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# Parametric media: A strategic market analysis and marketing plan for a digital signage, interactive kiosk and content company

Helena Irita Fowler

# PARAMETRIC MEDIA: A STRATEGIC MARKET ANALYSIS AND MARKETING PLAN FOR A DIGITAL SIGNAGE, INTERACTIVE KIOSK AND CONTENT COMPANY

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A Project

Presented to the

Faculty of

California State University,

San Bernardino

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by

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Approved by:

[redacted] 11-25-08

Heather Hundley, Chair, Communication Studies Date

[redacted]

Victoria Seitz, Marketing

[redacted]

Eric Newman, Marketing

ABSTRACT

This project had two major objectives. The first objective was to conduct a strategic market analysis to serve as the backbone and roadmap for the marketing plan. The second objective was to create a strategic marketing plan to address Parametric Media's strategic marketing and business goals and objectives. The marketing plan was designed to act as a method of establishing benchmarks to use as a basis of comparison for future marketing plans, strategies, and objectives.

Parametric Media is a start-up, small business operating across many crossover industries, including digital services, digital signage, kiosks, interactive media, content creation, systems integration, production, and audio-visual. Parametric Media's company focus is on the digital signage industry and the use of interactive content delivery systems, such as kiosks and private branded networks in the retail grocery industry. Since Parametric Media is a company still in its infancy, the company lacked focus, goals, and a strategic plan and does not currently have any marketing materials.

This project was designed to fulfill the company's marketing needs. To do so, the author examined the digital

signage industry, in order to understand what similar companies have done in the past, explored how consumer-based companies have deployed digital signage systems, and presented statistics and trends within the digital signage industry. The author also offers a brief background on the development of the retail grocery industry and how digital signage and interactive kiosks fit in grocery stores and supermarkets.

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# CHAPTER ONE

# THE PROBLEM

## Introduction to Parametric Media and a Strategic Marketing Approach

Parametric Media is a start-up, small business operating across many crossover industries, including digital services, digital signage, kiosks, interactive media, content creation, systems integration, content production, and audio-visual. Parametric Media is focused on the digital signage industry and the use of interactive content delivery systems, such as kiosks and private branded networks. Since Parametric Media is a company still in its infancy, it lacks focus, goals, a strategic plan, and planned methods of promotion and does not have any marketing materials.

Parametric Media has a limited number of employees and financial resources. The principle employees are: Jason Newman, President; Karen Newman, Chief Executive Officer; and Helena Fowler, Marketing and Corporate Communication. The budget is discussed later in the project.

Since Parametric Media did not have any marketing materials, plans, objectives, or goals, this project was designed to fulfill the company's marketing needs. To fulfill the marketing needs, the author examined the digital signage industry to understand what similar companies have done in the past, explored how consumer-based companies have deployed digital signage systems, and presented statistics and trends within the digital signage industry. Furthermore, the author examined the use and deployment of specific concepts such as narrowcasting, out-of-home media and advertising, Integrated Marketing Communication, and mass customization. All of these concepts played an integral role in the development of the strategic marketing plan.

This project had two major objectives. The first objective was to conduct a strategic market analysis that acted as the backbone and roadmap for the marketing plan. The second objective was to create a strategic marketing plan that addressed the marketing and business goals and company objectives; the marketing plan acted as a method of establishing benchmarks to use as a basis of comparison for future marketing plans, strategies, and objectives. The marketing plan contained measurable goals that allow for quantifiable data and evaluation. It also addressed the marketing mix that should be used to properly market the company. Three key areas were identified as being vital to the success of Parametric Media's marketing goals: 1) the use of the Internet (specifically the development of a corporate web site), 2) the use of a two-step direct mail campaign, and 3) the use of mass customization. The corporate web site serves primarily as a brochure allowing users to interactively gather information on the products and services Parametric Media offers; it also contains comprehensive company information. Secondarily, the web site includes a registration page to gather lead generating information, providing additional value to the business.

The two-step direct mail campaign consists of email and traditional mail and is a tool that will be used in conjunction with the web site and sales materials. Direct mail campaigns will act in two capacities: establishing contact with potential clients and serving as a follow-up method of communication for both current and potential clients. The concept of mass customization will be deployed through the web site and any web- or email-based communication as well as being utilized during client meetings to allow a client or web visitor the opportunity to see how the product and services Parametric Media offers can be customized to their specifications.

Beyond the introduction, this project begins with a literature review, followed by the methodology section that includes details about the objectives, time period, and budget, and finally the summary and findings are discussed. The information and research uncovered served as a reference in the process of creating the strategic market analysis and the strategic marketing plan. The information and research uncovered also set the foundation for many of the definitions, terms, concepts, and explanations of the processes that were identified and chosen for the marketing plan. It was important to take into consideration how digital signage and interactive media systems have been used in the past to help determine the value of the services that are offered by Parametric Media and other similar industry companies. Finally, it was important to identify statistics, trends, and changes within the industry to understand the comparisons and projections that are set forth in the marketing plan.

## Project Objectives

There were two primary objectives for this project: 1) to conduct a strategic market analysis (see Appendix A) and 2) create a strategic marketing plan (see Appendix B).

Parametric Media is a small business that needs a comprehensive, effective and successful marketing plan utilizing the correct marketing mix to ensure the company garners the appropriate amount and type of industry awareness and trial.

Among other information, the extensive literature review provided in the first four chapters clearly revealed that it was vital for Parametric Media to have a successful marketing plan. The digital signage industry is still in a state of rapid growth, with many companies emerging experiencing simultaneous growth, however, only a few key competitors can maintain and sustain the roles of industry leaders.

A strategic market analysis was created to evaluate the business's marketing needs and acted as the backbone for which the strategic marketing plan was based. Conducting a strategic market analysis required an overview of the digital signage industry, key areas of business, trends and opportunities, and the weaknesses and challenges Parametric Media faces, as well as major industry competitors. A strategic market analysis helped compile the majority of the relevant data needed to populate the marketing plan. It was a key aide in creating the roadmap needed in order to accomplish the marketing and business goals, and helped set the direction of the company regarding brand positioning and any future media actions and public relations plans for the company.

From the information gathered in the strategic market analysis, a strategic marketing plan was developed. The marketing plan was designed to accomplish four goals. First, it clearly explains the business marketing strategy. Second, it identifies and outlines the marketing goals and objectives. Third, it provides clear direction on how to achieve the identified strategic marketing and business goals within a given period of time and budget. Finally, it helps create benchmarks to use as a basis of comparison for setting marketing and business goals and objectives for subsequent years.

The marketing plan contains multiple components including a strategic market analysis, a sales kit, a direct mail component, and a web site. The sales kit contains a letter of introduction, product and services sell sheets, a brief descriptive backgrounder, a fact sheet, and biographies. The sales kit acts as an introduction to the company and will be the first contact that is established with qualified leads; it also acts as an effective follow-up tool and becomes the initial point of contact for all leads. The strategic market analysis includes the core of the data and, subsequently, acts as the guide for the content of the marketing plan as a whole. The strategic market analysis includes a market analysis, a competitor analysis, and a SWOT analysis; it also examines the industry, Parametric Media as a company, and how Parametric Media fits into the marketplace.

An additional significant component of the marketing plan is the marketing mix. The marketing plan includes the types and mix of media Parametric Media will use to launch its services and products. The marketing plan includes details on the successful creation and utilization of non-traditional media; specifically the Internet, the launch of a corporate web site, the use of direct mail, and the concept of mass customization. The literature reviewed and the research conducted stresses the importance and cost effectiveness of a new, small technological company establishing a web presence. Non-traditional media and the most effective marketing mix along with the strategic market analysis establishes the core backbone of the project and acts as a mainstay for many other components.

## Project Design

To achieve these goals the project design included reviewing extant literature to gain a comprehensive understanding of the philosophy and history of marketing, Integrated Marketing Communication, the Internet, dynamic digital signage and the marketing mix. The literature uncovered how digital signage has been used by organizations, and how the deployment of digital signage has affected businesses and the industry. The literature also clarified how the concepts researched affect Parametric Media.

The concepts revealed through the literature surveyed were applied to Parametric Media and the development, writing, and implementation of the strategic market analysis and the marketing plan. The concepts that were used in the development of the strategic market analysis and the marketing plan were extrapolated from marketing, Integrated Marketing Communication, the Internet, and the dynamic digital signage industry literature. The strategic market analysis acts as the roadmap for the marketing plan. For the purpose of this study, the marketing plan acts as a large comprehensive tool that guides Parametric Media through its first two years as a company. The marketing plan is a "living document", constantly updated to reflect changes in the business, the business' strategy and goals, and the changes in the industry. This is not a hypothetical marketing plan for a hypothetical business; rather it is a strategic plan that will be implemented for use at Parametric Media--a real business in the digital signage and interactive media industries.

The chosen methods achieved the goals and objectives outlined in this project. The marketing plan facilitates the growth of the business through specifically chosen media, mostly non-traditional media, and defines the marketing mix that will be used throughout the course of each strategic campaign plan.

## Time Period and Budget

Implementation of the strategic marketing plan will begin in November of 2008 through November of 2010. A twenty-four month timeline ensures that the marketing plan and corresponding campaigns are updated every two years to remain fresh, creative, and innovative as well as reflective of current changes and trends in the marketplace. Timing and budget are further discussed in the marketing plan. The marketing plan includes a task completion date indicated by the quarter in which it should be completed. A general cost analysis is included in the finances section of the plan; the cost analysis includes as many of the cost components as possible.

A limiting factor for the marketing plan for Parametric Media was the budget. Parametric Media does not have the range of available resources that most large companies have; most large competitors are made up of industry founders, opinion leaders, and investors. Parametric Media has not been a full-time effort for any of its members. Its formative months have been spent cultivating information and creating business and future client networks. Specific portions of the marketing mix, specifically the use of new media, have been chosen to accommodate Parametric Media's small budget. The use of the Internet, a web site, and direct mail are cost effective methods that allows Parametric Media to: 1) keep costs low, 2) maintain its breadth in the methods used to communicate its key messages, 3) reach high levels of effectiveness in its message delivery, and 4) ensure marketing communication efforts remained concentrated. The budget also includes the cost of conducting business--the cost of paper, printer ink, web site development, computers, email servers, copies of the strategic marketing plan that will be printed, bound, and distributed, and the cost of direct mail pieces that will be dependent upon the quantities to be mailed, as well as, miscellaneous costs such as supplementary mail expenses.

## Findings

This project was extremely important in creating a formable plan for Parametric Media since the business lacked focus and direction. Creating a marketing plan helped define the most appropriate consumer segments to appeal to and target the major competitors, the most effective media mix to use and when to utilize them. The marketing plan also helped create and define a marketing mix that would ensure the plan is a success.  The marketing plan was created for two years since it is new and a common practice for new product rollouts. However, it is a living document that will act as a roadmap for Parametric Media's marketing strategy since the business's environment is a dynamic one. Suggestions made in the plan enable employees to immediately and directly implement the strategies and tactics, enabling Parametric Media to see tangible, measurable results.

The digital media services industry, and companies that specialize in digital signage, kiosks, and production of private branded networks are still developing; information and industry knowledge is often scarce and is a commodity. This project was designed for practical use on a daily basis as Parametric Media begins its operation. The marketing plan and the materials that resulted are the beginning platform and act as the guide to future market planning and communication.

## Definition of Terms

Through the duration of the project there are a few key terms that are used. It is important to know their definitions as well as their acronyms. The first term and definition is Parametric Media (PM), which is the company that is the focus of this project. Another key term is dynamic digital signage (DDS) which is a digital sign that can be programmed, through the use of specialized software programs and small on-board computers, to display interactive content, photography, web-based graphics, digital video, and traditional advertising (Dowell, 2003). The final term and definition is for Integrated Marketing Communication. Grove, Carlson and Dorsch (2002) define

Integrated Marketing Communication (IMC) essentially as a cohesive approach that combines various communication devices, such as publicity, advertising, public relations, sales promotion, branding and media efforts, into a seamless, unifying entity. Integrated Marketing Communication, according to Geissler (2001), is an attempt to provide a clear and consistent message using the maximum number of communication outlets in a coordinated fashion. Acronyms that will be used are: light emitting diode (LED) screens, cathode ray tube (CRT) screens, and liquid crystal displays (LCD)--these acronyms describe different types of digital signage.

# CHAPTER TWO

# DYNAMIC DIGITAL SIGNAGE AND NON-TRADITIONAL MEDIA

## Dynamic Digital Signage: Background and Development

The concept and reality of dynamic digital signage and interactive media is relatively new and at a very young stage, yet the concepts can very easily be considered a natural evolution of the advertising and marketing fields (Gleeson, 2003). It is important to understand the definition and brief history of the dynamic digital signage (DDS) industry to completely understand the evolution of the dynamic digital signage and the interactive media industries, the rapid development of newer technologies, and the speedy acceptance of a new medium. "Dynamic digital signage is a relatively new marketplace, the businesses that have surfaced are comprised of experts from multiple and varied industries" (Gleeson, 2003, para. 17).

As previously stated in chapter one, dynamic digital signage is a digital sign that can be programmed through the use of specialized software programs and small on-board computers to display interactive content, photography, web-based graphics, digital video, and traditional advertising (Dowell, 2003). Dowell (2003) and Johnson (2004) classify digital signage as digital media displayed on plasma screens, light emitting diode (LED) screens, cathode ray tube (CRT) screens, rear-projection screens, liquid crystal displays (LCD), electroluminescent displays, digital or electronically activated ink panel displays and digital projection display. Dynamic digital signage stems from the combination of interactive media, television advertising, and billboard advertising (Dowell, 2003).

The rise of digital technology has made a solid impact across many industries including the sign industry (Dowell, 2003). The printed sign that has been established as an industry standard for years is being challenged by the rise in popularity of digital signage and digital display technology (Dowell, 2003). Dowell (2003) believes that this phenomenon is being fueled, in part, by the "predisposition of a shopping public conditioned and receptive to more aggressive in-store marketing" (para. 1). Static graphics and photography are becoming ideas of the past as they are being integrated with web-based graphics, digital video, interactive, and other multimedia programming (Dowell, 2003). Marketers are attempting to reach consumers with more effective two-way communication.

Dowell (2003) describes the evolution of static signage and photography to digital signage and interactive media as a paradigm shift. The fast moving developments in technology within the digital signage industry are representative of a shift that is creating new opportunities for advertisers, marketers, and retailers alike; instead of one still image, multiple images can be cycled through at set intervals (Dowell, 2003). The messages can be edited or changed remotely with the changes appearing immediately during the next cycle, removing the need for traditional billboards, and eliminating the costs of printing and manual assembly of billboard materials (Dowell, 2003).

Digital signage developed out of a need to fill an increasing gap caused by the decrease in effectiveness of traditional methods of advertising (television, billboards, and print media) (Cronwall, 2004). Cronwall (2004) explains that "modern consumers have become immune to static displays and audio and visual lacking in quality" and believes that breaking through the consumers' "immunity" will allow for finely targeted advertising (para. 8). Cronwall (2004) maintains that digital signage will assist in attracting the right type of customer, which will allow the customers to spend more time actively engaged with the advertisement.

The evolution of digital signage has expanded many burgeoning new definitions of media uses; two, in particular, are out-of-home broadcasting and narrowcasting (Esterl, 2005). The use of digital signage, billboards, bus shelter advertising, ads on buses, trains, and taxicabs, even manhole covers, has often been referred to as out-of-home broadcasting (Esterl, 2005). Many traditional stationary signage media that are considered to encompass out-of-home advertising, according to Esterl (2005), have begun integrating digital signage; for example taxicab caps and billboards (Esterl, 2005). Bus shelters in numerous cities have started using dynamic digital signage in place of static advertising and photography (Esterl, 2005). New developments in technology are contributing to out-of-home advertising becoming a mainstream medium (Esterl, 2005). Advertisers are finding it more difficult to connect with their consumers through traditional media, forcing advertisers to look to the non-conventional, making out-of-home advertising more appealing (Esterl, 2005).

One of the biggest examples of the mainstreaming of out-of-home advertising is the bid that the city of New

York awarded to an outdoor advertising company for a twenty year contract to put advertisements on the city's newsstands, bus shelters and public toilets (Esterl, 2005). Esterl (2005) estimates that the venture will generate $1 billion in ad revenue. Esterl (2005) cites another example of effective out-of-home advertising: the case of the advertising agency R/GA and the Nike partnership.

> R/GA helped create an interactive display for Nike on a 23-story digital billboard in Times Square. Passersby could temporarily control the billboard and design their own shoes on the huge screen by communicating with their cell phones. (Esterl, 2005, para. 4)

These are just two examples of how advertisers are exploring new signage and marketing communication venues. As a result, the outdoor advertising industry is growing exponentially faster than most other media segments (Esterl, 2005). A study conducted by TNS Media Intelligence estimated outdoor ad spending at 2.3% of the overall advertising dollars spent in 2004; however, the study also estimates that the outdoor advertising industry will expand 5.5% in 2005--a faster rate of growth than radio, newspapers and network TV, only behind online advertising and product placement (Esterl, 2005).

Narrowcasting, as defined for the purpose of this study, is the "digital delivery of visual content through a network of displays in an out-of-home setting that is centrally managed and controlled" (Gleeson, 2003, para. 2; also see McLeod, 2004). Narrowcasting has started to make appearances in nearly every segment of the consumer world (Gleeson, 2003). The use of digital signage systems are expanding beyond the typical use of a digital sign; businesses are now using digital signage systems for branding, merchandising content, physical directions, and infotainment (informational entertainment), according to Gleeson (2003). Narrowcasting allows businesses to expand the uses and implementation of digital signage and deliver a more targeted message to key audiences and consumers (Gleeson, 2003). Gleeson (2003) states,

> If you have visited a retail store, restaurant, theme park, hotel, shopping mall, convention center, airport, or another public (or private) space location in the last 12 months, you have likely experienced the presence of narrowcasting. (para. 2)

Narrowcasting is used most popularly and effectively through digital signage and interactive media kiosks, with the two often being integrated into one seamless network (Gleeson, 2003).

Narrowcasting has also contributed to the rise in advertising expenditures (Gleeson, 2003). Advertising expenditures are around $250 billion per year, according to McLeod (2004). This spending occurs over many media channels without one single channel accounting for even 10% of the total spending (McLeod, 2004). The U.S. retail industry spends over $5 billion annually on printed promotional signage and graphics (McLeod, 2004). The digital signage industry's revenue from all sources will rise from $388 million in 2002 to $10.9 billion in 2005 and nearly $13 billion by 2010 (McLeod, 2004; see also Khatri, 2006).

McLeod (2004) believes there are many advantages of narrowcasting as an industry. First, the greater the message is, the more impact a company will have by using full-motion, full-video and full-sound (McLeod, 2004). Second, the ability to change the message in an extremely efficient and easy manner and less expensively when compared with the cost of printing and replacing traditional printed signs (McLeod, 2004). Third, the ability to change the message based on a specific set of parameters, such as the time of day or the weather (McLeod, 2004). Fourth, the ability to provide customized messaging for a specified region and/or location efficiently and with inexpensive costs to businesses (McLeod, 2004). Fifth, the centralized monitoring and management of marketing, informational, and educational messages can cause a notable improvement with compliance issues and top-of-mind awareness and recall (McLeod, 2004). Finally, the length of time required to deploy marketing and promotional programs, especially if a strategy or campaign involves specific dates, times, and locations (McLeod, 2004). Previous research states that over two-thirds of shopping decisions are made in the store (McLeod, 2004).

