

# AN EARLY ASSESSMENT OF THE MARKET READINESS FOR PAY-PER VIEW VIDEO ON DEMAND TO THE HOME IN SOUTH AFRICA

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A research report submitted to the Gordon Institute of Business

Science, University of Pretoria, in partial fulfilment of the requirements

for the degree of Master of Business Administration.

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# **Abstract**



## **Declaration**

I declare that this research project is my own, unaided work. It is submitted in partial fulfilment of the requirements of the degree of Master of Business Administration for the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University.

Darren Ian Chertkow

November, 2002



# Acknowledgements



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# **Chapter 1: INTRODUCTION**

#### 1.1 Background to the research

The revolution in information technology (IT) and more specifically the exponential growth and development around the Internet and its surrounding technologies over the last ten years, has created a dynamic which is set to transform the way in which television and video services are delivered to consumers. This transformation will have far reaching effects on many established industries such as television broadcasters, the video rental industry, telecommunication providers, the movie production studios, Internet service providers and satellite service providers both locally and internationally.

Whilst these industries are embarking on a revolution, it is important to understand where consumer needs will fit in. Over the last decade, technology has enabled many industries to offer a vast array of new services and opportunities to the consumer using a variety of delivery mechanisms with the Internet being the most predominant.

During the mid 1990's the proliferation of online businesses, fuelled by the expectations of an unlimited global marketplace, resulted in demise of countless online business and the loss of billions of dollars around the globe.



The convergence of technologies has resulted in the creation of a number of delivery platforms to provide content creators with the opportunity to deliver their content to the consumer in an unprecedented manner. The issues that must now be faced are whether or not the consumer will embrace the products and services that are becoming readily available on an international scale.

From a South African perspective, South Africa has only just begun moving toward the realm of broadband data delivery. With the implementation of creative satellite data distribution platforms and the first roll-out of Asymmetric Digital Subscriber Line (ADSL) technologies, South African consumers will for the first time have access to broadband data delivery in their homes. Unlike the United States, Europe and the East, South Africa does not have a well-established cable infrastructure through which to supply enhanced services.

As a society, South Africans have become accustomed to this lack of broadband access and it is for this reason that that it is imperative to ascertain whether or not they will feel the need to adopt these new technologies and enhanced services.

One of the more lucrative services that can be offered to the consumer through broadband delivery is VoD (Video on Demand). VoD will in essence provide consumers with access to a range of available movie titles in the comfort of their own home.



Using VoD Technology a consumer will be able to select a title and watch it whenever they wish with full VCR (Video Cassette Recorder) functionality.

The list of available titles would ideally change on a regular basis. Customers

will essentially have access to a "video store" in the comfort of their own

home.

This research intends to determine the consumer's attitude towards the concept of a "Video on Demand service" in order to ascertain whether or not the South African consumer would be willing to adopt these new home entertainment technologies.

#### 1.2 Importance of the research

In an environment where technological changes are currently redefining the competitive landscape for many industries, organisations are being forced to creatively and flexibly adapt to the market changes that surround them in order to remain competitive.

The movie industry is renowned for its stayed approach to technology. Both locally and internationally, the home entertainment market is nearing saturation on its existing product offerings.

3



The only way for it to expand is through the introduction of new products or delivery mechanisms. Video on demand is acknowledged by the industry to be potentially the greatest "killer app" that the industry has seen since the invention of the VCR.

The concept of VoD and its surrounding technologies in a strictly controlled environment is well established but suffers from scalability issues for large scale deployment from a cost perspective. As such VoD has not had a chance to achieve any levels of success on an international scale. Whilst the theory behind VoD creates an entirely new and innovative distribution model creating access to impulse purchases, the verdict is not out.

The purpose of this research is to establish whether South African consumers will be willing to adopt this technology or whether it is merely another misguided application with no real potential market.

## 1.3 Research Objectives

The research objectives of this report are to perform an early assessment of the market demand for Video On Demand technologies to the consumer as well as whether or not the South African consumer would be willing to adopt such a technology.



# Chapter 2: LITERATURE REVIEW

#### 2.1 Overview

This chapter reviews a range of existing literature that is pertinent to the research. It includes a summary of the background issues that relate to the topic, which include an analysis of both the economy and industries from a consumer perspective, an outline of the existing video rental market both locally and internationally, an outline of the different technologies that are the potential cause of the discontinuities faced by the industry, In addition, the chapter will look at technology adoption patterns over time as well as an overview of the different potential delivery alternatives which will be needed to enable the "creative destruction" that will be required within the industry to regain its growth in the future.

## 2.2 Background to the Topic

## 2.2.1 Changing Economies

The global economy is currently undergoing an economic evolution. Aldrich (1999,P40) defines an economy as " A systematic way of describing how goods and services are exchanged among members of a given community." He goes on to explain that whilst the concept of an economy has remained the same throughout time, its focus and mechanisms have evolved.



Prior to the industrial revolution, the world's economies were based on agriculture and centred around producing, exchanging and consuming goods that were derived from working with the natural world. The main components of this economy were land and labour and as such they determined success and failure of different communities. In this environment, capital and technology enabled improvements for example the invention of the train, the thresher, the plough and steamboat, but these innovations were by no means core to the success of agricultural communities. People were able to exist on minimal money or technology but without land and labour, survival was not possible.

The industrial revolution, brought technology a little more into focus. Whilst a number of new technologies were invented, for example, electricity and the telephone, they were by no means the primary economic drivers of the time. Because this period was based on mass production, the key drivers were capital and labour once again.

In this new Digital economy, information has become the driver of wealth and Information Technology very often the key to success. Aldrich (1999) reminds us that with this evolution, the consumer has also evolved. In the Industrial economy, the consumer had very little direct power over what was offered.

Digital Economy

Service Economy

Agricultural Economy

1700

1800

1900

2000

Figure 1 Aldrich Evolution of the Digital Economy

Taken from: Aldrich, D. (1999, p7).

Whilst they could choose where to spend their money, they had little knowledge about real product differentiation. Manufacturers could create, and the consumer could only buy or not buy. A perfect example of this was the Model T Ford. At its launch, Henry ford announced that the consumer could buy any colour as long it was black.

In the Digital Economy, consumers have access to information, which leads to an incredible power of choice. Many a business has died a painful death as a result of attempting to force unwanted products onto the consumer. Consumer demand has become the key to the success of any consumer-oriented business.



#### 2.2.2 Impact of Technology

Winston Churchill once remarked "To Improve is to change; to be perfect is to change often." Never before have we lived in an era of such turbulent change. The pace of technological advancement since the beginning of modern science some 500 years ago has been absolutely incredible. What is even more breathtaking is the rate at which it has been accelerating.

Business Week's 100 years of Innovation (Business Week, 2000) points out that during the last century, man has not only invented plastic, radar and the silicon chip but also, mankind has split the atom, spliced genes and cloned sheep; built aeroplanes, satellites, televisions and computers. Technology therefore is important, because it affects every human being.

Maddox (1999, pi 25) adds that, "the pace of discovery is sure to be even faster [in the 21st century] than it is today and ethical dilemmas created by the exploitation of new knowledge even more daunting". Whilst the proliferation of new technology is overwhelming for many, it can also be very positive. Gates (1999b, p34) succinctly expresses this view as follows, "We have to understand that engineering breakthroughs are not just mechanical or scientific - they are liberating forces that can continually improve people's lives".



Toffler (1990, p85) observes that, "At rare moments in history the advance of knowledge has smashed through old barriers. The most important of these breakthroughs has been the invention of new tools for thinking and communication, like the ideogram ... the alphabet... the zero ... and in our century, the computer. Today we are living in one of those exclamation points in history when the entire structure of human knowledge is once again trembling with change as old barriers fall".

This communication revolution that we are currently experiencing in combination with the seamless convergence of related technologies, stem from the revolutionary invention of the transistor in 1947 (Moore, 1999), and the subsequent development of computer based technologies.

This prologue that we have seen in the past has set the pace for a future where technology plays a key role. Technology has become the greatest enabler of the last two decades.

#### 2.2.3 Evolution of industries

McGahan (2002, P1) notes that "A century long economic revolution is occurring on a global scale. Digitisation promises to create as profound an effect on industrial activity as the combustion engine in the mid nineteenth century."



She continues on to discuss that companies entrenched in even the oldest of industries require large-scale transformation and have a strong need for innovation as a result of the new digital world.

Industries are changing, technologies are converging and incumbents are being left out in the cold unless they are willing to adapt to this changing environment. Only seven years ago Gates(1995, p9) noted that "Personal computers have already altered work habits but they haven't really changed our lives much yet. When tomorrow's powerful information machines are connected on the information highway, people, machines, entertainment and information services will all be accessible."

This highway that Gates predicted has already become a reality. Since his observation in 1995, the number of Internet users worldwide has grown from approximately 16 million users to just under 600 million in 2002 (NUA Internet Surveys, 2002)(See Appendix 1)

It is only over the last few years that bandwidth service providers have begun offering video, Internet access, and telephony, all through the same connection. Whilst the market success has been shown to be predominantly business oriented, the technology is filtering through to the consumer on a large scale.



According to the Harris Pole (See Appendix 1) (Harris interactive,2002), in 1995 only 16% of adult Internet users in the US were online at home. This figure increased to 62% by November 2001. This means that in the United States alone there were in excess of 64 million adults online at home in 2001 from the 2,8 million in 1995. AC Nielson's net ratings estimates that there were 391 million home Internet users internationally in June 2002. (Nielsen-Netratings, 2002) (See Appendix 1)

This adoption and convergence of technologies has enabled a digital revolution. Robins (1998,P626) reminds us that," We live in an 'age of discontinuity'. In the 1950's and 1960s the past was a pretty good prologue to the future. Tomorrow was essentially an extended trend line from yesterday. That is no longer true." These technological discontinuities have led us into a constantly evolving environment.

The convergence of television and Internet technologies are transforming the way that aligned sectors conduct business. Schlender (1999, P73) observes that this new paradigm "promises to spawn multibillion dollar markets for products that combine the smarts of computers, the interactivity of the Internet and the easy familiarity of the TV".

Rossiter (1999, P909) describes the dimensions of this new media as follows, "The powerful combination of WWW hype, the choice of content, consumer expectations and advancing technology presents infrastructure planners, service providers and content producers with an immense challenge...



interactivity that is globally connected, fast to respond, easy to use, cheap and has real market value".

Video Store Magazine (Hive for News, 2001) continues to point out that "For broadband providers to generate the revenue per customer necessary to ensure long-term profitability, they must offer enhanced services to their subscribers. When services for basic broadband access are only marginal and the value offered to subscribers limited, providers will be unable to benefit from the wave of potential revenue generating opportunities that are currently available. The provision of these exciting services, will fundamentally change the way we live our lives and certainly the way we interact with our television."

The future of home video services will thus have a profound effect on many industries. These include, home entertainment, bandwidth providers, content development and telecommunications.

