maintaining a strong threshold and dominate positions by focusing on the channels of distribution that provide solutions to the end users of these products. More importantly, in order for companies to survive in today's industry, a strategic plan of action must be developed to insure survival within these markets and distribution channels. The industry is very dynamic providing little room for errors or costly mistakes, while trying to increase sales and market share.

Most of the companies that work within the confines of today's industry are on the cutting edge of technology. Unfortunately, many roadblocks have to be overcome for launching these products. Marketing managers are often under tremendous stress while trying to create and select the best strategy for launching new products. In addition, studies have indicated that companies who have achieved their marketing goals and objectives while launching new niche software

products have become extremely successful and are the primary foucus of research.

This study is being conducted to investigate corporations within the computer industry and determine the proper way to market niche software products. More specifically, the purpose of this study is to research the UPS and power management industry and determine the foremost way to market products within this industry.

A marketing plan was developed to allow Systems Enhancement Corporation to market a specific software product into the industry. The plan was presented to two professionals from within the power management industry who have a knowledgeable background of products and markets in this segment. In addition, the subjects were administered a questionnaire consisting of five questions regarding the validity and content of the marketing plan. Once the review data from the evaluators about the marketing plan was compiled, modifications were either accepted or rejected into the plan. Upon completion of the review, both evaluators agreed that the SmartMon marketing plan is a viable tool that will enable a successful launch campaign and insure the success of the software product for many years to come.

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I would like to dedicate this project to those individuals who have given me the motivation, ambition and desire to succeed in both my business career and my life.

They are:

Rollie Johnson	*Rob Johnson*	*Rick Johnson*	*Barb DePalma*
Ed Scholl	*Dan Kemper*	*Pat Akers*	*Laura DeRigne*

Most of all, to my wife Jacque and children for their love and support. Without them this would not have been possible.

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INTRODUCTION

Industry Overview

The computer industry is a very dynamic market, especially in the 1990's were the emporium is constantly adjusting to new types of equipment and applications for Personal Computers (PCs) which seem to appear almost daily. In the early 1980's operating systems (OSs) like UNIX, VMS and MS-DOS were just beginning to make their presence felt with the general public. In fact, OSs like UNIX were largely unknown outside the computer research community due to their complexity and nature of being a multi-tasking operating system.

The computer industry is made up of an assortment of complex terms and acronyms which are often hard to pronounce, much less understand. One of the key elements to thoroughly understand researching hardware and software products is the concept of an operating system and what part it plays in the overall success of many high-tech computer companies. According to Mark Schluman in Introducing The UNIX Operating System,

> The goal of computing usually is to accomplish some task by using application programs – software written to perform some type of real-world task, such as word processing or accounting. The operating system is a necessary tool for using the computer to run application programs. A computer without software – what might be called a "bare-metal" computer--is amazingly incapable of performing many common tasks with a lot of assistance. (9)

The main point that Schulman describes is that computers are basically pieces of hardware, capable of very few if any abilities to perform functions without software intervention. In the early 1980's, application programs had the responsibility of controlling every detail of operations, and the programs were more complicated than their counterparts today (10). The market of the 1990's, provides many types of software applications that run on operating systems ranging from word processing to graphical applications for designers. Although, all operating systems have their own unique features, they all poses similar characteristics. For example, computers are able to provide system services, graphical user interface, coordinate the sequence of events, control resources and enforce security (10).

One writer lists (Table 1) the functionality of each of the popular operating systems that are available for businesses and/or personal home use. The table shown on page three depicts how low end operating systems, such as MS-DOS compare to multi-tasking high-end operating systems like UNIX. Typically, home PC users or small businesses are more interested in the MS-DOS based personal computers for running their applications. At the other end of the spectrum, large corporations that require tremendous horsepower from their computers to simultaneously process multiple applications for multiple users on the same network will require the assistance of more complex computer operating systems like UNIX. Explained in the table, many of the operating systems listed have their particularities, such as, the type of hardware and the type of network topology they will run on. The VMS operating system, for example, by Digital Equipment

Corporation, will only run on a Digital VAX computers. This is designed to lock in their customer install base and make them completely reliant on Digital's products and services. Other companies provide for an open systems concept allowing any computer hardware manufacture to integrate their operating system or software applications and into the products as they make them ready for distribution (15).

Table 1

Operating Systems Compared

OS	Different Manufacturers	Hardware Required	Multi-User	Multi-Tasking	Primary Market
MS-DOS	Yes	IBM PC or compatible	No	No	PCs
OS/2	Yes	IBM PC or compatible	No	Yes	PCs
PICK	Yes	Various	Yes	Yes	Small business
VMS	No, only DEC	Only DEC VAX arch.	Yes	Yes	Minis and Superminis
MVS	Yes, mostly IBM	IBM mainframe	Yes	Yes	Mainframes
UNIX	Yes	Various	Yes	Yes	Micros to Mainframes

SOURCE: Introduction to UNIX. Exhibit from "Introducing the UNIX Operating System," by Mark Schulman (1992).

A powerful force now drives the world toward a single commonality, and that force is technology. Technology has simplified communication and transportation making them easily and cheaply accessible to the world's most isolated places. Almost everybody throughout the world wants all things they have heard about, seen, or experienced via various media that drive their wants and wishes. These drives are moving the world to more of a global commonality, thus homogenizing markets everywhere (Levitt 20-21).

While there are many variations of software products on the market today, many companies have followed traditional and untraditional marketing trends to inject their products to the public and business sectors. Companies with strong marketing campaigns have made major in-roads to acquiring public acceptance for themselves and their products (Schulman 1-2). Marketing is defined as, "A social and managerial process by which individuals and groups obtain what they need and want through creating and exchanging products and values with others" (Kotler and Armstrong 6). In addition, marketing plays a major role in creating consumer wants and desires for acquiring products and services. The most common marketing concepts are human needs, wants and desires because consumers view products as bundles of benefits and choose products that give them the best bundle for their money (6-7). Researchers from Software Success (1995), stated that, " There are few if any growth opportunities left in the business-to-business software market." These researchers believe that the consumer market holds all the promises from now to the year 2000 and that business software vendors look for ways to refocus their development efforts to "consumerize" their products and sell them into the mass markets (Software Success 131). In addition, main stream businesses will continue to be commonditized (mass produce), and large corporations will dominate horizontal markets. More than ever, smaller developers will be pushed into narrowing their focus. While many software companies continue to present new innovative products and opportunities, conventional developers will need to seek refuge in market niches where they can deliver more customized products and niche-savvy service that larger vendors cannot . More importantly, as many markets become saturated from over distribution of products within the US, many researchers believe that by the year 2000, more than half of all revenues will come from exports (132). Researchers believe that market growth in the PC and software markets still remain optimistic for manufacturers. Stock prices of computer companies listed on the Fortune 500 continued to increase in May of 1996, according to a study conducted by Software Success, reflecting growing investor confidence in the future of PC and software company earnings growth. Many changes in consumer confidence are closely associated with changes in consumer spending, and higher spending levels generally means that more funds are available for corporate PC budgets (Roberts 26). For an industry of this type, three or more consecutive monthly increases are needed before it can be stated with a degree of certainty that an upturn in industry growth rates is likely to take place (26).

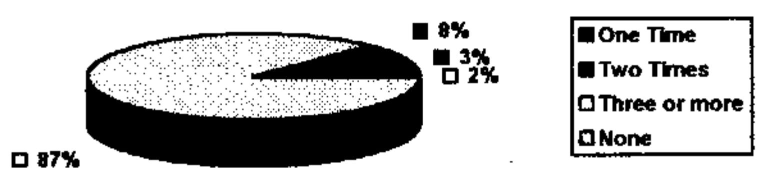
Financial

Many companies strive to earn handsome profits for their software products. The industry average typically falls between fifty and seventy percent gross margin on software sales. Products that are popular among consumers, easy to install and are positioned in a competitive market will bring a lower gross margin. In contrast, products that are highly specialize and fill a certain niche within a market generally sell for a premium price and bring higher gross margins. Because these products are normally very specialized, companies will often endure more costly support programs and a higher degree of technical staff (Software Success 55).

Financial benchmarks for software companies are often challenging to achieve. The 1995 survey conducted by Software Success, indicates that most small software companies have not been able to access venture financing (151). The following pie chart (Figure 1) shows that only thirteen percent of developers, which is roughly one in eight – have gotten a positive response from a venture capital firm. As explained in the chart, only a very small amount of companies have received venture capital more than once for their growth.

Figure 1

Times that companies have raised venture capital



SOURCE: Software Success. Exhibit from "Financial benchmarks for software companies" (1995).

When most companies start a project , all they generally have is an idea, which makes it difficult to borrow money from financial institutions. As the project moves forward, a company will typically have prototypes, models, market research and eventually begin to sell a few of the products. Banks always require an entrepreneur to have some equity in venture before they will loan money for any projects (Debelak 19-20). Debelak maintains that, "Most banks require a new venture to have a one-to-one equity basis, which means that, in order to borrow $15,000, an entrepreneur must invest $15,000 of his or her own money." In addition, if corporations do not have substantial business experience, many companies will find it very difficult to ask for business loans or find venture capitalists to help expand the company (20).

While acquiring funds is often a struggle, researchers disclose that, "among the companies that have successfully raised venture capital, the most common reason cited for trying to do this was to boost the sales and marketing efforts of products already on the market" (Software Success 161). Forty-three percent of companies said they sought capital for existing sales and marketing programs, nine-teen percent said they wanted capital to bring a new product to market, fourteen percent needed funds to complete a current project, another fourteen percent needed funds to finance a merger and ten percent sought capital to start development of a new product. Throughout the industry, debt levels usually do not exceed twenty-five percent of a company's yearly sales (162).

Distribution Channels

There are three phases to creating a successful distribution methodology in the US and worldwide market. They are, to create demand for products, feed the channel and participate with the distributor (Schuler 2). A company must understand why they have products distributed in the first place. The opportunity for a computer software (or hardware) company to sell directly to the end user market may seem appealing but one should consider the costs associated with this concept. There are over forty-five thousand resellers in the US alone that typically purchase products from one of the big three distributors (Ingram, Merisel and Tech Data) and then resell or integrate the products into the companies who will ultimately use the products. Companies trying to sell directly to the reseller or especially end user firms would be inundated with sales calls, product returns and technical support issues, just to name a few. In addition, consumers want to spend as little time as possible making purchases and not having to learn manufacturers part numbers and their business procedures for purchasing products (2). Existing channels today find manufacturing/development companies courting the big distributors located geographically throughout the US and world. During this process, distributors want to know each company's mission for launching new or promoting existing products into their channels. Primarily in the high tech industry, distributors will market to a network of resellers (about forty-five thousand) and try to move the volumes of products for them. In addition, many manufacturers will devote a tremendous amount of attention to the reseller channel training their sales force and offering promotional and advertising campaigns to help create the pull through for their products in the field. Many resellers are known as Value Added Resellers or (VARs) which means that they offer services above and beyond just making a sale and moving on to the next customer. Many of these companies offer turn-key solutions which give them the upper hand on their competition (Software Success 73). Although these traditional methods work, today's VARs are interested in a more sophisticated method of distributing products, explains John Swenson, in Information Week. "Resellers, eager to stake claims in an emerging business , are rushing to set up electronic stores that deliver software over the Internet" (83). Many resellers believe that the time is ripe for electronic software distribution to take off. Users and resellers say electronic distribution has other advantages besides immediate delivery. Software often is cheaper on-line because suppliers don't have to stock and ship products (83). Some resellers have even opened on-line software stores allowing consumers to access their location via the Internet and download software applications they wish to install on their computers. They can pay for the software of their choice via a credit card number that they enter on-line. Once the transaction is complete, the product is immediately uploaded to the customer's location. The benefit to consumers is that there is no waiting period for shipments once the order is placed, it is immediately uploaded to their location. Manufacturing and warehouse costs are virtually eliminated because the only interactions are over the computer and phone lines.

Distribution of software products are not only advancing within the US but throughout the world too. Many distributors see growing opportunities in international markets as major vendors seek partners with global presence, and resellers chains are seeking penetration with customers abroad without having to shoulder the overhead costs of keeping inventory and delivery of products (Sweeney 131). In today's market, many manufacturers, also referred to as vendors, look to expand their hardware and software offerings to not only the distribution channel but also the reseller channel directly. For example, Allan Adler, in his article, "Back to the future: Vendors and VARs are unifying", explains that, "In the mid- to late '90s, the pendulum again will swing back to a point where vendors offer a more complete set of products and services to the market. In this new wave of marketing, the target will not be direct sales to end users, it will be garnering market share from the channel" (132). Vendors realized that it is very expensive to sell, market and support channel partners. Most vendors realize that to be effective with VARs and satisfy their needs, they must maintain at least a direct marketing or even a direct sales and support relationship with their resellers. With a larger offering of products, vendors can justify greater field and telesales coverage to the channel, thus allowing them to expand training and support programs for them which will ultimately help the channel to succeed (132).

Promotion and Advertising

Advertising is, "The concept of non-personal communication of information, usually paid for and usually persuasive in nature, about products or ideas by identified sponsors through various media" (Arens and Bovee 5). Advertising budgets can run into the millions of dollars with a tremendous amount at stake. Many companies in the industry today have a strong focus on marketing their products and services via the Internet. Although traditional print type media is still very necessary, an increasing amount of companies have begun to direct their advertising efforts towards consumers and channel members directing them to their World Wide Web (WWW) site for instantaneous information about their products, services and overall company information. Stan Rosenzweig, author of "Workin' the Web", points out that, "If you are successful at getting people to visit your World Wide Web site, you will:

1. Generate new prospects and customers.
2. Answer inquires from existing prospects and customers with greater speed and efficiency.
3. Better serve existing customers, empowering them to learn more about you and , hopefully, buy more from you" (32).

Many companies develop commercial Web sites by contracting with an outside ad agency or developer who can design a graphically pleasing, user friendly site that is very intuitive for visitors to seek information. Next, companies will sign up with many of the service providers that will link them to the Internet. Companies like

Yahoo, Excite and Webcrawler act as huge database search engines that are like giant yellow pages for millions of customers to access information. Guerrilla marketing on the Web states that the way to stay on the top 20 list of top sites is to constantly reinvent yourself into a new improved site worth repeat visits. The most difficult aspect of maintaining the Web site is the constant updating of information that can be overwhelming. Many universities offer programs such as, "School to Career" Program, which is a federal initiative to hire college students as interns to update information on the company's Web site (32). The Internet has enabled a new criterion of on-line product distribution. As a result, many software companies have increased market share dramatically. Their success is based on selling and freely distributing virtual software products over the Web and bypassing the need to physical merchandise (Beedle and Smith 21).

Numerous high-tech companies utilize the Internet to conduct their public relations with journalist who write about their products and services. Often times journalists are entrenched with writing articles and do not have the time available to spend with marketing communication personnel on the phone. E-mail is becoming a very important communication vehicle and part of the media mix for announcing new products and launch plans. The Internet needs to be next to the discussion of strategy for leveraging print and broadcast exposure (McHenry 32). Customer perception of companies with presence on the Internet built a strong corporate image. Distributors, resellers and end-users all expect high-tech companies to have a Universal Resource Language (URL) sites that they can access quickly and easily for information. Vendors who do not have a Web site are often frowned upon and the perception is that they are not up to speed with the rest of the market. The perception is that their products and services must be inferior compared to others within the industry.

Market Strategy

Every company that is preparing to introduce a new product should develop a long-term strategic product plan as a key element of their strategic business plan. According to John Hall, Bringing New Products To Market, "The business plan must address four basic questions:

1. Who is our customer?
2. What does the customer buy?
3. What is "value" to the customer?
4. How can we gain competitive advantage?

Plans that follow these guidelines will provide guidance to the technology planning people and product planning people in terms of the general guidelines for new product development that the company will follow (49). Strategic product plans should follow and consider specific issues when undertaking new product launches. Companies have to decide if they want to attempt to secure a new product leadership position in the markets they serve or do they want to accept the role of a cost-efficient, market-responsive close follower. Other aspects to consider when developing strategies may include; what direction should the product development personnel take, what percentage of sales will be generated by new products, and, will management commit to a steady state of product development even when the market has years of lean times and reduced profits (50-51). Product planners need to be in close contact with a companies customer base to discover their perceptions of strengths and weaknesses of the company so they can make proper adjustments in their products or services. Companies should set as a corporate goal a fixed percentage of sales and profits that will be generated by new products. This type of goal setting will serve to focus the attention of all concerned on the need to aggressively seek out, develop and market new products as a continuing way of life. In addition, when times of lean profits and market down-turns occur, marketing efforts and new product development should continue to thrive even in efforts to appease the Wall Street analysts by cutting back marketing efforts. A strategy for strong channel support for VARs is to provide a general mix of ingredients like, a strong product offering, minimal channel conflict, strong technical support, a good product delivery mechanism, some form of marketing assistance and allow the reseller to make a good margin (Dimitruk 70).

Distribution opportunities are abundant for most vendors who have new or existing products to market. Picking the right channel is the most difficult task of all because, if the channel fails, it could be detrimental to a company's overall bottom line. Companies that produce stand alone products, meaning they can be sold independent of other products, often seek distributors for selling their products. Companies that develop and market products that are more niche oriented will focus on more specialized resellers, integrators or even direct sales to end users to distribute their products (Software Success 230).

<u>Corporate Mission</u>

A company's mission is usually a statement of the organization's purpose and what they want to accomplish. More specifically, a mission statement acts as an "invisible hand" that guides personnel in the company so they can work independently (Kotler and Armstrong 34-35). It is critical that the entire process of bringing new products to market be linked to the business planning unit and to the corporate business plan. The mission should be to develop a business plan that has at least one section specifically devoted to new products for future growth. This concept will play a major role in strengthening the company's strategic position (i.e. market share, profit) in the market they are in (35).

Software and hardware manufacturers come in all shapes and sizes with various types of net worth, annual sales and profits. Hardware manufacturers in general tend to be larger in size with numerous amounts of personnel to accommodate their manufacturing requirements. In addition, hardware manufacturer's product profit margins are generally slimmer than that of software companies. Typically, hardware manufacturers gross profit margins range from twenty-five to forty percent, depending on the saturation and competitiveness within the market. Software companies tend to have reduced staffs and larger product profit margins. In addition, software companies often base their sales on intellectual properties of their development time and effort which does not lend itself to large amounts of personnel and overhead. Depending on the market conditions and competition in any software channel, gross profit margins of products will range from forty to seventy percent.

While the computer industry is a very dynamic market, many companies continue to thrive as new technologies evolve. Operating systems are becoming more diversified and sophisticated, and the need for more powerful marketing techniques including strategies is very important. Many companies are viciously trying to expand their markets and develop a global presence as they feed the ever increasing demand on their products and services. Today, many companies still embrace the traditional marketing channels. However, intuitive ideas and concepts may forge a new way of life for distributing products well into the next century. The use of the Internet is a major opportunity for manufacturers, resellers and even end users when discussing high-tech products in today's markets. Companies still utilize traditional advertising and public relation methods for promoting products. Many corporations are using their media sources to direct audiences towards their Internet Web sites which are able to provide instantaneous access to information and eliminate the lag time that often is associated with traditional literature fulfillment.

