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UNDERSTANDING MOTION PICTURE ATTENDANCE IN THE AGE OF HOME VIDEO: A SYNTHESIS OF COMMUNICATION AND ECONOMIC APPROACHES

By

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ABSTRACT

UNDERSTANDING MOTION PICTURE ATTENDANCE IN THE AGE OF HOME VIDEO: A SYNTHESIS OF COMMUNICATION AND ECONOMIC APPROACHES

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The purpose of this research is to explain motion picture attendance in the context of a changing home video environment. The theoretical framework for the current study is derived from the communication and economic approaches that attempt to explain movie attendance. The communication theory approach focuses on the *individual* decision making process of moviegoing and traces the consumer decision making process through expectancy-value theory, uses and gratifications, and diffusion of innovation concepts.

The economic approach focuses on *collective* movie attendance decisions and studies the effects of institutional factors in explaining movie attendance. Both approaches share a similar set of predictor variables but use different data sources and test different hypotheses. This study made an attempt to converge these two approaches to derive a hybrid model to explain motion picture attendance using household survey data.

Several multiple regression equations were estimated using data obtained from a random sample of 366 Lansing area residents reached through a telephone survey. The results found seven variables related to creative and promotional aspects of the movies and two demographic factors as significant

predictors of movie attendance. The statistical fit (R^2) of the equations ranged from .1483 to .2069, explaining approximately 15 to 21 percent of the variability in theater attendance.

Results of discriminant analysis revealed five creative and promotional variables together with four demographic and economic variables as significant discriminatory function variables for predicting the "frequent" and "infrequent" moviegoers. These variables together explain about 21 percent of the variability in the dependent measure (Lambda=.7891). The discriminatory model correctly classified 69.45 percent of the cases. On the other hand, only four demographic and economic variables were found to be significant predictors of video rental patterns. The four variable model was able to explain 30 percent of the variability in video rental patterns (R^2=.3003).

Overall, the results show some consistency with the studies that use different data sources to explain movie attendance. Home video appears to pose no immediate threat to the traditional theater but is likely to have an impact on theater audiences as the clearance time between theater and video windows continues to narrow. The movie industry, however, will be the winner as the new technologies seem to help rather than hinder the economic opportunities.

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Table of Contents

List of Tables

List of Figures

Chapter 1

Introduction

Recent changes in the home video environment have drastically altered the way people see movies. Evidently, home video affects the decision of what movie to see, where to see it, and when to see it; thus it has a profound effect on the exhibition side of the motion picture industry. The rapid growth of home video technologies now allow people to get theater-like experience in their own living rooms at ever affordable prices. The home video market experienced the fastest growth of any product or service in the communications industry during the past few years. In fact, by 1989, spending on home video comprised 40 percent of all U.S. spending on filmed entertainment, while box-office revenues only accounted for 21 percent (Veronis, 1992).

VCR penetration in the U.S. has nearly tripled over the last six years. Currently over 80 percent of U.S. households are equipped with a VCR, and it is estimated that the VCR penetration will reach 88 percent by 1995 (*New York Times*, February 4, 1993. p. B4). If the industry forecasts materialize, VCR penetration in the United States will approach total television penetration by the end of the century (Veronis, 1992). To meet the growing demand for

software created by the changes in the infrastructure, the number of video rental stores rose from a mere 2,500 in 1980 to a phenomenal 60,000 in 1990. During the latter half of the 1980s, home video spending soared at a 47.5 percent compound annual growth rate, the fastest of any product or service in the communications industry in the U.S. (Veronis, 1992).

According to industry statistics, rental of prerecorded movies currently surpasses all available means of watching a movie (Quigley, 1992). A recent nationwide study by the industry revealed that 67 percent of the people prefer to watch movies at home rather than go to a theater (Nichols, 1992a). The most recent industry statistics seem to confirm the survey results. For example, in 1992 consumers rented more than four billion videotapes and spent nearly $12 billion to rent and purchase prerecorded videocassettes. In response to the growth of technology and consequent demand for software, the industry has promptly narrowed the passage of time between the theater and video releases to an extent that some movies now practically step from theater to video stores. By late 1991, the passage was reduced to a mere two months, which is needed for distributors to promote titles and stores to place orders.