#### 2.2.4 The home entertainment Industry

The multi-billion dollar international home entertainment industry can be categorised into three major media elements Video, Music and Games (Video Software Dealers Association, 2001). As the research is based around VoD, the video segment of the market is the only element that will be discussed. The video component comprises VHS, DVD, Pay Television (Satellite and Cable) and Internet based Video On Demand (I-VoD).



The studios have finally accepted I-VoD as a potential market in the US, with the launch of MovieLink.com, a combined venture by four of the biggest studios in the movie industry. (Sony Pictures, Viacom's Paramount, Metro-Goldwyn-Mayer, AOL Time Warner's Warner Bros. and Vivendi Universal).

The acceptance of this technology and move by the studios to embrace Video On Demand Technologies as the future is perhaps one of the most exciting and proactive steps taken by the industry since the embracement of the VCR in the mid 1980s.

Over the years, the industry has generally been reticent in its approach to new technologies as can be clearly evidenced by the Betamax case (Home Recording Rights Coalition, 2002), which took place in the mid 1970's till the early 1980's.

When Sony began the rollout of the VCR in the early 70's it was based around the concept of "time-shifting" This concept enabled consumers to record programs when they were being broadcast and play them back at their own convenience. This concept revolutionised the consumer's television habits and enabled them to remove the shackles of live broadcast.

The invention of the VCR led to the biggest breakthrough in the entertainment industry since the development of the television. The home video industry, which the studios fought so hard to prevent had grown into an 24.6 Billion dollar industry by 2001(Alexander and Associates, 2002).



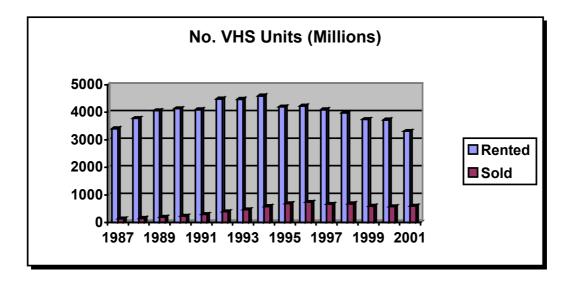
#### 2.2.4.1 Home Video Market - US

The home video rental industry is an industry that began in the early 1980's and by 1987 had grown to a \$3,4billion industry. (Alexander and Associates, 2002). The industry, even at this early stage had generated incredible additional revenues for the entertainment industry. In terms of units rented, by 1987 the rental market growth in units had begun to slow down and in order to ensure industry growth, the studios began to develop the video sell-through market. The sell-through market is essentially a retail channel providing consumers with the ability to own movie titles and build up a library rather than having to rent them for a short period of time.

The upsurge in the sell-through market resulted from the decrease in retail windows enforced by the studios. The motion picture industry works around the concept of windows. Following a theatrical release of a movie (Cinema) there is a certain time period that must pass prior to the release of the movie on video for the rental market. Originally, the rental market had title exclusivity for an extended period of time prior to the release of the title to the sell-through or retail channels. In the mid eighties, the rental exclusivity windows began closing out and with the launch of DVD's into the market, this rental exclusivity window began to fall away.

Below is a chart that shows the number of units rented and sold in the US between 1987 and 2001.

Figure 2 Number of VHS Units Rented / Sold in US (Millions).



**Data from Alexander and Associates** 

As is evident from the graph, video sales grew from 131million units in 1987 to a peak of 735 million units in 1996 which almost doubled the industry turnover in USD. The growth in units resulted from both more titles being released for retail distribution as well as the shrinkage of the release windows following that of rentals (VSDA, 2001).

Figure 3 is a revenue graph showing the impact of both retail and the introduction of DVD into the market. The industry revenue graph combined with the unit graph above shows that the home video industry has managed to continue its growth only through the introduction of new product offerings.

By 1994 the rental industry had hit saturation levels and the numbers of units sold had begun to decline. The Sell-Through market on the other hand was still growing which enabled the industry to continue to grow in both units sold



and revenues when both markets began to taper off.

\$ Revenue (Millions)

25000
20000
15000
10000
5000
1987 1990 1993 1996 1999

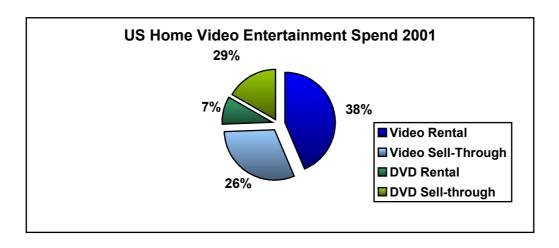
Figure 3 Revenue from US Rental / Sell Through Market.

**Data taken from Alexander and Associates** 

The introduction of the DVD (Digital Versatile Disc) was the next breakthrough in product offerings. This gave consumers a new value proposition, providing them with unrivalled quality and additional features which added new momentum to the industry. Because the technology was still in its early stages of adoption in 1999, its impact on the market was limited.

By 2000 it had hit growth levels of 140% which continued into 2001, with the DVD segment of the market generating 25% of industry revenues for 2001.

Figure 4 Breakdown of the US Home Entertainment spend 2001



#### **Data from Alexander and Associates**

The above graph shows that in just three years, the DVD segment of the market has grown to 36% with the DVD Sell-Though segment of the market taking a larger portion than the incumbent VHS segment of the sell-through market. This is once again a clear indicator to the American consumer's willingness to embrace new technologies.

#### 2.2.4.2 Home Video Market - South Africa

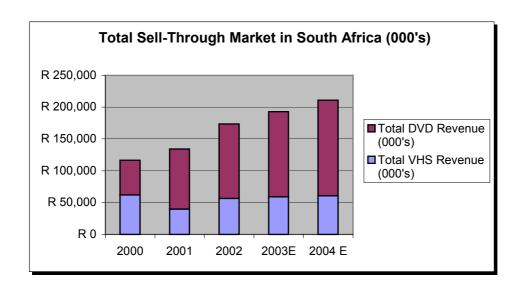
Three main distributors control the South African home video market. These are Ster Kinekor Home Video, Nu Metro Home Video and Next Video. Each of the distributors has licensing agreements with the large studios in both the US and the rest of the world.

The South African Home video industry is predominantly rental based with the Sell-Through market growing on a year on year basis. Below are wholesale industry figures for sell-through and rentals obtained from Nu Metro home video.

Numetro Wholesale Video Rental Sales (000's) R 250,000 R 200,000 ■ DVD Rental Revenues R 150,000 (000's)■VHS Rental Revenues R 100,000 (000's)R 50,000 R 0 1999 2000 2001 2002 2003 E ytd

Figure 5 Nu Metro Home Video Wholesale Rental Sales.





(Data from Nu Metro Home Video)



The sell-through market graph is based on the industry as a whole whereas the rental market graph is only based around Nu Metro's rental sales. It is important to note that Nu Metro Home Video has approximately 70% of the Home Video Market.

What is interesting, however, is the effect that DVD Sales have had on the market. According to Nu Metro, there are in excess of 350,000 households with DVD Players in South Africa. The total DVD market in SA has grown from R54 million in 1999 to R96 million in 2000 and R117 million in 2002. The initial growth experienced with the introduction of DVD technology has been unparalleled in the industry's history (Nu Metro Home Video).

This growth is potentially a good indicator that South African consumers adopt entertainment technologies on a rapid basis. The growth that has been experienced in the South Africa is comparable with that of the US market albeit on a smaller scale.

Looking at the forecast figures above, the growth in DVD sales is expected to drop in 2002 and 2003. As with the US market, If the home entertainment industry wishes to fight for a greater share of wallet, it will need to introduce new and innovative product offerings in order to enable it to continue its growth into the future.



#### 2.2.5 Video Industry Discontinuities

Historically, the Motion Picture entertainment industry has been rigid in its view on technology and has been through a number of discontinuities which have elevated its success to unprecedented levels. Following the advent of the television and the colour television, the industry went through a major discontinuity with the invention of the video machine and the subsequent creation of the home video rental industry.

In the early 1970's, Sony developed the Betamax Video Cassette Recorder with the view of enabling "time-shifting". Lyons wrote that Sony believed, "Betamax will revolutionize television... It will change the concept of prime time so that any time can be prime time" (1976: 210).

The studios had other concerns, They felt that given the opportunity, consumers would record content off the live broadcast in order to build a library for themselves. They believed that this would be an infringement of their copyright and they had no control over it. It was for this reason that the studios collaborated and took Sony to court in an attempt to have the VCR ousted. Following the eight year battle, the courts finally found in favour of the VCR and by that stage, the VCR market penetration had grown considerably and the concept of pre-recorded tapes had begun to infiltrate the market.



It was however only after the conclusion of the Betamax case that the larger studios began to follow the independents and adult content providers in utilising the VCR market as a new distribution channel for their content.

This channel rapidly quickly became a major success with the market growing to approximately 3,4 billion units rented per year by 1987. The growth of the Video Rental and overall home entertainment market offered consumers a new value proposition. It enabled them to select from a variety of movies and watch them at their own convenience in their own homes. According to Sklar (1994,p96) "The invention of the VCR and the subsequent development of the home video industry had radically transformed the movie industry from being experiential to one of convenience."

Whilst the success of the VCR created an industry transformation and provided consumers with a convenient way to watch movies, the industry is once again beginning to lag in terms of its product offerings. Abbate (Inventing the Internet ) tells us that " since the penetration of the internet began, consumers have become very demanding. Their need for instant gratification through access has revolutionised the way in which they require service."

Since the beginning of the "internet era", there has been little change within the home entertainment industry. Whilst the medium has shifted towards a digital platform with the introduction of DVD (Digital Versatile Disc) technology, there has been little movement in terms of the distribution channels.



Whilst video rental companies like Blockbuster and Netflix have implemented video / DVD delivery to the home, the consumer is still required to order in advance and mail them back to the dealers.

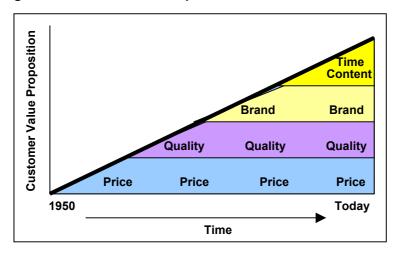
#### 2.2.6 Customer Value Proposition

Aldrich (1999,P8) explains that the customer has become far more demanding. In their bid to increase competitiveness, businesses have begun to offer better service and enhanced customer value through tailoring their offerings to suit the customer needs rather than telling the customer to adjust their needs to suit the product.

Information has shifted the power to the customer by providing them with the opportunity for unprecedented choice. Companies can no longer count on unilateral product development strategies or broad-based market research for product development. These decisions must now be centred around delivering customer value.

Kotler (2000,p34) defines delivered customer value as "the difference between total customer value and total customer cost. Total customer value is the value the customer will derive from a given product or service. Total customer cost is the cost that the customer expects to incur in evaluating, obtaining, using and disposing of the product or service."