Narrowcasting systems are not inexpensive or simple to install, in fact, the typical system requires powerful servers at central management, extensive infrastructure at each customer location, high quality displays, fast Internet access, and a continuing stream of high quality, fresh, interactive content (McLeod, 2004). There are over 130 narrowcasting businesses in the industry; however, there are four main customer segments of the narrowcasting industry: retail sites, hospitality sites, personal services, and public spaces (McLeod, 2004). There are over 700,000 businesses operating over one million sites within the retail industry (McLeod, 2004). Hospitality sites usually include restaurants, bars, casinos, and movie theaters as well as hotels, motels, and resorts (McLeod, 2004). Personal services include banking, laundry, grooming, and healthcare (McLeod, 2004). Public spaces include airports, bus stations, billboards, taxis, and elevators (McLeod, 2004).

The narrowcasting industries, specifically digital signage, are rapidly growing and are achieving large amounts of revenue; although a good deal of revenue is spread over a large number of firms compared to the small size of the industry (McLeod, 2004). CAP Ventures estimates a 49% compound annual growth rate of the next five years (McLeod, 2004). However, the timing of the industry has been somewhat off, causing tactical problems to be identified (McLeod, 2004). McLeod (2004) cites CAP Ventures as an example of a business that has identified seven tactical problems: installation costs are high, potential customers lack the understanding of the systems' capabilities, both customers and advertisers are skeptical about the return on investment, scalability has not been as efficient as business owners have wanted or hoped, long sales cycle due to the complexity of the system, long drawn out rollouts, and content design, creation, and management needs more improvement. McLeod (2004) refers to CAP Ventures saying that the macroeconomics and short-term obstacles that are part of the seven tactical problems will not be lasting issues for very long. Large quantities of installations and high penetrations of key markets are assisting in the continuing success of the industry (McLeod, 2004). McLeod (2004) believes that for narrowcasting to be successful, solutions must be highly targeted in terms of both vertical and horizontal niches; most approaches will require an array of partners including network operators, systems integrators, component and infrastructure providers, and content providers. In addition, the customer needs to be presented with a clearly defined set of goals that will provide tangible and measurable results for the customer's business (McLeod, 2004). Also, the customer must be effectively and persuasively counseled on the type of displays and their posting (McLeod, 2004). Finally, there must be a clear and potential provision for relevant, gripping, and timely content (McLeod, 2004).

To get an accurate grasp of the digital signage industry, it is important to analyze the current statistical data available; when measured against its quiet beginnings, the future of digital signage appears to be promising. Johnson (2004) presents the findings of the first survey conducted on the digital sign industry and digital sign businesses. Johnson classifies electronic digital sign businesses as including LED, OLED, LCD, plasma, electroluminescent, digital, or electronically activated ink panel displays and digital-projection devices; all of these are electronic multimedia systems. Johnson (2004) refers to content as the images and text the electronic digital sign system displays. Content management refers to the system that is used to direct, time, and schedule the appearance of the content (Johnson, 2004).

Johnson's survey was sent via email and postal mail to 250 respondents; 38 (15%) valid responses were received and analyzed (Johnson, 2004). Out of the 38 respondents, 34 (89%) reported working in more than one electronic digital sign category (Johnson, 2004). Twenty-three respondents (61%) included software (creation, sales, or installation) on the product and services description (Johnson, 2004). Sixteen respondents (42%) indicated they were also involved in scriptwriting, story, or video production (Johnson, 2004). The survey indicated that display executives understand that "adding content to their product menus equals more profits" (Johnson, 2004, para. 13).

Johnson reported revenue findings as well; 26 respondents reported $302.1 million in sales for 2002; these 26 companies employ 527 people (Johnson, 2004). The highest single reporting of income was $148 million, while the lowest reporting of income was $200,000 (Johnson, 2004). Johnson (2004) found that content providing companies make less revenue in sales-per-employee, than electronic digital sign manufacturers or display resellers. Johnson (2004) gives four primary sources of income that were listed by the respondents: sign and display manufacturers, systems resellers, retailers, and "others." The "others" category included many diverse businesses such as process-control rooms, schools, flight-information systems and entertainment, or special events companies (Johnson, 2004). Johnson (2004) identified that there were twelve companies that had business-sharing agreements with other firms. Sixty-nine percent of respondents said they market on an international or global level, 25% nationally, and 6% responded that their marketing efforts are directed regionally (Johnson, 2004). Johnson (2004) and the survey company found:

> . . . a company indicates its commitment to a specific technology though the dollar amount it had budgeted for research, development and marketing. High R&D [research and development] dollars indicate a company is committed to growth, high marketing dollars indicates the company has hot, new products. (para. 19)

Twenty-seven respondents indicated an increase in marketing and budgets for the 2002-2003 year and 22% indicated an increase in research and development dollars during that same period (Johnson, 2004). Johnson (2004) states that the average research and development increase for the year was 28.6% and the average marketing budget increase was 34.3%.

The transition to a digital media and/or digital sign system is beginning to be more affordable and cost effective and less of an investment for companies than ever before (McGowan, 2005). "Replacing one or most traditional sign holders with digital displays immediately stops the reproductions cost for that location, and those dollars can now be applied to the purchase of a digital media system" (McGowan, 2005, para. 3). A traditional sign that is replaced can provide the same messages, but with an increase in benefits, such as motion, real-time updates, increased product awareness, increased brand awareness and resulting in increased levels of loyalty and sales (McGowan, 2005). Gleeson (2003) claims that the success of dynamic digital signage "as a power medium for advertising, information, and entertainment is becoming more and more evident each month" (para. 1)

The practical deployment of digital signage has been most apparent in retail stores and business-to-consumer businesses. More often plasma screens are greeting consumers at retail stores, such as Bloomingdales, The Gap, Macy's, and H&M (Gleeson, 2003). Retailers have started adopting the extensive use of audio and video technology to making shopping experiences more exciting and tailored to consumers (Gleeson, 2003). This transition into mainstream usage is all a part of what Cronwall (2004) terms the "explosion of digital signage" (para. 1).

From the concept of the first retail stores, known only as general stores, to the development of specialty stores, and the creation of malls and mega-retailers, communicating with customers has always been an important factor (Cronwall, 2004). General stores and specialty retailers allowed for truly personalized two-way communication between the consumer and the storeowner or manager (Cronwall, 2004). The advent of malls and mega-retailers took the feeling of personalized communication away. Retailers have to create more innovative ways to form relationships on a personal level with customers. Many retailers are beginning to use audio and visual technologies such as digital signage to enhance the shopping experience (Cronwall, 2004).

> Customized content based on location and demographics is being delivered to customers using displays and devices once thought only available to NASA Mission Control video walls and plasma displays. (Cronwall, 2004, para. 6)

Digital signage is used to assist in attracting the right type of customer; with the hopes they will spend more time in the store, leading to more purchases and increased sales (Cronwall, 2004). The author believes that by the retailer selling advertising spots to vendors, suppliers, and brands, the digital signage system can also help generate revenue and increase awareness. Digital signage has proven to be effective by retailers; however, there are still two major points to consider, content and delivery (Cronwall, 2004). Clients often like the sleek look of flat panel displays, but most often do not know what kind of content to display on the screens. In cases such as this, content is the most important part of the display for truly effective and successful displays (Cronwall, 2004). Cronwall (2004) specifies important factors clients should consider when deciding on content: the demographics of the store or department, current ad campaigns, and marketing materials that can be integrated, printed advertisements, vendor ads, and any other custom-produced content. Clients should also consider the ability to integrate streaming content, local weather and sports scores--nearly any message that is deemed appropriate (Cronwall, 2004).

After examining the development of the digital signage industry as well as the use of out-of-home advertising and narrowcasting, it is important to examine the use of dynamic digital signage in a fully deployed business environment. The cases of Washington Mutual (WAMU), Mercury Online, and Wal-Mart's usage of Wal-Mart TV are three examples of successful deployment of dynamic digital signage.

Dynamic Digital Signage Deployment

A key example of how digital signage has been used in a real-world setting is WAMU's implementation of a digital signage system. Through the use of digital signage, WAMU was able to improve the perceptions customers had and improve their overall image. In 1995, WAMU partnered with IMPART Inc., who at that time was an emerging leader in dynamic merchandising. The two organizations completely redefined the concept of retail banking (Laabs, 2005).

The banking industry thought automatic teller machines (ATMs) would revolutionize customer service for the banking sector; however, Laabs (2005) believes that it only lead to an impersonal style and it failed to relieve the issue of customer lines. Laabs (2005) contends that WAMU knew that it needed to change and that the "captive customers audience might actually present a large scale marketing opportunity" (para. 2). WAMU's first goal was to change the retail banking experience; the goal being to move it closer to a retail experience (Laabs, 2005). The use of dynamic digital signage allowed WAMU to display important information and provide customers with an engaging entertainment style format, what most of their customers more commonly knew as WM TV (Laabs, 2005).

Although IMPART was an early industry innovator, they were also one of the few full-service providers of dynamic merchandising (Laabs, 2005). IMPART conducted a multi-phase rollout that included placing multiple digital signage units at 250 WAMU sites (Laabs, 2005). IMPART was able to manage all parts of the system implementation process--from networking and content development to deployment and project management (Laabs, 2005). "By keeping the project under one roof, the opportunity for success dramatically improved because the myriad of technical details at each communication point and hand-off could be carefully managed" (Laabs, 2005, para. 4). Part of IMPART's concept was to keep the content fresh, with more than 50% of the content being updated daily (Laabs, 2005). A 20-minute loop of content that included product and services ads as well as special events was combined with international news, localized weather, sports, and health and entertainment highlights (Laabs, 2005). "The resulting WM TV created a highly engaging entertainment pit-stop for customers, where marketing information was delicately integrated and happily accepted by customers" (Laabs, 2005, para. 5).

Another example of success by a digital signage company is the case of Mercury Online Solutions, a leading company in the digital display business. They create, deploy, and maintain web-based digital display networks for national retailers. John Eisenhauer, President and Founder of Mercury Online Solutions, believes it is Mercury's mission to engage a customer's imagination and sense of fun to assist in attracting and completing a higher volume of sales (Eisenhauer, 2005). Mercury has a comprehensive showroom that includes completely integrated, fully functioning retail kiosks, digital signs, and displays that all have the ability to be deployed in a real-world setting (Eisenhauer, 2005). "All of the displays are designed to captivate an audience, draw them into the store, get them to interact--touch and feel a product or service and convince the customer" to make a purchase (Eisenhauer, 2005, para. 1).

According to Eisenhauer (2005) utilizing narrowcasting media such as kiosk-like devices are expected to significantly drive sales up due to an increase in customer demand over the next five years. A study conducted by Jupiter Media Metrix in 2001, recorded consumers spent nearly $200 million in goods and services through kiosks; this total was projected to climb to $6.5 billion by 2006 (Eisenhauer, 2005). Kiosk use was also expected to influence off-line sales from $8 billion in 2001 to $77 billion in 2006 (Eisenhauer, 2005). No further studies have yet been conducted or released to verify the projected numbers.

Mercury has one of the largest networks of in-store digital displays deployed nation-wide; this includes more than 2,500 displays and 820 retail locations. To assist others in experiencing success, Eisenhauer (2005) created a "formula" for success which includes: a web-based network, large-scale implementation, a network that is always on, collaboration across corporate silos, and standardized components. The web has proven to be very a valuable space for networks. The web allows content to be delivered in a dynamic way in real time. Content can be placed on a single device in a network or multiple devices on a network (Eisenhauer, 2005). To control content distribution Mercury broke down the network into groupings that properly fit a company's market (Eisenhauer, 2005). Web-based content distribution allowed content to be updated in a matter of seconds as compared to message change to traditional signage that would take days and even sometimes weeks to update. When hundreds of thousands of displays are connected through the Internet, retailers have the capability to reach large numbers of consumers instantly; because content is controlled through a single unit, a message can be changed and delivered nationwide immediately (Eisenhauer, 2005).

Mercury found that the implementation of larger displays can be quite costly; however, larger displays are also capable of generating revenue and save both time and financial resources (Eisenhauer, 2005). Eisenhauer (2005) believes it costs more to part with time than it does to part with money. The cost of implementing a large-scale display network is becoming increasingly affordable. Technology costs are decreasing, while quality and accessibility of bandwidth is increasing (Eisenhauer, 2005). "These factors are expected to drive the industry forward, making kiosk-like displays and digital signs more commonplace in the retail environment" (Eisenhauer, 2005, para. 11).

A study conducted by Summit Research Associate Inc, according to Eisenhauer (2005), found that 3 out of 10 kiosk projects failed due to machines that were inadequately maintained or failed to function properly from the beginning. Eisenhauer (2005) posits that signage needs to be properly functioning at all times, which is why he strongly recommends utilizing a web-based application. Mercury Online has been able to sustain a 99% uptime with their customers (Eisenhauer, 2005). Displays should be interactive at all times; Eisenhauer (2005) believes that a digital display should never be "just the Internet" in a retailer. "The bottom line--a digital display should provide a positive experience for the customer and fill a need that will encourage repeat behavior and customer loyalty" (Eisenhauer, 2005, para. 16). Eisenhauer (2005) contends that any large-sale deployed network needs to have standardized components; every network should interface identically with optimal scalability and maintenance. Also, by keeping standardized components, maintenance costs are kept to a minimum (Eisenhauer, 2005). Eisenhauer (2005) believes that companies need to take advantage of technology and use it to really reconnect with customers and bring excitement back into the retail sector.

Another example of digital signage in action is the use of the private branded network used by Wal-Mart. Wal-Mart TV is the most successful television programming in the United States (Parish, 2004). Every week and every month since 2002, Wal-Mart TV has aired to over 35 million people in some capacity in their stores (Parish, 2004). In-store media represents the next-generation promotional tool; it is designed to appeal to a mass audience on a personal level (Parish, 2004). It is also designed to inform and influence shoppers at a more effective level than print signs (Parish, 2004). "Retailers are just now moving from recognizing the potential represented by in-store media to explorations of how it may blend into their branding and promotional strategies" (Parish, 2004, para. 8).

## Dynamic Digital Signage and Shopping

Aside from digital signage being used in retail stores, grocery stores, and banks, Parametric Media believes that dynamic digital signage will be very successful in shopping malls. In the late 1980s and early 1990s shopping malls were popular places not just for shopping but for recreation and socializing as well; approximately half of all retail sales occurred through purchases made in malls (Nicholls, Fuan, & Roslow, 2002). However, in the late 1990s malls started to show a distinct decline in popularity and fewer purchases were being made in malls (Nicholls, Fuan, & Roslow, 2002). Nicholls, Fuan, and Roslow (2002) cite many reasons for the decline including a lack of unique merchandise, fewer consumers who enjoy the mall shopping experience, and a lack of time on the consumers end. Lack of time is one of the largest contributing factors to the rise of e-commerce, which, in turn, may be an indicator toward the decline in mall patronage (Moore, Stammerjohan, & Coulter, 2005).

Marketing research conducted on consumers indicate shoppers vary significantly in their shopping patterns, motivations for purchasing, motivations for visiting a mall, store selection process, and purchasing behavior (Nicholls, Faun, & Roslow, 2002). Through research, two types of shoppers emerged; the shopper who is driven by need and considers shopping to be a chore, and the shopper who reaps enjoyment and excitement from their shopping experience (Nicholls, Faun, & Roslow, 2002). Nicholls, Fuan and Roslow (2002) believe that there are two main categories of reasons for shopping: personal and social. Shopping is a social experience outside of the home that allows shoppers to meet and socialize with peers as well as communicate with others who have similar interests (Nicholls, Faun, & Roslow, 2002). "To social shoppers, malls are places where people gather who have a 'common bond of interest, activity and participation.' All of these characteristics may effect mall shoppers' purchase decisions" (Nicholls, Fuan, & Roslow, 2002, p. 151).

Many factors effect mall shoppers' purchasing decisions. Nicholls, Fuan and Roslow (2002) found through their research that mall shoppers are more inclined to make purchases when they are accompanied by other people. However, other issues such as situational aspects, the mall environment, social surroundings, physical surroundings, and other reasons for shopping all factor in to the decision to purchase (Nicholls, Faun, & Roslow, 2002). Nicholls, Fuan and Roslow (2002) determined that the majority of consumers who visit malls become purchasers--purchasing products, services, and food. In 1999, over half of the purchases made by shoppers in malls were unplanned (Nicholls, Faun, & Roslow, 2002). "Thus, in general, U.S. mall shoppers still relied heavily on in-mall decision making, with a majority making purchase decisions during their shopping trip" (Nicholls, Fuan, & Roslow, 2002, p. 157).

According to Soriano, (2007) the demographics of mall shoppers have not changed significantly for decades. As of 2005, the most recent data available, the typical mall shopper and purchaser was female, 39 years of age, lived in a three-person household with an approximate median household income of $51,000 (Soriano, 2007). However, of all of the consumers in shopping malls, the majority of shoppers, regardless of age, gender or income, were window shoppers and purchase-driven shoppers (Nicholls, Faun, & Roslow, 2002). Nicholls, Fuan and Roslow, (2002) noted that the number of window shoppers has increased, while the number of purchase-driven shoppers has decreased; there has also been a sizeable decrease noted of social shoppers. In an effort to respond to this decrease, Nicholls, Fuan and Roslow (2002) noted that they observed "considerable effort by shopping malls to attract and retain mall shoppers through the creation of a more pleasant shopping environment and by making the mall a place for excitement" (p. 159). Nicholls, Fuan and Roslow did find an increase in leisure shoppers and made the suggestion that malls incorporate a strategy into their marketing plan that will continue to appeal to leisure shoppers. In order to attract shoppers in general, malls need to incorporate entertainment and continuously attempt to create a pleasant and safe shopping atmosphere (Nicholls, Faun, & Roslow, 2002). "Given that the majority of shoppers tend to make a purchase during shopping trips, retailers" and mall management staff "should continue their efforts in making the mall a secure, fun place to visit" (Nicholls, Fuan, & Roslow, 2002, p. 157).

The examination of the practical usage of digital signage within multiple business settings is a prime example of utilizing non-traditional media to engage consumers. As traditional methods of advertising and marketing become lackluster, organizations are looking for more creative and innovative methods of capturing their audiences' attention. The following section addresses the shift from traditional media, marketing, and advertising to non-traditional media, marketing, and advertising.

## Traditional Media versus Non-Traditional Media

Traditional television advertising and the use of commercials are on a decline (Steinberg, 2005). Hence, Parametric Media intends to use the declining popularity of television advertising to its advantage to assist in gaining a foothold in the marketplace. Advertisers are finding it consistently difficult to gain consumers' attention since

> . . . technology has made it easier for viewers to zap through ads, prompting some big advertisers to scale

back the money they put into TV commercials. Anxious to stop advertisers from defecting to other media, TV networks are scrambling to come up with new ways to lure marketing dollars. (Steinberg, 2005, para. 3)

In order to do this, advertisers are considering non-traditional avenues of marketing and promotions to which they can successfully link their current strategies and plans, such as dynamic digital signage and interactive media kiosks Steinberg, 2005). The biggest challenge for advertisers is finding comprehensive advertising packages that reach their viewers and consumers everywhere they are (Steinberg, 2005). In order for an advertisement to get "talked about" or socially integrated, the advertisement needs to gain attention. It needs to stand out from other ads; it needs to be interesting, entertaining, and perhaps even surprising or shocking. Advertisements that gain viewers' attention have a higher chance of engaging the viewers in recall (Alperstein, 1990). Alperstein (1990) confirms that informants, or viewers, "select the commercials recalled from their store of knowledge in social discourse" (p. 18). Often times, what is recalled by the viewer is what the viewer experiences with the content being communicated.

"What will drive the entertainment and media economies in the years to come will be that which gains--and holds--the consumer's attention" (Berman & McClellan, 2002, p. 28). Observers are becoming increasingly aware that attention is evolving as a dynamic driver encompassing all branded markets (Berman & McClellan, 2002). This trend will continue to escalate, turning the ever-changing entertainment and media industries into an attention economy (Berman & McClellan, 2002).