The financial weight of the video release has become so crucial that some major studios are now sending movies directly from theaters to video stores. For example, Fox decided to release the video of *Mrs. Doubtfire* on April 26, 1994, just about five months after its theater release. What distinguished Fox's action from the convention is that at the time of the video release *Mrs. Doubtfire* ranked number 10 on *Variety*'s domestic box-office list, drawing nearly $2 million per week in receipts from 1,153 theaters. While the video release effectively ends the theater run, senior vice president for Fox, Bruce

Pfander, defended the decision by saying, "We may lose a few million on the theatrical side, but with video we're pumping in another $100 million" (*New York Times*, April 8, 1994. p. B4). Justifying such marketing strategies, a video industry expert noted: "the shorter the time is good because the film is fresh in people's mind, and with it just coming out of theaters you get more bang out of the theatrical advertising" (Nichols, 1992b).

As a result, the near century domination of the traditional theater as the primary window for movies has been effectively threatened by the thriving home video industry. Financially theatrical revenues now lag way behind the video revenues, here in the U.S. and in the global market. Apart from the social/psychological gratifications one could gain by going out to see a movie, the benefits of watching movies at home appear to far outweigh the theater-going experience. As George Lucas succinctly observed:

> For years I've had arguments with executives, and I've been saying things are going to change rather dramatically and it has to do with the cassette industry. Once you could get a movie for two bucks six months after it was released to theaters, it had to basically change the business. Why would somebody want to go to movies now and spend 20 or 30 bucks with their family, when they can spend 2 bucks in a couple of months? It's had a profound effect on all of us (*New York Times*, January 27, 1992 p. B1).

Unlike the early days, where theatrical success was positively related to television performances, the video market seems to be somewhat independent from the theatrical performances. Many recent releases, even with name stars, that did not do well in the theaters, seem to perform well in the video stores (eg. *Career Opportunities, King Ralph, The Field, La Femme Nikkita, True Colors*, to name a few). This suggests that, as George Lucas observed, a significant segment of the audience is now willing to wait for movies to come on

video to see them for the *first time*. This may be a partial explanation for the sagging theater attendance that has fluctuated around one billion a year despite the substantial population growth and the reported 35 percent increase in the number of movie theaters.

Although the local theater still remains the "initial" window for feature length movies, its share in the total gross appears to have changed significantly and needs to be treated accordingly when analyzing the motion picture audience and its economics. It is timely to ask then: *How do these structural changes in the home video landscape influence our efforts to explain motion picture attendance?* The purpose of this dissertation research, therefore, is to explain motion picture attendance in the context of rapidly changing home video environment. Specifically, this research will attempt to answer the following two research questions:

> ***Research Question 1:*** *What factors have the most influence when consumers are deciding which movie to see?*
>
> ***Research Question 2:*** *What are the effects of the growing home video environment on movies seen in general and theater attendance in particular?*

It seems premature at this point to justify the study and provide a rationale for these research questions without discussing the current status of the movie industry and reviewing appropriate past research that will provide theoretical guidance for this research. As such, the following section will discuss the current status of the movie industry, followed by a chapter that reviews literature pertinent to the two theoretical frameworks used in this study. A detailed discussion of the research questions, the selection of the variables, sample and the methods will be presented in chapter 3.