Market strategy is also a key issue with software and hardware vendors. Without a solid game plan for new product development and ideas for channel support, many companies will struggle to keep their heads above water. Decisions from management need to be made concerning lead times and dedication to development even when profit margins are thin and Wall Street is showing unfavorable commentary toward the markets they sell into.

This study will focus on marketing niche software products to the computer industry. More specifically, this thesis will investigate the need to develop a technical marketing plan to help overcome issues that often impede progress of a software company's efforts to market new products.

Chapter II

LITERATURE REVIEW

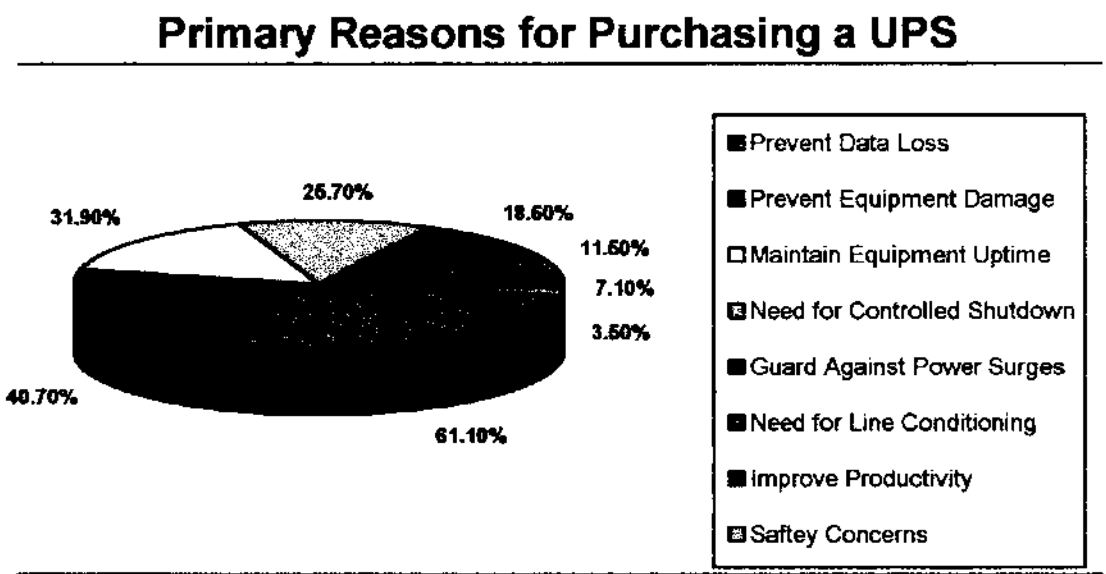
Development and history

While the computer industry is very dynamic in nature, it is also very segmented. In order for companies to survive in this market they must focus on a niche within the industry and offer products of superior quality and reliability.

Uninterruptible Power Supply (UPS) manufacturers and Power Management Software developers, also known as Independent Software Vendors (ISVs) work hand in hand to produce solutions for network administrators worldwide. These companies fill a very important niche in the industry offering products designed to protect the life line of a company's network and provide data integrity. UPSs are designed to protect computers and telecommunication equipment from data loss caused by power fluctuations in electrical power. These products filter out electrical spikes, surges, and sags, as well as providing enough temporary power to shutdown equipment in the event of a complete power failure (Clark 3). Additionally, desktop computers have become dramatically more powerful and a viable tool in the past few years as prices have fallen and consumer interest has risen. Power and flexibility increases as stations are linked together in local area networks (LANs) to allow for better resource allocation and efficiency (3). With the majority of manufacturers and software developers focusing on the client-server market, the growth of the server market provides a useful proxy for the main marketing focus. According to Advest Research, a New York based research group, "Approximately 1.4 million servers were shipped worldwide in 1994, 19% more than the prior year. The compound annual growth rate from 1992 to 1998 is estimated to be 16%". North American UPS output was only a fraction of PC output in 1994: which translates to about seven million UPS units and software compared to thirty-five million personal computers (4). The bottom-line indicates that power protection and power management products need to become gospel among management information systems managers as client-server networks take on more mission-critical roles. The best argument for power protection stems from Bell Laboratories, indicating that decreases in power are responsible for eighty-seven percent of the disturbances that cause computer error (4). A typical computer location will experience two-hundred and eighty-nine disruptive or destructive power disturbances each year. Power losses that last only a few milliseconds can be enough to crash an entire computer network, or a prolonged power outage can bring a retail online point-of-sale operation to its knees (Best Answers 1).

According to Venture Development Corporation, a research analyst firm in Natick, Massachusetts, "Preventing the loss of data", is the number one reason that end users purchase UPS systems in the five Kilo Volt Amp (KVA) range and below. The organization's Power Protection Industry Demand Side Analysis indicated that more than sixty-one percent of the respondents specified protecting against data loss as a reason for purchasing a lower-end UPS. Other major influences for purchasing a UPS included preventing equipment damage, maintaining equipment and more importantly, the need for automatic unattended software shutdown (2). The chart shown below illustrates the primary reasons for end users to purchase UPSs in the five KVA range and below.

Figure 2



SOURCE: Best Answers. Exhibit from Venture Development Corporation's Power Protection Industry Demand Side Analysis (1995). *Percentages sum to over 100 because of multiple customer responses.*

UPSs have been around for the past two decades and have evolved from large bulky boxes that act solely as power extensions, buying extra time to manually shutdown critical devices to today's UPS systems which are considerably smaller and smarter. Power supplies can actually improve the quality of AC power delivered to computers in addition to providing back-up power and software management functions (Pooley 2).

As the need for UPS power protection grows exponentially, so does the need for UPS power management software. Larry McClain's article, "Roundup of UPS Products for Windows NT", describes, "Network systems carry far more risk of power problems than their mainframe cousins-power problems that can cause costly downtime, loss of data and equipment failure" (47). While battery backup systems provide quality control of power and safeguard against electrical spikes and surges, they are extremely vulnerable to extended power outages. UPS systems after all are batteries in a box, similar to that of a car battery. If the head lights of any automobile are left on, they will gradually drain and become inoperable, which is the exact case for a UPS. Thus many UPS manufacturers design and develop UPS power management software to monitor the health and status of each system which provides many features to customers. If systems are unprotected from extended power outages, "...without the ability to do a graceful shutdown, administrators can really mess up data which resides in volatile memory (48). More importantly, corporations can quickly justify their expenditures for acquiring UPS equipment and power management software soon after they install the products. Customers want to know that they can take the UPS and software out of the box, plug it in and walk away without worrying.

The continuous challenge for developers of power management products are to keep up with the accelerated pace of change in networking while continuing to provide flexible and easy to use software. John McNally's article, "The Continuing Evolution of Power Management Software, explains that,

> The UPS industry has not been immune to the many changes in computer networking, UPS are no longer just "batteries in a box" to provide a few minutes of backup in the event of power a failure. UPS management software has evolved from simple contact-closure packages that indicated Power OK, Power Failure and Low Battery to sophisticated suites of software that include complete network and open-protocol support, improved user interfaces and support for auxiliary devices; i.e., the UPS has become a sophisticated component of local and wide area networks at its lowest level, power, and at its highest level, the Network Management Station (NMS). (22)

McNally also points out that "LANs and WANs are often supported by dozens or hundreds of UPSs to ensure maximum availability of critical resources, such as routers and hubs"(24). As corporate enterprises grow, so does the requirement and need for monitoring and management of many UPSs in the network to guarantee data integrity.

The types of software that make a UPS suitable for network management is available in basically three variations: unattended shutdown, intelligent RS-232 monitoring and management and Simple Network Management Protocol (SNMP) for monitoring devices over a network. For many large networks, the ability to monitor and manage power problems is a labor and money saving feature for many corporations (Baldazo, Grehan and Rowell 230). Savings can be sizable when a single network administrator does the work of ten engineers, then multiply the number of major outages experienced in a year by the costs associated with each occurrence and the savings add up (McClain 231). Unfortunately, studies indicate that only thirty-seven percent of IS managers utilize basic power monitoring software. Leading industry analysts speculate that the low usage of power management software is due to the lack of knowledge and that the products are still in the infancy stage, indicating there is room for growth.

Once IS managers develop interest in protecting their networks equipment and data, quality often becomes a major factor in deciding which systems to use. First, the IS manager must decide on which type of UPS to implement. If the administrator is interested in protecting network nodes, a standby UPS is suitable; however, systems that are very temperamental to power interruptions, such as UNIX computers, online UPS systems are more appropriate. Peter Ruber's article, "SNMP Juices Up Power Management", describes the type of features that quality administrators look for when selecting power management software.

> Be sure prospects understand their benefits before making a decision. UPS power management software should be able to - conduct self-test, provide scheduled shutdowns when the network is not being utilized, offer event logging and display real time graphs, offer proactive actions when unfavorable events occur (automatic shutdown) and work on all platforms. (50)

Ruber points out that these are the most basic quality features for providing software protection. Developers typically offer these features and many more monitoring variables for all the major operating systems. More detailed products offer temperature and humidity sensing, SNMP management control, user-definable events and frequency monitoring. More advanced software products offer remote power management to desparate devices (i.e. routers and hubs), that are powered by a single UPS (50). He believes that Value Added Resellers (VARs) play an important role in helping customers understand the various types of hardware and software products available which also helps to create pull-through.

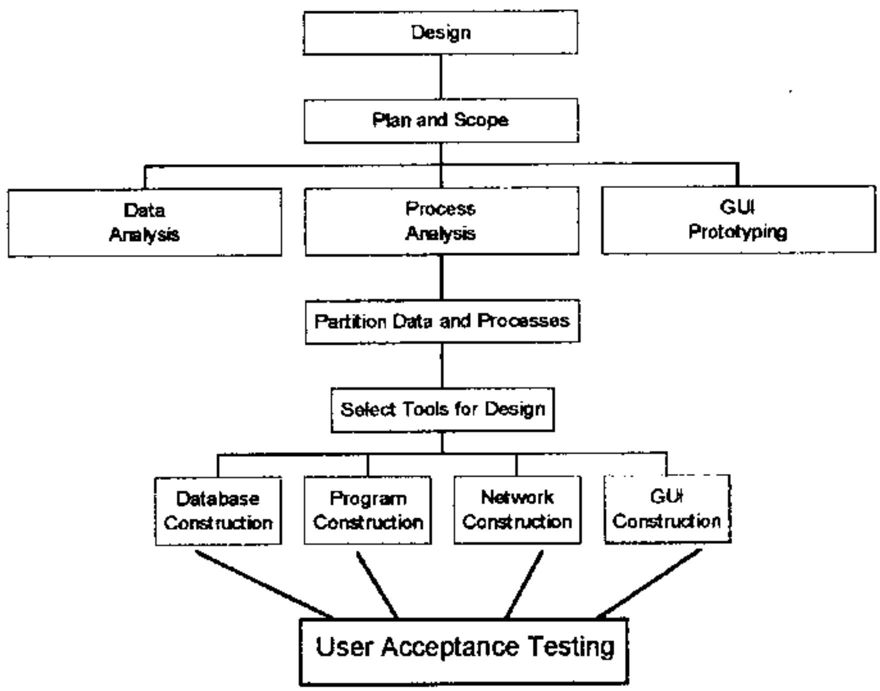
Design Considerations

Design considerations for software are among the toughest part of the product development stage. Power management products are only hindered by the units they support according to the capabilities within each unit. UPS manufacturers specialize in electrical systems and designs, meaning they focus on rectifiers, inverters and transformers to provide quality uninterrupted power to any electrical device. The defacto standard of today's UPS system is to offer communication availability for software control of any unit.

Although, manufacturers offer these contact closure options for consumers, data protection software development is often provided by third party software companies. Today's VAR uses software features to drive UPS sales. Resellers courting customers during the sales cycle, emphasize software features over hardware features. Ann Steffora's, article, "It's All In The Software", explains that, "More than any other factor, software differentiates hardware" (29). During her survey she found, "VARs rate power management software as key in differentiating products. Software turns the UPS into a powerful peripheral for network management" (Steffora 29). In addition, other factors that affect design processes are budget, schedule, functions and bugs which mandate ongoing design modifications for each software product developed (DeJesus 85). Figure 3 helps to illustrate design phase criteria for product managers during the products ideation stage from start to finish.

Figure 3

Design Phase for Software



SOURCE: BYTE. Exhibit from "Control Quality," by Edmund X. DeJesus (1996).

DeJesus points out that developers need to learn to match client expectations to development realities. In addition, quality design tools and creative strategies can simplify, automate and generally reduce the stress of achieving quality applications (82).

Once the design phase has been completed and beta testers are satisfied with the product, manufacturers must decide on a packaging scheme to ready the product for market. Packaging defines the product and serves as its spokesperson, explaining what's inside while tapping the customer's perception of what they want. UPSs are packaged in large bulky boxes and stored in a manufacturer's warehouse until ready for allocation. Software on the other hand has many options for distribution. Typically, most software products are distributed on some sort of digital media, i.e., floppy disk, ¼" tape, 4mm DAT or CD ROM. Other methods of distribution include bundling with the UPS units, pre-loading the application on computers at the factory or allowing a customer to download the application from the company's network. Software packaging may cost ten to twenty dollars per unit and be sold for up to several hundred dollars per package depending on the operating system it supports (Larkin 169).

Pricing Structures

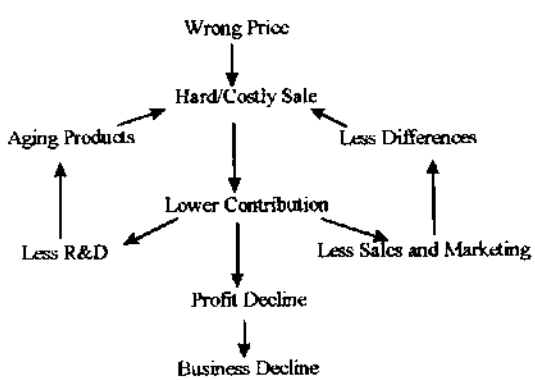
Software pricing is not something that is set in vacuum. When companies launch brand new products, there is always something customers will compare a product against. Before Microsoft's Excel hit the market, customers used Lotus 1-2-3. Before Lotus 1-2-3 there was - VisiCalc. Customers always have a way of fixing a price in their minds even if the sales and marketing departments do not. The software market is maturing, this means that prices are often set by comparing one product to another before the launch. Often times customers make companies set their prices at the same level as their competitors (Software Success 183).

Many businesses play follow the leader with pricing tactics. Companies believe that they have no choice but to price their products around the same price points' as the market leaders. This is true especially if the technology already exist in the market which forces the product to be sold on features which hopefully out performs the competitors product(s). Manufacturers that offer packaged products and heavily promote them give customers easy access to information that can and do make price comparisons between them. Advertised unit prices can not vary too much, but companies still have flexibility for promotions, like limited-time offers, money back guarantees and volume discounts (183).

If prices are set too high, companies will spend precious time trying to persuade customers that the product is good. The sales are costly, time consuming and inevitably lead to caving in on price if the sales volume does not materialize. One writer explains (Figure 4) how the wrong price causes businesses to get weaker or fail when prices are set improper.

Figure 4

How the wrong price causes a business to get weaker



Source: Software Success. Exhibit from "Making your pricing strategy fit your business goals" (1995).

According to Software Success, "If companies set prices too low, they face the same problem: not throwing off enough cash to support the R&D and sales effort" (Figure 4) (184). Over the long run, products become harder to sell as the market becomes saturated with similar products and businesses do not have the R&D funds to keep up with the competition. This effect will eventually make the product feature poor and more difficult to support. The author describes this as the "Double-Whammy' concept, implying that the company's R&D gets squeezed, resulting in product delays and less competitive products (184).

To offset this type of situation that corporations could get into, the author recommends companies should adopt the "Wheel of Fortune" concept shown in Figure 5. This model illustrates that prices are set to appeal to specific customer segments. The segments value the differentiation that is built into the product offering, which encourages customers to pay a "fair" price and leaves enough margin for R&D, sales/marketing and profit for new customer development (184).

In addition, the author points out that, "…pricing can be separated into two components in the software field: 1) price levels and 2) price structures". Price levels are the actual price customers pay, which answers the question, how much? Price structures deal with support, terms and conditions, and volume breakpoints which answers the question, for what? (186). When companies deal with pricing they need to be aware of how the money flows and where the money goes. Corporations need to watch prices at three levels; at the retail level, where the end-users buy products; at the dealer/VAR or distributor level, where a middle man buys the product for resale to another reseller or to and end-user and factory prices, where products are sold to resellers or to end-users. By tracking these segments manufacturers can better price products and control the channels they wish to sell into.

Figure 5

Product success when prices are aligned with customer values

SOURCE: Software Success. Exhibit from "Making your pricing strategy fit your business goals" (1995).

Product Uses

When it comes to the bottom line, power management software's primary purpose is to provide data protection and integrity for any network device that is UPS protected. Primary uses include, monitoring the UPS for unfavorable power events, such as utility line failure, displaying variables relative to the UPS, and notify administrators via network messages. Power management software, can provide a great deal of information about the quality of power coming into the network, examples include, input voltages, frequency and UPS internal temperatures (Schaffhauser 51).

The primary trend in today's market is to lead with software and then follow with the details of the UPS. The days when manufacturers sold on UPS product quality and functionality are long gone. Although, the basic componetry of a UPS is of utmost importance, consumers are more concerned with being able to manage and receive valuable data from these units. Reports from Reseller Magazine indicate that only thirty-seven percent of companies use power management software, however, as administrators utilize the products they realize the value of being able to detect problems before they occur (Ruber 50).

Distinguishing features move beyond basic monitoring and shutdown capabilities to help power management gain additional market share. New features in software include cross platform monitoring, multilingual support and integration with SNMP network management station software, allowing administrators to control UPSs anywhere on the network from one network node called the Network Managment Station (NMS). Advanced features include client software that can run on the workstation rather than the server console and provide the support for multiple vendors in one package.

Many market analyst believe that software is the way to market power equipment. Correia, for example, in his review of the industry, believes that, "Resellers seeking to provide customers with an enterprise solution to UPS management must look beyond the DOS-based applications, and even beyond those that provide graphical clients for stand-alone management" (76). Correia believes that UPS management software is the most important way for manufacturers to distinguish products and generate more market share.