**Figure 7 Customer Value Proposition** 



Taken from Aldridge (1999, p.10)

Aldrige (1999) explains that the consumer's perception of value has evolved considerably over the past fifty years. According to Aldrich, today's consumer is making value based decisions. Today's successful companies need to be able to deliver value in terms of the consumer's perceptions. Consumers have begun to see the marginal value in brands and retail channels. This is evident in the success of generic products. The reason being that customers now understand that there is little value in branded products when the generics and branded products come from the same manufacturing plants.

The customers' perception of value has evolved from the basic value proposition of price, brand and quality. They have begun to include the amount of time a product or service takes or gives (time-value). Aldrich (1999,p10) goes on to explain that "Customers want to be able to use a product for many different uses, to customise it by changing its digital content as desired.



For example, a consumer wants to buy a song (content) not a compact disc (container). They want to be able to watch a movie (content), not a television (container)... In short, customers want their containers to work with their content, their content with their containers and they don't want to have to think about it. Companies that are able to deliver products (be they containers or content) that deliver this value will succeed."

In order to succeed, companies need to be able to deliver flexible products - products that can be mass customised to be able to keep up with the consumer's needs. Consumers have utilised the availability of information to be able to make informed decisions about their purchases and to choose the best products to suit their needs at the best prices.

This consumer empowerment however, does have repercussions. To be able to compete, companies must be able to produce products and services that are customised to the individual's needs and delivered at a competitive price and in a timely fashion, given current standards of reliability.

## 2.2.7 Technology adoption patterns

Living in an age of constant technological advances and changes, it is becoming clear that this time is unlike no other. The rate of development is increasing exponentially and the window for new products to be adopted is becoming smaller.

Rogers (1985,p23) defines adoption as the "relative speed with which an innovation is adopted by members of a social system." This rate of adoption is usually measured by the length of time required for a certain percentage of the members of a system to adopt the innovation.

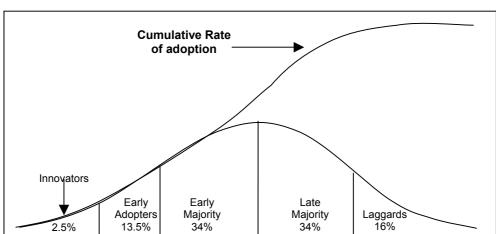


Figure 8 - Technology Adoption Curve

Modified from Rogers (1985)

According to Rogers (1985), adopters of an innovation can be classified into five categories and are generally represented along a bell curve as above.

• The Innovators have been observed as being "venturesome" as they are very eager to try out new ideas. They typically have a large amounts of capital at their disposal as there is a high degree of uncertainty about the success of the innovation at the time the innovator adopts.



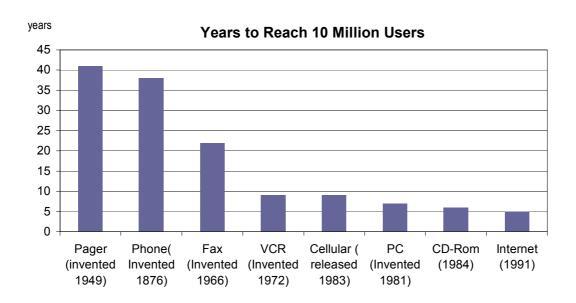
- The early adopters generally have the opinion leadership in most social circles. Potential adopters look to the early adopters for advice when they are considering adopting the new technologies. They are generally respected by their peers and are the embodiment of successful and discreet use of new ideas.
- The early majority adopt new ideas just before the average members of a social system. They deliberate for some period of time before they are willing to adopt the innovation. They generally follow with deliberate willingness but seldom lead.
- The late majority are seen to be sceptical. They generally adopt for economic reasons or because of network pressures within their social system. They require high degrees of pressure and convincing prior to adoption.
- The laggards are seen as traditionalists. They are the last people to
  adopt and posses almost no opinion leadership. Their point of
  reference is generally the past and they often adopt once the
  innovation has already been superseded.

Whilst the patterns and categories of adopters have not changed, the rate of technological adoption tends to have increased.



Looking at Figure 9 below Strauss and Frost (1999,p64) show us that aside from the telephone and VCR, technology adoption rates have increased through the last century. What is also interesting is that the speed at which great innovations are being developed is increasing exponentially.

Figure 9 Years to reach adoption



Reproduced from Strauss, J and Frost P (1999)

If we look at the adoption rates of new entertainment media, the same trends are apparent.



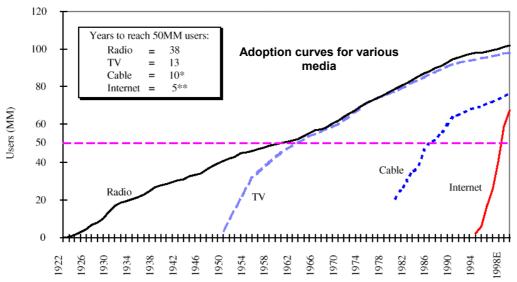


Figure 10 Uptake of Consumer Technologies - Ovum (1998) Source: Morgan Stanley Study (1997)

According to Morgan Stanley's study, it is becoming clear that consumer adoption rates for media are increasing at a very rapid pace. The radio took 38 years to reach 50 million people, the television, just 12 years and the internet took just 5 years following the development of the web browser by Netscape in 1995.

Day (2000,p130) points out that "New Product innovations take time to spread into markets. Some innovations have a long gestation period and then grow explosively, while others penetrate their potential market very slowly and exhibit modest sales growth for many years."



Day (Day and Schoemaker, 2000 ) explain that adoption rates are affected by four main product characteristics.

- The first being the perceived advantage of the new product relative to the best available alternative. For a product to succeed, the perceived benefits must outweigh the perceived relative costs by a margin sufficiently compelling to motivate the switch.
- The next is the *risk* perceived by buyers because of their uncertainty about performance, fears of economic losses, or concerns about changing standards.
- The third is *barriers to adoption*. These include previous commitments to existing facilities and infrastructure or regulatory restrictions. Both of which will hinder adoption rates.
- Opportunities to learn and try. Not only must the new product be readily available but the buyer must also be educated about the perceived benefits and advantages of the new product. If the consumer is not persuaded to adopt the technology, it will fail.

Whilst the perceived advantage is the key to enabling adoption, the other three factors can dampen or impede the adoption.



# 2.3 Video on Demand

"You are in the future. It is a weekend and you're home for the day. You've just had your usual lunch and sit in front of the television. You switch it on. Some boring show. You recall a good movie Dave mentioned at the bar, and punching a few buttons on your remote control, the movie starts and you lie back in your couch, Martini in hand and relax for the next couple of hours...".

The *future* is not very far. In fact, we have already laid down the foundations to this exciting idea of **Video on Demand**.

Video on Demand (VoD) is an interactive multimedia system that provides the consumer with the ability to select a movie from a large video database, upload it without delay (using streaming technologies) and have full interactive control over it. Individual subscribers are able to watch different programmes when they wish to, making the system a realisation of the video rental shop brought into the home.

As the underlying technologies are relatively new, VoD still lacks a universal standardisation. Nevertheless, many research institutes and commercial organisations have established de-facto standards and consequently, there are many operational VoD related services available today. In South Africa, we have a number of VoD related applications in operation already. Some of them are:



- Games, Music and Leisure
- Education and Remote Learning Facilities
- Home Shopping and Other Consumer Services from the TV
- Banking via the TV
- Interactive television like Supersport Zone, Big Brother and Idols.

Whilst they utilise satellite based DVB (Digital Video Broadcast) technologies for delivery and are not truly on demand, they do offer the user an interactive experience.

# 2.3.1 VoD Technologies

There are currently a number of VoD technologies and business models currently available.

The first and most common is Near Video on Demand (N-VoD). N-VoD offers consumers access to high quality video content on their television through either a satellite or Cable infrastructure. The content providers run a number of broadcasts of the same movie simultaneously with different starting times on different channels. These starting times usually range between every half hour down to every five minutes depending on the market for the movie as well as the infrastructure of the provider.



This technology is costly to run as it requires the provider to deliver the same movie on between 4 and 24 different channels depending on the frequency of their start times. The service is also known as "Pay-Per-View" television.

Whilst the technology has been fairly widely accepted, it has not taken off as well as expected, as there are still a number of limitations. Lee (1999,p273) discusses that the main issues with N-VoD are:

- Limited video selections, because of the bandwidth requirements needed to make N-VoD work, many of the service providers only offer around five movies at any one stage.
- Fixed playback schedule, whilst some providers offer starting times of every five minutes, this is more the exception than the rule, most have a thirty minute window. This means that the viewer is unable to watch a movie when they want to as they are required to wait for the scheduled start time. This unfortunately removes impulse purchases from the equation.
- No interactive control, one of the key advantages to watching a
  rental is that should you wish to pause it for any reason, you are
  able to continue when you wish. N-VoD does not offer this
  interactive control and is thus closer to a broadcast than VoD.



What is interesting however is that according to Hive For Media News (Hive For Media, 2001) "More than 70 percent of viewers under the age of 35 in addressable homes have purchased Pay-Per-View programming, according to the Yankee Group's recently completed Technologically Advanced Family (TAF) Survey. Pay-per-view usage among these younger viewers is significantly higher than in older groups. Almost 52 percent of viewers between the ages of 35 and 44 have sampled Pay-Per-View programming, while use among senior citizens (65 and older) in homes equipped with the set-top boxes required to receive Pay-Per-View movies via cable or satellite drops to 22 percent."

The survey results illustrate the willingness of younger users to sample new media options, and highlight the potential for content providers to create new revenue streams by offering enhanced services.

Whilst N-VoD does offer an improvement on standard broadcasts, T-VoD or True Video on Demand (T-VoD) is the key. TVoD enables the consumer to select a movie that they would like to view from a list of available titles. Once they have selected the content, the movie will begin to play. The consumer can sit back and relax and enjoy full VCR type interactivity with their movie.

There are currently two schools of thought regarding TVoD. The first is on demand to the PC. There are currently a number of suppliers for example Movies.com (a newly launched collaborative effort by five of the big studios to go directly to the consumer) and Intertainer, a VoD delivery service, offering



both television and premium movies via the internet on a subscription basis with a Pay-Per-View component to it.

The second is delivery of content to the television. This is practiced primarily by the cable companies using enhanced digital cable set-top boxes to enable consumers to watch on-demand content on their televisions rather than on a PC. The content for these systems is usually delivered through a cable network. There are a number of issues to be considered when assessing the merits of the two delivery options i.e. the television or the PC.