Berman and McClellan (2002) believe that *attention* should not be viewed as a commodity anymore, but rather as a *scarce economic resource*. They posit the reason for this change as a "fundamental shift in the way people value and allocate their time" (Berman & McClellan, 2002, p. 28). They believe this shift will completely change the mainstream "mass production for a mass culture" ideology (Berman & McClellan, 2002, p. 28). Brands will no longer compete solely on the grounds of value, or innovation, but on an individual level as well (Berman & McClellan, 2002). Competition in industries with branded products and services has reached a peak (Berman & McClellan, 2002). Industries are competing harder than ever to reach every opportunity a consumer may have to interact with an organization. New competition for market share and influence differ greatly from traditional methods (Berman & McClellan, 2002). New methods will effect and change the value chain as traditional methods never have (Berman & McClellan, 2002). According to Berman and McClellan (2002), traditionally, the value chain was comprised of a linear sequence that began with research and development; moved straight through the manufacturing steps to distribution and marketing until it was in the consumers' view. The creator of products and services determined the design of the products and services and then pushed them into the consumers' acceptance (Berman & McClellan, 2002). However, when attention becomes the central focus, the linear sequence to the consumer becomes an interactive loop, changing the communication relationship with consumers from "push" to "push-pull" (Berman & McClellan, 2002). The "pull" comes from consumers whose opinions help shape design, production, and distribution methods of the products and services that affect the purchasing experiences (Berman & McClellan, 2002).

Berman and McClellan (2002) posit a consumer's attention is engaged in two areas of the loop: the creation of the product itself and the way the product is delivered and experienced. Achieving an attention loop is based on consumer-organization interaction (Berman & McClellan, 2002). Berman and McClellan (2002) believe the most cost effective way to achieve interaction is to find the shortest distance between consumers and procedures. Permission marketing involves customers making a request or accepting a request (giving their permission) to be emailed about a specific brand or to send an e-alert as soon as the desired product or service goes on sale (Berman & McClellan, 2002).

Berman and McClellan (2002) suggest using ten ideas for businesses to succeed in the attention economy and non-traditional media avenues. First, businesses should connect with their customers and cultivate relationships. Companies that view attention as a resource, instead of a commodity, show more commitment to creating attention (Berman & McClellan, 2002). Organizations should be figuring out how to relate to, inspire, recruit and attract potential consumers (Berman & McClellan, 2002). Customer relationship management allows a company to respond to their consumers as unique individuals (Berman & McClellan, 2002). Customer relationship management helps a company "understand customers as experiencers of its brand, respect customers' lifetime value to the brand and focus effectively on sustaining relationships with individuals" (Berman & McClellan, 2002, p. 30). Second, businesses need to find new revenue streams. Within the next five years, pre-digital and digital business will converge (Berman & McClellan, 2002). E-businesses will no longer be considered stand-alone, but as an automatically integrated part of business models--integrated at all levels (Berman & McClellan, 2002). "Television, voice, ubiquitous computing, PDA, kiosk and traditional channels" will compete for attention, "along with emerging technologies such as WAP (Wireless Application Protocol), interactive Web and ITV" (Berman & McClellan, 2002, p. 30). The aim is to gather attention by being in all of the places an organization's consumers are most likely to be (Berman & McClellan, 2002). Third, companies should set their customers and their brands free. Paying attention to consumers is about connecting with people (Berman & McClellan, 2002). Berman and McClellan (2002) contend that successful companies will "set their customer and their brands free" by creating a memorable, fulfilling customer experience (p. 30). The key is to create personalized experiences through increasingly interactive content that provides a variety of information on products and services (Berman & McClellan, 2002). Fourth, businesses should not pay for impressions, they should pay for attention. The precision targeting and responding to customers that is present in e-business will allow both new and traditional media to track results and truly measure the effectiveness and worth of advertising (Berman & McClellan, 2002). Organizations that thrive will be those that carefully select and target markets effectively, measure the effectiveness of advertising, and place more value on customer relationships and customer retention (Berman & McClellan, 2002). Fifth and sixth, businesses need to have dynamic pricing and should go global from the start. Globalization gives an organization access to consumers in area that may have been previously unexplored--with an organization's local or global distribution pattern (Berman & McClellan, 2002). While there is more risk associated with global markets, there are also more rewards: digital content flows further, faster (Berman & McClellan, 2002). Seventh, businesses need to create standards that work. Companies should be creating ways to create purchasing experiences that work--that are interactive, but fun and easy to use. Businesses should be setting a consumer purchasing standard that they should always attempt to meet (Berman & McClellan, 2002). Eighth and ninth, businesses should be willing to share the investment risk and be close followers; they should learn from others' mistakes. A good balance for an organization is to be the first in creativity and innovation, but a slow second to technology, to learn from any mistakes an early adopting company may make (Berman & McClellan, 2002). Finally, companies wanting to succeed in the attention and non-traditional media economies should focus their attention as other companies converge and diverge (Berman & McClellan, 2002).

Non-Traditional Media and Integrated Marketing Communication

Companies that want to succeed in advertising in general, especially non-traditional avenues of advertising, should consider using an Integrated Marketing Communication (IMC) approach (Grove, Carlson, & Dorsch, 2002). Previous research indicates that advertising requires taking a closer look at the message content being conveyed; closely examining "the structure and execution of advertisements" that are used to bring notice to businesses, or what Grove, Carlson, and Dorsch (2002), refer to as "service providers" (p. 394). Grove, Carlson, and Dorsch (2002) compare "the degree to which Integrated Marketing Communication has been utilized by advertisers across various service categories identified by their degree of intangibility" (p. 394).

Grove, Carlson, and Dorsch (2002) refer to the advertising of services instead of products as services advertising; they believe services advertising is an underserved area of the advertising industry. The main challenge services marketers face is successfully communicating the intangible benefits of a service to its target publics (Grove, Carlson, & Dorsch, 2002). Because of this, services advertisements need to strive to add tangibility to their service offerings (Grove, Carlson, & Dorsch, 2002). Services need to be presented as tangible commodities to consumers to make them more appealing and less of a risk (Grove, Carlson, & Dorsch, 2002). There are many ways to address intangibility. Advertisers can provide factual information, use visualization, graphic elements, establish associations with physical elements, emphasize symbols, or utilize narratives to make the service appear more concrete (Grove, Carlson, & Dorsch, 2002). According to Grove, Carlson and Dorsch (2002), the goal of all of these approaches is to

> . . . facilitate the audiences comprehension of the service product while, at the same time, avoiding that potential pitfall of introducing more abstraction and confusion to an offering that already suffers from lack of concreteness" (p. 395). Ultimately, a concrete and consistent total impression should be delivered incorporating a range of communicative devices associated with the service and its performance. (Grove, Carlson, & Dorsch, 2002).

Grove, Carlson and Dorsch (2002) define IMC in many ways because, as they point out, a single, working definition is not readily available. As mentioned in chapter one, IMC is essentially a cohesive approach that combines various communication devices, such as publicity, advertising, public relations, sales promotion, branding and media efforts, into a seamless, unifying entity (Grove, Carlson, & Dorsch, 2002). IMC, according to Geissler (2001), is an attempt to provide a clear and consistent message using the maximum amount of communication outlets. Multiple audiences can be targeted with a congruent message that "emphasizes unity among various communication and promotional tools to reflect a single positioning strategy at the outset of a promotional campaign," while simultaneously promoting audience behavior and brand image (Grove, Carlson, & Dorsch, 2002, p. 395).

Nearly two-thirds of consumer product companies utilize IMC in some form (Grove, Carlson, & Dorsch, 2002). Identifying the amount and types of usage of IMC is important given the amount of service-based businesses that are available that also support global economies (Grove, Carlson, & Dorsch, 2002). Grove, Carlson and Dorsch (2002) note through Nowak and Phelps that IMC can occur at the strategic level, the tactical level or simultaneously, at both the strategic and tactical levels. Grove, Carlson and Dorsch (2002) claim that services ads fall into one of four categories: tangible acts on people (e.g. haircutting), tangible acts on physical possessions (e.g. dry cleaning), intangible acts on people (e.g. education) and intangible acts on intangible possessions (e.g. insurance). Parametric Media's services fall into two of the sections Grove, Carlson, and Dorsch (2002) offer: intangible acts on people--offering a service that directly affects people and their decisions, and intangible acts on intangible possessions--offering services that do not have tangible products customers can take with them. Although Parametric Media may lease or sell a kiosk or digital signage display, it is the content creation and services that clients are purchasing that makes the kiosk or digital signage display a success.

Grove, Carlson, and Dorsch (2002) expect that the emphasis on IMC will increase from the amount of tangibility to intangibility. Based upon data collected from a content analysis of ads examined from varying magazine titles Grove, Carlson, and Dorsch (2002) were able to identify the levels of intangibility and tangibility in print advertisements. Initially 168 ads were identified, however only 25 ads representative of each of the four categories were chosen (Grove, Carlson, & Dorsch, 2002). To examine the degree and incidence of IMC, Grove, Carlson, and Dorsch (2002) again refer to Nowak and Phelps's framework. Each ad is noted to be image-oriented, behavior-oriented, or both image- and behavior-oriented. To determine the degree of IMC usage, Grove, Carlson, and Dorsch (2002) classified each ad under one of the three areas and examined the ads for instances of four communication tools: public relations, brand advertising, sales promotion, and direct response advertising. Based upon the number of occurrences of each and all of the four communication tools, four Chi-square analyses were performed to measure whether: IMC is related to the type of service processing; differences in IMC exist between people-processing and information-processing; IMC varies by the recipient of the service; and the relationship between IMC and the nature of the service (Grove, Carlson, & Dorsch, 2002). Grove, Carlson and Dorsch (2002) concluded that overall "there was high incidence of IMC among the services ads," but at a low degree (p. 420). Grove, Carlson, and Dorsch (2002) found that approximately 63% of the services ads were classified as integrated, however seventy-six of these ads achieved integration at the lowest levels. Grove, Carlson, and Dorsch (2002) found most commonly in 67% of the ads two different communication tools were used consisting largely of one image-oriented tool and one behavior-oriented tool. The second most common IMC method identified by Grove, Carlson, and Dorsch (2002), present in 24% of the ads, was the use of three different communication tools consisting of one image-oriented tool and two-behavior-oriented tools. None of the services advertisements examined utilized all four communication tools. The most common and most frequently used tools were branded advertising and direct response (Grove, Carlson, & Dorsch, 2002). In 98% of the integrated services ads direct response advertising was chosen over consumer sales promotion to create behavioral response (Grove, Carlson, & Dorsch, 2002). Interestingly, 41% of all ads examined failed to direct consumers to a web site, phone number, or any point of contact (Grove, Carlson, & Dorsch, 2002).

## Non-traditional Media and the Internet

An important component for the success of Parametric Media as a successful digital signage company is the use of the Internet, specifically a web site, as a key marketing forum. It has been shown how Parametric Media can be successful in the digital signage and interactive media industries by offering out-of-home advertising and narrowcasting services. It has also been shown how other companies have used out-of-home advertising and narrowcasting as well as traditional advertising, non-traditional advertising, and Integrated Marketing Communication. All of these concepts should be taken into consideration and applied to Parametric Media's marketing strategy; however, it is important to examine how the Internet and a web site will act as a key component needed to assist in the success of Parametric Media's strategic marketing plan.

The Development of the Internet. The history of the Internet and how other digital signage companies have used the Internet as a marketing tool are important examples of how the Internet is utilized to increase awareness of the businesses, create leads with potential customers, and offer an interactive, informational medium. Shaw (2002) posits that the Internet was created by the U.S. Defense Department as an experiment in the late 1970s or early 1980s. In 1984, it was leaked outside of the Pentagon and it spread rapidly and has doubled its capacity every year since the mid-1980s (Shaw, 2002). According to McKeever (2003), when the Internet was still considered new, web site pages consisted mostly of static text, a few links, and very limited graphical images. Gradually, design and deployment improved and "it became common practice to use a separate server from the Live site for development" (McKeever, 2003, p. 687). In the late 1990s, the Internet and web site complexity exploded in multiple areas: higher volumes of content were being used, better content was being uploaded, there was an increased level of usage, and hardware and software to support complex sites were developed (McKeever, 2003). According to Withey (2003), the 1990s brought an onslaught of dotcoms that made an already existing Internet one of, if not the most, popular new communication medium; in 1992, McKeever (2003) notes there were just 1,000 web pages. In 1995, there were 4,852,000 Internet hosts; by 1996 that number jumped 195 percent to 9,472,000 to 16,146,000 up 170% by 1997 with more than an estimated 30,000,000 users (Hoey, 1998). Withey (2003) states that by the early 2000s many of those dotcoms and the "predicted" new digital economy had failed; however, by 2002, over two billion web pages were posted on the Internet (McKeever, 2003). Currently web sites have the ability to be distributed across a single country or internationally. The advent of the Internet has globalized businesses and now allows companies to have access to millions of people in more than 160 countries that have direct access to the Internet (McKeever, 2003). Electronic commerce provides innovative ways to do business. Aggressive and successful companies experiment with their methods offering products and services to their consumers to find the way that best fulfills their demands (Oliva, 1998). Often the method that is chosen is contradictory to traditional media and marketing (Oliva, 1998). The newly acquired freedom that comes with Internet activity requires marketers to look beyond the traditional and to really closely define electronic commerce (Oliva, 1998).

By the end of the 2001, nearly 498 million people had access to the Internet in their homes; by 2005, over 660 million people had access to the Internet (Ko, Chang-Hoan, & Roberts, 2005). Internet growth and expansion has been astonishingly rapid. The exposure to digital media has shown changes in consumer behavior in key areas that relate to information gathering (McKeever, 2003). Some of the main changes in consumer behavior are seen in the commercial consumer-based areas of digital media; for instance, the ability to purchase items such as airline tickets, hotel reservations and rental cars, using methods, such as Internet purchasing, that were not previously available (McKeever, 2003).

The Internet and Consumer Connection. Withey (2003) believes that digital media and access to the web will continue to grow and consumer behavior will continue to evolve and change. Soon enough, the web will render tangible "evidence of changes in revenue portfolios," economies of scale, and the way consumers approach information online (Withey, 2003, p. 20).

E-commerce goes beyond selling and purchasing online; it is a concept that is best tailored to each individual company, their web site and how they can best tailor their site, products and services to comprehensively fulfill their consumers' demands (Oliva, 1998). According to Oliva (1998), the e-commerce concept demonstrates a method to successfully integrate interactivity. E-commerce is a way to do business that was previously unavailable with conventional media (Oliva, 1998). Interactivity should actively integrate an organization's consumers with their suppliers and support networks to readily satisfy customer demands for more contact, supplier accountability, and better customer service (Oliva, 1998). E-commerce is ultimately whatever the consumer thinks it should be and/or wants it to be and what a business creates or provides in answer to consumer requests (Oliva, 1998).

In addition, e-commerce is the wave of digital media and technology and stand-alone tasks that are converted to network convergence (Oliva, 1998). Convergence has created a new marketplace for business marketers. Oliva (1998) contends that businesses that are most successful with convergence are those that take action by experimenting to find what works in the virtual marketplace. In a 1995

*Harvard Business Review* article entitled the "Virtual Value Chain", Oliva (1998) enumerates the four key variables that define an offering within a virtual marketplace: content, context, infrastructure, and brand. Content is defined as the "complete package of products or services" (Oliva, 1998, p. 51). Infrastructure is "the surrounding logistical frameworks, transportation systems and standards that enable transactions" (Oliva, 1998, p. 51). Brand is defined as "the key identifier of the product or service, and the relationship with the marketplace that this represents" (Oliva, 1998, p. 51). Convergence allows the four variables to be assembled, disassembled and reassembled as needed; Oliva (1998) believes that utilizing the four elements to their greatest potential is ideal in developing a competitively superior, interesting, and fresh digital and networked e-commerce marketplace.

There are many benefits to using the Internet and a company web site as a marketing tool; these benefits are often the key to giving a company an edge over their competition in the marketplace and give the company an edge over other marketing tools they choose to utilize. The ideas and benefits of new media--Internet-based, online and digital media, and other new media hold the genuine possibility of pushing traditional media, used for public relations, marketing, advertising, and other communication uses into obsolescence (Boutie, 1996). Digital media, especially Internet-based media, are radically changing the way companies communicate. Internet users are able to pull parts of the information, alter the information they receive, talk back, start their own communication links, counter market/advertise and put the information and key messages back on the web, creating a bottom-up or lateral communication flow (Boutie, 1996). Boutie (1996) believes that this can create very large repercussions for corporate communication--corporations will no longer able to purchase media space. This also creates a large gap in agreement between traditionalists, who believe in the traditional methods of advertising and marketing, and "progressists," those that champion new media and non-traditional channels of advertising and marketing (Boutie, 1996, p. 50).

Traditionalists believe that while new media may have a role in the future, it will be limited to replacing current "narrowcasting" media, such as online brochures versus paper brochures (Boutie, 1996, p. 50). The main traditionalist arguments are: traditional media is more practical, traditional media has an installed viewer base that will never diminish, and traditional media already gives consumers a plethora of possible avenues (Boutie, 1996). Boutie (1996) characterizes the progressists view as those who think new media will overtake traditional existing mass media. The main progressist arguments that Boutie (1996) proposes, are: new media can combine sound, images and text in innumerable ways, new media can be tailored; narrowcasted to groups of consumers or even an individual consumer; appealing to not just the masses but to individual at a personal level as well, and new media shows progress, which is a "safe bet" as progress has been underestimated throughout history (p. 50). The greatest appeal of new media is that messages can be adapted to be narrowcasted to smaller, precise audiences or messages can be adapted to appeal to a large, broad, general audience.

Boutie (1996) theorizes that the best practitioners for new media will not be advertisers and marketers, who he considers has a complete one-way communication basis and tend to use the Internet only as a background tool, but public relations practitioners and politicians. Boutie (1996) adds that while advertisers and marketers deliver powerful one-way messages, buying their way into consumers' needs and wants, politicians and public relations practitioners manage human interaction--using communication to manage debate. Boutie (1996) believes politicians and public relations practitioners steer consumers and content toward a desired issue or platform and maximize the ability to publicize client messages and receive publicity in return.

The Internet has many known important features, a few of which include "interactivity, irrelevance of distance and time, low setup costs, targeting, global coverage, and ease of entry" (Ko, Chang-Hoan, & Roberts, 2005, p. 58). It is the scope, breadth, and depth of interactivity the Internet enables that is considered a main reason the Internet is a unique, and nearly necessary marketing communication medium in comparison to most traditional methods of marketing and advertising. The Internet, and new media, which is not limited to just the Internet, but includes online-based media and digital media as well, also creates brand ambassadors (Ko, Chang-Hoan, & Roberts, 2005). A shift from trickle-down, opinion-leading, mass spokespersons, like celebrities, experts, sports stars, and socialites to a trickle-across, opinion forming process, commonly seen in politics, will be most likely to occur; creating, essentially, a large word-of-mouth or word-of-email network that turns consumers into brand ambassadors (Boutie, 1996). This will not only multiply publicity efforts, but also gives a brand stronger credibility and increases a consumers' intent to purchase (Boutie, 1996). New media has the ability to push consumers past traditional methods of communication and media and move toward social and political interaction (Boutie, 1996).

The Internet and web sites have become an invaluable resource to current and potential clients. It has become integral to over 606 million people (Ko, Chang-Hoan, & Roberts, 2005). Internet users encompass a large variety of attitudes, behaviors, and motivations. Many Internet users share common traits, Breitenbach and Van Doren (1998) maintain that the majority of current users are better educated and part of a business-oriented subculture and "as access to the 'net becomes almost ubiquitous, the profile of the users will come to match that of society," implying, Internet users will become even further varied in their attitudes, behaviors, and motivations (p. 573).