Products in the mind of customers should be user friendly, intuitive and hassle free. Multi-vendor support has been the biggest issue/challenge in the UPS community. The predominant manufacturers in the industry include; Exide, American Power Conversion, Deltec and Tripp Lite, who make up over seventy-five percent of the market and offer only proprietary software to manage their units. This often creates problems for administrators who have heterogeneous UPS mixes. The advantage is in favor of the manufacturers, locking in customers when they purchase a UPS which only works with their management software. Although, this creates pull through software sales for manufacturers, administrators are often stuck with one software management application per UPS model. Many corporations have several UPS products protecting equipment which requires proprietary software to run on each system. This requires administrators to learn and use multiple software packages which can be frustrating. The resolution to this problem is to provide multi-vendor support that allows one software to manage a heterogeneous UPS network. Products like Systems Enhancement Corporation's, "SmartMon", is the first power management software to offer a universal solution that is designed to work one industry standard protocol. UPS manufactures that implement the protocol into the design of their units will be able to provide willing administrators the ability to monitor and management UPS equipment with one system interface instead of multiple software packages.

In order for developers to design and implement advanced power management products for the industry, tremendous amounts of research and development are the key components for success. Software Success explains, "There are four basic steps for quality research and development" (92). First, the product development team should conduct source code review session. This is primarily done by programmers and R&D managers. The goal is to catch obvious technical bugs in the software. Next the product management team needs to conduct in-house trials with the product(s). This is best accomplished by the sales/marketing staff. Let them put the product through its paces to solve hypothetical field problems that often occur in real-life situations. The goal here is to make sure the product is delivering the basic features and solutions that are expected. The third step involves alpha testing the product. This is done in house by simulated end-users and can also include professional testers, temps, employees or even "real" beta testers who are actually customers of the company. Product managers need to observe product use from installation through configuration to see if all aspects of the program like manuals and help files are intuitive for customers to understand. The final step includes actual beta testing of the product. This is unsupervised testing by real end-users of the product with real problems. This is the last chance to improve product functionality and documentation along with fixing any bugs that are in the program (Software Success 1996 92).

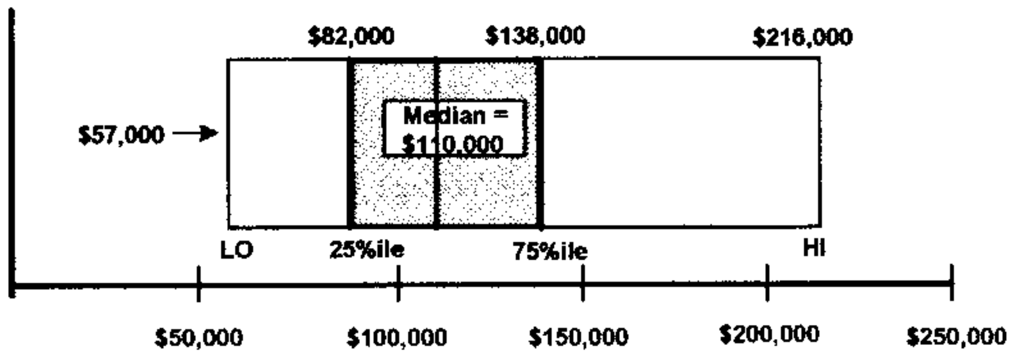
Product managers should stagger their product release dates to allow for flexibility. At the beginning of a project, it is almost impossible to project how long the project will take, so milestones should be more general to accommodate the uncertainties. Milestones should be set by the development group and not management because they have a more realistic idea of how long the project will take and understand the development limitations. A good order of protocol to following during the goal setting stage is to first establish the concept, propose the project to marketing so both agree, develop specifications, conduct alpha testing followed by beta testing and finally release the product for distribution (94).

Sales figures and expenses

Software sales can range significantly for many development companies in the computer industry. According to Software Successes, "1995 Operating Ratio Survey Report", one of the most commonly used measures of software company health is revenue per employee. The median entrepreneurial software company brings in $110,000 per full time employee (Figure 6). Larger firms and those companies that sell high-end software tend to do a little better because they can hold off on hiring additional staff until in is absolutely necessary. Large ticket software products, ones that sell between $1,000 - $20,000, post higher revenue/employee ratios as well. These manufacturers do not need to reach or support as many customers to achieve the same volume of sales as low-priced software vendors (Software Success 9).

Figure 6

Revenues per employee



	75% of firms reach at least	50% of firms reach at least	25% of firms reach at least
By annual revenues			
Less than $750,000	$50,000	$71,000	$117,000
$750,000 - $2 mil	$77,000	$100,000	$133,00
$2 mil - $5 mil	$88,000	$117,000	$150,000
More than $5 mil	$106,000	$133,000	$206,000
By product price			
Less than $1,000	$66,000	$93,000	$147,000
$1,000 - $20,000	$80,000	$104,000	$133,000
More than $20,000	$88,000	$118,000	$147,000

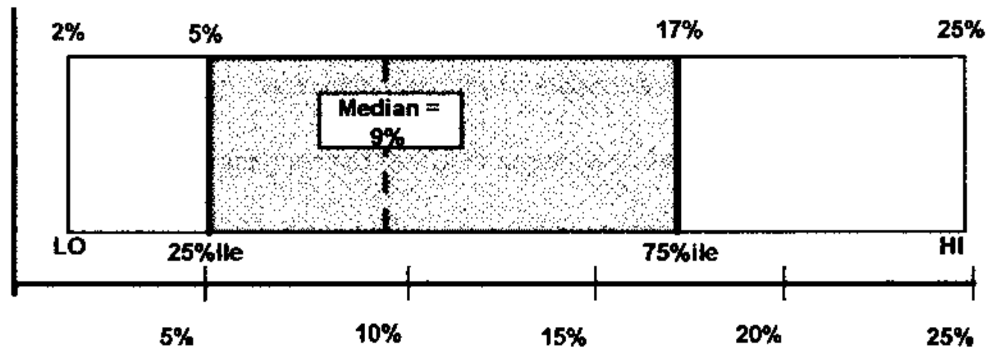
SOURCE: Software Success. Exhibit from "Operating Ratio Survey Results Report; Productivity/Revenue Generation" (1995).

Companies that offer higher priced products have a much narrower market to sell their products with greater margins, however, they are more vulnerable to market downturns.

Software development companies should also be aware of their overall expenditures when focusing on sales targets. According to Software Success, "The typical software company spends nine percent of its total revenues supporting its sales operations, with half of all companies spending between five percent and seventeen percent on promoting products" (13). The authors maintain that, "horizontal applications vendors have a slightly higher average – about twelve percent reflecting the larger potential customer base that they have to reach out to, and often, the fiercer competition that they face" (13). In addition, firms with sales of less than $750,000 should figure on budgeting closer to fifteen percent of revenues for selling purposes. Figure 7 illustrates sales expenses as a percent of total revenues for software development companies.

Figure 7

Sales expenses as a percent of total revenues



	75% of firms spend at least	50% of firms spend at least	25% of firms spend at least
By annual revenues			
Less than $750,000	6%	15%	21%
$750,000 - $2 mil	5%	9%	14%
$2 mil - $5 mil	7%	9%	20%
More than $5 mil	unavailable	10%	unavailable
By product price			
Horizontal application	7%	12%	26%
Vertical application	5%	8%	15%
Utility/admin./other	unavailable	9%	unavailable

SOURCE: Software Success. Exhibit from "Operating Ratio Survey Results Report; Productivity/Revenue Generation" (1995).

Other sales/expense factors software companies need to monitor are commissions paid to in- and outside sales representatives. The median commission rate for software field sales representatives who are paid on straight commission is about sixteen percent. For those sales people who draw a salary the average commission rate is eight percent (Software Success 1995 14). More importantly, total earnings for salespeople at companies with revenues of less than two million dollars equals more than twenty percent of what they sell. For larger companies with larger revenues these figures are only around ten percent of what they sell. Further analysis indicates that the typical software sales representative brings in \$375,000 a year in sales for the company. The majority of representatives bring in between \$250,000 and \$750,000 (14).

In addition to sales expenses, profit margins vary for each company: however, software margins are normally higher than hardware because there is much less manufacturing and inventory costs associated with software. Typically, manufacturers have three basic channels of distribution: Original Equipment Manufacturer (OEM), Resellers or direct to end users. Many software products, especially those in the power management field, are sold through the OEM channel, which means lower margins but higher volumes. Average standard OEM discounts are normally calculated at forty percent of Manufacturer Suggested List Price (MSRP). The second most popular avenue to sell power management products is through the VAR or reseller channel. Primarily, these products are sold by manufacturers to resellers at a discount of twenty-five percent of MSRP. Finally, if a company has no other option they will sell direct to end-users at suggested retail price. These list prices are held at this level for several reasons. First, it protects the main channel of distribution and secures the pricing structure. Secondly, it continues to promote and support channel sales which helps to build relationships between the companies and reinforces trust.

Profit margins will range between resellers according to the type of power management software application being sought, quantities purchased and vendor inventory status. Margins range from a high of thirty percent to fifteen percent on the low end of the scale. The average profit margin for resellers to earn on UPS and software sales is a steady twenty percent (Cozeolino 70). Cozeolino indicates that resellers and OEMs can help to increase their margins on software sales by providing additional services that add incremental revenues. Services may include a help desk for trouble shooting installation problems or assisting customers on site during the installation process (70). These customer support services are good way for VARs to become acquainted with their customers and potentially seek out other product sales as they may find weaknesses in their network configuration.

In a market survey including fifty manufacturers that was conducted by Software Success, a mechanism was designed to track product market share by dollars and units sold. Companies were asked to indicate their market share in terms of percentage and in terms of rank. They found that companies claiming to be in first place within their niche had dominant share percentages in excess of forty-five percent (5)

Companies that are considered to be in second place within the market were aggressive and had between a thirty and forty percent share of their market.

Companies in third place had between ten and twenty-five percent of the market and their futures are considered questionable (5). Table 2 depicts how aggressive companies will fair depending on their market share to survive in the software industry.

Table 2

Percentage of Market based on Competitive Advantage

Dominant Position: Greater than 45% share of the market	**Aggressive Position:** 30-40% share of the market
Uncertain Position: 10-25% share of the market	**Unknown Position:** Less than 10% share of the market

SOURCE: Software Success. Exhibit from "Market share and competitive advantage" (1995).

The market

The UPS industry started back in the mid 1960's when engineers discovered that backup power was an important aspect for vulnerable, often cumbersome, networks at that time. Today, computers are the primary backbone for over ninety percent of companies worldwide, providing mission critical data instantaneously to all users on the network.

The worldwide market for UPS systems and power management software applications was approximately four billion dollars in calendar year 1994, with US sales making up almost half of the total. The United States market is estimated to increase approximately thirteen percent annually on unit growth of approximately twenty percent, with the difference due to price erosion in the low-end market. Unit sales in the U.S. were estimated at 1.6 million in 1994 and are projected at 1.9 million in 1995, with annual increases of twenty percent to four million by the end of the decade (The Chicago Corp. 11). The overall market growth of the industry is thirty percent annual growth varying with market segment. UPSs and power management software serve less than fifty percent of the market, which is roughly a $1.5 billion opportunity for UPS vendors and development companies (APC annual report 1994-2). Furthermore, according to American Power Conversion's 1994 annual report, "Assuming an installed base of one hundred and fifty million PCs and an annual growth rate of ten percent, the PC segment alone represents at current penetration rate, a total unit potential of fifteen to twenty million UPS units by the year 2000 (3). These statistics represent very encouraging opportunities for corporations that dwell in the power protection market. Technological advancements continue to drive prices down and applications up, fueling PCs penetration into both homes and businesses.

Today's computer and peripheral buyers are more knowledgeable than they were ten years ago. However, only about one in twenty personal computers today ever get a UPS and power management software for their protection. The challenge for manufacturers and software developers is to persuade customers from home low-end users to highly network corporations of the importance of power protection and management software.

Market segments

UPS companies typically look to various market segments to distribute their products. Market segmentation refers to marketing efforts to group potential buyers by demographic characteristics, geographical region, lifestyles usage patterns and behavioral factors (Michman 47). This is a tactic of many UPS manufacturers and software developers to target segments for each product category.

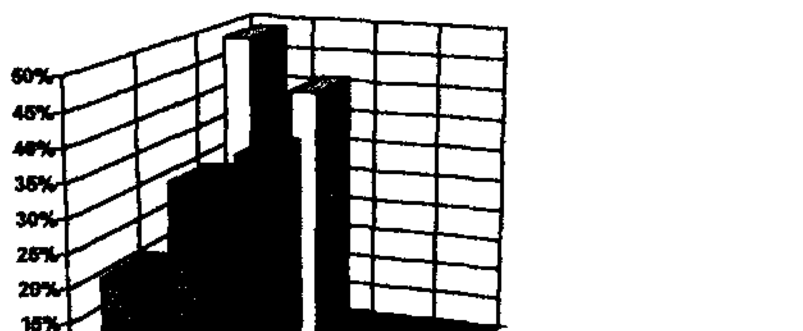
Within the industry there are three different product segments usually separated by topology that offer unique features and benefits for interested end-users (Figure 8).

Primarily, segmentation of UPSs range from online units which are considered high end applications, to line interactive and standby UPSs which make up the low end of the market (Brown 98). As noted in Figure 8, online UPS systems make up the majority of UPS sales and standby units make the low end volume in millions of dollars in sales. However, Computer Reseller News UPS survey indicates that by 1999, the market will begin to shift towards the standby lower end units for network protection (13).

Power management software market segmentation is usually broken down into the various types of operating system environments that the software is designed to support. Operating systems like HP-UX, Digital VMS and Silicon Graphics are considered high-end applications which require more in-depth support and the equipment (computers) for such support is often very costly. Mid-range operating systems like UNIX, Novell Windows NT and OS/2 are generally very popular network operating systems among corporations because of the networking capabilities and, through greater volume sales, are less costly to support. Other software applications that run on workstations, yet require power management software for data protection, include Microsoft Windows 3.x or Windows 95 (98). Power management applications are designed to work with each of the UPS units regardless of topology and provide thorough prevention and protection.

Figure 8

UPS shipments by Topology



SOURCE: Computer Reseller News. Exhibit from "LAN Management, Communications Features Spur Growth of UPS Market," Janette Brown (1994).

In addition to segmentation of products, customers needs, wants and desires, draw a great amount of attention to many software development companies during the design phase of all new product. Research by Venture Development Corporation reveals that, "Software is growing gangbusters in 1994, nearly half of all UPS users have some configuration of power management software on their networks, up thirty-five percent from 1993, and sixty one percent of others plan to use it in the future" (Zyshowski 66). This is indicative of many companies responding to the new features offered in software applications that are being implemented in the programs. One network integrator quoted in Computer Reseller News states that, "The software is the console for a UPS, like the dashboard is for a car," says Edward White, of Amityville, N.Y. "The UPS provides mechanical protection; software adds the extra intelligence" (68).

Additionally, customers require interoperability because they typically have a common network backbone and then run multiple network operating systems for various applications and most of them are concerned much more with interface software than with the details of hardware design (McClain 53). Administrators, such as engineers and programmers dealing with critical data, should be able to know the condition and load status of their UPSs, so that when an actual power failure occurs, their systems are not adversely affected (53).

Market characteristics

The term UPS and power management software are often synonymous in the industry, because the two products rely on each other to provide total data and system integrity. The two products fulfill both vertical and horizontal markets located geographically throughout the world and also target specific demographic markets.

Geographically, the UPS and power management industry is located throughout the world with the majority of product installations going into the fortune 1000 companies who have reason to worry about data protection in their large computer networks. Research indicates that U.S. and Europe are still the leaders in UPS and power management consumption compared to the rest of the world (Software Success 110).

Demographic segmentation of the market at the customer level typically involves people who are in charge of the companies network or computer livelihood. Network administrators are in charge of setting up and configuring hardware and software applications for employees to help make them more efficient and productive. Among top priority for network administrators is to make sure the network is up and running twenty-four hours a day and in a lot of cases seven days a week.

Purchasing behavior

Purchasing patterns or behavior vary greatly among consumers in all markets. Professional marketers still wonder about the real reasons why people eat certain foods or read specific types of publications. Universities' schools of business have heavily structured their curriculums so that quantitative analysis has become all encompassing (Michman 163). Over forty years ago, Stewart Henderson Britt wrote an article about consumer motivation, stating that,

> The record of market research during the past decade is an impressive one. There are better sampling methods than ever before. There is more careful phrasing of questions. There is more accurate cross-checking of data. There is better interpretation of the significance of the facts secured. But we still do not know very much about the underlying motives that cause most consumers to dress as we do, eat as we do, and engage in a hundred other acts of everyday existence. …Actually, every social situation is different from every other and requires a separate analysis. This means that there is no such thing as a universal set of explanatory motives. (163)

Britt's research points out that people have various characteristics of motives and motivational theories for purchasing products. During daily living an individual learns and gains experiences that serve to reinforce patterns of behavior that prove to be beneficial or detrimental (163).

Motives are a source of energy for consumers. This source of energy will be reflected in the degree of motivation each person has. Michman further explains that, "…moreover, motives serve to direct behavior. To illustrate, when the individual is hungry, motives will be directed toward particular foods that are desired" (164). Markets cannot observe motivation because it is an internal state of the purchaser and while consumer behavior is only observable, motives can only be inferred. In addition, needs and goals are constantly changing and developing in response to the environment. In regards to motivational theory, Michman explains that, "It is paramount that marketers study motivation theory in order to identify buyer motivation and then to develop products that satisfy consumers" (165).

Moreover, segmenting markets into specific product types, the author explains that,

> Most large markets evolve form niche markets. That is because niche marketing teaches many important lessons about customers – in particular, to think of them as individuals and to respond to their special needs. Niche marketing depends on word-of-mouth references and infrastructure development, a broadening of people in related industries whose opinions are crucial to the product's success. (165)

Michman indicates that segmented markets that are very close to fragmented markets will be the wave of the future and that niche-ing strategies will be more useful than mass marketing strategies in targeting consumer markets (170). This philosophy correlates perfectly with the power management industry indicating a strong customer and product focus to remain dominate within the industry.

When companies study the purchasing behavior of target markets they must also focus on customer profiles. MIS managers for most corporations are male or female, normally college educated with computer science or engineering degrees, and have a high tolerance for repetitious and tedious work loads (Software Success 1995 69). These administrators need to understand computer operating systems very well and also must be able to implement and configure networks to ensure the system is protected from any major faults, like bad power or software bugs virtually wiping out a network overnight. Administrators are the backbone of a company's communication capabilities, ensuring that all systems are completely functional 24 hours a day. This position comes with a tremendous amount of responsibility and dedication to a corporations overall success and integrity.