# 2.3.1.1 Comparison between Television and the Computer

The television and computer are clearly suited to specific applications and environments; therefore, it is imperative, when considering the convergence of these technologies, to compare the strengths and weaknesses of the two technologies. Paraszczak *et al* (1999, p512) offers the table on the following page in order to compare the different characteristics of both the television and the PC. The table attempts to make the specific differences explicit and reflects the current situation:



Figure 11 Comparison Between the Television and the PC

Usability	Television	PC		
	Viewing occurs at a distance	Viewing occurs at close range		
	Viewing experience often shared	Viewing experience dedicated to one person		
	Input device simple	Input device complex  Device associated with work, communication and information gathering User forced to deal with operating system level functions  User controls appearance of environment Unpredictable and chaotic access to content		
	Device associated with entertainment and relaxation			
	User has no notion of an operating system			
	No customisation of experience available			
	Predictable content and content access			
Device Functionality	Access to network content instant (1-2 seconds delay)	Access to networked functions slow and dependent on function		
	Interactivity limited to a range of functions	Interactivity spectrum very rich		
	Sound is always available and intrinsic to device	Sound is an afterthought and limited		
	Very high bandwidth available instantaneously	Bandwidth limited to network connection (usually dial up modem)		
	Content shared across millions of observers	Content used individually		
	Focus on analogue or MPEG2 based content using MPEG or analogue transport	Focus on digital content within device and digital content delivery over IP		
	Limited storage (today)	Storage freely available		
Network Functionality	Network delivery optimised for broadcast environment	Network delivery optimised for individual content access		
	User response can only be tracked indirectly	User response can be tracked individually		
	Network managed centrally and focussed on broadcast centre	Network management system from server to end user		
Business Case	Supported by advertising and subscription and in limited cases, by government license fee. Hardware sales totally separate from network	Supported by sales of software, hardware and applications. Network access supported by subscription. Advertising currently a small component.		

Taken from Paraszczak et al (1999, p512)



With regard to the functionality of the television and the computer, Paraszczak et al (1999) observe that, "Today's television viewers expect immediacy of response, unobtrusiveness of interaction and audio which is ubiquitous. Although the next generation of viewers appears to be using this medium in a much more interactive way, with a shorter attention span which can be distributed over a number of simultaneous sources, we believe that the PC and the TV will maintain their distance as separate elements but will evolve with each other".

# 2.3.1.2 Active vs. Passive viewing Experience

Television is perhaps one of the most widely accepted forms of leisure in the world. It is practiced by people of all social classes, income levels, ages and education levels—across the globe. Owen (1994, p4) points out that "More households in the USA have televisions than telephones, and TV watching consumes about 40 percent of leisure time" (Owen, 1999, p4). This is in strong contrast with computer interaction and internet access which is mainly limited to younger, more affluent societies.

The Internet and television from a consumers perspective, are seen to be two very differing experiences. Robinson & Godbey (1997, p312) speculate that, "television satisfies the need to be entertained passively, and part of the allure of television is the freedom *from* choice".



Television for many, provides a means to disassociate themselves with the active world in which they live, and interactive television, where viewers are required to invest energy and imagination, may not be that appealing. It could however be argued that since the widespread introduction of television remote controls in the early 1980's, and the proliferation of television channels, that television viewing has become a lot more interactive.

However, the television viewer is still not able to control the rate of flow with which the information reaches them, nor the content. On the Internet, viewers can tailor their consumption of information and entertainment, and advertisers can target their audiences with the same (if not greater) precision as print media. The Internet user can choose among literally millions of sources of information and amusement on the World Wide Web (WWW).

Due to the proliferation of the Internet it would appear that the patterns of electronic media consumption are changing. The European Commission (1997) observes that, "recent US audience measurements indicate that Web users already consume 59 percent less television than average viewers and it is estimated that the TV set's share of screen time will be half that of the personal computer in 2005. This view is supported by Farrell (1999) who states that among generation 'Y' (born since 1979) "TV viewership has eroded over the past five years and at the same time, teen use of the Internet is soaring".



The Farrell (1999) article goes on to describe a new Internet TV Network – DEN – That aims "to have the same impact on generation Y as MTV had on Generation X"

One major transition in the home has been a shift from the collective view of two / three generalist channels to the individual viewing of a vast range of channels that are on offer in today's television environment.

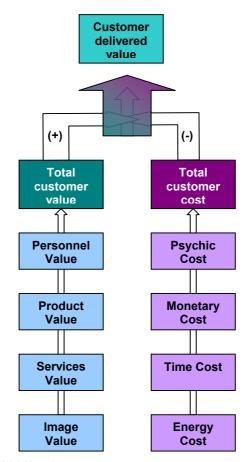
This multi-channel broadcast environment competes with packaged media, played on video recorders and game consoles. All of this will increasingly compete with the computer, particularly with its on-line usage, What is almost certain however, is that home entertainment is set to embark on a major revolution within the next few years.



# 2.4 Implications of Video on Demand on Consumer Value

Kotler (2000, p35) uses the following model to describe the consumer value Proposition:

Figure 12 Customer Delivered Value



Recreated from Kotler, P(2000) p.35

The left side of the model shows the value that is delivered to the customer from the different elements of their purchase. The right side however shows the costs that will be incurred by the consumer in making the purchase.



According to Kotler (2000,34) "Customer delivered value is the difference between total customer value and total customer cost". The VoD Value Proposition provides the consumer with more value than the conventional video distribution system in a number of ways. The VoD value proposition will be discussed through Kotler's Customer Delivered Value Model above.

#### 2.4.1 Total customer cost

Psychic Cost Reduction – When a consumer rents a video, it is very often a pain-staking experience to find a movie that they would like to watch. Very often, they will ask assistants to make recommendations and more often than not, the assistants are casual workers and are unable to make knowledgeable recommendations. The consumer will then need to spend time browsing the aisles in an attempt to find something that may be appealing. In terms of the Video on Demand value proposition, A typical VoD system would enable customers to read information on the movies, read reviews, view trailers, and obtain recommendations eliminating some of the psychic cost that would normally be incurred.

Energy Cost Reduction— The consumer is able to request recommendations on available titles based on previous movie enjoyment levels, select the movie and start watching without having to leave the room. There is once again no need to go to the video store or even worry about returning the video the following day for fear that if it is not returned the consumer will be penalised.

Time Cost Reduction – The consumer is able to decide that they would like to watch a movie. Within a matter of minutes they will have been able to choose the categories of movie they would like to watch, request recommendations, read information and reviews on different movies and be watching the movie of their choice. The time factor will relate to incredible time-savings in today's fast paced consumer lifestyle. This factor is extremely important as lifestyles are changing. According to Aldrige, (Aldrich, 1999), Consumers are needing more time in the day to complete their required activities and have less time to spend on their desired activities as a result of the new digital economy.

Time needed for required activities

Time available for desired activities

Agricultural Industrial Economy Economy
Time

Figure 13 The Reduction of Customer 'Free time'

Reproduced from Aldrich (1999,p34)



#### 2.4.2 Total Customer Value

Image Value – Depending on adoption rates, the technology and concept is very new and potentially exciting. Consumers may get value out of ownership as it may be an enviable technology to posses.

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Services Value – Because of the availability of technology, a VoD system is able to add additional services to the movie rental process. Some of these services which have been mentioned above are, reviews, trailers and recommendations. These will all assist the consumer in making their decision effortlessly.

Product Value – Because the content will be delivered in a digital format, the customer can be assured of a high quality product at all times. They do not have to worry about the cassettes being damaged or even the DVD being scratched. Ideally, the product may even be able to offer the customer full digital surround sound capabilities creating a complete entertainment system.

Looking at VoD in terms of Kotler's customer Value model, it appears that the customer will be able to gain both a reduction in costs and an increase in value. Hence resulting in an overall increase in the customers delivered value.

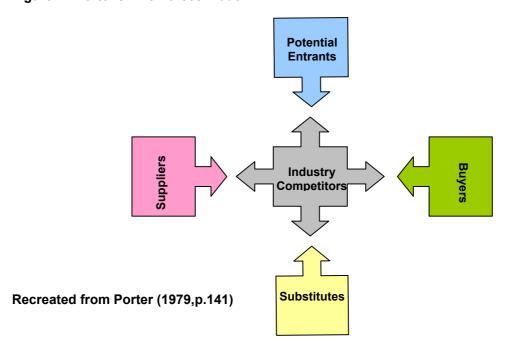


# 2.5 Barriers to Entry

The concept of Video on Demand is bound to revolutionise the entire home entertainment industry. According to internetnews.com (2001), "The [Home entertainment] industry has heralded VoD as the entertainment technology that will unseat the VCR from the home and obliterate the video rental market" This mindset has created a number of barriers to entry within the market as a result of the fear that has been elicited in addition to the technological issues and costs facing the VoD concept.

Porter (Porter,1979) identifies five forces that determine the intrinsic long-run profitability of a market or market segment and it concentrates on the barriers to entry within that segment. Porter discusses industry structure and competition in terms of his Five Forces Model.

**Figure 14 Porter's Five Forces Model** 





The model can be broken down into five categories:

Threat of Industry Competitors

Power of Buyers

Power of Sellers

Threat of Substitutes

**Threat of Potential Entrants** 

The barriers to entry for a VoD offering will be discussed in terms of the above categories.

# 2.5.1 Intense Segment Rivalry

In terms of a Porter's analysis on the industry, the first issue will be that of Industry Competitors. VoD is a new technology and in terms of adoption theory, consumers will most probably be sceptical of it.

The Video stores have strong relationships with the distributors locally and have a captive market in terms of consumers. It is a model that has been tried and tested and has been accepted for the last two decades.

Existing pay television models such as MNET and DSTV already have a powerful market penetration with a combined subscriber base of over one and



a half million subscribers. These services are expensive and consumers pay large subscriptions for them on a monthly basis. They do however offer consumers a vast array of content other than movies. Some of these are Sports, News, information channels and actuality programmes.

It may therefore be very difficult to get people to embrace a predominantly movie based offering rather than the large bouquets offered by DSTV. Consumers have also purchased the decoders for these services and may not wish to discard them. Whilst it is not an issue to have both technologies, added costs may be an issue in convincing consumers to adopt the new technology.

# 2.5.2 Supplier Power

The strength of suppliers is also an issue. The movie industry internationally is highly regulated. The local distributors have very rigid agreements with the studios, which result in them being unable to distribute the content to VoD suppliers.

The distributor's revenue model is currently based around the existing video distribution channels which generate a substantial portion of their incomes. They may not wish to jeopardise this revenue stream by enabling an alternative distribution mechanism and alienating their existing channel.



The next core issue in terms of supplier power is that of the technology infrastructure. Bandwidth in South Africa is currently very costly and broadband provision is in short supply. The bandwidth market in South Africa is also highly regulated and as such limited to only a few market participants. As a result of the lack of competition, providers are able to charge excessive fees for the use of their bandwidth.

In terms of the delivery mechanisms, there are potentially two feasible solutions for VoD in South Africa. The first is ADSL (Asymmetric Digital Subscriber Lines) and Geostationary (or geosynchronous) communications satellites (GEO's).