Internet users, according to Breitenbach and Van Doren (1998), have become more interactive with the products and services that businesses are offering online. Internet users have demands that must be met by product and service providers, these include convenience, time efficiency, image representation, value-added, and information (Breitenbach & Van Doren, 1998). Breitenbach and Van Doren (1998) believe that Internet users do not want to feel "put-out" in any way; they maintain that customers believe that the product and service providers should accommodate them well enough to show an understanding of their needs and wants. Breitenbach and Van Doren (1998) also think Internet users are often in search of information; they need to be able to save time and capitalize on efficiency. Many purchasers who identify with a subculture find importance in how their image is represented through their chosen purchases (Breitenbach & Van Doren, 1998). Breitenbach and Van Doren (1998) contend that purchasers believe that product and service providers should offer value-added services in some manner and that Internet users want to be able to manage information by being able to sort, assess, and analyze data with ease. According to Ko, Chang-Hoan, and Roberts (2005), Internet usage is not limited to information seeking; users also use it to seek entertainment and escape. Because of this, Ko, Chang-Hoan, and Roberts (2005) believe Internet users' motivations generally fall into one of seven categories: social escapism, transactional security and privacy, information, interactive control, socialization, non-transactional privacy, and economic motivation.

Breitenbach and Van Doren (1998) identify five types of Internet users. They argue that web sites should try to appeal to each type of user: directed information seekers, undirected information seekers, bargain hunters, entertainment seekers, and directed buyers (Breitenbach & Van Doren, 1998). Breitenbach and Van Doren (1998) contend that purchasers should not be seen as exclusive groups, but as parts of the whole. The Internet, in addition to other computer mediated communication, have enhanced and added new levels of interactivity for its users Ko, Chang-Hoan and Roberts (2005). Ko, Chang-Hoan and Roberts (2005) believe there are two communication dimensions that appear most frequently in Internet and literature communication: human-message interaction and human-human interaction. Human-message interaction concerns users' interactions with messages and "encompasses various dimensions/sub-concepts of interactivity related to people's interaction with messages, such as choice, levels, control, manipulation, navigation and/or modifying of form, content, messages structure" (Ko, Chang-Hoan, & Roberts, 2005, p. 59). Human-

human interaction denotes two-way communication and encompasses "two-way communication, mutual discourse, feedback, interpersonal interaction, dialogue, role exchange, connectedness, responsiveness and reciprocal communication between senders and receivers" (Ko, Chang-Hoan, & Roberts, 2005, p. 59).

Ko, Chang-Hoan and Roberts (2005) conducted a survey of 385 Korean and Unites States students to assess their attitudes toward various web sites. Five key results were found in regard to motivation and behavior. First, consumers with high information, convenience and/or social interaction motivations for using the Internet have a tendency to stay at a web site longer to satisfy their motivations. Second, consumers who have high information motivation are also more likely to engage in human-message web site interaction. Third, consumers with high convenience and social interaction motivations are most likely to engage in human-human interaction on web sites. Fourth, consumers who engage more frequently in human-message and human-human interaction tend to evaluate web sites more positively, which, in turn, leads to a more positive attitude toward the brand and increased purchase intention. Finally, consumers with human-human interaction have a more significant effect on attitude and behavior toward the site than consumers with human-message interaction. Human-message interaction and human-human interactions rendered positive effects on attitude toward web sites, which in turn leads to positive attitudes toward the brand, and an increase in actual purchase intention (Ko, Chang-Hoan, & Roberts, 2005). Therefore, according to Ko, Chang-Hoan, and Roberts (2005), a successful web site should address human-message interaction and human-human interactions of those concerns.

Geissler (2001) points out that in order for a company to establish a relationship with online consumers, businesses need to understand the users' experience and how they interact with the web. Geissler points to a communication-based marketing model. Geissler (2001) maintains that a communication-based marketing model is ideal "for managing relationships" and "links communication and marketing in terms of messages, stakeholders, and interactivity" (p. 489). According to Geissler (2001), a communication-based marketing model increases "interactive communication" and "leads to the brand relationships that drive branded value" (p. 489). While marketing is becoming more focused on communication and increased interactivity, persuasion still remains one of the key elements in brand messaging (Geissler, 2001). Persuasion is a short-term, one-way communication with a transaction focus (Geissler, 2001). Not all marketing communication is persuasion-based, in fact, according to Geissler (2001) the more Integrated Marketing Communication efforts are emphasizing communication integration and cultivation of interactive relationships, the more likely both branded value and customer retention will show an increase. Utilizing marketing communication to create interactive relationships on the web is ideal for converting purchasers into repeat customers or buyers (Geissler, 2001). To further enhance interactive relationships in web sites, Geissler (2001) recommends using Integrated Marketing Communication methods. There are an innumerable amount of advertisements already on the web; IMC increases the chances that a message will be seen and retained by consumers by breaking through the clutter by having the ability to tie-in with messaging sent through other media (Geissler, 2001). This creates consistency as well as strengthens brand associations (Geissler, 2001).

In addition to IMC methods, the use of segmenting, target, and positioning (STP) marketing has the ability to guide the development of interactive relationship marketing on the web. "A target segment is a subgroup of the larger market chosen as the focal point for the marketing" campaign (Geissler, 2001, p. 490). In order to pursue a target segment, a business must organize its marketing and communication efforts around a single positioning strategy, which represents an image of the product or service in the consumers' mind (Geissler, 2001). "Effective positioning strategies are based on organizational commitments to create substantive value for the target consumer. Marketers agree that a positioning strategy should be consistent internally and over time," as well as being simple and distinctive (Geissler, 2001, p. 490).

A non-traditional medium that will be utilized by Parametric Media is a web site. It is important to understand the different properties that encompass successful web sites. It is also important to understand how web sites interact with the Internet.

<u>Web Site Properties</u>. Creating the proper web site that will be successful to a specific business is imperative to a company's success (Smith, 1998). Bob Smith, web site creator of the American Management Association's web site, offers three practical pieces of advice for businesses

considering creating a web site: 1) businesses should start with simple, easy-to-understand formats, and use specific examples of how the web site will improve work efficiency, work environments, and work in general; 2) small steps are better than large leaps, 3) while traditional business practices will always flourish, it is important to integrate the web as much as possible--the web should become an integrated business practice (Smith, 1998). While keeping those real-world practicalities in mind, it is also important to analyze the creation of a web site from a strategic business perspective. The effectiveness of a web site "is dependent on a clear link between objectives, planning/strategy and web site design and function" (McNaughton, 2001, p. 82). When deciding to create a company web site, businesses should consider the overall marketing message and marketing strategy, develop clear marketing and communication objectives, and designate a way to evaluate the performance and effectiveness of the web site (Breitenbach & Van Doren, 1998).

The Internet is used more for business-to-business communication and transactions than for commercial use (Smith, 1998). The leading business-to-business users are primarily technology companies (McNaughton, 2001).

According to McNaughton (2001), companies with web sites were found to have many objectives: promotion, public relations, online sales, customer service, corporate image improvement or management, brand and product awareness, an interactive brochure component, a virtual store front, and information archive and a customer service support tool; therefore, the design, layout, and content of the site need to reflect the strategic objectives of the organization. An organization's web site should also include "in-depth information about the product and company; open, two-way communication" and any value-added "complimentary services" (Breitenbach & Van Doren, 1998, p. 574). In addition to those elements, businesses should include services and features that are unique to them, value-added services, and features that offer Internet users a more comprehensive experience; companies should learn to exploit the Internet's strengths, as it is the most effective direct marketing tool available, and companies should take advantage of every opportunity to reinforce the sales message (Breitenbach & Van Doren, 1998).

Beyond the awareness, sales, or financial criteria and objectives, some business-to-business web sites will find it necessary to shift their focus to how their business models translate to the Internet. McNaughton (2001) includes a study conducted by Dutta, Kwan, and Segev in 1998 that measures the presence and effectiveness of 167 major global firms' web sites (as cited in McNaughton, 2001). Product, price, promotion, placement and customer relationships were all taken into consideration and measured for effectiveness (McNaughton, 2001). McNaughton (2001) states that the study conducted by Dutta, Kwan, and Segev in 1998 found that firms that can be considered part of the "soft" sector (financial services, media, publishing, etc.) maintained more sophisticated usage of the Internet and their web sites; while firms that can be considered as part of the "hard" sector (manufacturing, pharmaceuticals, chemicals, etc.) rarely focused on a sales component as an objective, but established a web presence for varying reasons outside of sales (McNaughton, 2001).

There are three distinct types of sites: image building sites, sales assistance sites, and integrated sites; each site is distinctly different in content, layout, and design (McNoughton, 2001). Image building sites are primarily characterized by the high frequency of content items (McNoughton, 2001). Businesses that implement image-building sites "use their sites to transfer information about themselves, their products and their industry" (McNaughton, 2001, p. 84). This type of information includes financial information, press releases and success stories, and may also include links to industry related sites and news (McNoughton, 2001). These links assist in promoting repeat traffic. Image building sites are also characterized as having a large number of graphic items with a simple layout (McNoughton, 2001). Image building sites also usually include promotional information that is not linked to sales or distributor location information; however, pricing and product information is often not included and there is typically no lead-generation component included such as a registration, information, or a contact form (McNoughton, 2001). Sales assistance sites are characterized by a frequency of content items, greater volume of items about products and services, online brochures and catalogues are available and product information is often enhanced by links to sales and distribution locations (McNoughton, 2001). Sales assistance sites often have fewer graphic items, are more complex sites, and generally include ordering information and registration forms for lead-generation; they also offer less and infrequent company and industry information

(McNoughton, 2001). Integrated sites are the most sophisticated in design and are usually very complex in layout (McNoughton, 2001). They incorporate aspects from content, interactivity, and design. They generally offer a considerable amount of information on products, services, the industry and the company as well as offering direct online sales assistance via contact information and/or order forms (McNoughton, 2001). McNaughton states (2001), "The key distinguishing feature is a high level of interactivity" (p. 85).

All aspects of a company's web site are important, including background color, text color, the use of flash animation or other interactive elements, sound, video, etc. (Moore, Stammerjohan, & Coulter, 2005). Moore, Stammerjohan, and Coulter (2005) found a correlation between color and site recall recognition. They found that warm colors such as red and orange generate more arousal and attention than cool colors such as blue and green; however, they also found that cooler colors generate more relaxation and pleasure than warm colors (Moore, Stammerjohan, & Coulter, 2005). Further, Moore, Stammerjohan and Coulter (2005) posit that the greater the contrast between background colors and the text colors the greater the results in increased readability.

Raney, Arpan, Pashupati, and Brill (2003) examined the effects of including an element of entertainment: interactivity, video, audio, flash, etc. in the content of web sites. They studied four automotive web sites, and discovered that the site that included a mini, suspenseful movie was considered the most entertaining, received the most positive evaluations, consumers and viewers who viewed the mini movie had the greatest intent of returning to the site and the highest level of arousal (Raney, Arpan, Pashupati, & Brill, 2003). Three other sites they reviewed included video and audio with some form of interactive content (Raney, Arpan, Pashupati, & Brill, 2003). These four examples show the growing trend of the convergence of the media entertainment and marketing and advertising. It also supports the trend of Integrated Marketing Communication campaigns assisting in efforts to push for consistent brand and message content (Raney, Arpan, Pashupati, & Brill, 2003).

Entertainment in marketing is not a new concept. Marketers have been using celebrity endorsements, music licensing, and product placements in commercials, television, and movies for years (Raney, Arpan, Pashupati, & Brill, 2003). However, the trend has been ever increasing especially in new and less conventional environments, such as the Internet (Raney, Arpan, Pashupati, & Brill, 2003). Auto giant BMW pioneered the short film trend with their short movies only available through their web site. Ford and Chrysler soon followed. The trend has, of course, gone beyond the automotive industry into other fields such as fashion and apparel, but the auto industries initiatives have been the most comprehensive and ambitious. Thus, Raney, Arpan, Pashupati, and Brill ask: How effective of a marketing tool is the use of brand-centered video entertainment on web marketing strategy, "in terms of creating positive consumer attitudes toward the web site, the brand and intent to return to the site"? (p. 40).

With the advent of digital video recorders, it is becoming increasingly difficult for advertisers to maintain a grip on television viewing consumers (Raney, Arpan, Pashupati, & Brill, 2003). The persuasion knowledge model predicts that when a person is viewing an ad as a persuasion tactic, a change-of-meaning will occur in regard to the persons' interpretation of the ad (Raney, Arpan, Pashupati, & Brill, 2003). However, the change-of-meaning only occurs when the person becomes consciously aware of the persuasion attempts (Raney, Arpan, Pashupati, & Brill, 2003). Because of this, marketers and advertisers strive for better, more creative, subtle strategies to expose products and services to future consumers. "These strategies attempt to do two things. First, they try to reduce reactance by using forms of brand communication that are not overtly recognizable attempts to persuade" (Raney, Arpan, Pashupati, & Brill, 2003, p. 40). An example of this is product placement in movies and television. Second, "marketers try to create stand-alone entertainment vehicles around a particular brand" (Raney, Arpan, Pashupati, & Brill, 2003, p. 40). An example of this was seen in the movie *Demolition Man*, a science fiction movie set in the year 2032, in a world where every restaurant is a Taco Bell franchise.

Web sites and advertisements are often treated in like manners. Raney, Apran, Pashupati, and Brill (2003) suggest that commercial web sites possess many of the same characteristics of advertisements; therefore, researchers believe that attitudes toward a web site should lead to similar conclusions and attitudes toward ads. Web site interactivity plays a large role in a users' attitude toward the web site (Raney, Arpan, Pashupati, & Brill, 2003). A web site with high perceived interactivity will have more positive influence on attitude toward the web site, the brand and purchase intention that a web site with high actual interactivity and low perceived interactivity (Raney, Arpan, Pashupati, & Brill, 2003). A possible explanation for this belief, according to Raney, Arpan, Pashupati, and Brill is "compared with passive viewing, interactivity results in greater arousal in the viewer" (p. 41). Combining perceived interactivity with an entertainment element often results in increased level of arousal and influencing emotional responses (Raney, Arpan, Pashupati, & Brill, 2003).

After deciding upon the design, content, and layout elements, and upon the completion of setting up a web site, companies need to make sure that they properly promote their web site. Web site information should be included in all company communication--business cards, letterhead, forms, advertisements, promotions, etc.--web site information should be disseminated to customers as quickly as possible. Businesses should also consider offering promotional incentives to visit the web site to increase web visits and site traffic. Breitenbach and Van Doren

(1998) believe promoting the web site to the right customer is vital to the web site's success.

After addressing the elements that are necessary to create a successful web site; it is necessary to examine current trends and statistics within the industry to understand how all of the marketing elements will integrate with the strategic marketing plan. Trends and statistics provide an overview for where the industry currently is and where it will be in the future.

CHAPTER THREE

DIGITAL SIGNAGE TRENDS AND STATISTICS

After examining where the digital signage and interactive media industries have been; it is equally important to identify current trends that will lead to where and how the industries may develop in the future--this will also allow Parametric Media to examine trends among its potential clients. Digital technology, as a field, is expanding exponentially (Cronwall, 2004). Two of the key areas that digital technology, digital signage, and interactive media are expanding into are the media and web industries (Cronwall, 2004). The information offered on the digital signage, digital technology, and interactive media industries is extremely limited as a whole; therefore it is best to examine the main industries in which expansion is occurring--in this case, as previously stated media and the web. Consequently, because of the large amounts of growth, the media and web industries encompass two of the many customer segments that are appropriate for Parametric Media.

Media "is loosely defined and is used in different contexts to encompass a wide range of sometimes different industries and activities" (Blackman, 2004, p. 292). Media are, at times, included to reference the leisure, entertainment, graphics, audiovisual and, more broadly, cultural industries (Blackman, 2004). Blackman (2004) believes it is helpful to view media as referring to information that is produced and distributed "on a one-to-many basis" (p. 292). Berman (2004) uses the example of telephones versus radio to distinguish between one-to-one and one-to-many communications. Telephones are designed to transmit audio information primarily on a one-to-one basis; radio, however, is designed to have audio information transmitted to a mass audience (Blackman, 2004). Blackman (2004) contends that the medium and the message need to correlate in order for content to be considered media.

The media industry, as well as portions of the media industry such as entertainment, are more sensitive to changes in technology that alter the relationships of business partners, customers, and consumers than most other industries. Media and entertainment are especially vulnerable to the effects of technology on their respective markets, so they must respond quickly to threats and anticipate new ones, acting as examples for other industries (Berman, 2004). Berman (2004) states

> . . . despite the threats posed by this new environment there seem to be breakthrough opportunities for media companies to achieve competitive advantage, if they adopt cutting edge digital technologies and make crucial changes to their business model. (p. 34)

Leading media and entertainment businesses are steeling themselves to adapt to new technologies, new content, media forms, and devices. In the coming years, media companies will vie for the advantage over other companies by allowing business partners, customers, and consumers more freedom to manage their media and entertainment experiences. Blackman (2004) reports that according to a 2002 PricewaterhouseCoopers report, the global entertainment and media market, not including sports or theme parks, was worth approximately $1 trillion in 2001, with an expected forecast of $1.3 trillion by 2006. The U.S. represented $414 billion of the entertainment and media markets in 2001 (Blackman, 2004). The two contributing sources of revenue for these two markets are advertising revenue and consumer/end-user spending (Blackman, 2004). Global advertising revenues reached $320 billion in 2001, with the U.S. accountable for $149 billion

(Blackman, 2004). Blackman projected advertising to increase to $404 billion globally by 2006, with the U.S. generating $186 billion in 2005 (Blackman, 2004). In actuality, based on research conducted by Veronis Suhler Stevenson in 2006, online, radio, television and newspaper media alone reached $151 billion in the U.S.

At the same time, consumer and end-user spending is up from $743 billion globally and $266 billion nationally in 2001, to $965 billion globally and $354 billion nationally by 2006 (Blackman, 2004). If emerging media companies want the opportunity to gain a positive stake in the media and entertainment industries, Berman (2004) posits that there are four key components that act as enablers for the success of media businesses. The first is "open standard information technology that enables virtually seamless interoperability with legacy and partner infrastructure" (Berman, 2004, p. 34). The second component is the necessity for "digital content management and distribution systems that open protected pathways deep in the media organization … around the clock, with little need for human interaction" (Berman, 2004, p. 34). The third component is the need for "advanced data analytics that create vital business intelligence, helping media firms develop value for business partners, customers and consumers" (Berman, 2004, p. 34). Finally, the fourth component is the need for a "strategic deployment of 'attention loop' technology that will evolve in step with significant development in aggregate patterns of consumer behaviors and media business models" (Berman, 2004, p. 34). The four components will not only act as enablers for the creation of a successful media enterprise, but allows consumers to gain the ability to compile, program, edit, create, and share content, giving them more control and allowing them to become more immersed in the media experience (Berman, 2004).

According to Blackman (2004), the media market share structure involves two common features typical to media markets. First, economies of scale are extremely important--creating media markets that tend to be highly concentrated (Blackman, 2004). Second, it is very common for media companies to frequently operate simultaneously in two or more separate and different sub-markets (Blackman, 2004). The general health of the media sector is based on and around the general health of the national and global economy (Blackman, 2004). Blackman (2004) asserts this is due to the media sector being primarily funded by advertising and consumer spending. Competition and regulation can pose as elements of change to the media market, especially the audiovisual industry. Regulations on television channels, especially those under foreign ownership are subject to government regulations. It is for this reason that media businesses will continually restructure in search of "economies of scope and scale driven by globalization, industry concentration and mergers" (Blackman, 2004, p. 294).

The cultivation of highly digital media technology has created new platforms and applications that will reshape the media sector (Berman, 2004). These digital platforms include: broadband networks, third generation mobile systems, peer-to-peer communications for file sharing, digital compression technologies, and content management systems (Berman, 2004). A trend being seen in the media sector is the shift to personalized and customized products and services; this shift could influence every aspect of the media market (Berman, 2004). The shift coincides with society's demand for more time efficient services and increasing time pressures that have arisen in technologically advanced modern lifestyles (Blackman, 2004).