Customer advertising appeals

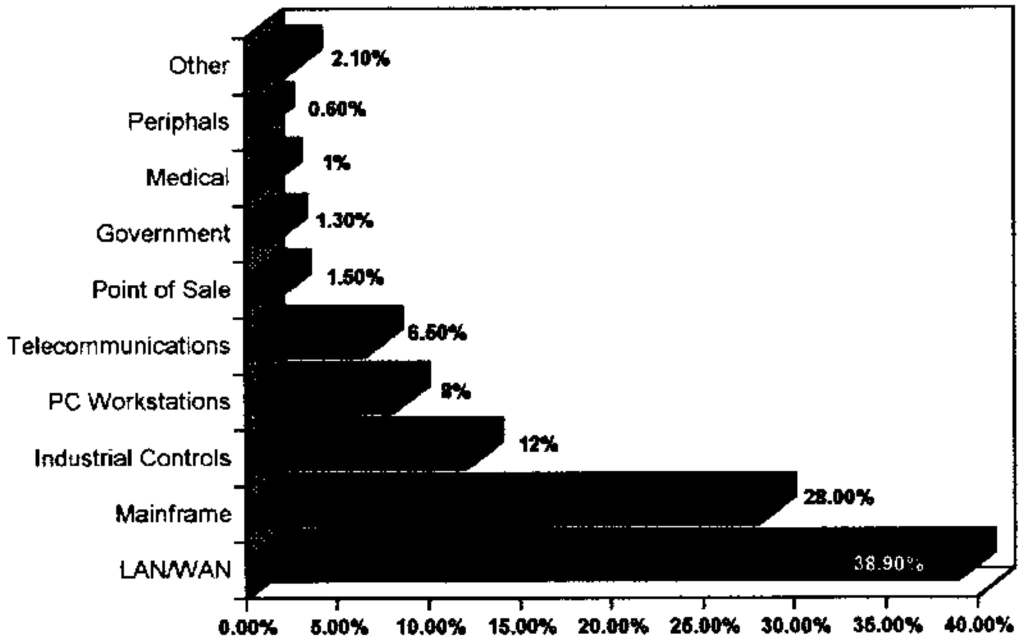
According to George Duncan's article, "Direct Mail and the Dynamics of Response", "…more and more companies are engaging in targeted marketing, database marketing and relationship marketing to use as a tool for promoting products into the channels of distribution or directly to the end-users" (1). Further research by Dataquest and PC Magazine indicated that, on issues of price and service, corporate computer product buyers today prefer mail order vendors like Dell and Gateway for acquiring products. The research also placed customer database marketing second in effectiveness behind public relations and ahead of advertising in specialized publications. It has been shown by Microsoft and IBM that using a database with direct mail and telephone contact can build relationships that pay off in the dealer channel (1).

The author is quick to point out that there is a difference between advertising and direct marketing campaigns. "The primary function of general advertising is to build brand awareness or to create demand for a new product category providing a context for a sale at a later time and place. Direct marketing is structured to sell now. Either immediately by phone or mail, or within an established time frame through a sales contact" (2). The author also explains that the information flow is from the prospect to the advertiser. When companies conduct direct mail campaigns, they need to determine which lists or databases and what segment of mail order buyers to target. Companies will use the feedback from their customers to correct and adjust their mailing campaigns for future product offerings (3).

In addition to the types of marketing and advertising strategies used, companies must review past and present market segments served to forecast new unexplored markets. According to Venture Development Corporation's 1995 European survey, "…the downsizing of computer rooms has created greater demand for low-power UPS products that offer backup power to decentralized LAN/WAN applications" (Power Sources 1). This explains that the large computer systems are becoming less important and more segregated networks are becoming top priority for more universal applications. Figure 9 indicates market strengths and weakness for the UPS industry according to market segment. Notice that the local area network and wide area network dominate the interests of the UPS manufacturers. This is because smaller networks are more volatile and are much less protected from critical unfavorable power conditions.

Figure 9

Market Share by Product Segment



SOURCE: Power Sources. Exhibit from "LAN/WAN Powers European UPS Market," by Venture Development Corporation (1995).

<u>The competition</u>

The U.S. UPS market alone has over thirty UPS manufacturers within its borders, all trying to achieve some sort of dominance in the distribution channels. Each manufacturer tries to distinguish themselves with superior products and fill a void that the others have either overlooked or have elected to ignore for one reason or another. Hardware features in regards to a UPS can only go so far, at least for now because technology has not surpassed current power protection products. This equality in technology makes the playing field tough for many UPS companies trying to separate themselves from the rest of the industry. Many companies turn to third party software developers for support and feature-rich software bringing their UPS products uniqueness' to life.

Some experts discuss the importance of market differentiation when discussing products like UPSs. For example, Mohan Mankikar, in his article "Third-party UPS software heats up" (1996), stated that

> Looking to market more than just a power-protection hardware box, UPS companies now differentiate their products based on features embedded into their software. This software is either developed internally or externally by a third party. UPS systems are now defined and differentiated by the features provided in their software rather than only by their hardware parameters. (6)

Most UPS manufacturers are unable to budget for an internal software development team because of the extraneous costs associated with this type of staff. In addition, software development tools including all the various types of computers are often cost prohibitive for many of the smaller manufacturers, so they turn to the third party developers for support.

Within the U.S. market there are only three known third-party UPS software development companies. These include Systems Enhancement Corporation, DataTrax Systems, and Powertronics, all of which develop and market similar products for the UPS industry (6). Primarily focused on the UPS manufacturers, third-party software developers target manufacturers to move their products directly to the channel. This type of business focus constitutes approximately eighty percent of the majority of the software companies revenues (7).

The market has progressed from basic non-intelligent UPS products to highly intelligent net-workable devices vital to a company's day to day operations.

Software development companies in the power management field have followed this progression and have developed (Smart) software to monitor and management these intelligent UPS systems. Power management products for intelligent UPS systems are described as advanced user-customizable power monitoring, management and shutdown software. In addition, smart monitoring software will monitor the health and status of a UPS, and when critical events occur, will perform a graceful, unattended system shutdown of the operating system. Also, to ensure data integrity, users are able to customize their power management products by defining a specific set of actions to take place when unfavorable events occur. Some of these actions include: dialing out to a pager when events occur, e-mail notification, logging, broadcast messaging and run command script files (SEC 2). Primarily these products are offered only in English, although some of the developers now offer the products in several languages including French, German, Spanish and Chinese. Multilingual products help developers expand distribution of their products globally.

Industry analyst speculate that the U.S. UPS market is growing at a rate of almost twelve percent each year. Topping the list of competitors that market UPS systems and power management software in 1995 are, American Power Conversion with sales of about $515 million, Exide Electronics $391 million and Liebert Corporation with sales of $306 million (Carr 55). With corporate consolidation taking place in the UPS industry, figuring out who will be the market leader in the future is not pre-determined.

Overall, competition is based on product reliability and quality, service and price. Furthermore UPS are segmented into low-end and high-end type applications with the low-end market being the larger of the two. American Power Conversion is clearly the market leader when it comes to distribution of UPS units in the 2KVA and below product range. The majority of these UPS units are bundled with power management software and promoted throughout the distribution channels.

According to a 1994 UPS market survey conducted by Venture Development Corporation (Table 3), several UPS manufacturers occupy the lions share of the U.S. market (Chicago Corporation 4). American Power Conversion (APC) occupies over one third of the UPS market through determined marketing campaigns and an aggressive sales force. APC has been instrumental in developing the UPS industry and creating a sense of urgency to protect valuable equipment and data among many corporations throughout the U.S.

Table 3

U.S. Market Shares in the Less-Than-2 KVA Segment

	1993	1994
APC	41%	44%
Tripp Lite	11%	12%
Exide	5%	5%
Best Power	7%	6%
Deltec	n/a	8%
Others	36%	28%

SOURCE; The Chicago Corporation. Exhibit from "Competitive Position," by Allyson Pooley (1995).

The combination of advanced technology, proven reliability, low-cost manufacturing and a very broad distribution strategy have built American Power Conversion market leadership (Chicago Corporation 4). In addition, the company believes there are five basic ingredients to creating overall strength in the distribution channels:

1. Innovative R&D and aggressive product development
2. Efficient manufacturing
3. Effective marketing and promotions
4. Expansive and loyal distribution
5. Repeat business (5).

All of these factors have helped the company to become the power house in UPS sales throughout the U.S. and many foreign countries. Many other UPS vendors have modeled after APC in marketing and designing products for the industry.

Weaknesses of the competition

Despite strong growth projections for the uninterruptible power supply industry, small and midsize UPS makers will face stiff competition from the top U.S. UPS manufacturers in the coming years, explains Gina Roos, analyst for Components Magazine. Further, she explains that, "...the power of the market is concentrated in the hands of a few vendors, and consolidation of the supplier base is now the norm" (22). More than eighty percent of the UPS sales in 1995 went to the top ten U.S. manufacturers, with more than forty suppliers vying for the remaining market share (22). These smaller to mid-sized UPS companies are able to survive because the are niche-oriented and focus on industries that the large manufacturers can not or will not cover. Companies that remain small are increasingly vulnerable to the larger ones who have large budgets for advertising and public relations. In addition to size and market share, the main weakness that all vendors share is a universal communication protocol for software communication with their units. It is not uncommon for many corporations to have multiple makes and models of UPS systems spread throughout their departments powering devices. With each vendor offering proprietary software applications that work only with their UPS units, administrators are forced to learn many different software management products. This is very time consuming for IS managers and can be frustrating (23).

Competitive marketing activities

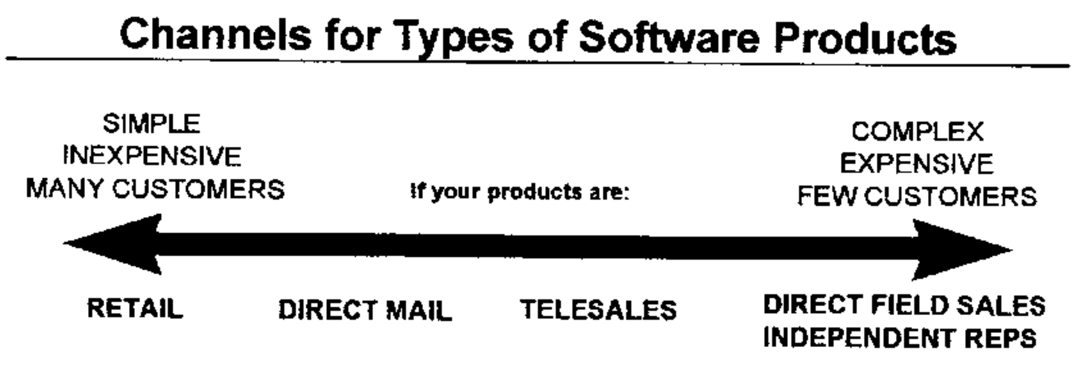
The UPS industry competes for market share in many ways. Traditional types of marketing include advertising, trade shows direct mail and public relation events. According to Software Success, "Marketing budgets ranged widely, with nearly forty percent of survey respondents spending less than ten percent of sales on marketing activities" (Software Success 125). The typical software company spends thirty to thirty-five percent of revenues on marketing and promotional budgets averaged twenty-eight percent of the total marketing expenses (125). Also, companies that are regular users of magazine articles, trade shows, newsletters and press releases, reported that they were getting excellent results from their marketing efforts (127). The author points out that small companies with sales less than $5 million in sales would be wiser to spend their budget(s) on highly focused public relation companies or on demo programs instead of four color advertisements in the top trade publications. In addition, smaller companies should use trade shows sparingly and focus more on newsletter and press releases campaigns to maximize there marketing dollars (128). This is more effective for smaller companies eliminating over spending of their budgets.

<u>Distribution and selling techniques</u>

UPS manufacturers have many possible distribution channels to choose from for marketing new or existing products. Some types of distribution methods include, a direct sales force, value-added resellers (VARs), distributors/retailers and a direct mail marketing.

Using data collected from a survey of software companies that market products through various distribution channels, Software Success analysts report that, "…the key variables in choosing among alternatives for product distribution are the same for a new product launch as for an existing product: the complexity of the software and the composition of the customer base" (35). As indicated by the Software Successes channel survey, the spectrum in Figure 10 should serve as a general rule of thumb for software distribution.

Figure 10



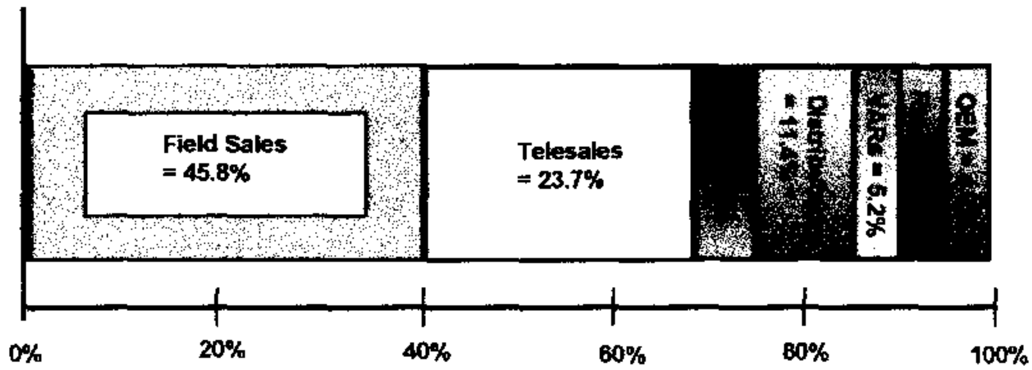
SOURCE: <u>Software Success</u>. Exhibit from "Choose the right Channel" (1995).

UPS manufacturers use basically three types of distribution channels for marketing UPS units and software. The primary target channel of the UPS manufacturers are large scale distributors like Tech Data, Merisel or Ingram Micro. These distributorships sell thousands of network peripherals and computer accessories each year primarily to the master resellers or integrators located throughout the world (Delmonico 104).

Software companies use of different distribution channels varies directly with the prices of their products. Firms offering software priced at less than \$1,000 tend to use phone sales, distributors and retail distribution most heavily. For Software that is priced between \$1,000 and \$20,000, manufacturers tend to rely on a mix of phone and field sales to promote their products. Software Success reports that eighty-three percent of products priced over \$20,000 are sold through field sales (Software Success Report 13). Many of the industry analysts believe that, "overall in the industry, three of four sales dollars are earned through a direct channel sales strategy" (13). There are primarily seven different distribution mechanisms used (Figure 11) for software and hardware companies to utilized while marketing their products.

Figure 11

Percentage of Sales by Distribution Channel



SOURCE: Software Success. Exhibit from "Operating Ratio Survey Results - Sales and Distribution" (1995).

Most important, the survey indicates that companies who sell products in the $1,000 or less category are more inclined to use telesales (24%), Distributors (21%) and field sales personnel (16%) for their primary focus of moving products. Companies that utilize distributors for product sales target those that focus their sales efforts towards the reseller channel. Seventeen percent of resellers said they purchase between seventy-five and ninety-nine percent of their products through distributors, fourteen percent of the resellers replied they make between fifty and seventy-four percent of UPS buys through distribution (Retail Systems Reseller 19). By using this strategy manufacturers can maximize their sales and increase saturation levels in the market. This tactic is also good for creating brand awareness for end-users.

Channel members

The distribution channel has evolved from a group of small companies trying to supply products in a growing market to a large worldwide network. Early on as new software products were introduced, corporations would purchase software and hardware products directly from manufacturers; however, as the market began to expand, manufacturers turned to distributors who in turn rely on value added resellers (VARs) to feed the pipeline for products. Some writers explain that skill, determination and teamwork are the backbone of being a successful channel member. For example, Deidra-Ann Parrish, in her article "The Champion VAR", stated that " the competitive VARs of tomorrow will be those who are able to adapt their businesses to an emerging new model, one that abandons the mission to be a jack-of-all-trades and focuses more on building and maintaining long-term relationships" (123). According to Parrish, "They (the resellers) are opting to avoid the one-stop-shop business model, which a VAR attempts to satisfy its customer's every need. Instead, their models exploit the advantages intimate client relationships offer" (123). She also explains that VARs are moving their focus from back office to front office where their clients' purchasing and strategic development take place. This is an important move in the channel's evolution because it puts resellers closer to their clients revenue stream.

In addition to supporting channel members, UPS manufacturers must participate in promotional activities to create end-user pull-through for their products. For example, Tech Data, a master distributor located in Florida, handles a number of promotions each year from UPS vendors. These promotions can range anywhere from instant rebates and special pricing to bundling the UPS with other items or systems. Sometimes power management software is bundled with the UPS as part of a promotional offering (Terdoslavich 31a). UPS manufacturers will even offer spiff programs for inside distributor sales personnel or have sales contest to promote the products. Although these programs can be costly up front, they often pay dividends down the road because they create brand awareness among consumers.

In addition to promotional campaigns, manufacturers will often conduct training sessions for distributors and VARs on a quarterly or semi-annually basis. Many large distributors schedule such showcases regularly to give their telephone reps a chance to see new products and how they work (Lyons 29). This promotional strategy is known as "Vendor Fairs" and is designed to enable distributor and reseller employees to learn more about the products they are selling.

New promotional ideas are becoming more popular with channel members as well. Channel ranks are beginning to swell with newcomers looking to cash in on the wave of opportunity. At the heart of what is fast becoming a channel gold rush is the Internet. Many newcomers to the channel are designing Web pages and building data communication links for businesses that make acquiring information and purchasing decision making easier. The opportunity to conduct business over the Internet significantly reduces the amount of capital needed for resellers to sell products (Zarley 1). Although this technique is a new concept for the channel only a few manufacturers have implemented this type of promotional/sales game plan because of security issues with software applications.

<u>Pricing policies</u>

Within the computer industry pricing policies and structures vary between hardware and software products, as mentioned in chapter one. When UPS manufacturers price hardware products they look at material, manufacturing and inventory costs of each unit to set their prices. Software on the other hand has more to do with development time and engineering costs including intellectual properties associated with each software program. Once a product like power management software is written and signed off by product management, the costs to manufacture each unit are relatively inexpensive. However, companies must concern themselves with the hidden costs of products once they leave the factory. These costs reflect bug fixes and technical support which can become a large financial burden especially for very technical products.

Many software companies wonder which pricing strategy works best for software pricing strategies - a low price approach intended to achieve maximum unit sales volume, or a low volume, high price/profit margin strategy (Software Success Report 9). According to the analysts at Software Success, "…survey results suggest that overall, the latter tactic works better for most software developers". Vendors of software products priced over $20,000 usually reach more than $1 million in sales per product on the market. Compare that with

$400,000 per product priced between $1,000 and $20,000, and $232,000 per product priced under $1,000 (9).

In the power management product category, all software products sell for less than $1,000 U.S. Manufacturer suggested list prices range from $50 for a single workstation copy to $300 for a more complex network version (Zyskowski 58). Last year (1995), UPS vendors collectively earned about $30 million in software revenue, compared to just over $1 billion from hardware sales according to Venture Development Corporation's UPS market survey. Historically, UPS software sold for a premium, however market saturation selling has begun to surpress the price of the products requiring vendors to bundle or offer the products for extremely reduced prices, or in some instances, free to gain the competitive edge in the market. This is common in lower end power management products that sell in the $50 range and support is relatively inexpensive (Software Success 10).