#### 2.5.2.1 ADSL

According the PWC Technology forecast (2000), ADSL refers to a specially designed modem that converts a standard copper phone line into a high speed digital pipe.

The modem technology converts the copper telephone lines from the plain-old telephony system (POTS), just before it enters the home, into access paths for multimedia and high speed communication.

Telkom's initial roll-out of ADSL technology enables the transmission of up to 512 Kbps downstream (to the customer) and up to 256 Kbps upstream. These



specifications can go higher depending on the length of the phone-line between the end-user and the Exchange.

Such rates transform the existing information network from one limited to voice, text and low resolution graphics to a powerful, ubiquitous system capable of bringing multimedia and including full motion video to the home.

Unfortunately the initial roll-out has been on a small scale and the monthly subscription costs for the line alone are R600.00 per month.

#### 2.5.2.2 Geo Satellite Distribution

Geostationary (Geosynchronous) communications satellites have been used since the early 1980's. They are situated above the equator and appear stationary to the earth's orbit (Clarke Orbit). Because they appear to remain in one position, antennas or dishes on earth do not have to track them so they are relatively inexpensive.

GEO's are able to cover large areas of the earth's surface and have been used very effectively by Multichoice to deliver DSTV content to the home in South Africa. In South Africa there are a number of bandwidth providers that use GEOs for data distribution across the country. Some of these are Sentech, Orbicom, Globecast and Telemedia. This method of delivery is cost effective provided you are delivering identical content to a large number of sites i.e. using Multicast technology.



Multicast technology enables the one-way transmission of data to an unlimited number of sites without requiring feedback to ensure it has been delivered.

The technology however becomes very inefficient if content is delivered to a single user. For VoD purposes however, it is important to be able to tailor the delivery patterns to suit the user's requests.

#### 2.5.3 Threat of Substitutes

VoD is a substitute product for existing market players. The industry is highly regulated and opposed to substitute products. The opposition stems from the large studios in the US who provide the majority of the high demand video content. Whilst they have launched Movielink.com, it is still very new and the success of the service is still not proven.

It is because of this uncertainty that the studios and certainly the distributors may be reluctant to embrace the new technology for fear that it may offend the powerful rental players.

As a result of the fact that VoD can still be recognised as a potential substitute and has not yet been embraced by the market, it is very difficult to assess the potential substitutes that it may have once it has become entrenched in the market.



# Chapter 3: RESEARCH METHODOLOGY

#### 3.1 Introduction

The medium used to gather information for this research was a self-administered on-line questionnaire. It was distributed to a randomly selected sample compiled from the researcher's company database combined with consumer details from a number of consumer based promotions run by the organisation and an extraction of names and details from a computer faire visitors list.

The research strategy was based on the survey method in order to enable the collection of data from a sizable population cost effectively. The problem is to determine whether or not South African consumers would be willing to adopt VoD technology and as such the study is exploratory in nature.

This chapter outlines the population to be researched, the sampling procedures, the method of data collection, and limitations arising from these procedures, the questionnaire design, questionnaire pre-testing and data analysis.



# 3.2 Population to be researched

The research population consists of a database of Internet literate consumers that was selected from a combination of sources described above. The final sample was randomly selected out of a possible 5800 recipients using a programme that was specifically developed for the selection.

Because of the technological advancement and potential cost of a VoD type service, it was imperative that the sample of consumers contacted were comfortable with different technologies, computer and Internet literate, and fell within the upper income segment of the population. The population sample was completely South African as the research is based on the South African consumer.

# 3.3 Sample Design and Sample Size

The sample was chosen in the following way: A primary database was compiled by extracting the names and e-mail addresses of all contacts from the above-mentioned sources. The total potential sample of selected names and e-mail addresses was 5,800.



From this 5,800 names, a sample of 1200 names was randomly selected for the sample. In addition to this, respondents were invited to submit the names and email addresses of up to five additional people that they felt would like to answer the questionnaire. The sample included respondents of both genders from all ethnic groups and geographic locations but with predominantly higher household incomes. All respondents however were computer literate and had access to e-mail.

#### 3.4 Data Collection

A covering e-mail was sent out to all selected respondents with an incentive of a R1,000.00 gift voucher to encourage a prompt response to an online questionnaire.

The covering mail (Included in Appendix 2) was used to impress upon the recipients that it was both anonymous and for academic research purposes. Included at the bottom of the e-mail was a link to a website that was set up for the purposes of the questionnaire.



# 3.5 Limitations of the Sample Design and Medium

There are a number of limitations inherent in the sample design and medium that are important to note:

- 1. Because the sampling is based on self selection and snowballing, it is hence non-probability in nature. Therefore inference made through analysis of the data cannot definitively be extended to the general population. However the sample is probably representative of the potential target market for VoD in South Africa.
- 2. In addition the sample is further limited in that respondents needed access to the Internet and had to have e-mail addresses. It is clear that a significant proportion of consumers in South Africa do not have internet access; similarly the majority of South African consumers would not have the infrastructure or be able to afford VoD type services.
- 3. The Self Administered questionnaire was only available in English. This meant that many of the non English-speaking respondents had to answer questions that were not phrased in their mother tongue. However this problem is mainly related to the comprehension of the questionnaire and not the actual answering of the questionnaire, as the questions were close-ended in nature. The questionnaire was also delivered using a predominantly English medium.



4. The offer of a prize may also have tempted a large number of respondents to answer the questionnaire that would not have ordinarily responded to it. This may have skewed the data somewhat but whilst it does not seem to be an issue, it does require mentioning.

# 3.6 Data analysis

The raw data from the questionnaires was automatically coded as a result of the questionnaire back-end design and captured into an access databases ready for analysis.

# 3.7 Questionnaire Design

The questionnaire, which was constructed in English is included in this report as appendix 3, and the online typeset version in appendix 4. The questionnaire is divided into four parts:

The first part consists of four questions based around the socio-demographics of the respondent. It includes questions around age, gender, geographical location and affluence. These questions allowed the categorisation of respondents into different groups based on their demographic and socio-economic characteristics.



In the second part of the questionnaire, respondents were asked about their home entertainment habits. They were asked about their television viewing habits, their adoption of new technologies, their home internet usage, the types of programming that they watch and the number of DVD / Video rentals they do on a monthly basis. The aim of this set of questions was to determine the home entertainment profile of the respondents.

The third set of questions, eleven in total, questioned the respondents about their feelings on Video on demand type services. The set also asked questions relating to technology adoption and their desire for customised viewing choices.

It was completed by asking questions relating to whether or not they would adopt video on demand technology and within what time period.

The questionnaire was also designed to enable consumers to answer within five minutes. The questions were all closed-ended and did not require much deliberation from the respondents. The purpose of this design was to attempt to obtain as many results as possible from the sample and ensure that respondents were not deterred from answering the questionnaire.



#### 3.8 Questionnaire Pre-test

The pre-testing of the questionnaire was considered to be essential, particularly because the questionnaire was self-administered and dealt with technologies that are relatively new.

The pre-test was conducted on eight respondents of different levels of education, professions, ages and racial groups. The questionnaire was slightly modified as some of the test respondents were unable to understand how the ranking questions worked.

The main modification that was made however was the insertion of an example on how the answers should look and a more detailed explanation in the error message.

The questionnaire was a self-administered anonymous online questionnaire and this method was selected for a number of reasons. This method allows for a sample of literate individuals with access to a computer and comfort with the Internet. The reason that this target market was chosen was that VoD is a high tech product offering that will be predominantly favoured by technologically aware and relatively affluent consumers.

This method of data collection also facilitates the efficient recording of a large number of respondents as a result of the information being pre-coded and submitted directly into a structured access database ready for analysis. This



type of analysis also enabled a demographically diverse population sample to be reached but falling within the literacy and financial range that was desired.

The questionnaire, accessible through a link on the e-mail was designed in an ASP (active server page) format to enable users to move through the questionnaire quickly and simply. The design of the questionnaire also enabled the inclusion of error-detection to ensure that respondents answered all the questions without being able to spoil the data.

# Chapter 4: PRESENTATION AND ANALYSIS OF RESULTS

#### 4.1 Introduction

The responses of the 318 respondents are detailed and discussed in this chapter. The analysis has been broken down into four categories, namely:

Respondent Demographics

**Television Viewing Habits** 

Video On Demand

**Technology Adoption** 

Within each of these sections, the results will be presented and analysed with reference to their respective questions.

# 4.2 Demographic details of the sample of respondents

The following table provides a breakdown of the demographic information about the respondents.

Figure 15 Demographic Breakdown of Respondents

Question	Categories	No. Responses	Percentage	Cumulative Percentage
Age Group	Below 25	42	13.17%	13.17%
	25 – 35	158	49.53%	62.70%
	36 – 45	74	23.20%	85.89%
	46 – 55	37	11.60%	97.49%
	Above 55	8	2.51%	100.00%
Gender	Male	172	54.09%	54.09%
	Female	146	45.91%	100%
Region	Gauteng	318	100%	100%
Household income	Less than 5,000 pm	20	6.27%	6.27%
	R5,000-R10,000 pm	44	13.79%	20.06%
	R10,000-R20,000pm	76	23.82%	43.89%
	R20,000-R30,000pm	56	17.55%	61.44%
	Above R30,000pm	87	27.27%	88.71%
	Rather Not Say	36	11.29%	100 %

The Demographics above show that the majority of the responses came from individuals within the 25-35 year age group. Video Store Magazine (Hive4Media, 2001) discussed that in the United States, the Below 35 age group are the strongest adopters of home entertainment technology in terms of the Pay-Per View model. The fact that the majority of users that responded are in this category, adds additional value to the responses as this should be the strongest potential target market for VoD services.

In terms of Gender, there was almost an even response as there was only a 10% difference between males and females. This gives a good indication of the general population within the target age group.

In terms of the geographic locations of the respondents, it appears that there was an error in the database design and any users from other regions were unable to submit their results. It is for this reason that all users fell within the Gauteng region.

In terms of monthly household incomes, it is interesting to note that 69% of the respondents have a monthly household income in excess of R10,000 with 45% earning above R20,000pm. The benefit of this is that the majority of the respondents fall within an income group that would most probably be the target market for this type of service. Of the responses received, only 11% elected not to answer their average monthly income.

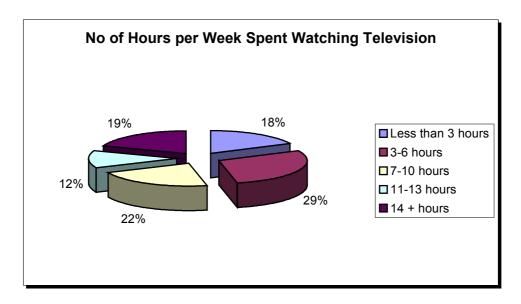
In terms of the demographics, it seems as though the sample of responses received is very useful as they generally fall within the potential target market of a VoD service.