Current Status Of The Motion Picture Industry

Americans spent 4.9 billion dollars at the box-office buying 971.2 million tickets in 1992[1]. And 1992 was the 31st consecutive year in which U.S. film ticket sales varied around the one billion mark[2]. In today's multi-window market, where movies are being delivered to the public through a vast array of traditional and non-traditional channels, box-office grosses and ticket sales alone hardly provide a complete picture of the movie industry and its economics. Movies are a part of the 25 billion dollar entertainment industry where the theater has become just one of the many exhibition windows through which movies are delivered. Although motion pictures remain a healthy industry, its share of the total spectator amusement expenditure has dropped from an impressive 77 percent to a mere 4 percent over the past 40 year period[3] (Quigley, 1991). Once limited to the theater and network television, movies are now the staple of the multi-billion dollar home video industry that includes videocassette, cable TV, pay-cable, pay-per-view, video-on-demand and laser disc. As such, the economic and social significance of the theater has drastically changed over the past decade and continues to do so as new windows for movies flourish in an unprecedented rate. It is in this context that

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[1] A two percent increase in box-office gross over 1991's $4.8 billion but a 1.1% decrease in number of tickets sold (981.9 million tickets were sold in 1991).

[2] Lowest year since 1961 was 1971 with 820.3 million tickets sold and the highest year was 1984 with 1.2 billion tickets sold. The 1993 figures, however, were predicted to be record setting due to the several very successful summer releases and factors related to the video industry (*Variety*, November 29, 1993. p. 1)

[3] Share of the motion picture industry in the total spectator amusement expenditure 1950-87:

1950 - 77.26%
1960 - 59.22%
1970 - 48.00%
1980 - 4.27%
1987 - 3.69%

this chapter attempts to review the necessary history and the development of the movie industry to its current status.

Movies As An Entertainment Option - Past And The Present

It was a century ago, on April 14, 1894, that the world's first Kinetoscope parlor opened its doors in New York City. This historic event marked the beginning of motion picture industry in the U.S. and had drastically altered the way people spend their leisure time in the twentieth century. The Kinetoscope became such an instant success that within a few months Kinetoscope machines were installed in department stores, drug stores, hotels, bar-rooms and phonographic parlors in almost all major cities throughout the country (Hendricks, 1985).

The popularity of Kinetoscope, however, was short lived for two major reasons. First, the initial attraction to Kinetoscope was due mostly to its technological novelty, which had a short life span, rather than its entertainment value. Second, Kinetoscope was only able to entertain one viewer at a time, consequently making it economically not very attractive. The one-machine-per-person hardly allowed Kinetoscope to stand as a self-supporting medium. Except for the few Kinetoscope parlors in some big cities, they were placed in other commercial or entertainment establishments. As such, once the novelty wore off, Kinetoscope failed to attract a commercially supportive audience necessary for its economical survival. But the initial success of the Kinetoscope indicated the commercial potential of moving pictures. As Jowett (1976) noted, the Kinetoscope acted as "an incentive to enterprising inventors and businessmen to devise a machine that would project the moving pictures on a screen where they could be viewed by a larger number of people at one

time." Driven by the promise of large financial rewards attached to large audiences, in less than two years the Kinetoscope was promptly pushed aside by a technologically superior new innovation called the Vitascope - embryo of the modern day movie projector (Hendricks, 1985).

While Edison concentrated on the camera, others, especially the Lumière brothers of France, envisioned the projector as an important part of the entire *process* of moving pictures (Gomery, 1991). As a result of the collective technological efforts that took place in the U.S. and Europe, the new machine-Vitascope-allowed picture images be projected onto a screen so that a group of people, not an individual, could be entertained at one time. In an industry where profits have always been the first and the foremost concern of the companies involved, Vitascope provided the much needed economic promise and assurance (Balio, 1985). Compared with Kinetoscope, Vitascope was indeed a commercial and aesthetic breakthrough. It allowed entrepreneurs to collect admission from a *group* of people from a single screening. This, in fact, changed the course of the motion picture industry economically and socially. As Guback (1987) noted:

> The amount of revenue earned by a peephole parlor entrepreneur depended upon how many machines could be in operation at once. It was in this context that the introduction of the projector was so earthshaking. Aesthetically, of course, it changed the way people watched films. But its most significant impact, from the business perspective, was that it vastly increased the rate at which investments in films and equipment could be recouped.