Many corporations in the UPS market set their objectives and strategies to sell in a high volume fashion. One of the most common complaints of software vendors is the high costs of the onesy-twosy sale to resellers or end-users. Another complaint is the impact of a price cut on products to increase sales. The problems manufacturers face with a low-volume onesy-twosy sale is the cost of what is actually an individualized sale. If a software product sells for a $1,000, even though it costs $50, companies cannot afford to have a sales person spend a half day on site making the sales call, and if the direct costs associated with selling the product does not get them, the opportunity costs will (195). This explains why it is so important for software and hardware sales managers to cater to distributors and resellers so they can carry their products to the customers in mass quantities and reduce individual sales expenses.

Promotional policies

One of the most comprehensible approaches to promoting software products in the UPS market is by utilizing traditional marketing methods. These methods are used by managers throughout the world and have proven to be extremely effective for marketing niche oriented products. Marketing managers will need to decide what target audience they are going to market their products. Some of the most popular methods for marketing to end-users creating pull-through include, magazine display ads, articles on a product, company newsletters and seminars. These activities help to brake down the barrier between vendors and distributors because distributors know that vendors are doing their part to help promote their products.

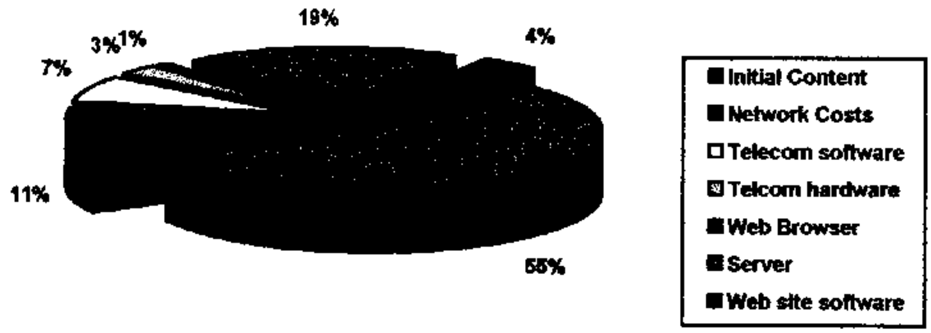
In addition, marketing managers will often target influences with their marketing promotional techniques. Influencers include editors, product reviewers, consultants and analysts who typically will recommend manufacturers products if they test out adequately (Software Success 127). The techniques used to target influencers are, press tours, press kits, press release and speaking with editors over the phone discussing their products. By targeting both segments for promoting products, manufacturers will begin to create a strong market awareness for their products and will increase sales.

New types of promotional policies are being implemented by many companies in the industry as well. The use of the Internet has become extremely popular with corporations like Microsoft offering many of their products to customers on a trial basis. Companies can easily conclude that Web site marketing is opportunistic and profitable because of the reduction in overall marketing costs.

The costs associated with an Internet site often comes in the front end during the development phase. Hardware and software are the least significant Web-site component costs ranging between $2,500 and $10,000 respectively to workers wages and maintenance which make up the bulk of Web site expenses (LAN TIMES 37. Costs to maintain these sites (Figure 12) include content, network costs to keep the system running and telecom hardware which makes up fifty-five percent of the overall costs associated with Web site development. Content, such as creation, ideation and materials for Web site development generally makes up nine-teen percent of the overall costs associated with any companies Internet marketing attempts.

Figure 12

Web Site Cost Components



SOURCE: LAN TIMES. Exhibit from "Web-Site Costs Considered," by LAN TIMES staff (1996).

The data reveals that generating Hyper Text Markup Language (HTML) documents and managing those documents and their corresponding links accounts for over half of the average Web site's costs (37). Even with the costs associated with Web site development, these new marketing opportunities could save companies thousands of dollars in expenses like print marketing collateral for promoting products and company catalogues.

Marketing campaigns are only as good as the people who implement and bring them to fruition. Managers who design promotional activities need the assistance of a strong sales force to call upon the distributors and resellers ensuring the programs are running effectively and providing feedback to management. The primary responsibility of the salespeople is to generate revenue and build relationships with customers. The most significant leading performance indicator for sales personnel is the quality and extent of their prospecting efforts (Colombo 49).

Software sales personnel should have activity based goals to keep them focused on the customer base. These goals include, number of calls per day, and number of customer visits per week. Further more, goals that combine activities with quality usage of time are especially successful, such as reaching five "A" accounts per day (Software Success 61) According to Software Success, sales people thrive on individual recognition, competition and self accomplishments. The best motivation for a salesperson besides compensation is to make the results of their efforts visible to others (61). Thus keeping a positive attitude and moral at higher levels.

Many software and hardware companies are moving towards sales automation products to help them become more efficient as a company. According to a market survey from Software Success, "More than two-thirds (68%) of the respondents to our 1993 sales automation survey used a SA package; an additional nine-teen percent were considering using one, and only thirteen percent said that they were not considering using one" (84). The survey indicated that the median sales staff for software development companies had around three people. In general, all the salespeople were using sales automation in the smaller sales staffs (85). A small sales staff tends to stick together and is based in one location, thus resources are easier to share.

Also, companies must train their salespeople to sell products effectively as competition in the industry becomes more fierce. Customers appeal to software that is relatively inexpensive and user-friendly and basically easy to understand. Since time is of essence, complex software applications often get rejected by network administrators. The analysts also explained that it is very important to have proper documentation for customers not only to make the product more intuitive but to also cut down on technical support (86).

In order to cover all the costs associated with sales personnel and marketing campaigns, mangers should plan on using a percent of gross sales for their budgets. The median budget for all software companies marketing expenditures is around ten percent of sales. This enables development companies to cover all bases affording their promotional and sales campaigns (125).

Directives and objectives of management

Marketing and promotional activities are a constant challenge with managers throughout the industry. Corporate objectives and strategies relative to profitability are a key concern when targeting market segments and creating marketing mixes for new product launches.

Some writers discussed the importance of setting marketing objectives. For example, Philip Kotler, and Gary Armstrong, in their book Principles of Marketing (1994), stated that, "The first step in developing an advertising program is to set advertising objectives. These objectives should be based on past decisions about the target market, positioning and marketing mix" (490). Kotler and Armstrong suggest it is important that, "...the marketing position and mix strategy define the job that advertising must do in the total marketing program" (490).

Furthermore, Kotler explains that advertising objectives are a specific communication task to be accomplished with a specific target audience during a specific period of time (490).

In addition to setting objectives for marketing activities, managers should also establish thresholds concerning expenditures when compared to revenues. These expenditures include, financial to administrative revenue, sales and marketing to revenue, research and development and calculating gross margins for profitability as displayed in Table 4. Industry financial survey's from Cisco Corporation, Bay Networks, 3Com and Hewlett Packard indicate that all software related companies have similar expenditure traits when it comes to launching new software products into their channels. Table 4 displays corporate benchmarks that many major computer companies strive for when considering financial ratios (SEC 5).

Table 4

Benchmark Financial Ratios (%)

Description	1996	1997	Target
Gross Margin	52	53	65
Finance & Admin. to revenue	6	5	4-7
Sales & Marketing to revenue	19	19	18-25
R&D to revenue	8	8	7-11
Net Non-Current assets to revenue	8	6	7
Inventory Turns	10	12	12
Days Receivables	60	60	55

SOURCE: SEC Market Survey. Exhibit from "Financial Ratios" (1996).

One of the most important benchmarks for companies is research and development. Unfortunately, many companies put market research in the same category as physical exercise: They know they ought to do it, but it never seems to get done.

The most powerful justification for market research is the opportunity cost of not conducting the research. If companies do not conduct research in their market, they may miss their market window or a new product opportunity completely (Software Success 231). Also, for most companies, the most important type of research is that which adds to the companies understanding of its customers and why they buy the products. The most important aspect of research and development for managers to remember is to focus on customers first and leave the broader market research alone until they have an in-depth understanding of the customer and their needs (233). The point that these analyst are making is for managers not to focus on and try to get their hands around the entire industry, rather focus on the niche of the market they sell into.

An article, "Finding the Right Product Mix", by Richard March, illustrated the importance of products to the resellers channel. The survey was conducted via telephone of five hundred and fifty VARs from the companies circulation database, and was driven by Charles River Strategies Inc., an independent market research firm in Wellesley, Mass. The purpose of the survey was to detect the right product mix for any Value Added Reseller considering profitability, potential growth and which products offer the best potential to sell with their value added services. In addition, the survey gave VARs four categories to choose from, these included, systems, peripherals, network and software (79). Slightly more than half of the VARs reselling and deploying software products indicated they sell into medium and large accounts, which is the highest percentage of sales among all product categories. Furthermore, as a product group, software tops the other three groups in the potential to add value-added services. VARs also scored software products well as a growth area for their business (91). These statistics are vital to any managers objective and goal planning session during the development phase of a product.

Companies have to watch their bottom line when it comes to introducing new products to their market segment. The cost of communicating consumes a large portion of any marketing departments budget. Attracting prospective customers, keeping existing customers, and motivating resellers is very costly. More so, companies have to keep their employees well-trained, informed of new developments and reasonably happy in order to keep them productive. Items like catalogs, brochures, direct mail and annual reports all add up to huge expenses that companies have to try and control (Cybermarketing 2). Conversely, many companies are beginning to utilize the power of the Internet for increasing market awareness of their products. The Net's biggest financial impact is its ability to significantly lower communication costs. For example, Sun Mircrosystems saves about $250,000 annually in production costs by putting its annual report online. Another example includes, Cathay Pacific Airways; reportedly spends just pennies per recipient at its Web site rather than $.75 - $1.00 per person with direct mail. Analysts indicate that companies should approach the net as a communication tool, and measure their online success by how much they reduce the costs and increase the efficiency of communicating. That's when companies start showing serious ROI for their Internet expenditures (2).

Other analysts seem to share a similar view of companies using the Internet to give them the technological advantage over the competition. Udell, for example, in his observation of the Internet for corporate use indicated that, "Last year the World Wide Web looked like a great platform for electronic publishing. This year (1996), it became something far more profound: a planetary operating system" (68). Udell described that the Web offers opportunities to companies who are willing to put forth the investment up front and gain the technological advantage in the market. He explains that there are four reasons why the Web is essential to any computer related business:

1. **It's open** - The Web is platform-neutral and global, and browsers function as universal clients.
2. **It's resourceful** - Using the Web, allows companies to update the look and the capabilities of legacy applications.
3. **It's efficient** - Web-server applications are becoming simpler and faster to create.
4. **It's dynamic** - There are many applications that can help companies quickly build information-rich sites.

Marketing opportunities

North American high tech companies used to consider the U.S., Europe and Japan markets as the main streams for business opportunities and anything else dismissed as the "rest of the world". These parts of the world were too widely scattered and puny in dollar volume to seriously consider. But that is no longer true. As the main stream markets tend to top off and slow their growth rates, these smaller companies are showing that they have promising potential (International Data Corp./PC WEEK 74). Regional growth opportunities are gradually shifting away from the traditional global hot spots to new emerging markets like the Asia Pacific and Eastern Europe regions. Now witty companies (Table 5) see those emerging markets as the engine for their future success.

Table 5

Regional Growth (by Dollar sales in billions)

Region	IT Market 1985	IT Market 1995	1995 Growth (current $)	Est. 5-yr growth
North America	$53.4	$227.5	9%	10%
Latin America	$2.8	$12.4	2%	2%
W. Europe	$30.9	$157	16%	7%
E. Europe/Mideast/ & Africa	$4.9	$13.6	13%	14%
Asia Pacific	$21.6	$125	19%	10%

SOURCE: PC WEEK. Exhibit from "Emerging Markets Go Mainstream," by International Data Corporation (1995).

With North America and Western Europe cooling off, now is the time for many software and hardware manufacturers to start focusing on the growing markets like Asia, Eastern Europe and Latin America. In addition, many industry analyst predict that by the year 2000 more than half of all U.S. software company revenues will come from exports (Software Success 1996 132).

Although there is tremendous potential for companies to distribute their products internationally, there are many barriers that have to be overcome. Some writers discuss these hurdles that companies must face while trying to market their products through the traditional channels to outside countries. For example, Deidra-Ann Parrish, in her article "Selling Overseas" (1996), stated that, "most foreign markets are about six months behind the U.S. market" (68). She goes on to state that, "one of the biggest barriers to U.S. businesses entering foreign markets is probably also the most underestimated: the cultural differences between Americans and natives of other countries" (68). Every country has a unique way of conducting business and the differences may seem insignificant, but to resellers who have tried selling products overseas overlooking the subtleties can create a sizable barrier against acceptance. More so, many companies are leery of U.S. based businesses because of prior conflicts in product launches. In order to accomplish these overseas missions and barriers, marketers will need to focus on keeping communications open and competitive prices in order to survive.

For any company interested in promoting and distributing their line of products, whether it is power management software, utility software or hardware products, they must first consider market needs-satisfying objectives. Too often corporations believe they have what it takes to fulfill the appetite of their target customers, however, high performing sales/marketing personnel make it a point to understand customers needs and goals before they pull anything out of their product bag (Kotler 537). Successful companies spend the time and effort needed to get an in-depth knowledge of the customer's business and interests, asking questions that will lead to solutions their systems can address (537).

Corporate needs-satisfying objectives are also important when considering a product launch. Today, product life cycles can be shorter than nine months in the industry, new technologies are being announced as fast as the trade magazines can report them; and many marketers are undergoing massive consolidations that threaten the very existence of resellers (Haddad 75). Industry standards, government legislation, market consolidation and downsizing along with vendors' distribution strategies represent uncertainty and change corporations must address in their business plans (76). Some writers discuss the application of these principles for companies working on corporate needs-satisfying objectives. Henry Haddad in his article "How to Revitalize Your Business Plan" (1996) indicates, "The paradox of business planning is that the same dynamic environment that necessitates a solid, thorough business plan is also what makes the process difficult" (76). According to Haddad, the following tactics can help to buffer a business against the perils of an unpredictable environment (77-78):

1. **Focus on the marketplace** - Companies must understand customers' applications, preferences and technical directions.

2. **Emphasize short-term goals** - Even the strongest proponents of business planning have de-emphasized the long-range portion of their plans.
3. **Anticipate changing market conditions** - Coping with a changing business environment requires a dynamic living plan that blends focus with elasticity.
4. **Reevaluate growth strategy** - Planning for revenue growth rather than profit growth is risky business. Companies should perform worst-case analyses of cash flow to account for unfavorable turns in their business.

Sales targets

Manufacturers, resellers and distributors are continuously fishing for ways to increase revenues. One procedure that is popular in the power management field is using "spiff" incentive programs encouraging the channel members to promote UPSs and power management software thus helping to fulfill their sales objectives. Typically, these programs will last for two or three months and are generally around five to ten percent of the cost of the UPS (Terdoslavich 147). The primary purpose of an incentive program is to generate additional software sales, and even more importantly to gain mind share among the channel members (148). Some manufacturers, such as Tripp Lite Manufacturing, based in Chicago, IL, packages its spiffs with training and demo units, calling the program "Start Smart". This is designed to reward and educate the internal sales force of any distributor or reseller.

All companies must find a way to balance paying bills with building a sales mechanism for the growth of the company. Industry analysts warn that, "...if companies are not using resellers, they should at least consider using indirect sales channels as a means to boost sales, particularly if a company's sales have stalled despite all efforts and sales are concentrated in specific geographic regions (Software Success 249).

While all products can be sold directly, only some products seem to be a natural fit for certain types of distribution. Just as using a direct face-to-face sales method to sell single units of a $49 PC utility is not cost-effective, there is a tremendous amount of wasted time and money trying to line up resellers to sell and support a complex, hard to sell product that appeals to a thin market (249). Table 6 helps to illustrate the encumbrances that manufacturers of software products need to take into account when selecting a sales channel. Products that can be sold as add-ons to existing products or as extras sold to an existing customer base may have a shot at achieving reseller success. Just as all sales methods are not alike, neither are all reseller channels.

Table 6

Sales Channel Opportunities

Software Product Characteristics	OEM/VAR	Dealer	Volume Distributor
Product Price	$5K+	$5K+	Under $1,000
Transaction Value	Tens of Thousands +	Several Thousand +	Several Thousand
Product Complexity	Moderate +	Low - Moderate	Simple
Sales cycle time	3 -6 Months	1 - 3 Months	Minutes
End-user/purchaser decision making process	Multi-call Multi-level	Multi-call	Fast impulse
Customer training requirement	Moderate +	Low to moderate	Little to none
Customer product knowledge required	Modest to high	Low to modest	Low
End-user support intensity	Modest	Low to modest	Low to none
Promotional support required	Low to modest	Low to modest	High
Number of customers	Many, well identified	Many, well identified	Many, poorly identified
Product maturity	Emerging	Probably established	Established

SOURCE: Software Success. Exhibit from "Choosing Channels," (1995)

Resellers and distributors that sell products for companies in the power management industry target end-users that are normally large corporations, have numerous computer systems and manageable devices on site and are most often networked together. These are the prime targets for the channel and most are in need of both power and data protection (APC Power Protection Handbook 2)

Marketing methods

Software development companies in the power management industry use several types of marketing mixes to promote their products. These include, direct mail for creating pull through, advertising to create market awareness, company newsletters and public relations to build good will among channel members.

Some writers discuss the different aspects of marketing strategies for promoting products. Leonard Saffir quoted Thomas L. Harris, in his book The Marketers Guide to Public Relations (1991), and stated that:

> The growth of public relations and its acceptance as valuable, sometimes essential, marketing practice is practically universal. Companies assign public relations staff specialists to their product marketing teams and engage public relations firms to help them get maximum mileage form product introductions, to keep brands prominent throughout the product life cycle, and to defend products at risk. (8)

Harris has spotlighted a vital manifestation of the coming to maturity of public relations to promote products. Only a few years ago, many marketers thought that public relations should be dismissed from normal marketing practices by most corporate decision makers. Now there is widespread recognition of the importance of public relations especially within the computer industry (8).

Although thirty percent of all personal computers have yet to be protected by a UPS and power management software, resellers have turned their loyalty to vendors with technical prowess and superior marketing (Delmonico 117). Where a big splash of marketing and sales savvy legitimized the computing end of this market, power management is now serious business. While software is a buzzword in the power management field at this time, other strategic moves also will hallmark this decade, continuing to fuel the competition that makes the UPS industry famous (117).

Product positioning strategies also play an important role of new products launch tactics. After a company has thoroughly thought through all the aspects of what the market is, environmental analyses, trends and who the competition is, all boils down to one goal. That goal is figuring out what its position is in the market. Many analysts share the same belief towards positioning. Larkin , for example, in her observation of companies positioning strategies believe that "The positioning concept begins with the idea that customers choose products based on the benefits, they expect the product to deliver" (157). She goes on to point out that companies actually have three positions they can take for marketing products:

1. The product position, which is how products are perceived by the market.
2. Your market position, which is the actual response of customers to the product.
3. Your company's position, which is the reputation of the company in the market.

In addition, a market position can be defined by considering market attributes like price, service, technology or quality (159). A company must determine which is the best way to position itself to be continuously successful.