#### 4.3 Home Entertainment Habits

The first question within this section addressed the respondents', television

viewing habits. Respondents were asked to quantify the amount of time spent watching television on average per week. The results of this question as shown in the graph below show that only 18% of the respondents spend less than three hours per week watching television.

Figure 16 Hours Per Week Spent Watching Television



This gives a clear indication that many consumers within this target group are avid television watchers, with over 53% of the respondents watching in excess of 7 hours per week.

Whilst it is clear that a relatively large amount of time is spent watching television, it is also necessary to identify the types of programming that is watched.

In terms of the types of television watched, respondents were asked to rank

their time spent on the following activities:

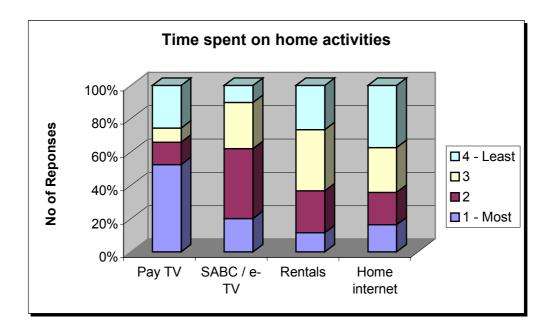
Watching Pay Television (DSTV or MNET)

Watching Free-to Air Television (SABC or eTV)

Watching Rented Videos / DVD

Using the Internet at home

Figure 17 Time Spent on Home Activities



The results show that Pay television is by far the most prominent choice for the respondents with 52% of the respondents answering that they spend most of their television viewing time watching it. Free-to –air television was ranked as second with 42% of viewers giving a ranking of 2<sup>nd</sup>. Rentals came in with its majority ranking in third place and Internet fourth.

The implication of this is that over 60% of users do pay for home entertainment in terms of Pay-TV. This shows that whilst the services offered by existing Pay-TV infrastructures are limited and do not give the consumer freedom of choice, it is still the most popular option for home entertainment.

The next question addressed the types of programming that consumers spend their television time watching. Respondents were asked to rank their time spent watching a variety of different program types. The ranking for the most time spent watching a type of program was given a 1 and the least a five.

The system did not allow users to leave any of the options out and did not allow respondents to use the same ranking for more than one option. This ensured that the ranking could not be spoiled and assisted with ensuring the data's integrity.

Figure 18 Time Spent Watching Different Types of Programmes

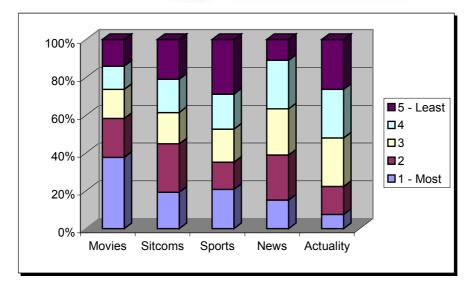


Figure 18 above shows that that the largest ranking for most watched was achieved by movies.

This was followed by sports, then sitcoms, news then actuality. Sitcoms appeared to be preferred as a second choice with 25% of respondents ranking it second. Actuality was favoured for third place with 26% of the group ranking it third. News and Actuality were tied for the fourth ranking and sports received its majority ranking in fifth place with 29% of respondents ranking it fifth.

The implications of this are good for VoD. As a service, it is generally focused toward providing consumers with non-live material.

The fact that 59% of the respondents placed movies in first or second place and 47% of respondents placed sitcoms in first or second place, shows that in terms of the sample population, their viewing habits tend toward VoD type content.

The next question that falls within this group is the frequency at which the respondents rent videos or DVDs. This assists in the provision of information around their rental habits as well as their potential towards utilising VoD services.

The respondents were asked how many videos / DVDs they hire on average per month.

Figure 19 Number of Videos / DVDs Rented Per Month

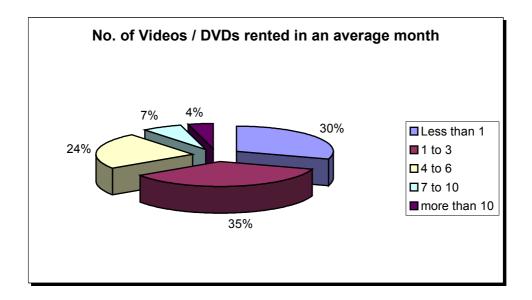


Figure 19 above shows that 30% of the respondents rarely hire videos / DVD's. 35% of the respondents however hire at least four per month with 11% being avid video renters (i.e. more than 7 videos per month).

There are however a number of issues surrounding video rental that will fall away as a result of video on demand.

Firstly VoD provides the mechanism for an impulse rental. The consumer has a range of titles at their disposal and should they wish to view one it can be played immediately without any delays.

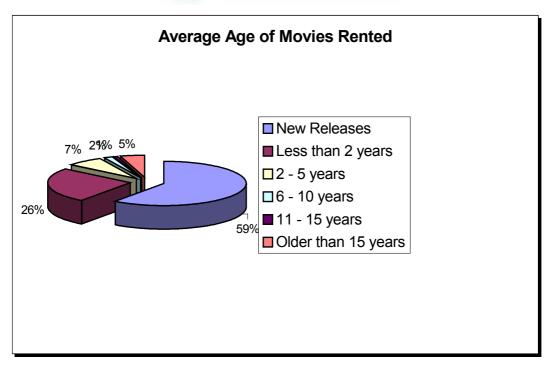
Secondly, It is far simpler to select a film and watch it in your living without having to think about going to the video store, making a selection and making sure that you return it the following day.

Thirdly, the consumer is assured that the title they have selected will always be available. They do not have to go the video store to collect a title that they would like to watch, only to find that it has been booked out.

As discussed within the literature review, the customer value proposition is far greater with VoD services than with the existing video rental system.

The next question was based around video selection habits. From a content perspective, the respondents were asked to enter the average age of movies selected from the video store.

Figure 20 Average Age of Movies Rented



The aim of the question was to determine whether the respondents rented newly released (commercial) movies or generally went for more selective or older movies like classics for example.

The result show that 59% of respondents select from the new releases with an additional 26% hiring slightly older releases. In terms of real classics, only 5% said that the movies they hired are generally older than 15 years which means that they are more selective about the titles that they rent. These selective consumers would probably not adopt VoD technology as they are more suited to niche selections of movies that would be obtainable from specialist video stores. The large proportion of consumers that tend towards new releases are more suited toward VoD services.

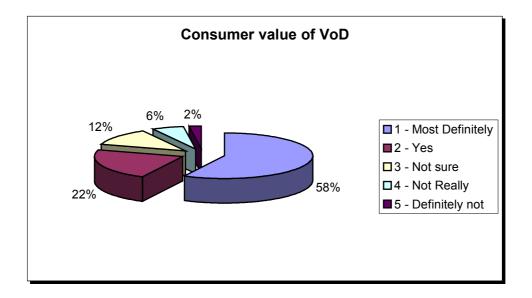
#### 4.4 Video on Demand

This section of questions deals with a number of potential VoD service offerings. Questions are firstly centred around VoD technology and also around increasing the customer value proposition through VoD. A range of questions were asked both around the concept as well as ancillary services that could be offered around the technology.

Following a brief description of what VoD is, respondents were asked whether they thought there was any value in having a variety of movies available to watch at home when they wanted without having to go to the

video store. This question was used to determine whether the respondents liked the core idea of the VoD product offering.

Figure 21 Consumer Perceived Value of VoD Type Services



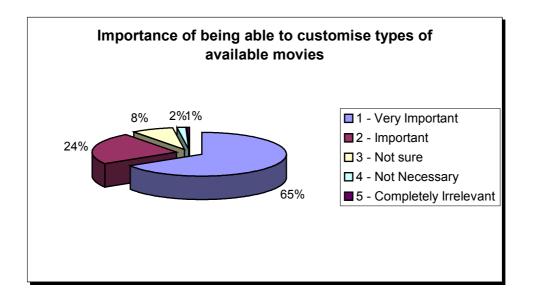
58% of the respondents felt that it would most definitely be of value to them to have a range of titles available for them to choose and watch at their convenience. An additional 22% felt that it would be of value to them. The other 20% felt either indifferent or didn't really want the service.

The results of this give quite a clear indication that the respondents seemed to be enthusiastic about the base concept of VoD.

The next few questions are around different services that could be offered as part of a VoD product offering. The first question asked the respondents how important they felt it would be to customize the range of video titles that are

available to them in terms of the types of movies. I.e. Action, Comedy, Adult, Children, Drama etc.

Figure 22 Importance of Being Able to Customise Available Movie Types

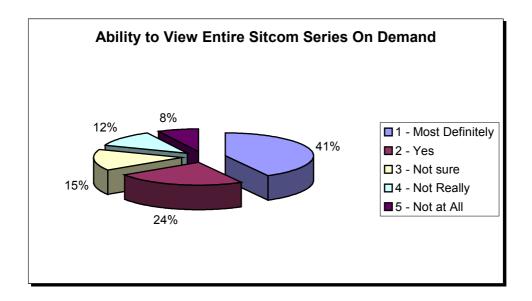


In terms of the results, 65% of the respondents found this to be very important, 24% felt that it is important and the other 9% were either not sure or didn't want it. In terms of what was discussed in the literature around the customer value proposition, today's customers are very demanding and require the ability to customize their products to suit their needs.

The ability to empower consumers to customize their purchase and service needs, provides them with a mass customisable solution, enhancing the customer value proposition. It is clear the 89% of customers want this power which is an indication of how customer needs are changing.

The next question was based around the product offerings in order to determine whether or not consumers would like to have their product extended to the inclusion of sitcoms and more specifically giving access to the full series of different sitcoms to the customer.

Figure 23 Ability to View Entire Sitcom Series On Demand



The responses show that 65% of the respondents liked the idea of having access to the full series of their favourite sitcoms on demand.

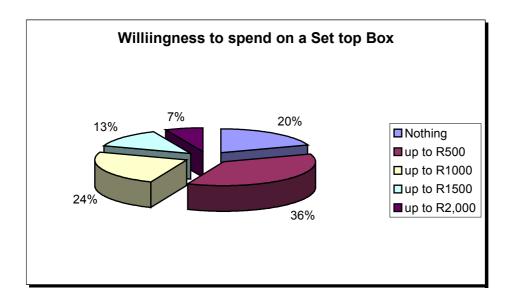
What is interesting however, is that comparing this information to the Sitcom ranking under home entertainment habits, only 20% of the respondents said that they spend most of their time watching sitcoms and 25% ranked sitcoms second.

Being offered an enhanced sitcom product offering, 41% felt that it is a definite want with an additional 24% answering that it was something that they wanted. This shows that with an enhanced product offering, consumer viewing habits and requirements may evolve.

The next three questions relate to the monetary outlays that the respondents would be willing to spend on a VoD product.

The first question was about the cost of a set-top box or decoder to enable VoD services at home.