In order for companies to address the emerging needs of consumers on a one-to-one basis and address the shift toward personalized and customized products and services within a media company, Berman (2004) contends that emerging media businesses will need to include a set of strategic behaviors and patterns into their business model. According to Berman (2004), in order to create success in future media environments companies will need to maintain an "open the media experience" in order to leverage "advances in technology to provide customers and consumers a more involved experience with the media firm;" maintain "open content reserves" in order to develop "accessible, flexible digital content systems that can enable distribution to virtually any media context;" create a method of "open content creation and distribution" to successfully establish "digitized processes that monitor and incorporate input from customer and consumers to garner their attention;" have solid "open content packaging, bundling and sales strategies" to utilize "variable pricing models that enables partners to advertise and share profits, and enables consumers to access content through more compelling release schedules" (p. 35). There are already many existing and new digital technology businesses that have an infrastructure that support the four core business attributes that Berman presents. He further asserts that companies that apply the four attributes will experience improved business intelligence, enabling open media companies to identify "higher-value business components and assets" (Berman, 2004, p. 35).

Berman (2004) suggests that the future of media and entertainment companies lies in their ability to be innovative, adaptive, and on-demand. Wall-sized screens displaying large quantities of information are in offices and homes allowing consumers to view and use multiple programs, presentations, and computer files all at once. People have access to an infinite amount of information and technological advances such as wireless remote controls and voice technology in the comfort of their own homes. Media companies are making it easier for people to manipulate multimedia personal files and "now more content is available in more formats than ever, and everybody wants something different from every piece of content" (Berman, 2004, p. 36). Companies that do not adapt to this new environment will be left behind.

As media companies continue to evolve into a "pervasive" media environment, consumer behavior will evolve as well (Berman, 2004). Berman (2004) posits that media companies need strategies that are capable of serving traditional passive consumers, contributors, producers, and authors. Traditional consumers are those that use several new technological devices to experience traditional broadcasted content with new features--such as flexible viewing schedules (Berman, 2004). Contributors are described as being those who provide feedback to specific media content by purchasing products over various media and providing their opinion and responses (Berman, 2004). Producers are defined as those who collect content they purchase then personalize to make it their own (for instance, purchasing songs from different media and creating a single play list) (Berman, 2004). Authors are those who use multiple technologies to tailor or edit their content to their preference (Berman, 2004). To help meet the demands of these four key consumer segments Berman (2004) suggests media companies need to keep media interactive, provide for on demand scheduling and publishing, and ensure a steady increase in rich, interactive digital technological experiences. The pervasive media environment will continue to develop and "erupt from the convergence of many factors, such as," need, demand, power, liquidity, unpredictability, and "ubiquity" (Berman, 2004, p. 38). Demand will increase the overall consumption of media and entertainment; power will enable a greater amount of information and content to be stored on smaller technologically advanced devices; liquidity will allow for ease of "portability, interoperability and 'shareability' of digital media;" unpredictability of the environment will assist in creating newer, more frequent innovations in media technology; and ubiquity will provide for multiplying channels and "spreading connectivity in globalizing markets" (Berman, 2004, p. 38).

As consumers continue to evolve, on-demand media and entertainment companies will need to examine the best way to utilize technology to appeal to key customer segments. Parker (2004) references a study conducted by MTV that revealed that the typical teenager viewer participated or consumed an average of 30 hours of media per day. Their viewers were frequently instant messaging, surfing the Internet, playing video games, watching television, talking on the phone, viewing DVDs, sending text messages and/or listening to MP3s simultaneously (Parker, 2004). Teenagers are evidence of an emerging trend: "audiences of all ages are shifting the way they access and consume media" (Parker, 2004, p. 36). The media's transformation from a seller market to a buyer market in a few short years has changed the way media and entertainment companies conduct business (Parker, 2004). Media and entertainment companies are being forced to acquire new business plans and employ new strategies to help them survive the on-demand marketplace (Parker, 2004). Media and entertainment companies, according to Parker (2004), need to find new ways to distribute content. Content "must be delivered at low fixed-investment level by extensive use of variable cost structures. This is totally different from a 'build it at any cost, hype it and they will come' approach to selling entertainment" that is so prevalent in the present consumer marketplace (Parker, 2004, p. 37).

Future media companies will use the influence customers have over the company and its value chain and they will deploy technological attention loops, such as digital signage, "to gather continuous feedback and optimize value" (Berman, 2004, p. 38). Media companies will show a shift from a product-focus to a customer-focus. Media and entertainment companies of the future will also "build scale and reduce costs. And they will create open, reciprocal relationships with suppliers and customers, allowing more freedom in the ways they combine content and delivery" (Berman, 2004, p. 39). A "strategic focus on customer attention will be key to profitability" (Berman, 2004, p. 41). Consumers will need to be courted and made to feel wanted and understood. Media companies will need to seek to understand they are not only focusing on their customers but their outsource partners and business constituents as well.

"The single most powerful driving force in the economy is the emergence of consumers who use information far more intensively to meet their economic needs" (Shaw, 2002, p. 5). Shaw (2002) describes and defines new consumers as those who are more highly educated, who have discretionary income, and who have access to new information technology. Shaw (2002) posits that new consumers create a great deal of change and uncertainty in the marketplace due to their ability to reach a larger amount of businesses and make more impact through their purchasing decisions. Shaw (2002) also argues that because new consumers have more ways to gain product and purchasing information, they tend to use the information differently. Specifically, according to Shaw (2002), new consumers use more than one source to gather information, they refer to the information they have gathered more frequently, they prefer to use information that they personally have acquired; they like and prefer interaction and they use gathered information to experiment with unknown products more often.

In addition to the ways new consumers utilize information, Shaw (2002) identifies six traits that he believes typifies new consumers' behaviors toward products and purchases in the global marketplace. The first trait Shaw (2002) describes is the new consumers' preference for choice. New consumers are more likely to examine a more comprehensive range of choices before making a purchasing decision (Shaw, 2002). "During this pre-purchasing activity, 89% of new consumers will search through at least four different information sources, compared with only 65% of all other consumers" (Shaw, 2002, p. 6). The second trait is the new consumers' demand for tailored information and communication (Shaw, 2002). New consumers often find that they have a large amount of information to sift through before they find what is pertinent to them (Shaw, 2002). New consumers tend to look for quality information over quantity, and the Internet has become one of the favored ways new consumers target quality information over quantities of information (Shaw, 2002). The third trait new consumers share is their skepticism of brands (Shaw, 2002). Since new consumers tend to do more product and service research prior to purchasing, they also, according to Shaw (2002), tend to be more skeptical of corporate promises and brands. However, when new consumers do purchase national brands, they are more likely to form loyalty ties to the brand or service (Shaw, 2002). The fourth trait is new consumers' willingness to experiment (Shaw, 2002). In addition to searching for information on new products and services, new consumers are more likely to experiment with their purchases than consumers of the past (Shaw, 2002). The fifth trait demonstrates new consumers increased value of convenience (Shaw, 2002). New consumers are more likely to search products and services that accommodate balance in work and life (Shaw, 2002). The sixth, and final, trait is that new consumers expect superior service (Shaw, 2002). Information and research that is gathered, allows consumer to make an informed and customized decision. Along with the convenience and choice factors, new consumers are expecting an increased level of superior service (Shaw, 2002). New consumers are no longer willing to conduct business with companies that do not value their customers' time (Shaw, 2002).

The changes and differences between new consumers and consumers of the past represent changes in the global economy and demographics (Shaw, 2002). Shaw (2002) explains that there are certain demographic changes that will further contribute to the change in consumer makeup. A significant increase in the single person household will be a large contributor to the evolution of future consumers (Shaw, 2002). "There will be more women who, because of their earning capacity, can choose to live alone" (Shaw, 2002, p. 7). The fall in birth rates combined with increasing life expectancy will quickly lead to an ageing population. To further this point, newspaper and television companies' preoccupation with capturing a young audience for their products reinforce that "future growth opportunities are likely to arise for the lifestyles and spending preferences of the middle-aged" (Shaw, 2002, p. 7). Other contributing factors are: consumers over the age of 50 will continue to feel and act younger; the cost of caring for the elderly will create additional demands on resources and elderly-oriented services and products; there will continue to be a growing number of households; there will sharper distinctions drawn between the lifestyles of single men and single women; an economic impact will be felt from the increased number of more single people; and the number of successful marriages and cohabitations will continue to decline (Shaw, 2002).

Even through the foreseeable changes in consumers, traditional "passive" media will not die out, according to Berman (2004), but progressive technology in the hands of eager users will push traditional media and traditional business models slowly toward extinction. Successful companies will find ways to create, manage, store, catalog, and distribute content as well as break down content into multiple product units. Successful media and entertainment companies will respond to technological innovations and the consumer's imagination "and sense of entitlement" and trends will "evolve to meet the open environment made possible by digital technology" (Berman, 2004, p. 44).

As an on-demand industry, the media and entertainment fields will continue to evolve and change. Parker (2004) believes the change will be guided by four major forces or trends: accelerating pace of change, increasing levels of competition, sustained financial pressure, and higher unpredictability and risk. An accelerated pace of change will occur due to increasingly segmented consumers who are also empowered consumers that are increasingly harder to please with offerings designed for the masses (Parker, 2004). Product offerings that are designed for the masses will experience a shorter amount of success (Parker, 2004). Products in general are experiencing shorter development, release and life cycles; while at the same time new production and delivery technologies are decreasing masses (Parker, 2004). There will be a distinct increase in the level of competition (Parker, 2004). The fight for an audiences' attention will continue to grow more intense. Established companies are taking advantage of the many deregulations occurring in the market. They are monopolizing their ability to cross-subsidize and cross-promote their various products, services, and business ventures masses (Parker, 2004). New entrants to the media and entertainment marketplace are taking advantage of the latest technology to make quick, strategic decisions that will firmly place them in the competitive media and entertainment field masses (Parker, 2004). Many experts, according to Parker (2004), are forecasting sustained financial pressures in response to a sluggish demand growth, citing burgeoning problems with delivery environments as additional problematic areas. The media and entertainment industry will see a jump in unpredictability and a greater amount of risk (Parker, 2004). "M&E businesses are entering an era of unprecedented exposure to risks in the form of technological unpredictability, computer hacking and counterfeiting" (Parker, 2004, p. 37).

The forces and trends that Parker (2004) identifies are those that he believes will create complexity, additional competitiveness, and volatility. To help alleviate the complexity and volatility, Parker (2004) recommends that companies develop four traits. The first trait is responsiveness. Parker (2004) asserts that media and entertainment organizations will need to be responsive to successfully navigate the accelerated pace of change in the market. The second trait, focus, will allow companies to focus on the segments of their business that are the most effective and that matter the most in assisting the business on their track to success; rather than attempting to be the "best-in-class" across all aspects of the value chain (Parker, 2004, p. 38). The third trait is for an organization to continue to evolve; businesses will need to evolve their planned cost structures to account for quick changes in demand and break away from committed investments in fixed assets (Parker, 2004). The fourth trait is resilience; media businesses will need to manage resilient operations that are designed to withstand any number of a wide range of threats (Parker, 2004). In addition to these four traits, media companies that want to reinforce an on-demand style should consider taking progressive transformations acting on five key imperatives: consolidated overhead, integrated operations, optimized business customer and partner offerings, driving direct-to-consumer relationships and enable integrated media (Parker, 2004).

An on-demand strategy will offer media and entertainment businesses a direct approach to giving their customers what they want, when they want it--as is the trend in consumerism for customizable media (Parker, 2004). Over the long-term, an on-demand strategy will offer media and entertainment businesses a new way to profitably develop and deliver new and compelling consumer experiences that are designed to capture the consumers' imaginations (Parker, 2004). "Though the vision may be grand, becoming and on-demand business need not be a daunting challenge" (Parker, 2004, p. 43).

Current trends point to the rapidly and continuing development of technology. Developments in media technology will allow Parametric Media to gain entrance to various marketplaces, such as the entertainment industry. Statistics show that trends are also pointing in the direction of on-demand media; the use of technology will allow digital signage and kiosks to take strides to become on-demand.

# CHAPTER FOUR

# THE GROCERY INDUSTRY

## History of the Grocery Industry

As the economy continues to change and evolve, there are a few items that consumers will always need: food, water, energy, and a place to live. While there is a multitude of opportunity in each of those industries, capturing market share may be a challenge; however, the author believes the benefits outweigh the risks. Therefore, Parametric Media is focusing on the grocery industry as its target market. To understand how Parametric Media can serve the grocery industry, it is important to understand the history of grocery stores and supermarkets, how they have developed, what the industry presently looks like, trends that may affect the future of the industry, and how digital signage and interactive kiosks fit.

Grocery stores in the United States began as public markets (Mayo, 1993). According to Mayo (1993), in the nineteenth century as cities began to grow, grocery stores were established; in small towns and rural areas general stores and country stores were "the primary source of food goods" (p. 43). During, the early twentieth century mass production and distribution started filtering to the retail industry, beginning the end of the general store (Mayo, 1993). Many of the major chains that are still in operation today, Piggly Wiggly, SUPERVALU, and Kroger for example, opened their first stores in the late 1800s, and began expanding in the 1900s (Food System Economic Partnership, n.d.). According to Gwynn (2008), "grocers (and most of the chains fell into this camp) sold what is known as 'dry grocery' items, or canned goods and other non-perishable staples;" consumers needed to visit butchers and greengrocers, who were located in separate stores, to get their meat and produce (para. 1).

In 1916, Clarence Saunders established the Piggly Wiggly chain of grocery stores, introducing American shoppers to the first self-service grocery stores--up until then, grocery stores and general stores were full service (Gwynn, 2008). The 1920s brought about extensive expansion with small regional chains, such as Kroger at the time, and the move toward the first national chain by A&P (Gwynn, 2008). Mayo (1993) posits that "the chain store concept emerged as an idea among storekeepers of all kinds who wanted a more systematic way of conducting business with lower overhead costs" (p. 77). As a whole, "grocers were the first retailers to use the chain store system. They knew that if they could buy in larger volume, their overhead costs would be reduced" (Mayo, 1993, p. 77).

The term supermarket was first used in 1933, when Albers Super Markets first opened (Mayo, 1993). The grocery industry defined supermarkets in the 1930s as "a highly decentralized retail establishment, with wholly owned or concession operated, with adequate parking space, doing a minimum of $250,000 annually" that completely self-service (May, 1993, p. 117). The 1930s marked the opening of the first supermarket when Michael Cullen opened the first King Kullen store (Gwynn, 2008). The supermarket began a new era for the grocery industry (Mayo, 1993). "Whether independent or part of a chain, business people in the grocery trade realized that a large store capable of high-volume trade was the economic model for the" future (Mayo, 1993, p. 157).

Supermarket growth occurred until World War II, when the economy came to a virtual stand-still (Mayo, 1993). Grocery stores and supermarkets experienced expansion in suburban areas in the 1950s, requests for more diversified product selections came in the 1960s, and the 1970s brought about the need for low-cost products (Mayo, 1993). The

1970s also saw the development of smaller, varied stores resulting in the inadvertent market segmentation of the food retail industry (Mayo, 1993). The 1980s and 1990s saw the development of upscale grocery stores, warehouse clubs, and superstores, stores that carry both groceries and general merchandise--Fred Meyer and Wal-Mart being two examples that found huge success as superstores (Gwynn, 2008).

## Current Grocery Market Conditions

Under current market conditions the leaders in the grocery industry are Kroger, SUPERVALU, Safeway, Ahold, Wal-Mart, and Costco (Hoovers, 2008 & Food System Economic Partnership, n.d.). In 2007, there were 34,967 supermarkets with sales totaling $535 billion (Chanil & McTaggart, 2008). There were also 6,330 independent grocery stores (with 10 or fewer stores) with sales totaling $29 billion, 145,872 convenience stores with sales totaling $306 billion, and 13,652 grocery stores (that made under $2 million) with sales totaling $18 billion (Chanil & McTaggart, 2008). Also in 2007, there were 1,152 wholesale clubs with sales totaling $101 billion, and 422 military convenience stores with sales totaling $2 billion (Chanil &

McTaggart, 2008). The average grocery store gets 50% of its revenue from perishable items such as meat, produce, and dairy; 30% of its sales from non-perishable items such as bread and canned goods, and 20% of its sales from non-food items such as cooking utensils and paper towels (Hoovers, 2008). The average grocery store is 33,300 square feet in size, has 9.3 check outs, the equivalent of 72 full-time employees, and made $15.31 million last year (Chanil & McTaggart, 2008). Total sales for the industry showed a 7.2% increase over 2006 sales numbers for supermarkets; that exceeds the 4.3% gain in 2006 over the 2005 sales numbers (Chanil & McTaggart, 2008). Chanil and McTaggart (2008) believe a portion of the increase came from increased retail prices.

Chanil and McTaggart (2008) conducted a survey and reported the findings in *Progressive Grocer* magazine--one of the most respected magazines in the industry. They asked respondents how important specific types of merchandising/marketing strategies are to the success of the grocer's business; the results are as follows: emphasis on fresh foods took first place with 77.8%, private label products took second place with 60.1%, and ready-to-eat meals came in third place with 53.3% (Chanil & McTaggart, 2008). Natural foods and organics placed fourth with 50.3%, national brands came in fifth with 47.9%, with newspaper inserts coming in at sixth with 45%, mailers/circulars placed seventh with 43.8%, an emphasis on new technology came in eighth with 43.5%; newspaper ads came in ninth with 37.6%; TV ads placed tenth with 23.1%; self-service applications came in eleventh with 20.1%; digital media came in twelfth with 16%, and in-house magazines for customers came in thirteenth with 13.3% (Chanil & McTaggart, 2008). While an emphasis on fresh food remains the most important aspect a grocer may market next year, health concerns, ready-to-eat meals, and private labels made significant leaps compared to 2006 (Chanil & McTaggart, 2008).

Chanil and McTaggart (2008) found that grocery stores and supermarkets considered similarly sized grocery stores and supermarkets as their main competitors. However, collectively, all participants surveyed considered Wal-Mart to be the top competitor and the biggest threat to business (Chanil & McTaggart, 2008). The big concern for the grocery industry is the impending recession; "many industry players and watchers point to two recessions of the recent past--in 2001 and 1990-91--for clues as to how this might all play out in the months ahead" (Chanil & McTaggart, 2008, p. 26). As a result of the dropping economy, 46% of the grocery executives surveyed said they are "more optimistic about the retailing climate for supermarkets" in 2007 and 2008, than they were in 2006 (Chanil & McTaggart, 2008, p. 26). Chanil and McTaggart (2008) consider optimism to be a commodity amongst supermarket operators. Over the past five years optimism has been relatively high, but has leveled off for 2008 (Chanil & McTaggart, 2008). Grocers will need to remain optimistic, as 54% of consumers who responded to a study conduct by AllRecipes.com pay more attention to the cost of groceries; 32% said they prepare more meals at home, and 22% said they are purchasing more private label brands over national brands (Allrecipes.com, 2008).

## Future and Trends

For 2008 and beyond, more and more shoppers are expected to purchase more items but over fewer trips (Chanil & McTaggart, 2008). Shoppers are also expected to buy fewer national brand items and purchase more private label brands (Chanil & McTaggart, 2008). Chanil and McTaggart (2008) believe there will be an approximate 7.6% increase in shopper traffic to produce departments in 2008.

Private label brands will experience nearly a 10% increase in purchases as consumers purchase less expensive items (Chanil & McTaggart, 2008). Perishable items should also see an increase in the future as more consumers are preparing meals at home (Chanil & McTaggart, 2008). Chanil and McTaggart (2008) believe one thing is certain: "lower prices are more likely to attract shoppers" (p. 32).