UPS Product differentiation is most often determined by voltages, amperages and overall hardware features for UPS products. However, most software products that are designed for power management are differentiated by their OS application features. Some software packages are designed for non-intelligent UPS devices that only indicate power failure and low battery status, while other power management products are designed to work with intelligent UPS systems that are capable of displaying numerous variables like temperature, input voltages and percent load on the UPS.

Software quality differentiation is important among developers who market power management products. Quality is one of the most important aspects for customers when selecting software. Developers strive to design their products around customer wants and make them as intuitive as possible. Factors that are important to customers include media for installation, quality documentation and strong technical support from the corporation that produced the software (Software Success 291).

Marketing mix

Strategies for a new product contain the target market, the positioning of the product and the marketing mix. The marketing mix contains, product, price, promotion and distribution (place). Combinations of these four variables are what is needed to bring to product through the initial launch phase and continue its chances of survival in the market. For example, Merle Crawford, in his book New Products Management (1994), stated that "The marketing mix is a name given to the particular combination of product-price-promotion-distribution actions selected for the new product" (461). Crawford explains that new products managers must pick through all the options associated with each option and choose the proper mix and not to make the list too long. He warns that manages should be selective on their promotional and distribution goals are remain focused. This will keep the program from becoming too cumbersome and expensive.

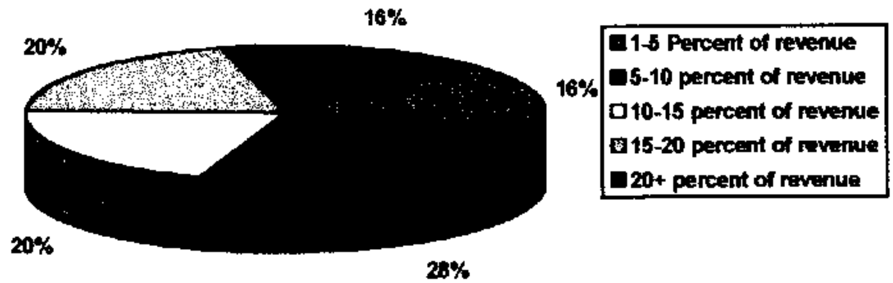
Once the marketing campaign has begun and the new product is launched, managers must keep track of the launch tactics and discover if they have been successful. According to Software Success, many manufacturers use mail surveys, telephone interviews, focus groups and secondary research to track marketing efforts (236). Usually, mail surveys are the least expensive and most effective at tracking the mechanisms used.

Budgets

There is no hard and fast rule about how much to spend on promoting products while trying to work out a budget. Like the computer industry, marketing budgets for the UPS industry average around ten percent of sales. Promotional budgets average 3.1 percent of sales or twenty eight percent of overall marketing expenses (Software Success 125). Figure 13 illustrates the marketing budget as a percentage of revenue allocated to promote products (125).

Figure 13

Marketing Budget as a Percent of Revenue



SOURCE: Software Success. Exhibit from "How much to spend on promotion and marketing," (1995)

Almost one third of the companies surveyed indicated that marketing budgets absorb over twenty percent of the overall revenues for each company. The majority of the remaining corporations indicate that they spend from ten to twenty percent on marketing related activities which allows them to remain strong in the market.

Summary

The UPS and Power Management industry is an up and coming segment of the overall computer segment yet to reach its peak of saturation within the markets and channels. This industry has undergone many changes from the early 1960's of offering basically batteries in a box to a new and growing network of highly intelligent products which are now able to communicate with administrators and become manageable devices via software. Through the use of clever marketing tactics and shear determination, this dynamic market will continue to evolve with the rest of the computer industry offering new and innovative products into the next century. The methods for distribution will begin to change for many companies; however, marketing efforts are still very similar to the traditional concepts and ideas that have been used for decades.

Based on the literature reviewed in this chapter, it is somewhat easy to discern the complexities and problems associated with the design and implementation of a marketing plan. This thesis, therefore, will continue with the development and evaluation of a plan to enable the successful product launch of Systems Enhancement Corporation's power management product - SmartMon.

Chapter III

METHODS AND EVALUATION

Materials

After a thorough investigation of the UPS and Power Management Industry, the knowledge gained from research has determined that companies market products and services to customers using various distribution techniques. In order for Systems Enhancement Corporation (SEC) to conduct a successful product launch, the company must develop a marketing plan (Appendix A) that will put the company on target to meet or exceed expectations of management.

The marketing plan is written in a clear, concise and unambiguous format, allowing management to easily understand the concept of this product launch. In addition, the plan allows the entire company to interpret the concept of what the company is, where it is going and how it will get there. The Systems Enhancement Corporation SmartMon Marketing Plan follows a specific protocol and strategy to ensure a successful launch of the product.

First, the plan offers an executive summary covering a brief summation of the entire plan highlighting each section. Next, the plan provides a situation summary covering the current position SEC holds within the market. A general overview allows management to understand how the product is designed to work and what purpose it will serve once entered into the channels.

In addition the plan conducts a SWOT (Strengths, Weaknesses, Opportunities and Threats) Analysis of the product, thus exploring any and all conditions that may occur upon entry into the market.

Succeeding the first section, the marketing plan focuses on market strategy and explains how the program will be rendered. This section also contains a target market list and a three year forecast for SmartMon. Furthermore, the plan addresses customer profiles, demographics, business objectives and strategies including marketing objectives and strategies.

Furthermore, the marketing plan includes a positioning strategy including price, place, product and promotion for the media and advertising aspect of the campaign. In addition, the Systems Enhancement's plan provides a budget analysis listing details of how the funds for launching the campaign where allocated. SEC will use the percentage-of-sale method for allocating funds to each segment of the plan.

Finally, the marketing plan discusses the product development cycle and discloses a brief explanation of the strategic planning stage. SEC will address any legal ramifications that may exist regarding the SmartMon product and any conflicts that may arise during the implementation process. The marketing plan provides a contingency plan as a backup measure in case the product may fail after the initial launch.

The primary function of the marketing plan is to help ease the tension and confusion related to the launch of a new product and give all personnel involved a clear and concise idea of how the project will flow. The benefit of the marketing plan will be to produce increased cash flow and profitability allowing the company to continue to thrive in the computer industry.

Subjects

In order to assure the SEC Marketing Plan is on target for the initial launch campaign of SmartMon, there were two individuals evaluating the plan from within the Power Management industry who have a professional background and thorough knowledge of the industry.

Rick Johnson currently works directly for Systems Enhancement Corporation and serves as Executive Vice President for the company. Johnson has been with the company since just five months after the inception and has worked in all aspects of the company. Johnson's educational background includes a BS in Mechanical Engineering - University of Missouri Rolla, a MS in Engineering Management University of Missouri Rolla and a MBA atWashington University in St. Louis. One of his unique traits is that he has served as a utility player on the executive management team for SEC, performing several functions that many have the lack of qualifications to perform. In addition to his years of experience with Systems Enhancement Corp., Johnson served with Corrigan Company, a mechanical contracting firm located in St. Louis Missouri, for five years managing multimillion dollar piping installations and contracts. Moreover, Johnson is a graduate of the Dale Carneige management course for professional development.

Barb DePalma is currently employed by Sigma Diagnostics in St. Louis Missouri, a subsidiary of the Sigma-Aldrich Corporation. DePalma has worked in Marketing Communications for approximately fifteen years and has worked in all facets of Marketing Communications, including writing, public relations, advertising, trade shows, collateral material design/production and strategic marketing planning. In addition, DePalma has served as a reporter for the St. Louis Post Dispatch and the Suburban Journals of St. Louis, covering a variety of areas from government and school boards to sports editorials. DePalma currently serves as Manager of Advertising and Promotions for Sigma Diagnostics.

DePalma's educational background includes a BA in Speech Communications from the University of Missouri-St. Louis, a MA in Business Administration from Webster University and a MA in Management from Webster University. DePalma's work experience includes two years of employment with Systems Enhancement Corporation acting as Marketing Communications Manager for the company. She has also served for more than four years with the Post-Dispatch covering local governments, school boards and other governmental agencies. She has worked for more than six years as a Communications Specialist Manager for McDonnell Douglas Corporation in the Information Systems Division. Other professional credentials include a Writing Degree from the university of Missouri St. Louis, and she is a member of the International Association of Business Communicators.

Instrument

The marketing plan was evaluated with a self-designed questionnaire consisting of various questions and requested responses (Appendix B).

The questionnaire is in the form of a self directed question and answer sheet, allowing each person to explain their responses after each inquiry. Subjects were informed that the questionnaire is strictly confidential and was not shared with anyone else besides the academic advisor and other academic readers of the plan. Review and analysis of the plan takes approximately one hour from start to finish to complete. The questionnaire takes approximately ten to twenty minutes to complete

Procedure

The procedure for instituting the review process for the SmartMon Marketing Plan included providing each subject with three documents during the review process. These items included a cover letter, (Appendix C) marketing plan and questionnaire to assist in the analysis of the plan.

A package containing the three items was delivered or mailed to each subject. Upon opening the package, the subjects read the project cover letter first informing them that the review and questionnaire will be kept in strict confidence upon completion and return. The letter also informed each subject of the purpose of the plan, and the benefits to be gained by implementing the plan.

The subjects, after reading the cover letter, evaluated and analyzed the marketing plan for any flaws, errors or in their opinion missed topics within the plan. After the review of the marketing plan, the respondent critiqued the plan with the questionnaire included in the package. After completion of the questionnaire, the readers placed all materials in the postage paid envelope and returned the package immediately. Once the material had been returned, the plan was modified according to the readers suggestions. Additionally, each reader was contacted following the return of the materials and a brief interview was conducted to gain any further information regarding the plan.

A time frame of one week was permitted for the subjects to complete their review of the plan. Follow up calls were given to respondents not completing the questionnaire in a timely manner.

Chapter IV

RESULTS

Two experienced, knowledgeable professionals from within the power management field were chosen to evaluate the SmartMon Marketing Plan. The intent of the evaluation was to determine if the marketing plan would be a useful tool for a company to use while launching new software products into the market, or if any improvements could be made to increase its effectiveness. Their overall evaluations provide valuable information and will assist other organizations and individuals in developing future marketing planning strategies.

The testing instrument was implemented in February of 1997. Both evaluators were required to answer a series of five questions regarding content, strategy and implementation of the plan and offer their professional opinions. Each question required a "yes" or "no" answer followed by a brief explanation for their responses. Table 7 displays Johnson's overall responses to the five questions asked in the survey while Table 8 displays DePalma's overall responses.

Table 7

Johnson's responses to the survey questions		
	YES	NO
Question 1	✓	
Question 2	✓	✓
Question 3	✓	✓
Question 4	✓	
Question 5	✓	✓

Table 8

DePalma's responses to the survey questions		
	YES	NO
Question 1	✓	
Question 2	✓	
Question 3	✓	
Question 4	✓	
Question 5	✓	

The combination of responses to each question indicated that the evaluators were favorable to the overall concept of the plan. Both evaluators agreed with each of the five questions pertaining to the plan; however, one evaluator answered both "yes" and "no" to three of the questions. In all, the plan was viewed as a viable tool for any company to implement while launching a new software product.

As previously mentioned, the instrument was designed to provide a "yes" or "no" response for all questions backed by an explanation of each evaluator's answer. The first question in the survey related to whether the SmartMon Marketing Plan provided the reader with a better understanding of the product and channels. The question asked:

"Did the SmartMon Marketing Plan meet its intent of providing you with a thorough understanding of the UPS power management industry?"

Both evaluators answered "yes" to the question and offered reasons for their responses indicating how the marketing plan had broadened their understanding of the UPS industry.

In response to this question, Johnson believed that the marketing plan appropriately covered the concept of the market which allowed him to develop a better understanding of the industry; in fact, he said, "Good evaluation of the UPS market and how SEC / SmartMon fits in to the niche of the industry." Johnson also indicated that he understands the OEM channel for SmartMon more thoroughly than before. He also said, "I have a better understanding of the OEM business and how to use this as a base."

DePalma also agreed that the marketing plan enabled her to better understand the UPS industry; in fact, she said, "I understand what a UPS is and how power management software is needed to protect these systems. I understand that there are two basic forces in the industry - OEMs and third parties and both are working together to create the most efficient power management solutions available." DePalma also expressed her belief in the advancement of power protection for all network type products. She said, "I understand that a UPS is necessary to protect computers and networks from unfavorable conditions and that power management software is an integral part of a UPS sale."

The second question asked whether or not Original Equipment Manufacturers (OEM) are the best mechanism to carry the product into the channel and ultimately to the end users of the product. The question asked,

"Did you find that the approach to the market through the OEMs (Original Equipment Manufacturers) is a viable mechanism to market the product?"

Johnson responded "yes" and "no" to the second question and offered reasons for his beliefs and disbelief's that the OEM channel is the proper vehicle for SmartMon distribution. In his "yes" response, Johnson stated that, "This seems a good viable short term strategy as it involves little capital expenditure to get it there." In addition, he said, "SEC has an established relationship with the OEM channel and should be easy to pursue."

Johnson also answered "no" to the second question, which he expressed concerns over price pressures by selling SmartMon through the OEM channel. His main concern was, "Don't price pressures limit revenue growth or should the OEM channel be a funding mechanism for other channels?" OEM channels are typically the most price sensitive for companies to sell products through because they are bought and resold at extremely reduced prices allowing the manufacturer to stay competitive in the market. Typically companies will see strong volume sales with OEMs; however, profit margins are extremely low which makes the software developer vulnerable to any downturn in sales.

In response to the second question, DePalma also indicated that, "Most OEM's do not have internal software development staffs and SEC has a team of experts to help the OEMs. The OEM's are on the front line with the customers and SEC has a solid reputation of providing solutions to them." More so, DePalma stated that SEC is reliant on the OEM's to carry most all of their products to market because of the application requirement. SmartMon will only work with UPS systems and is directly designed to monitor and manage these systems; in fact, she said, "SEC does not produce hardware (UPS's) and needs to rely on companies that do."

The third question asked if the SmartMon Marketing Plan was complete and was presented in an orderly fashion. The question asked,

"In your opinion, is the SmartMon Marketing Plan well organized?"

Johnson answered both "yes" and "no" to the third question and offered reasons for his answer. He believed that the market and product analysis were well organized and intuitive. In his "yes" response, he stated that, "Flow from market description to product description is good." He also stated that the plan had a, "Clear explanation of product, market and strategy before financials."

In his "no" response, Johnson indicated he had some concerns over transitions between product and company; in fact, he said, "There is confusion at times between a SmartMon strategy and SEC strategy." He indicated that the marketing plan would at times discuss the product when the topic should have been focused on the company. In all, Johnson seemed confident that the plan was well organized and would be capable for corporate implementation.

DePalma's response to the third question was also favorable; in fact, she said, "In the beginning, the plan told you what to expect and each area was thoughtfully covered. The sections were clearly marked and information directly pertained to each section heading." She also believed that, " The plan followed a logical path from how the product was thought out to how it will go to market and how it will be promoted."

The fourth question of the interview pertained to style and asked if the evaluator would consider implementing this type of plan for use in their own marketing product planning. The question asked,

"Would you recommend or consider using this style of marketing plan within your organization?"

Both evaluators answered "yes" to the fourth question indicating that the concept and structure of the plan was sufficient to implement and execute with their products.

Johnson believed that the SmartMon Marketing Plan would give any individual a better understanding of the market and help them to excel. He stated that, "It would give employees a clear understanding of the market and its dynamics as well as the product." He went on to explain that, "It (the marketing plan) provides clear guidelines and budgets to make the plan happen."

DePalma also agreed that she would implement this style of marketing plan to launch new products. She believed that the plan would work for marketing her companies line of chemical products; in fact, she said, "The plan has well-defined sections so you know what information will be presented." Furthermore, DePalma believed that the plan made, "Good use of charts and graphs and was well organized. Bullet points are used often. This breaks up the plan and makes it easier to read and gather information rather than reading large blocks of text."

The fifth and final question of the survey asked the evaluators if they have gained any knowledge from the marketing plan and this exercise. The question asked,

"From a corporate management standpoint, do you believe that you have gained any knowledge and/or information regarding how to market a new software product from reading this marketing plan?

Both of the evaluators agreed that they have gained some knowledge from reviewing the marketing plan on how to market a new software product.

In his opinion, Johnson answered both "yes" and "no" to the question. In his "yes" response, he indicated that, "I have a better understanding of the UPS market." He also commented on how he has a, "good understanding of how SmartMon could be placed in the OEM UPS channel." His better understanding of the industry will allow him to develop strategies on how to market other products into the same OEM channel.

In his "no" response to the question, Johnson posed some additional ideas on how the plan could be made more complete. Given the chance to replicate the SmartMon Marketing Plan, he suggested that the plan provide, "More definition of geographical marketing emphasis and a clearer definition of why UPS OEMs need this product and how it helps them compete." In addition, he stated that the plan should have, "A clearer explanation of why this is the product to have." He suggests that a more detailed description of how the product will benefit an end user will help individuals who read the plan have a better understanding of why this product would be more desirable then any other power management product.

In addition, DePalma stated that she has gained a better knowledge of marketing software products from reading this plan. She said, "I learned a workable strategy to market a product, i.e. SWOT analysis, target markets, customer profiles, demographics, positioning strategies, creative development and contingent action plans should all be identified before proceeding." She also learned that it is important to, "narrow down as much as possible what your startup expenses will be and how many units it will take to break even and become profitable." Most importantly, she stated that, "It is very necessary to answer the basic marketing questions allowing a person to understand who your company is, what it is producing, including why and how the business should grow to meet future plans of the market."

The results from this survey have been a valuable asset in determining the strengths and weaknesses of the overall SmartMon Marketing Plan. The integrity of each evaluator guarantees a fair and honest evaluation of the plan and will be taken into consideration for implementation.

Chapter V

DISCUSSION

Summary

In February of 1997, two qualified evaluators were asked to review the SmartMon marketing plan and comment on the overall content and validity. As stated in Chapter IV, each evaluator was given a copy of the marketing plan including a survey questionnaire to follow and use as a guide during the review process. Each evaluator was required to answer all questions with a "yes" or "no" answer followed by a detailed explanation of their response.

Upon review, the first evaluator was supportive of the plan and agreed with each of the five questions; however he also answered "no" to three of the questions because of differences in opinion relevant to the plan. The second evaluator positively agreed with all five of the questions and highly recommended that the plan be implemented to launch a new product.

Both evaluators believed there was a definite need for the marketing plan in order to allow the company to successfully launch SmartMon. In addition, each believed the plan was well organized, easy to read and included a sufficient amount of information for any marketing manager to implement. Overall, the evaluators stated that they were generally satisfied with the plan and believed that it followed the fundamentals and principals of both strategic marketing and marketing communications. The remainder of this chapter discusses each point covered in the questionnaire including comments and suggestions offered by the evaluators and how these suggestions will be incorporated into the marketing plan. Table 9 illustrates the combined responses of Johnson's and DePalma's "Yes" and "No" responses to the questionnaire.