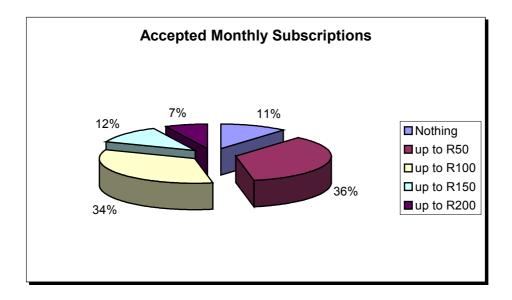
Figure 24 Willingness to Spend on a Set Top Box



20% of the respondents felt that they would not like to pay for it, 36% felt that they would be willing to pay up to R500.00. 24% said that they would pay up to R1,000.00, 13% said that they would pay up to R1,500.00 and the last 7% said that they would be willing to pay up to R2,000.00.

The next question looks at the monthly subscription that respondents would be willing to pay.

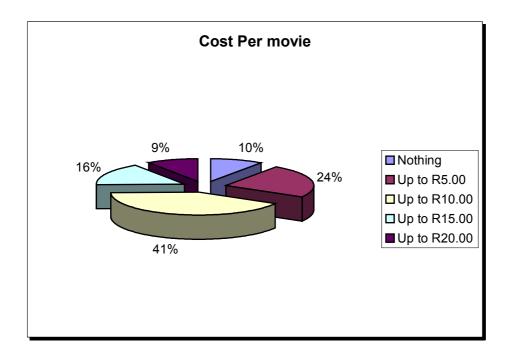
**Figure 25 Accepted Monthly Subscription** 



It appears that more respondents would be prepared to pay for a subscription rather than the initial outlay for the set-top-box. In terms of the subscription, 34% of the respondents would be willing to pay up to R100.00 per month with 12% willing to pay up to R150.00 and 7% willing to pay up to R200. On the higher end, the percentage of respondents willing to pay seemed to be almost identical to that of the set-top-box.

The third component in the cost breakdown was for the individual movie cost.

Figure 26 Cost per Movie



Here once again the number of respondents that would pay nothing for the movies has dropped again. 24% said they would be willing to pay up to R5.00 per movie, 41% would pay up to R10.00 per movie and 25% of the respondents said that they would pay R15.00 and R20.00 per movie.

The following questions asked the respondents about whether or not Digital Surround Sound (Home Theatre) outputs from the system would influence their decision to adopt the technology. The 54% affirmative response shows that the majority of the respondents have Digital Surround Sound Systems or intend to obtain DSS systems which once again reiterates their tendency to adopt new technologies.

The final question in the VoD section asked the respondents how long after launch they would adopt VoD technology.

Figure 27 Expected Time to VoD Adoption

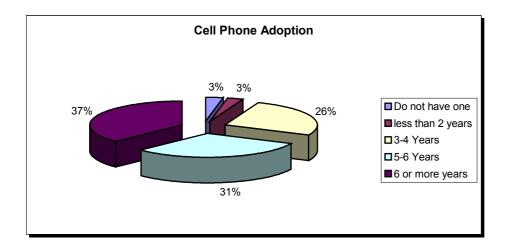
The results show that 37% of the respondents would adopt within three months, a further 27% would adopt within six months and a further 21% would adopt within the first year.

### 4.5 Technology adoption

The final set of questions deals with consumer's technology adoption rates.

The first question within this series dealt with Cell phones. Respondents were asked about their cell phone adoption patterns.

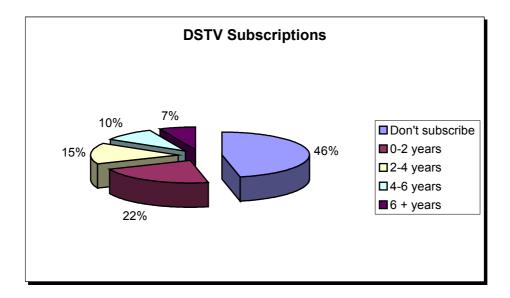
**Figure 28 Cellular Phone Adoption** 



From the results, it is interesting to note that 37% of the respondents had cellular phones within 2 years of the networks being launched, an additional 31% within four years. Only 3% of the respondents do not have a cell phone. This is one indicator of how quickly South Africans are willing to adopt new technologies that will enhance their lifestyles.

The next adoption based question was around the adoption of DSTV. Surprisingly, 46% of the respondents do not subscribe to DSTV. Three respondents however did respond to the questionnaire with an e-mail and explained that they do not see any value in DSTV and have churned it as they are very disappointed with the product offering.

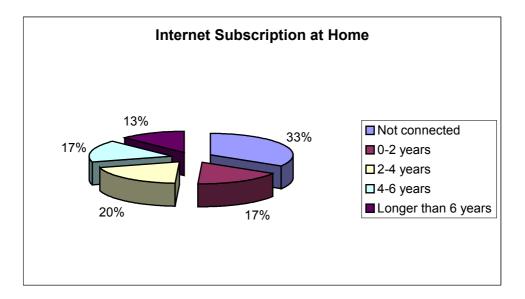
Figure 29 DSTV Adoption Rates



Whilst DSTV does have in excess of 600,000 households in Africa that subscribe to their services, only 54% of the respondents do subscribe and most of the subscribers have only started to subscribe in the last two years. This is a very interesting deviation from the responses around cell-phone adoption.

The next adoption question was Internet access in the home. The results from this question are as follows:

Figure 30 Home Internet Adoption Rates



The Internet offers consumers real value in terms of the access to information. Whilst all of the respondents have internet access either at home or at work, it is interesting that there are far more home Internet users than DSTV subscribers. As with the cell phone, the Internet offers consumers real value whereas it is still to be decided whether or not consumers perceive value in the DSTV offering.

The last issue was around Digital Surround Sound. This is a relatively new technology and it only became popular with the growth in the DVD market.

The DVD began its market penetration in 1999 and has grown to a sizeable market with in excess of 325,000 households (Nu Metro) owning DVD Players. Digital Surround Sound is an accessory to DVD players as it is used to provide viewers with three dimensional sound which can only be achieved from a DVD source at present.

In terms of the responses, 54% of the respondents said that DSS would influence their buying decision. This shows that in a short period of time, a large percentage of the respondents have adopted DVD and DSS technologies.

It appears that South African consumers are fairly quick to adopt technologies that enhance their value proposition. The Cell-phone, the Internet and Digital Surround Sound. The one issue that could be raised is the level of acceptance of DSTV services. Whilst a VoD offering adds far greater value to the consumer than DSTV, it is disconcerting that the DSTV adoption is so low. The potential adoption rate of VoD however is very interesting and shows that consumers seem to be looking for another home entertainment option with 85% of the respondents opting for an adoption period of under 1 year for the technology.



## **Chapter 5: CONCLUSION**

#### 5.1 Introduction

This Chapter will conclude the report by discussing the research achievements within the context of the objectives, as well as making recommendations for future research.

#### 5.2 Research Achievements

The primary objective of the research was to assess whether the South African consumer market is ready for Pay-Per-View Video on Demand type services as well as whether the South African consumer would be willing to adopt this technology.

This objective was met, and the major findings of this research are presented below:

- South African Consumers appear to be early adopters of new technologies that offer enhanced value propositions.
- In terms of the data collected from the survey, it appears that younger affluent South African consumers would be willing to adopt a Video on Demand type service.
- The cost of the service does however appear to be an issue.
   Respondents tended to be less willing to incur a capital outlay for a set-top box but generally did not seem to mind paying for a monthly



subscription or on a per movie basis.

 Respondents responded favourably to enhanced product services and it appeared that the provision of those services may alter their viewing habits.

The results therefore seem to show that should the technology and infrastructure be available to provide VoD services to the South African consumer, they would be ready to accept and embrace the technology at a very fast rate.

#### 5.3 Recommendations for Further Research

Further research in this field would be beneficial. Some areas that need to be addressed are:

- The technologies around which VoD can be implemented within the South African Environment Framework.
- The potential effects of VoD on the existing home entertainment market and distribution channels.
- The potential for a shared revenue model for the home entertainment market.
- The effect of VoD on curbing piracy in South Africa



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### Appendix 1 - Web Reference Information

#### NUA.com

Nua.com is the authoritative online source for information on Internet demographics and trends. Over 200,000 people in more than 140 countries read their news and analysis every week.

Their database contains over four years of freely accessible information gathered and collated by Nua, and their weekly editorial articles, which have put topical events into context since 1997.

The weekly Nua Newsletter has over 80,000 subscribers, and is read around the world by key decision-makers in the worlds of technology, ebusiness, online marketing, and government.

Nua is particularly well known for its unique How Many Online? feature, which offers an estimate of the global Internet user population, based on extensive examination of surveys and reports from around the world.

Organizations such as the United Nations, the United States Department of Commerce, and the United States Internet Council have referenced Nua, as have many well-known business and Internet-related publications.



#### **Alexander and Associates**

Alexander & Associates, Inc. is a consulting and market analysis firm based in New York City. The company's core work is in the home entertainment market, focusing on consumer electronic entertainment vehicles. The company has provided a home video tracking service since March of 1987 based on weekly surveys of national consumer market behaviour. The company is also actively studying satellite, digital cable, personal computer and Internet activity and how consumers are integrating this range of choices into their entertainment time and money budgets.

#### **Harris Interactive**

Harris Interactive is a worldwide market research and consulting firm, best known for *The Harris Poll®* and for its pioneering use of the Internet to conduct scientifically accurate market research. The Company combines the power of unique methodologies and technology with international expertise in predictive, custom and strategic research. Headquartered in Rochester, New York, Harris Interactive conducts international research through wholly owned subsidiaries—London-based HI Europe and Tokyo-based Harris Interactive Japan—as well as through the Harris Interactive Global Network of local market and opinion research firms.



#### **Nielsen Netratings**

Marketed globally under one brand, the Nielsen//NetRatings services are provided via a partnership between NetRatings, Nielsen Media Research and ACNielsen. The services include the Nielsen//NetRatings Internet audience measurement service, AdRelevance, the leading online ad measurement service, and @plan, the leading target-marketing platform for Internet media planning, buying and selling.

NetRatings, Inc. is the leading global source of information on consumer and business usage of the Internet, currently measuring actual click-by-click Internet user behaviour measured through a comprehensive, real-time meter installed on individuals computers worldwide, both at home and at work.

Nielsen Media Research is the leading television-audience measurement company in North America. ACNielsen Corporation is the global leader in providing market research and analysis to the consumer products and services industries. Nielsen Media Research and ACNielsen Corporation are subsidiaries of VNU, one of the world's leading publishing and information companies.

Every day, hundreds of companies around the world-advertising agencies, consumer packaged goods, technology firms, media companies and financial services-rely on media and market research from Nielsen//NetRatings to make business-critical decisions.



**Appendix 2: Covering E-Mail** 

Dear

I would be most appreciative if you could take a few minutes of your time to

read through this e- mail and fill in the online questionnaire linked below.