In addition to coping with a changing marketplace and carefully monitoring their customers' shopping habits, many grocers are eliminating unnecessary expenditures and store expansion (Chanil & McTaggart, 2008). They are instead focusing on increasing their promotional activities (Chanil & McTaggart, 2008). Nearly 80% of grocers are expected to "increase their efforts toward private label programs," nearly 73% of grocers "will add more weekly specials," and "more than 60% percent will be rolling out volume discounts and more couponing activity" (Chanil & McTaggart, 2008, p. 37). Thirty-two percent of grocers will be investing in price and promotion optimization technology (Chanil & McTaggart, 2008).

Some trends the grocery industry are experiencing and will continue to experience are expansion into organic and natural foods, ready-to-eat meals, ethnic foods, specialty foods, smaller focused specialty grocery stores, store redesigns, coupon redemption programs, fewer trips and larger transactions, private labels, and the "greening" of supermarkets.

Organic and natural foods accounted for $16.9 billion of food sales in 2006, which was approximately 3% of grocery sales in 2006 (Berry, 2007). Eighty-two percent of grocers say they offer natural or organic products in their stores; 62% of grocers offer their own private label organic or natural brand of products (Berry, 2007).

Ready-to-eat meals are offered in about 95% of retail grocers. "Fueled by demand for quick meal solutions the segment increased roughly 16% from 2002 to total more than $23.1 billion in 2007" (Berry, 2007, para. 53).

Nearly "75% of ethnic food consumption in the United States is now supported by the mainstream population" (Berry, 2007, para. 54). Ethnic foods account for over $75 billion of food sales in 2006 and comprise nearly 12% of all retail sales and grew by 5% in 2006 (Berry, 2007). The most recent ethnic foods to become trends are Caribbean, Mediterranean, Indian, halal, and kosher (Berry, 2007).

Specialty foods represented $38.5 billion in sales in 2006 and "accounted for 10% of all retail grocery sales in

2007" (Berry, 2007, para. 55). Since 2001, specialty food sales, which includes condiments, cheese, coffee, cocoa, chips, pretzels, snacks, carbonated drinks, functional drinks, ready-to-drink beverages, tea, coffee beverages, energy bars, and shelf-stable meat, poultry and seafood, amongst other products, increased 103% since 2001, experiencing 17% more growth than general food sales (Berry, 2007).

"One of the most recent trends to greatly impact the American retail grocery market is the development of smaller-format stores that focus on high quality, fresh, and convenient food" (Berry, 2007, para. 20). Quick shopping trips and high energy prices are creating the need for neighborhood grocers that offer healthier and easier meal solutions (Berry, 2007). Tesco, a UK grocery chain, has expanded into the U.S. with its Fresh & Easy Neighborhood Market; there are currently 62 stores across Arizona, California, and Nevada with an additional 140 stores to open between July 2008 and February 2009, and the potential of 800 stores total by 2012 (Berry, 2007). Both Wal-Mart and Safeway are testing the smaller-format stores as well. Wal-Mart is testing stores throughout Arizona, while Safeway has one test store in California with another 50 planned for the future (Berry, 2007).

In place of opening new stores, some grocery chains have chosen to redesign their existing stores. From designing grocery stores and supermarkets that are tailored to how their consumers shop to creating lifestyle stores tailored to local tastes, store redesigns are often low-cost options that effectively target a stores key consumer groups (Berry, 2007).

> Piggly Wiggly, for example, recently launched its first new concept store tailored to how consumers intuitively shop. Shoppers can now find all fresh, frozen and canned fruit and vegetables in one section; bread, cereal, milk, peanut butter and jam all within one location; and cross-merchandising throughout the store that offers consumers quick, complete meal solutions (e.g. a display with sausages, buns, fresh corn and beer). The store also features a convenient meal assembly centre (i.e. Dream Dinners, a meal preparation outfit that helps consumers make up to four weeks of freezer- and oven-ready dinners at a time). (Berry, 2007, para. 18)

Safeway has converted approximately 1,000 stores to lifestyle concept stores. "Depending on the local market, Lifestyle stores feature a gelato station, sushi bar, fresh nut counter," olive stations, comprehensive wine selections, and even shopping carts with built-in drink holders (Berry, 2007, para. 19).

Going green isn't just for consumers' homes, automobiles, and food selection anymore; it is an emerging trend for both retrofitting existing stores and building green measures into new stores. Chanil and McTaggart (2008) found nearly over one-third of survey respondents said they will be implementing green measures in 2008 and the future. Grocery stores and supermarkets are experimenting with a variety of ways to be more green and encourage their shoppers to be more sustainable. Some are providing their shoppers with re-useable shopping bags, while some are upgrading their lighting to more energy efficient lights, getting LEED certified for new buildings, even investing in solar panels, participating in composting, offering recycling programs, and switching from cooking oil to biodiesel (Chanil & McTaggart, 2008).

## Digital Signage in Grocery Stores

After examining the history of the grocery industry, and its current and future directions, it is important to understand how digital signage and interactive kiosks fit within grocery stores and supermarkets. According to peers within the industry, Tesco is considered to be one of the first chains to deploy an aggressive digital sign and private branded network system. Spar, a convenience store chain in the UK has also tested digital signage and private branded networks. In the U.S., the most notable supercenter using a private branded network is Wal-Mart; however, there are other grocery chains, such as United Supermarkets of Lubbock, Texas that have tested and are using digital signage in their stores.

Tesco developed their own private branded network, Tesco TV, in 2004 with an initial test at 100 stores (Weeks, 2004). "The TVs feature ads, health and beauty tips, recipe ideas, news and public service announcements" (Weeks, 2004, n.p.). Within one month Tesco reported seeing a 10% increase in sales for 62 of the brands that had been featured on Tesco TV (Weeks, 2004).

Spar has approximately 2,700 convenience stores; working with IQ Group and Point of Purchase Advertising

International Digital, they tested six stores for six months using eye-level digital signage and display screens thoughout the store (Weeks, 2004). Spar reported an average sales increase of 10% for brands that were featured on the screens, a 25% increase in price promotions, and most interestingly "advertised items sustained an average 15% post-promotion increase" (Weeks, 2004, n.p.).

Since 1996, Wal-Mart has been airing Wal-Mart TV to its customers at both standard stores and supercenters--with content that is specific to either a standard store or a supercenter. In partnership with Premier Retail Networks, Wal-Mart gives their customers information on available products, cross-merchandise promotion, general lifestyle tips through satellite broadcasts that Premier Retail Networks creates and transmits to servers in each store (Weeks, 2004). Eight to twelve monitors are positioned throughout each store, each monitor displays the same programming, allowing a consistent message to be delivered to Wal-Mart's customers the entire duration of their shopping experience (Weeks, 2004).

United Supermarkets partnered with Epson and Sweda to launch a "six-month, multi-vendor pilot of digital marketing screens at one of its Market Street locations in

Colleyville, Texas (Weeks, 2004). Four projection screens were installed around the store, two screens as large as 16 feet by nine feet, displaying both still and video content with a goal of emphasizing private label product promotions (Weeks, 2004). Since the pilot, United is working with Epson to integrate sound and projection units that can project images onto glass, turning store fronts into interactive signs (Weeks, 2004).

From the information presented it is clear that there are opportunities for the use of digital signage and interactive kiosks in grocery stores and supermarkets. While more chains, like Ralphs, have adopted digital signage and private branded networks, there are still many chains, independent retailers, and specialty stores that have not. Parametric Media will make it a point to contact those chains to gain entry into the market.

# CHAPTER FIVE

## IMPLICATIONS FOR PARAMETRIC MEDIA

Through conducting a comprehensive literature review spanning the digital signage industry, its history as well as statistics and trends, and the grocery industry, a few common denominators have emerged: the quick development of technology in the digital signage industry, the development of the digital signage industry as a stand-alone industry, the use of new media for businesses, specifically grocery stores and supermarkets, and the importance of the concept of mass customization. The development and evolution of the digital signage and interactive media industry has moved at an extremely fast pace, and shows promising indications of continuing growth. As technology continues to develop, digital signage components and systems will become smarter, faster, and less expensive. Companies and corporations of all sizes are finding the advantages to the deployment of digital signage systems in real-world situations. The expansion of digital signage has lead to the creation of an industry that did not exist a decade ago. Large media companies such as Clear Channel and Hughes Worldwide are beginning to take a more aggressive approach to integrating digital signage in their arsenal of advertising media. Small companies, such as Parametric Media, specializing in digital signage are creating competition for the larger corporations, especially among smaller businesses who may not be able to afford the services of a large media conglomerate and larger businesses that tend to think out-of the-box and want smaller agency-type businesses backing their marketing efforts.

Being a relatively small company with a very small budget allocated to marketing, Parametric Media will focus on utilizing new media as well as a targeted approach to a niche market, grocery stores, in its strategic marketing plan. A common denominator found throughout the research, and subsequently the literature review, is the use of new media such as the Internet--specifically the creation of a web site--the use of direct mail programs, and the use of the concept of mass customization via the web to drive interest and generate leads for an emerging, small, technology business. The marketing plan for Parametric Media addresses the use of new media, specifically the Internet, the use of a web site, direct mail, and the mass customization concept.

It is still not clear how large the digital signage industry truly is. There are core digital signage businesses along with businesses that offer digital signage services in addition to their other interactive media, making it vague to determine as to how many businesses are dedicated to the digital signage industry. It is also uncertain how much revenue has been generated, within the last two years, by digital signage businesses, the correlation of the number of businesses to the dollars of revenue generated, and the comparison of the percentage of revenue generated by the percentage of top revenue generating companies. However, it is still entirely possible to create a strategic marketing plan with comprehensive industry overviews and competitive analyses utilizing the current information available, projections of the industry trends, and examining the competition and choosing a few key companies representative of the competition.

# APPENDIX A

# STRATEGIC MARKET ANALYSIS

Section 1. Overview and Timeline

The multi billion-dollar digital signage industry is home to numerous companies and industries: retail, hospitality, grocery, financial, government and entertainment, to name a few. While digital signage, as it is currently known, is a relatively new industry, it has been present and used in various forms for many years. Over the past decade, digital signage companies dramatically evolved. The rapid changes and advances in technology and the improvements made to current software programs contributed significantly to the rapid development of the types of displays available, the quality and availability of displays and kiosks, the availability of customization, and a broader range of features and benefits.

At the forefront of the digital signage industry is dynamic or programmable digital signage. Dynamic digital signage (DDS) is a digital sign that can be programmed, through the use of specialized software programs and small on-board computers, to display interactive content, photography, web-based graphics, digital video, and traditional advertising[1]. Dynamic digital signage has been most often used as a means of integrating video into the retail setting[2]. Dynamic digital signage typically allows high-resolution digital images to be transmitted to plasma screens, LCD (liquid crystal display) panels, large-screen LED (light-emitting diode) displays or by the use of projection on to a smooth surface[3]. Dynamic digital signage is a unique concept that can be combined with web content, making it possible to change the messaging on the digital sign almost instantly.

The digital signage industry is a part of the audiovisual industry; however, there are many other industries that it can be considered to be a part of, such as the display industry, out-of-home advertising, closed-loop marketing and narrowcasting. This strategic market analysis will focus on the digital signage industry in general, making specific industry information difficult to identify, as the industry is still very new, broad and not specifically defined.

Section 2. Consumer Analysis

**A. Segments**

| Segments | Comments |
|---|---|
| Advertising | Over $90 billion industry in 2002[4]. Advertising drives American consumerism. |
| Arts, Performing and Cultural | Large and small performance venues and outdoor amphitheaters – Hollywood Bowl, Radio City Music Hall, San Francisco Opera Center, etc. span the nation. |
| Corporations | Drives generation of revenue and business development. They are also facilitators of meetings and conferences. |
| Educational | As of 2003, there were 1,746 Universities and colleges in the United States[5] and 1,166 community colleges[6]. There are 1,261 community college web sites plus an additional 173 related resource sites pertaining to community colleges in the United States, Canada and around the globe[6]. |
| Electronics | A large contributor to the advancement of technology. With 1,697[4] electronics companies, not including computer equipment companies, worldwide, as of 2002. |
| Entertainment | One of the largest segments[7], entertainment spans from movie premiers and awards shows to casinos and music tours. |
| Financial | A $4 billion industry in 2002[4]; banks, investment companies, real estate, insurance and other financial institutions comprise a constantly changing structure—constantly evolving, needing better ways to ensure they effectively communicate with their customers. |
| Grocers | As of 2003, comprised 3% of all corporations and partnerships in the nation[4]. An industry that can highly benefit from DDS—with the provision of instant demographic info as well as consumer targeted marketing and advertising at the point-of-purchase level. |

| | |
|---|---|
| Hospitality | This continually growing industry is home to hotels, travel agencies, cruises, spas—businesses that require streamlined and efficient technology. |
| Real Estate | Includes large-scale retailers such as malls and outdoor lifestyle centers, office buildings, residential and all other commercial. Worth an estimated $244 billion as of 2002[4]. |
| Restaurants | Food and beverage services amassed $331.8 billion in 2002[4]. Growing economies produced more restaurants, bars, pubs, lounges, coffee houses, etc than in previous years. The food services and accommodation industries totaled over $5 billion in revenue in 2002[4]. |
| Retailers, Large Scale | This includes malls, lifestyle centers, strip-malls, big-box retailers and anchors. Large areas that contain multiple retailers or large stores that act as "anchors" and big-box centers (Nordstrom, CostPlus, Old Navy, Macy's, etc.) that encourage heavy foot-traffic and mass consumerism. |
| Retailers, Small Scale | This includes nation-wide chain retailers as well as local, region specific "mom and pop" retailers. These retailers can act under an umbrella as part of a mall or lifestyle center or can remain wholly independent. |
| Sports Facilities | Most medium to large metro areas have at least one sports facility for major or minor league sporting events. Many make use of large screens. As growth is experienced and teams change home cities; sporting facilities will continue to develop and/or be remodeled. |
| Transportation | This industry which includes air, rail, water, truck, transit and ground passenger, pipeline and all other forms of transportation and its support activities is a $598.2 billion industry as of 2002[4]. Transportation also extends to airports, train stations, bus stations, bus shelters, taxicabs, subways and monorails. |

**B. Consumer/Client Motivations**

Many of the business segments profiled, at some level, share common general business motivations—generate and increase revenue, support primary medium (TV) awareness preference, ensure customer satisfaction and maintain efficiency and effectiveness in media mix expenditures to ensure the success of the business. Although there are any number of reasons that may motivate a business to deploy a digital signage and/or interactive kiosk system, based upon industry experience, there is a common factor amongst them that stands out: Businesses want to communicate more with their stakeholders (whether customers, employees, the board of the company, etc.). All of the segments profiled also share the challenges of introducing new products and services to their customers, finding new uses for current products and services, and creating brand loyalty.

**C. Unmet Needs Concerning Clients**

- Integrated branding efforts that highlight products and services, while generating revenue
- Measurable feedback by consumers
- Improved methods of obtaining accurate demographic information about consumers
- A more comprehensive manner to disseminate information or provide services to consumers
- Provide further reach and scope of products and services to consumers

Section 3. Competitor Analysis

**A. Competitor Identification**

The availability of competitor information is distinctly lacking and difficult to obtain for the digital signage and interactive kiosk areas of the audiovisual industry. Parametric Media (PM) offers a unique blend of products and services that make it difficult to identify "direct" competitors. The products and services that are offered to Parametric Media's customers are available for complete system customization. PM integrates digital signs and kiosks with digital media, interactive content, systems integration, video and web production, and private branded networks.

Based upon both 1) research conducted on the digital signage industry and 2) the opinion of peers in the industry, most companies that are in the business of audiovisual components focus on one or two similar components. For example, a business may choose to focus solely on the development of interactive content software, or may act solely as the supplier of monitors and televisions to home theater companies, or may offer a complete product lineup of kiosks. Other companies choose to focus on the needs of one or two specific markets, such as health care, education, or places of worship. Furthermore, the majority of the companies that form the digital signage industry are small to medium sized companies, with very limited company-specific information.

The two most direct competitors for Parametric Media are Ambassador Enterprises Inc. and NOW Micro—specifically, it is the types of companies these two companies represent that make them the strongest competitors.

**B. Strategic Groups**

| Strategic Groups | Major Competitors |
|---|---|
| Medium-sized, moderately diversified, highly-focused producers | Ambassador Enterprises Inc. |
| Small to medium-sized, moderately to significantly diversified, highly-focused niche producers | NOW Micro<br>Parametric Media |

## C. Strategic Groups Comparison Table

| Strategic Group | Characteristics/Strategies | Strengths | Weaknesses |
| --- | --- | --- | --- |
| Ambassador Enterprises | • Primary target markets are education and houses of worship, secondary target market is healthcare<br>• Moderate services (product) scope and depth<br>• Services tend to focus on specific areas – A/V, lighting, and target market specific technologies | • Highly focused services<br>• Medium-sized financial infrastructure<br>• Local to Virginia | • Not consistently branded<br>• While the clients they list are mostly education and houses of worship, the list the following as the markets they serve: education, houses of worship, performing and cultural arts, healthcare, judicial and legislative, sports facilities, transportation, hospitality and entertainment, residential, correction, fire and security, data services, boardroom and training, maintenance and service |

| | | | |
|---|---|---|---|
| NOW Micro | • Target markets are businesses, education, government, and resellers<br>• Services: digital signage and security/surveillance<br>• Products: desktops, workstations, Intel servers, storage, notebooks, and thin clients<br>• Focused within smaller niche markets<br>• Custom technology hardware design, fulfillment, and support programs<br>• Stronger focus on IT | • Leaders in their niche markets<br>• Personalized, detail oriented<br>• Less overhead<br>• Direct relationships with manufacturers<br>• Local to Minnesota | • Presence not as strong in industry<br>• Smaller financial infrastructure |

Section 4. Market Analysis

**A. Market Identification**

There are thousands of companies that comprise the digital signage, kiosk, display, systems integration, and interactive content subsets of the audiovisual industry. The exact number of companies is unknown; however, their products and services, especially in areas that cross industries, all contribute to the burgeoning billion-dollar digital signage industry.

Actual and Projected Market Size and Growth Table[8]
(in $ billions)

| | 2005 $B | 2006 $B | 2007 $B | 2008 $B | 2009 $B | Nine-Month 2010 $B | Change from 2005 (%) |
|---|---|---|---|---|---|---|---|
| Industry, Actual & Projected | 10.9 | 11.4 | 11.9 | 12.4 | 12.9 | 13 | 3.6% |

**B. Market Growth**

The most current numbers available are projections based upon 2006 actual and growth projections. As of 2006, a rapid decline of the cost of display units was expected to occur over a four-year time period[8]. However, the digital signage and professional display market is projected to grow to $13 billion by 2010, a 3.6% compound annual growth rate from $10.9 billion in 2005[8].

Factors Affecting Sales Levels

- The economy and growth of businesses
- Current strategies and development of technology by digital signage companies
- Innovative methods to create integration of programs and operations related to digital signage products and services for clients
- Creating a more service-minded focus rather than a product-oriented focus for clients and their customers

**C. Market Profitability Analysis**

Barriers to Entry

- Rapidly changing technology—this does not always allow for ample amounts of time to test product viability and sustainability
- Product differentiation
- Access to distribution channels nationally and globally
- Globalization
- Supply chain
- Environmental concerns—the "greening" of society for specific product types (plasmas are less energy efficient than LCD screens)
- Tight credit market and recession

Potential Entrants

New entrants into the industry view the market as attractive as they foster their interest to build market share. The digital signage/digital display industry is worth approximately $12.4 billion; capturing even 2% of the industry indicates large success with potential revenues exceeding $24 million.

Barriers of entry may also be seen as areas of opportunity for new entrants. Many of these areas of difficulty are shared industry-wide by companies that share similar company, product and service profiles.