The popularity of Vitascope brought the movie industry to its first "boom stage." Despite some difficulties experienced in production and distribution, movies were established as a staple in vaudeville shows (Jowett, 1976). The industry also realized that its long term survival was largely dependent upon

the constant supply of new films that could attract the audiences to the theaters on a regular basis. As a result, barely ten years after the introduction of the peephole machine, nearly 150 film exchanges were in operation serving all areas of the country. Balio (1985) called this the industry's conversion to mass production of motion pictures, which, in effect, helped open thousands of theaters all over the country. The exhibition boom gave birth to nickelodeon theaters which, according to Merritt (1985), established a durable pattern for nation-wide distribution, and-most importantly-built for the motion picture an audience that would continue to support it for another thirty years.

The proliferation of the nickelodeon movie theater began to replace single-reel travelogues and news films with narrative ones (Allen, 1985). And movies had gone from simply recording events to story telling. They also became inexpensive, easily accessible, and, before the introduction of sound, did not require an understanding of spoken English to enjoy them - an important factor given the large portion of immigrants in the audience. Movies quickly surpassed the other dominant forms of entertainment, such as plays and musicals, and became the most popular means of entertainment. More people went to the movies than participated in any other form of commercial recreation (Austin,1989). By 1910, there were more than ten thousand nickelodeon theaters in operation throughout the country "creating demands for between one hundred and two hundred reels of film every week" (Merritt, 1985). Based on the most reliable estimates at the time, Merritt (1985) found movie attendance practically doubled during the nickelodeon era, increasing from twenty-six million persons per week in 1908 to at least forty-nine million in 1914. It was this dramatic growth of nickelodeon, noted Jowett (1976), that

led to the development of the motion picture industry which consisted of three basic segments-**production**, **distribution** and **exhibition**.

Large audience size notwithstanding, movies did not yet become a part of the American entertainment and cultural mainstream. The public perceived movies as a medium directed towards and appealing to a specific social class, namely the urban working-class, of which the immigrants were a significant segment. The public perception that movie entertainment was "lower class" oriented shrunk the movie industry's boundaries and its economic prospects. In an attempt to change the public's image and the social stigma attached to movies, the industry began to improve the movies and the theater quality as a lure to attract other segments of the public to the theaters. And it did work. As the film quality improved and theaters became more comfortable, noted Merritt (1985), movies began to appeal to the larger middle and the upper class. The audience was no longer made up primarily of the "urban working class" and the "immigrant." The movies that evolved from arcades to vaudeville theaters and then to store-front theaters were soon shown in motion picture palaces. They were able to attract the much needed middle-class audience. Movies finally became a part of the mainstream American culture (Jowett, 1976). The growth of the audience was so rapid and dramatic, the drama critic for the *New York Times*, reporting the occasion of opening of Strand Picture Palace on April 1, 1914, wrote:

> When I saw the wonderful audience last night in all its costly togs, the one thought that came to my mind was that if anyone had told me two years ago that the time would come when the finest looking people in town would be going to the biggest and newest theater on Broadway for the purpose of seeing motion pictures, I would have sent them down to visit my friend, Dr. Minas Gregory at Bellevue Hospital. The doctor runs the city's bughouse you know. (Jowett, 1976. p. 60)

Once the members of all segments of the society were lured into the theaters, the industry faced the challenge of keeping their enthusiasm to the new medium intact. One of the most important steps taken by the movie industry in this regard was the development of the "star system." Although previously unknown and insignificant, actors rose into the stardom and were paid exorbitant wages. Of all the devices use to generate business, observed Balio (1985), the star system was by far the most effective. In its fully developed form, the star system affected all the branches of the industry. For some, acting suddenly became the best-paid profession on earth. While the average American industrial worker earned less than fifty cents an hour, million dollar guaranteed salaries became standard for stars (Platt, 1992). For example, as early as 1916 Charlie Chaplain collected a $10,000 per week stipend and $150,000 in bonus money for signing. The studios embraced the star system as a mean of developing a faithful audience. And the large sums paid to the stars apparently seems justifiable because they provided the much needed assurance in this unpredictable trade. From the beginning, name stars were able to secure a profitable audience more than any other single factor. By 1922, millions of people flocked to the theaters on a weekly basis, and the motion picture industry had become the largest and most widespread commercial entertainment form the world had ever seen (Jowett, 1976).