I am presently completing a Master of Business Administration degree at the

Gordon Institute of Business Science in Johannesburg

(http://www.gibs.co.za), and am working on a research thesis entitled 'An

Early Assessment of the Market Readiness for Video On Demand Services to

the South African Consumer.' This research is intended to assess whether or

not South African consumers are ready to embrace 'Video On Demand'

technology.

As a consumer, Video on Demand technology will supply users with a variety

of high quality movies, sitcoms (e.g. The Practice, ER, Friends, Law and

Order, The Sopranos, Bart Simpson etc) and other video content to your

television set through a special decoder called a "set top box". As a user, you

will be able to select the programme you would like to view and watch it when

you want on your TV with full VCR functionality. The movie would ordinarily be

paid for though either a monthly subscription, a "Pay-Per-View" basis or a

hybrid of both.

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To thank you for your prompt response, and for any inconvenience that I may have caused you, I will be giving away a R1,000.00 gift voucher to a shopping centre of your choice to one lucky entrant. You will be able to enter the competition once your questionnaire results have been submitted.

The draw for the winner will be on Wednesday 13th November at 8pm and he / she will be notified via e-mail.

I thank you for your assistance and ask you to please try and answer the questions as accurately and completely as you can. The accuracy of the results are vital for me to obtain a clear view of the market demand and provide an accurate assessment thereof.

If you have any questions at all, please do not hesitate to contact me via e-mail at <a href="mailto:darren@vodquest.co.za">darren@vodquest.co.za</a>

Yours sincerely

Darren Chertkow

Please click on the following link to go to the anonymous questionnaire http://www.vodguest.co.za/default.asp?Q



## **Appendix 3: Questionnaire**

The first five questions are demographically based and will give me an idea about you. Please remember that the answers will be submitted to a database without your name or email address and are thus completely anonymous.

Questions 1 - 5 of 23
Please select your age group
Below 25
25 - 35
36 - 45
46 - 55
Above 55
Please select your gender
Male
Female
Please select the area in which you live
Gauteng

## Approximately how long have you had a cellular phone?

Do not have one
Less than 2 years
3 - 4 years
5 - 6 years
6 or more years
Please select your monthly household income category
R 5,000 or less
R 5,001 - R 10,000
R 10,001 - R 20,000
R 20,001 - R 30,000
R 30,000 or more
Rather not say



The next seven questions relate to your home entertainment habits.

Questions 6 - 12 of 23

Approximately how many hours do you spend watching the television per week? (videos, M-NET, satellite TV, normal TV etc)

Less than 3 hours

- 3 6 hours
- 7 10 hours
- 11 13 hours
- 14 or more hours

Please rank your time spent on the following home entertainment activities from most to least (most being 1 least being 4)

Please ensure that you have not used the same ranking (1,2,3,4) more than once. Your answer should look something like:

Watching Pay TV (M-Net / DSTV)- 1 Watching SABC TV / E-TV - 2 Watching rented Videos / DVD's - 3 Surfing the Internet - 4

Watching Pay TV (M-Net / DSTV)	1	2	3	4	
Watching SABC TV / E-TV	1	2	3	4	
Watching rented Videos / DVD's	1	2	3	4	
Surfing the Internet	1	2	3	4	

Please rank the amount of time spent watching the following programmes from most to least (Most being 1 and least being 5)

Please ensure that you have not used the same ranking (1,2,3,4,5) more than once. Your answer should look something like:

٨	Л	^\	ies		1
ı١	/I	nν	IES.	_	1

Sitcoms - 2

Sports - 3

News - 4

Actuality - 5

Movies		1	2	3	4	5
Sitcoms		1	2	3	4	5
Sports		1	2	3	4	5
News	1	2	3	4	5	
Actuality		1	2	3	4	5

Approximately how long have you been a DSTV subscriber?

Do not subscribe

0 - 2 years

2 - 4 years

4 - 6 years

Longer than 6 years

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Approximately how long have you had internet access at home?
Not connected
0 - 2 years
2 - 4 years
4 - 6 years
Longer than 6 years
How many videos / DVD's do you rent on average per month?
Less than 1
1 - 3
4 - 6
7 - 10
More than 10
Into which age category do the movies that you rent generally fall?
New Releases
Less than 2 years
2 - 5 years
5 - 10 years
11 - 15 years
15 + years

\_95



The remaining questions are related to Video On Demand. To recap Video on Demand technology will supply consumers with a variety of high quality movies, sitcoms (e.g. The Practice, ER, Friends, Law and Order, The Sopranos, Bart Simpson etc) and other video content to your TV through a special decoder called a "set top box".

As a user, you will be able to select the programme that you would like to view and watch it when you want on your tV with full VCR functionality. The movie would ordinarily be paid for through either a monthly subscription, on a "Pay-Per-View" basis or a hybrid of both.

Questions 13 - 23 of 23

Would you find it of value to have access to a variety of movies at home, which can be watched on your television, without having to go to the video store?

Most definitely Definitely Not

1 2 3 4 5

How important would it be for you to be able to select the categories of movies (e.g. Action, drama, comedy, suspense, adult etc.) that would be available for you to choose from ?

Very Important Completely Irrelevant



1 \_\_\_\_\_ 2 3 4 5

Would you like to be able to have access to the entire series of your favourite sitcom, to watch the different episodes whenever you want? E.g. Friends, Law and Order, Frasier, ER, CSI etc.

Most Definitely Not at all

1 2 3 4 5

What would you be willing to spend on a decoder (set-top-box) to give you access to a Video On Demand service?

Nothing

up to R 800

up to R 1,000

up to R 1,500

up to R 2,000

How much would you be willing to pay as a monthly subscription for this Video on Demand service? (Your first 3/4 movies and sitcoms would be included in this subscription)

Nothing

up to R50pm

up to R100pm

up to R150pm

up to	R200	pm
-------	------	----

How much would you be willing to pay per movie ordered?

Nothing
up to R 5.00
up to R 10.00
up to R 20.00

Would it make a difference to your purchasing decision if the movies are delivered with Digital Surround Sound (Home Theatre)

Yes

No

How Important is Digital Surround sound in your purchase decision?

Must have

Definitely Not

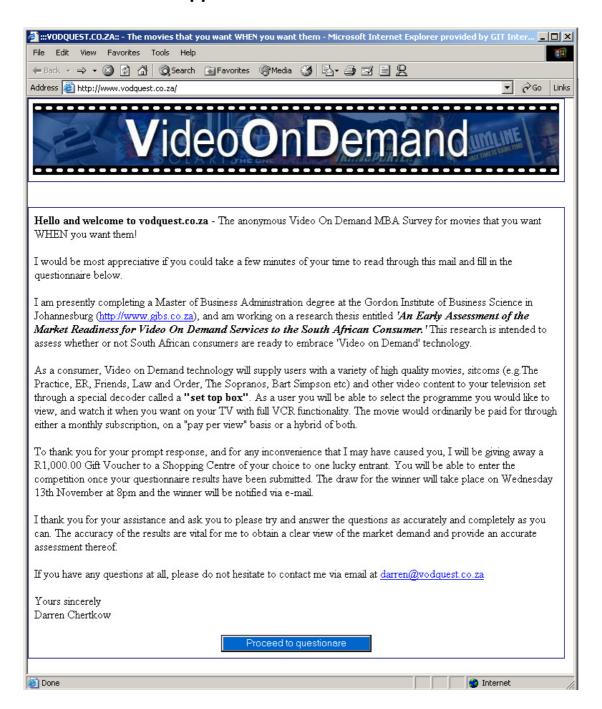
On purchasing a movie, for how long would you like to have it available for viewing (at no additional charge)?

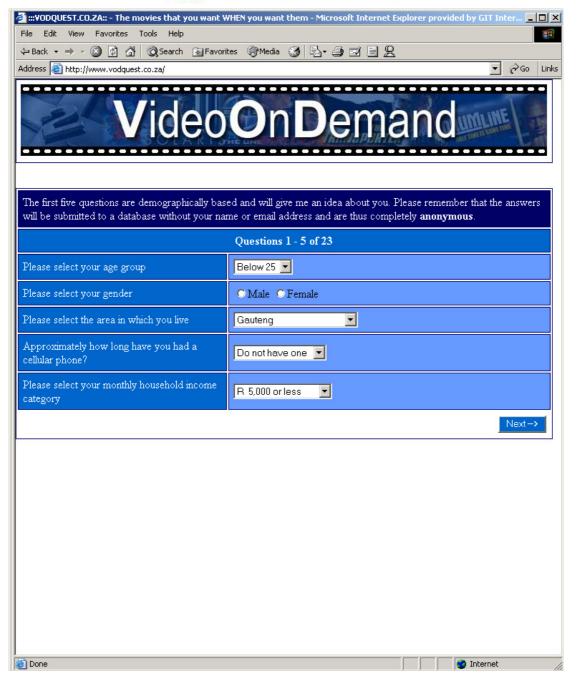
- 1 Day
- 2 Days
- 3 Days

5 Days					
1 Week					
Would you like	the system	to make movi	e recommend	lations to you b	ased or
your previous	viewing choic	es?			
Most Definitely	′			Definitely Not	
1	2	3	4	5	
If the service is	s launched, w	rithin what per	iod would you	ı subscribe?	
Within 3 month	าร				
Within 6 month	าร				
Within 1 year					
Within 2 years					
Within 5 years					
Don't know					



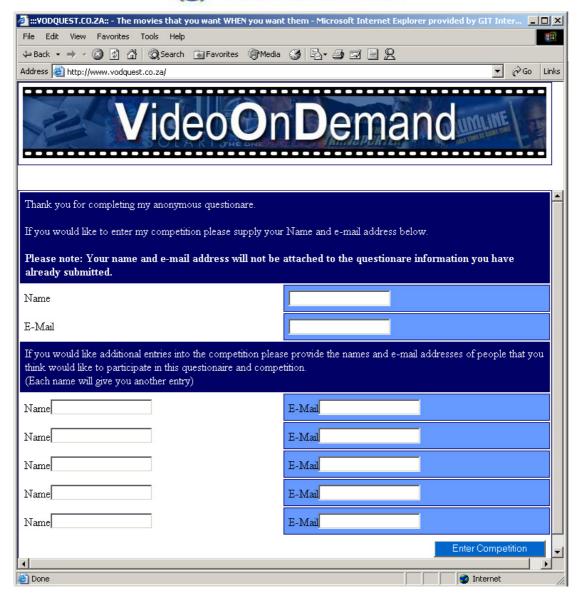
### Appendix 4: VodQuest.co.za







mand
hen you want on your tV with full VCR functionality.
iew" basis or a hybrid of both.
Most Definitely definitely Not
Very Completely Important Irrelevant
Most Definitely Not at all
Nothing
Nothing
Nothing
C Yes C No
Must Definitely have Not
1 Day
Most Definitely Not
Within 3 months





# **Appendix 5: Results Matrix**