Table 9

Combined Responses of Evaluators		
	YES	**NO**
Question 1		
Johnson	✓	
DePalma	✓	
Question 2		
Johnson	✓	✓
DePalma	✓	
Question 3		
Johnson	✓	✓
DePalma	✓	
Question 4		
Johnson	✓	
DePalma	✓	
Question 5		
Johnson	✓	✓
DePalma	✓	

The first question asked each evaluator whether the SmartMon marketing plan provided a thorough understanding of the power management industry. Johnson agreed that the analysis of the market was good helping him to understand how the product filled the software power management niche. Furthermore, DePalma also agreed that the review offered a very descriptive explanation of the market and all potential customers. Moreover, each evaluator indicated that they have developed a better understanding of the Original Equipment Manufacturers

(OEMs) channel and how this segment of distribution will be a viable mechanism for introducing SmartMon.

The second question asked whether each evaluator thought the approach to the market through the OEMs is a viable mechanism. In his response, Johnson answered both "yes" and "no" to the question. He believed that this approach seemed to be a good short term strategy; however, concerns over price pressures and slim margins could become a cause for concern due to this channel. Furthermore, Johnson believed that the OEM channel should be a funding mechanism to allow the product to be distributed in other markets at some point in the future. This is a valid point because SmartMon is intend to be a revolutionary product which will help drive the industry standard for all UPS systems, ultimately making UPS software applications more user friendly. However, at this stage of the software's life cycle, the challenge remains to gain acceptance by the UPS companies and attempts must be made to draw them away from proprietary protocols that are so popular today. Once the SmartMon concept is adopted by the OEMs, only then should marketing look to venture into new unchartered markets and try to expand the products distribution vehicle. Considering the conservative nature of the industry, SmartMon should remain focused on the OEM distribution model and stay focused for at least two years before any other opportunities are explored.

DePalma also agreed to the second question stating that the OEM channel is the proper mechanism for marketing the product. With her knowledge of the industry, she understands that over seventy percent of the OEMs are incapable of employing an in-house development staff because of minimal funding. Additionally, she suggested that SmartMon is the perfect product to feed this channel providing a double benefit for both SEC and the OEMs. SEC will be able to expand its product offering and increase sales while each OEM will have the opportunity to create a software industry standard and also drive incremental sales which will compliment their UPS sales.

The third question asked each evaluator if the SmartMon marketing plan was well organized. Again, Johnson gave both a positive and a negative response to the question. In his "Yes" response he stated that, "The flow from market description to product description was good." The plan was unambiguous and intuitively presented making it more pleasurable to read. He also believed that the plan gave a thorough explanation of the product and strategy before the financials were presented. In addition, he stated, "The tiered structure made following the plan easier and more comprehendible."

In his "No" remark about the third question, Johnson stated that, "…there is confusion at times between a "SmartMon" strategy and a "SEC" strategy." This point was noted in the Market Strategy section under business objective, business strategy, marketing objective and marketing strategy during his review of the plan. After re-examining this section, it is possible that the plan could be misunderstood and difficult to read, and be misleading as to whether the plan is discussing the product or the company. The statement under the business objective section says, "To increase the company's net income by fifteen percent in 1997". This statement was modified to say, "To increase the market share of SmartMon by fifteen percent annually." Secondly, under the business strategy section, the statement says, "To become the most efficient, high volume producer of network power management products in the computer industry." This statement was modified to say, "To become the most efficient, high volume network power management product in the industry." Thirdly, the marketing objective statement explains that the plan is designed, "To increase market share by twenty percent in 1997." This statement now reads, "To increase market share of SmartMon by twenty percent in 1997." Finally, the statement under the marketing strategy section states, "Get customers to see the benefit of SEC products over competitors products." This was changed to read, "Get customers to see the benefit of SmartMon over their own proprietary products." These suggestions made by the evaluator are valid points and were incorporated into the marketing plan immediately. By incorporating these modifications, the plan will remains clear and completely focused on the product and not the company.

The forth question asked each evaluator if they would incorporate this type of marketing plan to launch their new products. Both evaluators agreed that the plan is viable solution and believed the plan would benefit their companies during launch campaigns allowing them to get organized and stay focused. Johnson stated that the plan would give individuals a clearer explanation of the market and its dynamic nature. Furthermore, he stated that the plan provides a clear guideline and detailed budget to allow the plan to be implemented.

DePalma agreed that there is value in using a plan of this type for launching new products with her company. She thought that each section was well defined including tables and charts for illustrating points. She also made note of the bulleted points in each section emphasizing that this helped in bringing out key points.

The fifth and final question asked each evaluator whether they have gained any knowledge regarding how to market a new software product in today's market.

Johnson indicated both a positive and a negative response to the fifth question. In his "Yes" response, he expressed that he has a better understanding of the market and how SmartMon could be integrated into the OEM UPS channel. He also believed that this is the best starting point for the product and that this strategy should help the product come to fruition. In his "No" response, Johnson stated that he would prefer to have a better understanding of the geographical marketing approach. His concern is understandable; however, the plan clearly states that SEC/SmartMon is after the OEM channel which consists of various manufacturers located throughout the world. Each one of the OEMs will be approached in the same manner and geographical constraints are not considered a factor except for language barriers that will be addressed by product management. He also stated that the plan should offer a clearer understanding of why the OEMs need the product to survive. This is a valid point; the plan should give a detailed explanation of why SmartMon should be the product of choice. A thorough explanation of why the product is important to the OEM channel is now included in the marketing plan under the industry review section. This helps to eliminate any concerns or questions that may arise while viewing the plan.

DePalma stated that she has learned a workable strategy for marketing a software product. She also expressed how she has gained knowledge in narrowing down expenditures on startup cost including how break-even analysis works in determining the amount of products to sell before realizing a profit. In addition, she stated that by answering Peter Drucker's five basic marketing questions, a marketing manager will be able to stay focused on objectives and goals.

The revision of this plan insures that the launch of SmartMon will be implemented accurately and in a timely fashion. By clearly stating the business/marketing objectives and strategies a manager will be able to effectively solve any launch tactic obstacles and monitor the plan as it unfolds. Also by offering a clearer explanation of how and why OEMs will need SmartMon software to compete, managers will be able to share information with customers that may otherwise be too ambiguous to comprehend.

Limitations

Problems that occurred during research of the industry were minimal with little cause for major adjustments to the way data collection was completed. Primarily, the most difficult task during the analysis phase of the project was locating enough information relevant to the UPS industry. In today's publications, a tremendous amount of information is available on computer hardware, operating systems, and the Internet. However, information on specific types of peripherals (i.e. UPS) is often difficult to find and when located it is often less detailed than expected. Since the UPS industry is still in its infancy, detailed data remains difficult to uncover until more research may be conducted.

Other limitations during the course of the project may relate to evaluator bias. Since both subjects have a thorough knowledge of the OEMs and channels of distribution, including a working knowledge of the company, it might appear that the evaluators used a halo effect to answer the survey questions. Both Johnson and DePalma are either employed or have been employed directly in the UPS industry which could mean that many of the questions may have influenced their answers. Although, the funneling technique was used in the questionnaire, each evaluator may have answered each question in a favorable manor because of their relationship and/or knowledge of the researcher. Each question was presented in a general and unmistakable format; however, this influence may have effected the outcome of each evaluators answers.

Suggestions for future research

Given the opportunity to replicate this study, several items and courses of action should be altered to make the project more effective. Regarding evaluator bias and the halo effect, the researcher may want to remedy this problem by selecting evaluators from within the computer industry; however, not directly involved with the UPS segment directly. This could include marketing managers from computer hardware companies, operating system developers or other peripheral manufacturers who would be completely unbiased in their evaluation of the plan. Furthermore, the researcher should select more than two evaluators to conduct the review of the plan. Although effective and informative, a larger population of evaluators would provide more effective data and analysis of the plan providing the researcher with additional ideas of how to effectively market the product.

An additional modification to the project may include a different type of instrument to test the plan for content and validity. Each evaluator was issued a five question survey which requested their perspective and view of the plan. Although the responses to the questions were extremely helpful, additional information could have been collected to make the plan more detailed to aid in the launch. If the plan were to be re-created and another survey instrument were developed, it would be extremely helpful to implement a larger quantitative survey for additional data collection which will allow for more efficient data collection and greater accuracy of the plan.

The 1997 SmartMon marketing plan will allow Systems Enhancement Corporation to grow market share through aggressive goals and objectives and continue to build brand equity in the industry. In addition, the marketing plan has been designed to become a universal tool for other product launches which will allow the company to create a standard forma for all new products.

Appendix A

SmartMon
Power Management
Marketing Plan

Jim Rigman

Fiscal Year 1997
Systems Enhancement Corporation

Executive Summary

The 1997 marketing plan for SmartMon outlines an approach to attaining increases in general revenues and profits over the preceding year. Systems Enhancement Corp. (SEC) will increase sales of its power management software products by 15 percent. We believe this goal is attainable from historical events of other SEC-related products which have been previously launched, along with improved economic conditions in the computer industry.

Systems Enhancement will target traditional OEM channels of distribution to help increase and establish new business in the channels. The targeted operating expense for the first year will be $23,500, which provides funding to complete the project and purchase equipment for manufacturing. The channels include sales into the networking business environment throughout the world.

The marketing team will require $78,000 to establish and conduct demographic studies, create of marketing collateral pieces, pay Public Relations retainers and attend trade shows. The promotional mix consists of press releases, literature pieces, white papers on the product along with print advertising.

The remainder of the marketing plan discusses a situation summary, SWOT Analysis, target markets, customer profiles and demographics, a positioning strategy, creative development, budget analysis, review of product development and a contingency plan of action.

Situation Summary

Company background -Systems Enhancement Corporation (SEC) is a privately-held company located in Chesterfield, Missouri and was incorporated February 1, 1991. SEC has developed a strong customer base with current products and has remained profitable since its inception. However, over the last fiscal year (1996), the company has noticed a downturn in sales of existing products due to market maturity and saturation, while also noticing an increase in operating costs due to increases in overhead and additional employees.

In order to address these issues while keeping our goals in mind and on track, we should answer five basic Marketing-related questions:

What is my business? We are a designer and manufacturer of custom power management products.

Who is my customer? SEC customers consist of Original Equipment Manufacturers (OEMs), resellers, dealers, VARs and large end user corporate accounts. Primarily, this marketing plan will most often refer to and target the OEM companies as the primary source of distribution for the SmartMon power management product.

What does my customer value? Price, quality, service and superior technology.

What ties my customer to me? Custom design applications that they are unable to produce themselves.

What do I want my business to be? The most innovative and respected designer of network management products throughout the world!

Overview of product

SEC has designed an advanced Uninterruptible Power Supply (UPS) monitoring, power management and shutdown software product designed to allow system administrators the capability of controlling UPS systems anywhere within their network boundaries. SmartMon is flexible enough to work with any UPS manufacturer's product.

Similar to SEC's PowerMon II UPS software, SmartMon will monitor the health and status of the UPS and, when critical events occur, will perform a graceful, unattended system shutdown.

To ensure data integrity, users may customize SmartMon by defining specific actions to occur for each power event. Some of these events include: paging, e-mail notification, shutdown, logging, broadcast messages and run command scripts files. In addition, SmartMon includes user-customizable display screens for data viewing and power analysis in a real-time mode. By using SmartMon with an intelligent UPS, the effects of power disturbances on a business can be significantly minimized.

Review of past analysis

Market - The primary market segment for SmartMon consists of manufacturers designing and developing Uninterruptible Power Supplies for network-type applications: servers, routers, hubs, rack mountable equipment and any disparate device. The primary target channel for SmartMon distribution is the UPS manufacturers/OEMs.

Economic - Total projected unit sales are 98,000 units over three years. Projections for initial SmartMon product distributions are: Year 1 - 15,600 units, Year 2 - 42,200 units, Year 3 - 40,800 units. Projected fixed costs for the project are $28,750, variable costs are $463,320, and break even is calculated at 7,788 units.

SWOT Analysis

Strengths - Projections are based on numbers provided by the UPS industry, so they should be accurate. SmartMon is creating a new standard in universal power management products, thus simplifying the application and making it very intuitive for any network administrator. SEC is very familiar with the UPS market and is confident that this product will be perceived positively and will exceed customer expectations.

Weaknesses - The future of the overall market is relatively unknown. SEC is not intimately involved in markets other than the UPS industry, so projections and perceptions in those areas are less than certain. Since the project has not come to fruition, the costs may end up being higher than the original projection.

Opportunities

- ✓ Very close relationship with most major OEM companies.
- ✓ The product is designed for universal applications.
- ✓ The product may create an industry standard for power management applications putting SEC in the lead position regarding market share.
- ✓ SmartMon will revolutionize the industry.

Threats

- ✓ Competition could already have similar solution.
- ✓ SmartMon could be too narrowly focused on one segment of the market.
- ✓ Industry could reject and stay with proprietary source code.

Market Strategy

Industry Review

A quick review of the power management industry, distribution channels and market competitors is necessary to enable the marketing team to move into the strategy section of the plan.

First, the industry is primarily made up of Original Equipment Manufacturers (OEMs) who require third party developers to provide ongoing products, services and support for their software development and distribution needs. Software products that are developed are primarily designed for battery backup and network type applications, although the products may be applied to other network-controlled devices.

Secondly, competitive products are primarily being developed and sold by a few UPS manufacturers with internal software staffs which constitutes approximately 50 percent of all sales worldwide.

To clarify the distribution segment throughout the remainder of the marketing plan, we will classify an OEM as a vertical distribution mechanism for promoting the SmartMon product. Targeted geographical distribution of the product includes: North America, South America, Canada, all European countries and the Far East market. These markets are most important because the increase in networking type equipment is very prominent in these countries.

The battle for market share in the power management industry still remains between four competitors. These include: American Power Conversion, who manufactures standby UPS systems and controls up to 45 percent of the market; Tripp Lite, who is the second top producer of standby UPS' and power management software with 15 percent of the market; Best Power, who also develops standby UPS units, brings up third place with 10 percent of the market; and the fourth largest OEM company, Exide Electronics, occupies approximately 8 percent of the 2 kva UPS and below market. The other 22 percent of the market is divided between many smaller UPS companies who sell SEC power management software.

Why is SmartMon needed?

Trends in the industry overall are moving toward standardization of software products to share common characteristics and features. SmartMon is the first universal product designed to create a UPS industry standard which will help end users understand one interface instead of many and create additional pull-through for UPS products overall.

The marketing plan will exclusively focus on the UPS industry because this market has the largest opportunity for SmartMon. The remainder of this section will discuss target markets for SmartMon, a product positioning statement, marketing objectives, marketing strategy, distribution methods and channels, and pricing methodology for the product.

Target Markets

SEC must be selective in the direction to market SmartMon. The reason for this caution is because of certain limitations which are currently present in some of the UPS manufacturer's products. For instance, some manufacturers only produce battery backup units which are non-intelligent, meaning that the unit is incapable of providing real-time or analog data. SmartMon is specifically designed for intelligent UPS systems taking full advantage of each units monitoring and manageable variables.

Target customers and volume of units sold annually include:

Tripp Lite 57,000	Exide Electronics 46,000	Para Systems 21,500
Best Power 53,000	EPE 12,000	Other 500

Keeping our objectives in mind, the following list describes a three year forecast and target markets.

Year 1 - We will focus strictly on the UPS market worldwide.
Year 2 - Markets to focus on include:

- ☛ Larger intelligent UPS systems
- ☛ Integration with existing SEC products (i.e. Multi-Interface Units)
- ☛ Divers for SmartMon applications for UPS units where proprietary protocols are still used.

Year 3 - SEC continues to focus on OEM accounts. We will also begin to research other potential markets and channels that will have a desire to implement SmartMon. These include:

- ☛ Major distributors, such as, Tech Data, Ingram Micro, Merisel
- ☛ Design SmartMon to integrate with other applications, such as network multi-interface shutdown and integration with SNMP applications.
- ☛ Product development to add new features to SmartMon, otherwise the sales growth curve will shrink. The current financial forecast reflects the product without modifications.

Customer Profiles and Demographics

A typical SmartMon customer will fit the following criteria:

- Each SmartMon customer will have a high degree of computer knowledge.

  Most targeted customers will have a college education (minimum of a BS).

- Customers will have an engineering or computer science background, and should understand networking applications and peripheral devices.
- Annual earnings for our targeted customers will be from $25,000 to $75,000.
- The age of our customers will be from 25 - 40 years.
- Customers will have thorough industry knowledge and typically be in charge of the engineering or MIS department of their company.

Business Objective

To increase the market share of SmartMon by 15 percent annually.

Business Strategy

To become the most efficient, high volume network power management product in the industry.

Marketing Objective

To increase market share of SmartMon by twenty percent in 1997.

Marketing Strategy

Increase market penetration by acquiring customers from competition or from in-house development staffs. Get customers to see the benefit of SmartMon over their own proprietary products.

Positioning Strategy

Positioning Statement

"SmartMon, the most advanced and innovative UPS monitoring and power management software for today's networks."

Product Position for Years 1 - 3

- ✓ **Year 1** - Position SmartMon as the newest innovation in network power management solutions to the OEM customers.
- ✓ **Year 2** - Position the product as the most universal and intuitive power management product for all customers to use. Position the product to offer multiple UPS protocol and industry standard support for power management.
- ✓ **Year 3** - Demonstrate complete flexibility and adaptability for most major operating system environments. Position the product to display universal compatibility with other SEC products and concepts (i.e. monitoring over the Internet).

Product

The product is a software application designed to monitor the health and status of any UPS product and notify end users when unfavorable events occur. Although the concept is similar to existing products on the market today, SEC's approach is very different and has allowed the company to design a software application that is very unique over and above any other product offered today.

SmartMon utilizes new technology from SEC to control UPS systems and allow system administrators to have full control over their network UPS systems. By offering a completely flexible application, SmartMon provides a consistent universal software program that will work on all popular operating systems and any UPS product that complies with the SEC standard. SmartMon is the leading edge product designed to create the industry standard for power management solutions.

Place

The following is a detailed list of how SmartMon will be distributed into the marketing channels.

The computer industry is segmented into several tight niche markets. For example, the Uninterruptible Power Supply, PC hardware and tape backup segments are a few of the overall parts that make up the whole spectrum of the computer industry. These companies occupy a strategic place within the industry allowing for the overall dynamic growth of the market. Although each of these manufacturers depend on many others to survive, their distribution methods all vary.

The primary distribution (place) for SmartMon will be the OEM channel and will account for 90 percent of all SmartMon product sales. We believe that 70 percent of all SmartMon products will be sold with new UPS units (bundled) and the existing 30 percent will be available for existing field (retrofit) unit applications (Figure 14). This permits the company to remain focused on OEM accounts and continue to offer volume discounts for all products ordered.