- Rapidly developing technology can translate into the availability of more effective and efficient display units—which can also aide in differentiation of product scope and availability.
- Becoming a player on a global level is an enormous opportunity to increase the efficiency of the supply chain and distribution channel.
- Environmental changes can also be seen as an opportunity, not just as a barrier. There are many digital signage products that are plasma-equivalent that can be positioned as being energy efficient.

Threat of Substitutes/Imitators

Due to the boom within the digital signage and display industry in recent years, many imitators have emerged. Running both simple and complex searches at various industry-specific and general search engines produces results in the thousands. This makes the number of imitators unidentifiable at this time.

Substitutes and imitators will offer products and services individually, but not necessarily in the same combination as PM. There are very few companies that offer the same combination of products and services as PM.

Based upon PM's previous industry experience, substitutes and imitators are necessary to keep the industry dynamic and vibrant. Substitutes and imitators force those that have been involved within the industry to constantly evaluate their products, services, methods of communication, strategy, etc.

Power of Suppliers

Suppliers have medium to maximum impact on the profitability of the market, as raw materials are not readily available. The cost to purchase is less than the cost to build for entry-level businesses. Supply businesses have been supplying display units and kiosks for years—it's only with the new application of the display units as digital signage that supply and demand impact has been felt.

Many major suppliers are familiar, name-brand producers of LED, LCD, and plasma display units. For example, NEC, Sony, Panasonic, and Samsung.

Power of Buyers

Although buyers can affect the market and industry by seeking price reductions, demanding higher quality, and better service, their power lies mainly in driving the demand of the industry. However, as their customers demand more personalized products, communication and marketing messages, and as the need for better point-of-purchase materials arises and as the necessity to reach their customers in more direct ways increases, the power of the buyer is diminished as more successfully meeting their customers needs becomes paramount to the success of their companies.

Buyers include the following consumer groups:

- Performing and cultural arts, corporations, educational institutions, entertainment venues, the financial sector, grocers, the hospitality industry, real estate, large-scale retailers, small-scale retailers, security companies, sports facilities, hospitals, and transportation groups.

**D. Cost Structures**

The many stages of product and service development and production take into account technology research and development, raw materials, content development and production, hardware and software testing and development, physical distribution and promotion.

Costs are determined by a product's or service's benefits including its functions, such as display size, type and quality, and the ease with which content can be integrated into existing and new systems. Variation in costs to consumers is dependent upon the amount of customization a customer may want from their system as well as the type of technology that is used and the content that is created.

Large, diversified businesses have low costs because of economies of scale in advertising, manufacturing, promotion, and distribution. Smaller companies, such as Parametric Media, must employ cost containment priorities to keep down costs and the effects on revenue.

Costs to consumers are affected dramatically by the development of technology, the economy, globalization, a company's commitment to research and development as well as marketing budgets, to name a few.

- "... a company indicates its commitment to a specific technology though the dollar amount it had budgeted for research, development and marketing. High R&D dollars indicate a company is committed to growth, high marketing dollars indicate the company has hot, new products"[9].
- "As hardware improves and the technology matures, display manufacturing costs will decline from their presently high levels, leading to steep price declines across the board for flat-panel display (FPD) manufacturers"[8].

In addition to technology and investing in research and development and marketing, aggressive competitors and large businesses can have a great effect on costs.

**E. Distribution Systems for Dynamic Digital Signage**

Major Channels

- Digital signage businesses
- Audiovisual businesses
- Sign manufacturers and distributors
- Internet
- Mail order
- Sales force

**F. Market Trends and Development**

Digital technology, as a field, is expanding exponentially. Two of the key areas that digital technology, digital signage, and interactive media are expanding into are the media and web industries. The media industry, at times, includes the leisure, entertainment, graphics, audiovisual and, more broadly, cultural industries[10]. It can also include in-store/retail media—based on industry buzz this appears to be a large emerging market segment for digital signage.

According to a 2005 study conducted by Arbitron, *The Arbitron Retail Media Study – Volume II: Consumer Interest and Acceptance of Video Displays in Retail Environments*[11] offers the most comprehensive statistical data available about digital signage and consumer behavior. Although the majority of the statistical information applies to digital signage in a retail setting, the information can still be applied across industries. Some of the study's key points as summarized by Arbitron:

- One-third of Americans have watched in-store video. Thirty-three percent of consumers recall seeing video screens in a store—not counting sets for sale in the television department.

- One in 10 shoppers makes a habit out of watching retail video. Ten percent of consumers who have seen video screens in a store say they either always or frequently stop to watch. Another 32% sometimes stop to view video screens they pass in a store.
- Most video programming viewed featured products sold in the store. Eighty-one percent of shoppers who have seen retail video say the programming focused on merchandise available in the store. Almost half (47%) recall learning about specials or sales from the video displays.
- Over half of retail video viewers think more stores should install displays. Fifty-two percent of the consumers who have watched in-store video feel that more stores should run video programming.
- More than three-quarters of retail video viewers find the screens helpful. Sixteen percent of the consumers who have seen video in a store feel the displays that feature product or sale information are very helpful, and another 62% find them somewhat helpful.
- Close to 30% of retail video viewers have made an unplanned purchase. Twenty-nine percent of the consumers who have seen video in a store say they bought a product they were not planning on buying after seeing the product featured on the in-store video display.
- If given a choice, 42% of retail video viewers would prefer to shop in a store that has video displays. Over 40% of consumers who have seen video in a store say that in the future they would choose to shop in a store with video screens versus one without.
- Consumers are most insterested in video that focuses on store sales, product information, and special events. Eighty-one percent of all consumers, regardless whether they have already experienced in-store video, are most interested in seeing video programming for the store they are in—including sales and specials (81%), product information (72%) and special events (68%).

- Young adults are interested in watching music videos while they shop. Seventy-two percent of consumers age 18-34 are interested in watching music videos on video screens in the stores where they shop.
- Almost half of male shoppers are interested in sports news and scores. Forty-six percent of men are interested in getting sports updates from video screens while shopping.

According to research conducted by iSuppli[8], trends will develop in the following areas:

- Indoor venues consisting of restaurants, museums, hotels, casinos, movie theaters, auditoriums, trade shows, and banks[8]. iSuppli forecasts indoor venue revenue to reach $4 billion by 2010[8].

- Installations across the hospitality display market. The hospitality industry may displace the conference room market from the top spot in the indoor venue segment[8].

- Increased installations at lodging, retail, and recreation facilities[8].
- Education segment, specifically among the audio/video departments of K-12 schools and colleges[8]. Education, within digital signage, is forecast to reach $3.3 billion by 2010, up from US$2.1 billion in 2006[8].

**G. Key Success Factors**

- Building brand recognition
- Growth through key products and services
- National market share
- National distribution channels
- Breadth and scope of communication reach, effectively using the Internet and other forms of media

## Section 4. Environmental Factors

### A. Trends

| Source | Description | Strategic Implementation | Importance |
|---|---|---|---|
| Technological | Keeping up with the latest technological advancements—what works, what doesn't, what's effective, best practice solutions. | Apply technology to multiple, specialized segments that target specific areas of the market | Med-High |
| Economic | The current downturn in the economy may present an opportunity for PM as a comparatively less expensive alternative to traditional advertising. Unfortunately, the credit crunch makes it harder to get credit. | Implement cost effective ways to streamline productivity and efficiency. Goal is to successfully maximize revenue. | High |
| Cultural | • Pop culture<br>• Instant gratification: increasing trend toward personalization, customization, and on-demand products, services, and information | Address the needs of the growing generations of on-demand consumers. | Low-Med |
| Demographic | As the economy changes, the demographics of the industry, target markets, and potential customers change. Need to be adaptable and flexible to demographic changes. | Focus on niche areas of the market to provide more precise services to consumers | Med-High |

## Section 5. Internal Analysis

Parametric Media

### A. Company Overview

Parametric Media (PM) is a digital signage and interactive kiosk and content company providing focused services to the grocery industry in the Pacific Northwest and Northeastern regions of the United States. PM specializes in two areas: dynamic digital signage and interactive kiosks; however, the company also offers supporting services through interactive content creation, systems integration, audio and visual production, private branded networks, and Web content creation.

PM's employees have over 50 years of experience, allowing PM to deliver high quality customer service in addition to its product offering. PM gets its edge from working with clients to deliver a completely customized digital signage and/or interactive kiosk system. The company's knowledgeable staff has the ability to quickly assess client's needs and present a customized package unique to the client's needs, goals, and budget.

The goal, and part of the challenge, is for PM to break even and gain market share within its first two years of business. It will do this through the experience it brings to each project, the quality of products and services, customization, creative and effective solutions, and excellence in customer service as well as through aggressive promotional activities.

**B. Situation Analysis**

PM has been operating in "skeleton mode" for nearly four years, with its employees living in different states devoting available time to the venture. Marketing activities over the next two years are critical to move the business from part-time to a thriving full-time, fully functional company.

Mission Statement

To provide clients with the tools they need to create dynamic purchasing experiences for their customers. We strive for excellence in customer service and quality in the products and services we offer.

The Market

Grocery stores evolved from public markets and general stores to self-service stores, chains, supermarkets, warehouse clubs, independent and specialty retailers, and supercenters. As the economy fluctuates, food remains a constant necessity; therefore, grocery stores are sensitive to merchandise pricing, operational costs, and the cost of marketing and promoting their products and stores[12].

According to Hoovers, "the 50 largest companies hold about 70 percent of the market" [13]. In 2007, supermarkets made $535 billion in sales, independent grocery stores made $29 billion in sales, and convenience stores, small grocers, wholesale clubs and military convenience stores made a total of $456 billion in sales[12].

Market Stats.

- There are 34,967 supermarkets, 6,330 independent grocery stores, 145,872 convenience stores, 13,652 small grocers (made under $2 million), 1,152 wholesale club stores, and 422 military convenience stores.
- Market leaders are: Kroger, Supervalu, Safeway, Ahold, Wal-Mart, and Costco[13, 14].
- The average supermarket made $15.31 million in 2007[12], was 33,300 square-feet in size, had 9.3 check-outs and 72 equivalent full-time employees.
- Fifty percent of revenue comes from perishable foods (meats, poultry, produce dairy, frozen food being the largest sellers), 30% from non-perishable food and 20% from non-food items[13].
- Space may be very limited, forcing grocers to look for more creative ways to layout their stores, arrange products, and market their products[13].
- Grocers rated the following merchandising/marketing strategies as most important[12]:
    - 1st (77.8%): A continues emphasis on fresh foods
    - 2nd (60.1%): Private label items
    - 3rd (53.3%): Ready-to-eat meals

- 4th (50.3%): Natural foods/organics
- 5th (47.9%): National brands
- 8th (43.5%): New technology
- 12th (16%): Digital media

- Thirty-two percent of grocers will be investing in price/promotion optimization technology[12].

Market Needs

- Low-cost advertising alternative (replacement for other media in grocers' marketing mix)
- Raise point-of-sale and impulse purchases
- Alternative revenue generation through ads (positive impact on the bottom line)

Market Growth

Actual Supermarket Sales (in $ millions) [12, 15, 16, 17]

| 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|
| 457.4 | 478.9 | 499.5 | 535.5 |

Actual and Projected Sign and Display Market Size and Growth[8]

(in $ billions)

| | 2005 | 2006 | 2007 | 2008 | 2009 | Nine-Month 2010 | Change from 2005 (%) |
|---|---|---|---|---|---|---|---|
| Industry, Actual & Projected | 10.9 | 11.4 | 11.9 | 12.4 | 12.9 | 13 | 3.6% |

Market Trends

- Private label goods[12]
- "Greening" of supermarkets[12]

- Lifestyle concept stores and store redesigns to account for intuitive shopping[14]
- Smaller stores focusing on fresh, high quality, convenient food[11]
- Healthier options[14]
- Ready-to-eat meals[14]
- Ethnic food[14]
- Specialty food[14]
- Organics[14]

Current Areas of Research

- Highest quality digital media available on the market
- Clearer and larger screens than what is considered to be the industry standard
- Kiosks with ease of operation
- Improved fail-safe networks over current industry standards
- Improved speed of on-location responses over current industry standards

Current Products and Services

- Digital sign network
    - Large and small screens
    - Customizable screens
- Remote content creation and management
- Interactive kiosk systems
    - Streamlined, easy-to-use kiosks
    - Customizable kiosks
- Private branded networks, for example: Wal-Mart TV, Sonic Radio
- Real-time statistical reporting
- Fail-safe networks
- Hardware upgrade program

In Parametric Media's Pipeline

The development of an advertising sales department to work in conjunction with or for clients that use paid advertising to generate revenue on their digital signs or kiosk systems.

**C. Parametric Media SWOT Analysis**

Strengths

- Over 50 years of combined experience
- Access to technology
- Small company runs "lean and mean"
- Low overhead
- Network of industry professionals
- Strategic partnerships

Weaknesses

- Limited R&D budget, supply chain access and distribution networks
- Small budget for marketing, public relations, and advertising; accessibility to global projects
- Minimal capital
- PM is currently a part-time endeavor for its employees

Threats

- Competitors
- The economy
- Credit crunch

Opportunities

- Chain supermarkets
- Independent retailer grocers
- Specialty grocers

- Future growth and expansion into new industries

### D. Financial Forecast[18]

Key Numbers in Parametric Media's Finances – Parametric Media Costs

**Purchase Items**

| Quantity | Description | Cost | Total |
|---|---|---|---|
| 5 | Plasma screen 50" | $3,000 | $15,000 |
| 5 | Plasma mounts | $250 | $1,250 |
| 1 | 30" Secure rack mount unit | $250 | $250 |
| 1 | DSL kit | $250 | $250 |
| 1 | Router | $150 | $150 |
| 5 | Desktop PC's | $1,000 | $5,000 |
| 1 | Control unit | $1,000 | $1,000 |
| 1 | Mag reader | $500 | $500 |
| 1 | Thermal printer | $1,000 | $1,000 |
| 1 | Power and cabling | $1,500 | $1,500 |
| 5 | Cat 5 systems | $500 | $2,500 |
| 1 | Custom kiosk | $2,500 | $2,500 |
| 1 | Permit cost | $500 | $500 |
| 12 | DSL monthly | $100 | $1,200 |
| | Total | **$12,500** | **$32,600** |

**Labor Costs**

| Quantity | Description | Cost | Total |
|---|---|---|---|
| 1 | Web site creation and minimal upkeep | $5,000 | $5,000 |
| 1 | Content creation | $5,000 | $5,000 |
| 1 | Direct mail and sales kit | $5,000 | $5,000 |
| | Total | **$15,000** | **$15,000** |

Key Numbers in Parametric Media's Finances – Parametric Media Costs (cont.)

**Overhead Costs**

| Quantity | Description | Cost | Total |
|---|---|---|---|
| 1 | Office space | $2,500 | $2,500 |
| 1 | Phone system | $2,500 | $2,500 |
| 1 | Furniture | $2,500 | $2,500 |
| 1 | Utilities | $1,500 | $1,500 |
| 1 | Wireless phone system | $1,500 | $1,500 |
| 1 | T-1 | $1,000 | $1,000 |
| 10 | Office staff | $8,000 | $80,000 |
| 1 | Office computer | $1,500 | $1,500 |
| 1 | Laptop | $1,500 | $1,500 |
| 1 | Network | $3,000 | $3,000 |
| | Total | **$25,500** | **$97,500** |

**Sub-Totals of Costs**

| Sub-Totals | |
|---|---|
| Purchase | $32,600 |
| Labor | $15,000 |
| Overhead | $97,500 |
| | |
| Total | **$145,100** |

Key Numbers in Parametric Media's Finances – Parametric Media Products and Services

| Monthly Charges | Monthly |
|---|---|

Basic Package:
5 Plasma screens 50" 16x9 aspect ration HD ready
Control units
Installation
24-hour service
2-year product exchange upgrade
System marketing co-op service
Coupon kiosk with card reader and thermal printer
2-year contract

| | |
|---|---|
| Cost | **$10,000** |

| Options | Monthly |
|---|---|
| LCD projection | $1,500 |
| Live video insertion (ex: local news) | $250 |
| LED screen | Custom |

| Programming Services | Monthly |
|---|---|

Content creation
Includes 40 hours of video editing/digitizing
Includes basic animation creation
Includes weekly updates and integration of ad campaigns
Includes traffic reports of advertising logs
Client access to view logs

| | |
|---|---|
| Cost | **$5,000** |

Key Numbers Parametric Media's Finances – Parametric Media Products and Services (cont.)

| Advanced Services | Monthly |
|---|---|

Web integration of coupon kiosk
Web site, full navigation, and reports based on card reader information and polling

| | |
|---|---|
| Cost | **$2,500** |

| Example Package Sub-total | Monthly |
|---|---|
| Basic cost per location | $10,000 |
| 1 LCD projection display | $1,500 |
| 1 Live video insertion (ex: local news) | $250 |
| 1 Programming services | $5,000 |
| 1 Advanced kiosk services | $2,500 |
| Monthly total with 2-year contract | **$19,250** |

Key Numbers Parametric Media's Finances – Parametric Media Forecast

| Calculations for Key | |
|---|---|
| 10 Stores (packages) | $192,500 |
| Monthly overhead | $145,100 |
| Profit re-invested | **$47,400** |
| | |
| Monthly overhead | $145,100 |
| Profit re-invested | $47,400 |
| New monthly overhead | **$97,700** |
| | |
| Yearly overhead | **$1,172,400** |

| Key (for calculations listed in the tables below) | |
|---|---|
| 10 systems | $326,000 |
| Ex. Package Yearly Sub-total (basis for contract) | $231,000 |
| Yearly Overhead | $1,172,400 |

Key Numbers Parametric Media's Finances – Parametric Media Forecast (cont.)

| Yearly Cost | | |
|---|---|---|
| Purchase 10 systems | | $326,000 |
| Monthly Labor (contract) | | $180,000 |
| Overhead | | $1,172,400 |
| | Total annual cost | $1,678,400 |
| 10-store Annual Contract | | $2,310,000 |
| | Profit | $631,600 |

| Total Annual Cost with Purchase Items over 2 years<br>Yearly Cost | | |
|---|---|---|
| Purchase 10 systems | | $163,000 |
| Monthly Labor (contract) | | $180,000 |
| Overhead | | $1,172,400 |
| | Total annual cost | $1,515,400 |
| 10-store Annual Contract | | $2,310,000 |
| | Profit | $794,600 |

| 100-store Annual Contract<br>Yearly Cost | | |
|---|---|---|
| Purchase 100 systems | | $3,260,000 |
| Monthly Labor (contract) | | $180,000 |
| Overhead | | $1,172,400 |
| | Total annual cost | $4,612,400 |
| 10-store Annual Contract | | $23,100,000 |
| | Profit | $18,487,600 |

Key Numbers Parametric Media's Finances – Parametric Media Forecast (cont.)

| Total Annual Cost with Purchase Items over 2 years<br>100-store Annual Contract<br>Yearly Cost | | |
|---|---|---|
| Purchase 100 systems | | $1,630,000 |
| Monthly Labor (contract) | | $180,000 |
| Overhead | | $1,172,400 |
| | Total annual cost | $2,982,400 |
| 10-store Annual Contract | | $23,100,000 |
| | Profit | $20,117,600 |

**E. Past Strategies Used by Similar Companies**

- Niche marketing – finding a (or a few) specific industry(ies) in which to cultivate clientele
- Clients by company size (small business versus medium or large businesses)
- Specific, narrow product/service offering
- Business-to-business
- Event marketing
- Cold calls
- Direct mail
- Public relations
- Print advertising
- Trade association advertising (print newsletters, e-newsletters, web sites)
- Company web site

**F. Parametric Media Corporate Focus and Fit with Past Strategies**

Focus

- Build customer base, to ultimately gain market share in the Pacific Northwest and Northeastern regions
- Create a brand and build it within industry
- Create a positive company image with clients and within the industry
- Establish and communicate readiness to do business
- Utilize strategies that are measurable

Fit with past strategies

- Niche marketing: A good fit in. PM will focus on one main industry: groceries. After becoming experts in the marketplace, fine tuning our sales and deployment processes, and understanding clients' needs, PM can branch out to other industries.
- Clients by company size (small business versus medium or large businesses): A good fit to work in conjunction with the grocery niche. Although, PM would like to work with a variety of clients of varying size, the majority being *Fortune* 1,000 companies, starting with one main market segment will allow PM to gain and build a client list as well as experience growth with one industry, encouraging repeat customers and brand loyalty.
- Specific, narrow product/service offering: A good fit. We will offer completely customizable systems within the following product and service areas:
    - Flat panel monitors (digital signs)
    - Kiosks
    - Content software
    - Content creation
    - Private branded networks
- Business-to-business: This will be a good fit in trying to develop a customer list. This is a good first place to start in developing a customer contact list.
- Event (tradeshow) marketing: This will be a good fit in keeping apprised about what is going on in the industry as well as gaining potential new clients. Costs can be minimal and effectiveness can be measured.
- Personal selling: A good fit after a potential client list is developed.
- Direct marketing: A goof fit to help generate qualified leads.
- Direct mail: A good fit after a potential client list is developed. Highly measurable, although direct mail can get costly depending upon the type of piece mailed and the size of the mailing list.

- Public relations: A good fit. Public relations will open some no-cost avenues in helping to announce the company to the industry as well as developing perception, for instance sending press releases to trade publications.
- Print advertising: Not a good fit in the immediate future, as print advertising can be costly.
- Trade association advertising (print newsletters, e-newsletters, web sites): A good fit in specific trade association newsletters, e-newsletters and web sites. Actual use would be highly dependent upon cost. Advertising would also need to be leveraged with editorial and advertorial pieces.
- Company web site: A good fit. The web site, initially, will be more of a brochure site, mostly due to cost. As the company experiences growth, the site will be re-evaluated and interactive components will be added.
- Social marketing: A good fit. Word-of-mouth through the use of blogs and social networking sites will help establish PM as a trusted brand and begin to develop brand loyalty.

Considered strategies and tactics

- Niche marketing
- Clients by company size
- Specific, narrow product/service offering
- Business-to-business
- Event marketing
- Personal selling
- Direct marketing
- Direct mail
- Public relations
- Trade association advertising (print newsletters, e-newsletters, web sites)
- Company web site
- Company newsletter

- Social marketing: No-cost, low-cost web alternatives: Podcasts and blog forums
- Annual company meetings

**G. Strategic Uncertainties**

Strategic uncertainties that will effect PM the most are:

- The economy
- Access to capital and credit given the current state of the economy and the newness of the company
- Employee/staffing availability
- Client list and business growth

**H. Strategic Issues and Possible Actions**

- How can PM bolster itself from a declining economy and plan for growth and success in a flourishing economy?
    - Possible action: Monitor and evaluate the state of the company's financial resources while monitoring the general state of the economy as well as the specific state of the audiovisual industry. Adjust financial strategies as necessary, quarterly at a minimum, to ensure financial plans are properly on track.
- How can PM gain access to capital and additional funding sources?
    - Possible action: Build equity within the company by building a client list, maintaining a steady stream of projects, and invest profits back into the company.
    - Possible action: Seek a private investor(s), investment companies, venture capitalists, bank loans, or small business funding from the Small Business Association or other government entities.
- What can PM do to ensure that it has the staff required to run its daily operations (excluding project-based needs)?
    - Possible action: Make PM an employee-owned business, offering shares in the company as payments to employees.

- Possible action: Clearly define the roles and responsibilities of all of the individuals that are employed by the company.
- Possible action: Increase the number of projects and build revenue to transition part-time employees to full-time employees.
- Possible action: Include the salaries of employees in the amount requested for capital from funding sources.

- While there are many projects that have been completed by PM, how can we develop and continue to grow our client list to ensure a full-time and profitable business?
    - Possible action: Define our scope of business—what we do, what we offer, and to whom we wish to offer our products and services. Create a list of the top 500 companies with whom we would like to conduct business, research and analyze information about each company—yearly and quarterly revenues, if they already use products or services similar to ours, competing companies they work or have worked with, contact information for the appropriate decision maker(s) in the company, and any other available, relevant information. Narrow the list to the top 300 companies and start contacting them, work from the bottom of the list to the top.

**I. Strategic Summary and Overview**

While there are many goals and objectives Parametric Media can choose to achieve, growth is its primary focus and priority. To ensure Parametric Media grows in tandem with the digital signage industry it must:

- develop a digital signage and interactive kiosk company that has a positive perception with customers that emphasizes a positive customer service experience;
- emphasize customization as a cornerstone for success,
- deliver comprehensive products and services,
- define market segments, and

- create a list of current and potential clients.

In addition to company growth, Parametric Media also must focus on:

- Growth in market share
- Market expansion
- Product expansion
- Diversification

**J. Marketing and Financial Objectives**

- Objective One: Land 3 grocery chains that own over 10 stores each
- Objective Two: Break even within 2 years

**K. Strategies**

Short Term (within 2 years)

- Business growth and market share development
    - Develop a client list.
    - Develop marketing communication materials that will emphasize customization, create a positive perception, and define products and services using the following tactics:
        - Corporate web site
        - Sales kit
        - Direct marketing materials
    - Define appropriate market segments and niche markets.
    - Identify capital and funding sources.
    - Research cost and hire full-time staff.
    - Promote client referrals (word of mouth)
- Product focus and expertise
- Distribution channel accessibility

Long Term and Continuous Efforts (within 5 years and on-going)

- Evaluate the success of short term strategies

- Evaluate goals and objectives
- Update short term strategies and develop long term strategies reflective of the business goals and objectives
- Develop aggressive market expansion strategies and tactics
- Continue diversification and expansion of product and service offerings
- Improve accessibility to national and global distribution channels

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# APPENDIX B

# MARKETING PLAN

1.0 Marketing Plan

Parametric Media's primary marketing strategy will be a focused, niche approach. To achieve growth, PM will become an expert in providing digital signage, interactive kiosks, and interactive content solutions to the grocery industry in the Pacific Northwest and Northeastern regions.

**1.1 Mission Statement**

To provide clients with the tools they need to create dynamic purchasing experiences for their customers. We strive for excellence in customer service and quality in the products and services we offer.

**1.2 Positioning Statement**

Parametric Media provides customized digital signage and interactive kiosks and content support services to the grocery industry in the Pacific Northwest and Northeastern regions.

**1.3 Marketing Objectives**

- Obtain 3 grocery chains that own over 10 stores each in 2 years
- Break even financially within 2 years

**1.4 Target Market**

- Supermarket chains in the Pacific Northwest and Northeastern regions of the U.S. that have over 10 stores:
    - Albertsons – Boise, ID (Northwest)
        - Owned by: SUPERVALU and Albertsons LLC (a privately-owned company that licenses the brand from SUPERVALU)
        - Operates in: SUPERVALU – Washington, Oregon, Idaho, Montana, Wyoming, Nevada, California, and Utah. Albertsons LLC – Arizona, New Mexico, Colorado, Texas, Louisiana, Arkansas, and Florida.
        - Number of stores: 564 (SUPERVALU), exact number unknown for Albertsons LLC, but approximately 80
    - Fred Myer – Portland, OR (Northwest)

        - Owned by Kroger
        - Operates in: Alaska, Idaho, Oregon, Utah, and Washington
        - Number of stores: 128
    - Wegmans – Rochester, NY (Northeast)
        - Privately owned
        - Operates in: New Jersey, New York, Pennsylvania and Virginia
        - Number of stores: 20

## 2.0 Marketing Mix

### 2.1 Product

- Signage (presentation surfaces)
    - Standard definition screens for shelf or counter installation
        - 7" LCD Screen 4x3 Aspect Ratio (shelf unit)
        - 14" LCD Screen 4x3 Aspect Ratio (shelf or counter unit)
        - 21" LCD Screen 4x3 Aspect Ratio (counter top unit)
    - High definition units for mounting on walls or from ceiling
        - 30" LCD Screen 16x9 Aspect Ratio HD Ready
        - 40" LCD Screen 16x9 Aspect Ratio HD Ready
        - 50" Plasma Screen 16x9 Aspect Ratio HD Ready
        - 62" Plasma Screen 16x9 Aspect Ratio HD Ready
    - Window or flown screen projection systems
        - LCD Projector 2000 Ansi Lumens 3ft x 4 ft Screen
        - LCD Projector 4000 Ansi Lumens 6 ft x 8 ft Screen
- Zone control systems (sign and kiosk components)
    - Control system
    - Video control card
    - Digital video router unit
    - Digital video distribution system (single unit, multiple screens)
- User kiosks systems
    - Kiosk with LCD touch screen and logo
    - Kiosk with printer and barcode reader
    - Kiosk ADA compliant
- Production Services
    - Basic monthly subscription
    - Digital media management
    - Digital media creation and video digitization

   - Digital content creation and management
   - Interactive user interface with coupon creation system to be incorporated with client's systems and programs

**2.2 Pricing**

- PM's price points are competitive with similar businesses within the industry. This pricing will allow us to break even within two years if we lease 7 systems in two years.
- Signage (presentation surfaces, menu, monthly charges)
   - Standard definition screens for shelf or counter installation
      - 7" LCD Screen 4x3 Aspect Ratio (shelf unit): $100.00
      - 14" LCD Screen 4x3 Aspect Ratio (shelf or counter unit): $150.00
      - 21" LCD Screen 4x3 Aspect Ratio (counter top unit): $200.00
   - High definition units for mounting on walls or from ceiling
      - 30" LCD Screen 16x9 Aspect Ratio HD Ready: $500.00
      - 40" LCD Screen 16x9 Aspect Ratio HD Ready: $800.00
      - 50" Plasma Screen 16x9 Aspect Ratio HD Ready: $1,000.00
      - 62" Plasma Screen 16x9 Aspect Ratio HD Ready: $1,200.00
   - Window or flown screen projection systems
      - LCD Projector 2000 Ansi Lumens 3ft x 4 ft Screen: $600.00
      - LCD Projector 4000 Ansi Lumens 6 ft x 8 ft Screen: $800.00
- Zone control systems (menu, monthly charges)
   - Control system: $250.00
   - Video control card: $100.00
   - Digital video router unit: $250.00
   - Digital video distribution system (single unit, multiple screens): $250.00
- User kiosk systems (menu, monthly charges)
   - Kiosk with LCD touch screen and logo: $2,000.00
   - Kiosk with printer and barcode reader: $2,500.00
   - Kiosk ADA compliant: $2,500.00
- Production services (menu, charges as stated)
   - Basic monthly subscription per unit: $250.00
   - Digital media management per hour, 20-hour minimum: $50.00
   - Digital media creation and video digitization per hour, 4-hour minimum: $50.00
   - Digital content creation and management per hour, 4-hour minimum: $50.00
   - Interactive user interface with coupon creation system based on incorporation with client systems and programs per hour, minimum 50 hours per month: $85.00
- Basic package: $10,000 (add any of the menu options listed above for a customized package)
   - 5 Plasma screens 50" 16x9 aspect ration HD ready
   - Control units

- Installation
- 24-hour service
- 2-year product exchange upgrade
- Coupon kiosk with card reader and thermal printer
- 2-year contract

- Basic web integration package (for kiosks): $2,500 (add any of the menu options listed above for a customized package)
  - Web integration of coupon kiosk
  - Web site, full navigation, and reports based on kiosk card reader information and polling
- Basic production package: $5,000 (add any of the menu options listed above for a customized package)
  - Content creation
  - 40 hours of video editing/digitizing
  - Basic animation creation
  - Weekly updates and integration of ad campaigns
  - Traffic reports of advertising logs
  - Client access to view logs
- Discounts
  - 10% discount on all systems of 5 or more control units
  - Contract and long-term leasing discounts
  - Equipment turn-in and upgrade program (upgrade program allows clients to upgrade equipment every two years, and allows PM to offer pre-used equipment to smaller grocers to minimize amortization)

**2.3 Promotion**

- Development of a corporate web site that will allow prospective clients to contact the company
- Direct marketing using a call-to-action to get potential clients to contact PM
  - Sales kit will be mailed out and followed up by e-mail. A phone call will also be made to set an appointment.
  - Parametric Media eNewsletter – Create as an industry newsletter that current clients and potential clients can subscribe to via the PM web site
  - Web banners and ads at trade publications' and trade associations' web sites such as Supermarket News, Progressive Grocer, Food Marketing Institute, Supermarket Business, Digital Signage Today, AV Technology, Digital Signage Magazine, and Sign Industry, Northwest Grocery Association, National Grocers Association,

National Association of Convenience Stores, Point of Purchase Advertising International (POPAI), Digital Signage Association, Signindustry.com, Digital Signage Forum, Digital Signage Spot, Talking Retail, and Just-Food.com

- Using personal selling to establish a relationship with prospective clients and give a system demonstration. The goal of the phone call and subsequent meetings is to get clients to "test drive" a smaller system in their stores.
- Public relations generates positive perception and introduces PM to both the digital sign/display and grocery industries
    - Send press kit to industry/trade publications such as Supermarket News, Progressive Grocer, Food Marketing Institute newsletters, Supermarket Business, Digital Signage Today, AV Technology, Digital Signage Magazine, and Sign Industry
    - Work with trade publications and local newspapers to get articles placed in publications (beyond advertorials). Examine editorial calendars for Supermarket News, Progressive Grocer, Food Marketing Institute newsletters, Supermarket Business, Digital Signage Today, AV Technology, and Digital Signage Magazine and pitch story ideas to editors. Use reprints for direct mail and events.
    - Contact trade associations such as Northwest Grocery Association, National Grocers Association, Food Marketing Institute, National Association of Convenience Stores, Point of Purchase Advertising International (POPAI), Progressive Grocer, and Digital Signage Association about upcoming events (seminars, workshops, conventions, trade shows, etc.) to engage PM employees as guest speakers. Become a member of POPAI's Digital Signage Standards committee.
    - Send press releases to Supermarket News, Progressive Grocer, Food Marketing Institute newsletters, Supermarket Business,

Digital Signage Today, AV Technology, Digital Signage Magazine, and Idaho Business Review (a local Idaho business publication) as important developments or news within the company occurs
  - Create case studies at the completion of a project and post to web site
- Search engine optimization ensures the web site is visible to prospective clients
- Social marketing through the use of blogs and social networking sites. Both digital signage and grocery industry association web sites have forums and blogs, such as Signindustry.com, Digital Signage Forum, Digital Signage Spot, Talking Retail, and Just-Food.com.

**2.4 Place**

For the time being, to mitigate costs, Parametric Media's offices are located out of two of its employee's homes: Pennsylvania (primary office) and Boise (secondary office). Logistically, Parametric Media will partner with a reliable logistics company (to be decided) to ensure safe transport and delivery of systems for any systems that require installation further than 250 miles away from an office.

3.0 Financial Forecast[8]

**3.1 Break Even Analysis**

Break-even point, units: 7
Break-even point, dollars: $66,769

Assumptions:
Average sales price per unit: $10,000
Average variable cost per unit: $250.00
Estimated fixed cost: $65,100

**3.2 Funding**

- Small business loans
- Small business grants
- Company credit cards

### 3.3 Operating Expenses

3.3.1 Purchase Items

| Quantity | Description | Cost | Total |
|---|---|---|---|
| 5 | Plasma screen 50" | $3,000 | $15,000 |
| 5 | Plasma mounts | $250 | $1,250 |
| 1 | 30" Secure rack mount unit | $250 | $250 |
| 1 | DSL kit | $250 | $250 |
| 1 | Router | $150 | $150 |
| 5 | Desktop PC's | $1,000 | $5,000 |
| 1 | Control unit | $1,000 | $1,000 |
| 1 | Mag reader | $500 | $500 |
| 1 | Thermal printer | $1,000 | $1,000 |
| 1 | Power and cabling | $1,500 | $1,500 |
| 5 | Cat 5 systems | $500 | $2,500 |
| 1 | Custom kiosk | $2,500 | $2,500 |
| 1 | Permit cost | $500 | $500 |
| 12 | DSL monthly | $100 | $1,200 |
| | Total | **$12,500** | **$32,600** |

3.3.2 Labor Costs

| Quantity | Description | Cost | Total |
|---|---|---|---|
| 1 | Web site creation and minimal upkeep | $5,000 | $5,000 |
| 1 | Content creation | $5,000 | $5,000 |
| 1 | Direct mail and sales kit | $5,000 | $5,000 |
| | Total | **$15,000** | **$15,000** |

3.3.3 Overhead Costs

| Quantity | Description | Cost | Total |
|---|---|---|---|
| 1 | Office space | $2,500 | $2,500 |
| 1 | Phone system | $2,500 | $2,500 |
| 1 | Furniture | $2,500 | $2,500 |
| 1 | Utilities | $1,500 | $1,500 |
| 1 | Wireless phone system | $1,500 | $1,500 |
| 1 | T-1 | $1,000 | $1,000 |
| 10 | Office staff | $8,000 | $80,000 |
| 1 | Office computer | $1,500 | $1,500 |
| 1 | Laptop | $1,500 | $1,500 |
| 1 | Network | $3,000 | $3,000 |
| | Total | **$25,500** | **$97,500** |

3.3.4 Sub-Totals of Costs

| Sub-Totals | |
|---|---|
| Purchase | $32,600 |
| Labor | $15,000 |
| Overhead | $97,500 |
| | |
| Total | **$145,100** |

**3.4 Sales Forecast**

3.4.1 Key for tables

| Calculations for Key | |
|---|---|
| 10 Stores (packages) | $192,500 |
| Monthly overhead | $145,100 |
| Profit re-invested | **$47,400** |
| | |
| Monthly overhead | $145,100 |
| Profit re-invested | $47,400 |
| New monthly overhead | **$97,700** |
| | |
| Yearly overhead | **$1,172,400** |

| Key (for calculations listed in the tables below) | |
|---|---|
| 10 systems | $326,000 |
| Ex. Package Yearly Sub-total (basis for contract) | $231,000 |
| Yearly Overhead | $1,172,400 |

3.4.2 10 systems, 10 stores, 1 year lease

| Yearly Cost | |
|---|---|
| Purchase 10 systems | $326,000 |
| Monthly Labor (contract) | $180,000 |
| Overhead | $1,172,400 |
| Total annual cost | $1,678,400 |
| 10-store Annual Contract | $2,310,000 |
| Profit | $631,600 |

3.4.3 10 systems, 10 stores, 2-year lease
(discount for 2-year contract)

| Total Annual Cost with Purchase Items over 2 years<br>Yearly Cost | |
|---|---|
| Purchase 10 systems | $163,000 |
| Monthly Labor (contract) | $180,000 |
| Overhead | $1,172,400 |
| Total annual cost | $1,515,400 |
| 10-store Annual Contract | $2,310,000 |
| Profit | $794,600 |

3.4.4 100 systems, 10 stores, 1 year lease
(or 100 stores if preference is to have 1 system instead of 10 in each store)

| 100-store Annual Contract<br>Yearly Cost | |
|---|---|
| Purchase 100 systems | $3,260,000 |
| Monthly Labor (contract) | $180,000 |
| Overhead | $1,172,400 |
| Total annual cost | $4,612,400 |
| 10-store Annual Contract | $23,100,000 |
| Profit | $18,487,600 |

### 3.4.5 100 systems, 10 stores, 2-year lease

(or 100 stores if preference is to have 1 system instead of 10 in each store)
(discount for 2-year contract)

| | |
|---|---|
| **Total Annual Cost with Purchase Items over 2 years** | |
| **100-store Annual Contract** | |
| **Yearly Cost** | |
| Purchase 100 systems | $1,630,000 |
| Monthly Labor (contract) | $180,000 |
| Overhead | $1,172,400 |
| Total annual cost | $2,982,400 |
| 10-store Annual Contract | $23,100,000 |
| Profit | $20,117,600 |

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