Figure 14

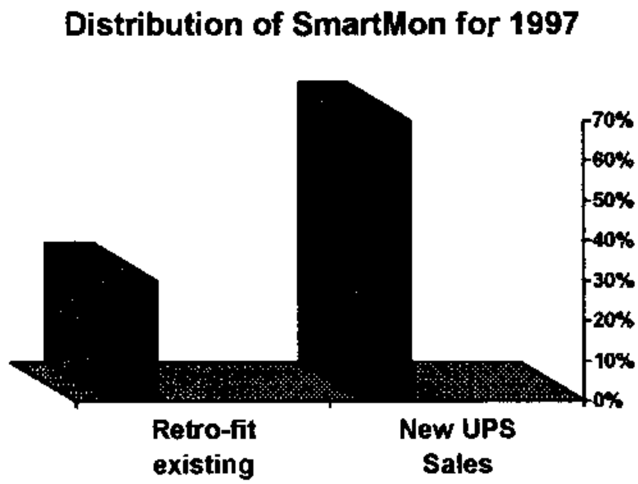


Illustration depicts percentage of SmartMon product allocation into the new and existing customer UPS market.

Price

The pricing methodology SEC chose to pursue is profit-oriented. Our goal is to achieve a target return on investment within the first year. We have a maximum target price range of $99. Gross profit margins will be set at 60 percent on all SmartMon products. All orders are subject to a volume pricing structure for OEMs purchasing SmartMon products. *(NOTE: Power management software pricing structures are set according to the operating systems they support; however, in order to simplify the marketing plan, SEC will use an average price structure for all financial data.)*

SEC will also offer SmartMon for all operating systems to its network of resellers, dealers and Value Added Resellers (VARs). A standard discount for any reseller will be set at 25 percent off of list price and may be greater if quantities permit. End users may also purchase SmartMon at full retail price. SEC supports the traditional channels for distribution of products and will only sell product directly to end users if no other option is available.

Promotion

SmartMon's promotional activities will be conducted in several ways. To begin, the marketing department will develop literature pieces for our sales force to distribute to any prospective customers. The SmartMon literature will serve several purposes. It will work as a tool for the sales personnel and will aid in literature fulfillment to customers abroad requiring technical information on the product. Brochures will contain software screen shots of the product which help make the product more intuitive for customers while learning and installing the product.

Promotional activities will include trade shows, press tours, a limited degree of trade publication advertising and a continuous flow of press releases for product updating (Figure 15). The trade shows SEC will target include: Networld + Interop and COMDEX. Press tours will be conducted primarily within the U.S. and European communities to create customer awareness of the product. SEC will also target five major trade publications for advertising, these include: Computer Reseller News, Network Computing, Reseller News, Power Quality and PC WEEK.

Promotional and Selling Tactics

Creative Strategy

Objective

Convince the target audience that SmartMon is the perfect network power management application for control of UPS devices. We want to create a desire in each of our customers by showing that SmartMon will allow them to disregard all other products on the market. We want to rise above the clutter. (Problem Perception: SEC only offers basic monitoring and shutdown software, multi-interface units and custom only development.)

Strategy

Demonstrate to the customer that SEC does not just offer products for basic shutdown and custom development, but truly has a universal solution for the entire industry.

Support

-SmartMon supports multiple operating systems.

-SmartMon is a universal product that will work with any intelligent UPS.

-SmartMon is competitively priced with all others products in its class.

-SmartMon is designed to work with more than just UPS systems (in the future).

Target Audience

Men or women, 25 - 45 years of age, college educated, computer background, non-smoker, in control of their department. Looking for new solution in power management applications.

Tone

Technical, positive, friendly, assurance

Figure 15

SmartMon Advertising Promotional Plan

1997 - 1998	July	August	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June
Media												
Trade Magazines												
Trade Promotions												
Press Tours Kick off campaign												
Trade Shows												
Press Releases												

Budget Analysis

The marketing department has decided to use the *actual-cost method* to fund the advertising and promotional activities for the SmartMon campaign (Figure 16 and 17). SmartMon will require approximately $76,000 for a marketing allowance to promote the product throughout the 1997-98 season.

The SmartMon project will require approximately $23,500 for the initial cash out flow covering all fixed costs. These include expenditures for programming fees, equipment and patent registration. In addition, the marketing team believes that the SmartMon product will have greatest acceptance and saturation during the first two years following the launch. The third year will begin to see a decline in sales due to a saturated market and competition introducing products in the same channels (Figure 18).

Budget Details

Marketing Department salaries 35%

Print advertising 15%

Trade Promotions / shows 35%

Public Relations (press tours and press releases) 15%

Figure 16

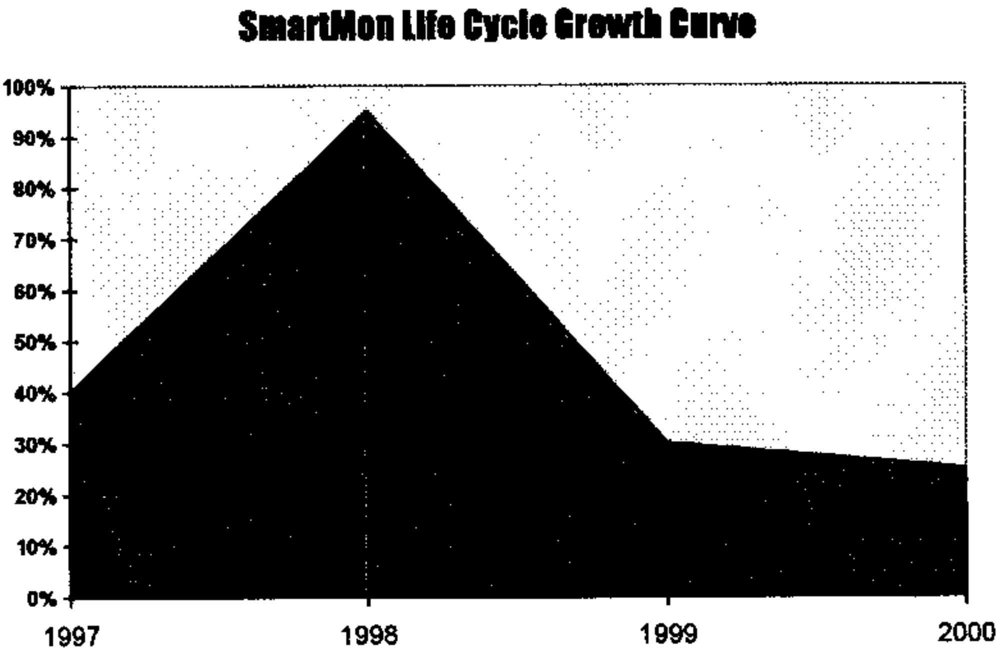


Illustration shows SmartMon's three-year life cycle growth curve following the product launch.

Product Development

Review of product innovation process

Strategic planning stage: This part of the project is ongoing and, for now, we believe it is 95% complete. Corporate planning has established a policy to actively pursue the commercial UPS market. An engineering technological discovery allowed for the development for this product. Finally, the opportunity and the product fit into the market that has been identified.

Concept generation - This stage has also been completed and adopted allowing the concept to move forward. Also, problems have been identified and solutions have been developed for future generations of the application.

Pre-technical evaluation - The technical and feasibility of the project has been established. Engineering beta copies have been sent to select customers and are currently in testing.

Technical development - There has been substantial work in this area and it is approximately 90% complete. After this phase of the development cycle, we will make any necessary adjustments and resubmit the product for beta testing. Product specifications have been prepared and are finalized. The general business plan is complete, however we will need some fine tuning as the product comes to fruition.

Tasks needed to complete product innovation process - Beta testing must continue on the product, allowing for modifications as needed. When the product is in its final stage of beta testing, a new revision must be created and sent out to the OEMs to ensure product quality. Revisions will continue to be made until at least 90 percent of the OEMs sign off and are satisfied with the product.

Registration of Trademark - SEC will submit the SmartMon name for trademark when the product specifications have been approved for final documentation and a solid revision has been developed.

Roles of no- marketing departments - Purchasing will be involved in the project by locating the best sources of supplying materials. It will be their assignment to seek out and purchase all of the components that the engineers have designed and specified for manufacturing each package. Production will evaluate the product and make suggestions to the product development team on any necessary changes during manufacturing. They will also be in charge of recommending any special manufacturing equipment that will be needed during the production process. Human Resources will be involved in assuring that qualified personnel are hired to help produce each SmartMon package. They will also be in charge of scheduling any training sessions that may be required. The finance department will be responsible for evaluating the economic impacts of the project. They will also provide funding for additional sources required to pay for any added personnel, equipment, marketing collateral and development costs.

Product legal issues

SEC must remain committed to being a quality software developer and manufacturer of power management products. Once a customer opens a sealed software package, SEC is not responsible for any physical harm to the user or their computer in which the software is installed. The company has no control over customers and their actions regarding handling and installation procedures of the software. Once the sealed software package has been opened the product then becomes the responsibility and property of the customer.

SEC will remain focused on quality and efficient power management products to ensure customer integrity and satisfaction.

Implementation
Schedules for 1997 launch:

1. Establish capital, secure credit by May.
2. Finish product development by June 1.
3. Launch marketing program July 1.
4. Receive orders by mid-August.
5. First shipments ready to go September 1.

Evaluation and monitoring plan:

1. Track sales quarterly.
2. Adjust production according to sales.
3. Monitor variable / fixed costs.
4. Evaluate financial situation.
5. Customer feedback and satisfaction.
6. Evaluate returned goods.

Contingency Plan

SEC has developed a contingency plan in case the SmartMon project develops unanticipated problems during the life span of the project. This alternative plan will provide a way for the company to detach all responsibilities and ownership of the product.

SEC will offer and sell the design, equipment and all related materials to an ally or competitor in the UPS industry. The other company will be able to apply their product development team and knowledge to help bring the product to fruition.

Figure 17
SMARTMON ECONOMIC SUMMARY

**Sales projections for the three year forecast include Year 1=15,600 units, Year 2=42,200 units Year 3=40,800 units.

** In order to provide a more accurate financial forecast the average OEM price for each package of software will be set at $99. This includes pricing for all operating systems supported.

Initial Cash Outflows

Fixed Costs		Advertising Costs			
Engineering (3 programmers)	$ 15,000.00	Data Sheets	$ 1,500.00		
*Equipment	$ 5,000.00	Photographer	$ 1,000.00		
Patent	$ 5,000.00	Direct Mail	$ 750.00		
Total Fixed Costs	$ 25,000.00	Samples	$ 500.00		
			----	Total	
		Total	$ 3,750.00	Costs:	$ 28,750.00

* Equipment: used 5 year straight line depreciation starting in August

SmartMon: Projected Cash Flows Year 1

		July	August	September	October	November	December	January	February	March	April	May	June
Revenues													
Sales (units)		0	500	700	1000	1000	1000	1200	1500	1700	1900	2300	2800
Unit Price		$ 99.00	$ 99.00	$ 99.00	$ 99.00	$ 99.00	$ 99.00	$ 99.00	$ 99.00	$ 99.00	$ 99.00	$ 99.00	$ 99.00
Sales ($)		$ -	$ 49,500.00	$ 69,300.00	$ 99,000.00	$ 99,000.00	$ 99,000.00	$ 118,800.00	$ 148,500.00	$ 168,300.00	$ 188,100.00	$ 227,700.00	$ 277,200.00
Costs													
Advertising		$ 6,000.00	$ 4,000.00	$ 4,000.00	$ 6,000.00	$ 14,000.00	$ 4,000.00	$ 4,000.00	$ 6,000.00	$ 6,000.00	$ 14,000.00	$ 4,000.00	$ 4,000.00
Operating Costs		0.00	22275.00	31185.00	44550.00	44550.00	44550.00	53460.00	66825.00	75735.00	84645.00	102465.00	124740.00
Total Costs		$ 6,000.00	$ 26,275.00	$ 35,185.00	$ 50,550.00	$ 58,550.00	$ 48,550.00	$ 57,460.00	$ 72,825.00	$ 81,735.00	$ 98,645.00	$ 106,465.00	$ 128,740.00
Depreciation (Add back)			$ 70.00	$ 70.00	$ 70.00	$ 70.00	$ 70.00	$ 70.00	$ 70.00	$ 70.00	$ 70.00	$ 70.00	$ 70.00
Monthly Cash Flow		$ (6,000.00)	$ 23,295.00	$ 34,185.00	$ 48,520.00	$ 40,520.00	$ 50,520.00	$ 61,410.00	$ 75,745.00	$ 86,635.00	$ 89,525.00	$ 121,305.00	$ 148,530.00
Cumulative CF	$ (92,750.00)	$ (98,750.00)	$ (75,455.00)	$ (41,270.00)	$ 7,250.00	$ 47,770.00	$ 98,290.00	$ 159,700.00	$ 235,445.00	$ 322,080.00	$ 411,605.00	$ 532,910.00	$ 681,440.00

SmartMon Project: Projected Cash Flows Years 1 - 3

		Year 1	Year 2	Year 3
Revenues				
Sales (Units)		15600	42200	40800
Unit Price		$ 99.00	$ 99.00	$ 99.00
Sales ($)		$ 1,544,400.00	$ 4,177,800.00	$ 4,039,200.00
Costs				
Advertising		$ 76,000.00	$ 57,000.00	$ 10,000.00
Operating Costs		$ 694,980.00	$ 1,880,010.00	$ 1,817,640.00
Total Costs		$ 770,980.00	$ 1,937,010.00	$ 1,827,640.00
Depreciation (Add back)		$ 840.00	$ 840.00	$ 840.00
Annual Cash Flow		$ 774,260.00	$ 2,241,630.00	$ 2,212,400.00
Cumulative CF	$ (28,750.00)	$ 745,510.00	$ 2,987,140.00	$ 5,199,540.00

Figure 18

Projected Income Statement

	End of Year 1	End of Year 2	End of Year 3
Sales (In Dollars)	$ 1,544,400.00	$ 4,177,800.00	$4,039,200.00
Cost of Sales			
Material	$ 308,880.00	$ 835,560.00	$ 807,840.00
Direct Labor	$ 231,660.00	$ 626,670.00	$ 605,880.00
Factory Overhead	$ 77,220.00	$ 208,890.00	$ 201,960.00
Total Cost of Sales	$ 617,760.00	$ 1,671,120.00	$1,615,680.00
Gross Profit	$ 926,640.00	$ 2,506,680.00	$2,423,520.00
Operating Costs			
Depreciation	$ 840.00	$ 840.00	$ 840.00
Variable Costs	$ 463,320.00	$ 1,253,340.00	$1,211,760.00
Fixed Costs	$ 230,820.00	$ 625,830.00	$ 605,040.00
Total Costs	$ 694,980.00	$ 1,880,010.00	$1,817,640.00
EBIT	$ 231,660.00	$ 626,670.00	$ 605,880.00
Interest	$ 1,150.00	$ 1,150.00	$ 1,150.00
EBT	$ 230,510.00	$ 625,520.00	$ 604,730.00
Taxes	$ 92,204.00	$ 250,208.00	$ 241,892.00
Net Income	$ 138,306.00	$ 375,312.00	$ 362,838.00

APPENDIX B

AN EVALUATION QUESTIONNAIRE
FOR
SYSTEMS ENHANCEMENT'S SMARTMON MARKETING PLAN

Dear Evaluator,
You have been selected to complete this questionnaire because of your valuable expertise in the area of this study. Pleases give each question serious thought and offer only your honest answers or opinions to these questions. Feel free to use additional paper as necessary in order that you may give a thorough and complete response. Please keep in mind that the purpose of this study is to allow Systems Enhancement Corporation to design and develop a successful Marketing Plan for the launch of the SmartMon UPS Power Management Product. In all fairness, avoid the "halo effect" and offer candid responses to the following questions. Your opinion counts, and your participation in this study is greatly appreciated.

EVALUATOR ______________________________ DATE ____________

Did the SmartMon Marketing Plan meet its intent of providing you with a thorough understanding of the UPS Power Management industry?

______ Yes ______ No

IF YES, please offer at least two reasons how this marketing plan broaden your understanding of the industry:

1. ____

____

2. ____

____

3. ____

____

IF NO, please offer at least two reasons why this plan failed to broaden your knowledge of the UPS industry. In addition to your reasons for failure, please cite "real world" examples of how you understand the industry to operate.

1. ____

____

2. ____

____

3. ____

____

EXAMPLE ONE ______________________________________

EXAMPLE TWO ______________________________________

Did you find that the approach to the market through the OEM (Original Equipment Manufacturers) is a viable mechanism to market the product.

______ Yes ______ No

IF YES, please offer at least two reasons why you believe that the OEM channel is the proper mechanism for marketing the SmartMon product.

1. ____

____

2. ____

____

3. ____

____

IF NO, please offer at least two reasons why you believe that the OEM channel <u>is</u> <u>not</u> the right mechanism for marketing the SmartMon product.

1. ____

____

2. ____

____

3. ____

____

In your opinion, is the SmartMon Marketing Plan well organized?

______ Yes ______ No

IF YES, please offer at least two reasons why you believe the plan is well organized.

1. ____

____

2. ____

____

3. ____

____

IF NO, please discuss what you believe is wrong with the marketing plan and what you would do to correct the problem (s).

____

____

____

____

____

Would you recommend or consider using this style of marketing plan within your organization?

______ Yes ______ No

IF YES, please offer three reasons why you would recommend or consider using this style of marketing plan, emphasizing the strong points of the plan and how it would relate to your organization.

1. ____

____

2. ____

____

3. ____

____

IF NO, please offer three reasons why you would not recommend the use of this marketing plan, emphasizing the weaknesses found within the plan.

1. ____

____

2. ____

____

3. ____

____

From a corporate management standpoint, do you believe that you have gained any knowledge and/or information regarding how to market a new software product (that you didn't already know) from reading this marketing plan?

______ Yes ______No

IF YES, document what you have learned from reading this marketing plan.

1. ____

____

2. ____

____

3. ____

____

IF NO, document what you would do, given the chance to replicate this plan or to create a marketing plan of this type:

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____
7. ____
8. ____
9. ____
10. ____

Thank you again for your participation in this study. Results of this evaluation will be forwarded to you on request.

APPENDIX C

SYSTEMS
ENHANCEMENT
CORPORATION

Jim Rigman
Systems Enhancement Corporation
174 Chesterfield Industrial Boulevard
Chesterfield, MO 63005

May 10, 1997

Rick Johnson / Barb DePalma
SEC
174 Chesterfield Industrial Boulevard
Chesterfield, MO 63005

Dear Rick:

I am currently pursuing a Masters degree in Business Management at Lindenwood College. My main objective in writing you this letter is to help expand the body of knowledge about the important area of marketing and how it affects a companys bottom line.

To accomplish this, of course, means going to someone such as yourself who knows the Power Management field and understands marketing related issues and strategies. Your help with the few questions on the attached pages will take only a few minutes and will make a real contribution to the accuracy and success of this marketing plan.

Your reply to this questionnaire will be treated in strict confidence and will be available only to the research staff and myself.

Your assistance is greatly appreciated and will help me to understand more about marketing plans and product development within a company.

Sincerely,

Jim Rigman
Marketing Manager

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