The prosperity, however, did not last long. By mid 1920s the mostly B-class run-of-the-mill movies were not able to justify the rising admission prices and high expectations of maturing audiences. As audiences now represented a cross section of the society, demand for good movies rose high. While the studios were desperately looking for some novelty to overcome the

lukewarmness and the silent antagonism, another technological breakthrough, sound, came to the rescue of the industry. The arrival of sound was a shot in the arm that the industry so urgently needed in the late 1920s (Jowett, 1976). With the adaptation of sound, the remainder of nickelodeon theaters gave way to "true" theaters and the movie industry was able to revive and go through the Depression as one of the least affected industries in the nation.

By 1930 the motion picture industry had become a mature oligopoly that smoothly turned out films with regularity (Balio, 1985; Jowett, 1976). Five major companies (Paramount, Twentieth Century-Fox, Warner Bros., RKO and Loew's), known as the "Big Five," dominated all three segments-production, distribution and exhibition-of the industry. Universal, Columbia and United Artists, known as the "Little Three," operated in a symbiotic manner with the Big Five (Balio, 1985). The Little Three owned no theaters but their access to the first run screens owned by the Big Five made them major companies. These studios practically **produced** all class-A features that played in the best theaters and generated the most revenues. In **distribution**, the eight majors collected about 95 percent of all film rentals paid to national distributors. And on the **exhibition** side, the Big Five alone owned or controlled the operations of 126 out of 163 first-run theaters in the twenty-five largest cities of the country which accounted for nearly 70 percent of the nation's box office receipts (Huettig, 1985). The big studios kept the competition to a most profitable level to all the companies involved by competing and cooperating when and where it was necessary. In this "community of interest," observed Balio (1985), "a hit motion picture was profitable for all the integrated companies." The vertically integrated structure of the major studios lasted until the Supreme Court held

them responsible for antitrust violations and ordered them to divest the theater holdings. The Supreme Court ruling and postwar demographic and psychographic changes, along with the rise of television, brought the movie industry to a crucial point in its history. The new era, which was appropriately called the "age of television," brought new challenges as well as opportunities to the nearly half-a-century old industry that so far relied upon one outlet: the theater.

The Postwar Period

United States was the only country in the war to come out richer than when it went in. As a result, the postwar U.S. economy witnessed an unprecedented economic growth coupled with an increase in leisure time. The steady growth of GNP inflated the public's disposable income and recreation expenditure, ideally a fertile ground for an industry like movies. Yet, the motion picture industry began to confront a period of economic difficulties. After seeing its biggest year in 1946, in which the average weekly audience hit an unprecedented 90 million and box office gross accounted for $1.7 billion, the audience started to erode. During the fifteen year period between 1946 and 1960 the average weekly audience dropped from 90 million to 40 million and the movie share of the total recreational expenditure dropped from one fifth to one twentieth (see Tables 1.1 and 1.2). Movies continued as ***a*** major entertainment medium in the American recreational mix but lost its place as ***the*** major source of commercial recreation.

TABLE 1.1

THEATER ADMISSIONS AND SHARE IN THE RECREATIONAL AND SPECTATOR AMUSEMENT

1935 - 1985

Year	Admissions ($ Millions)	Share Of Total Recreational Expenditures	Share Of Total Spectator Amusement Expenditure
1935	556	21.14%	82.74%
1940	735	19.54%	81.31%
1945	1,450	23.62%	84.60%
1950	1,376	12.34%	77.26%
1955	1,326	9.42%	73.63%
1960	951	5.20%	59.22%
1965	927	3.52%	51.19%
1970	1,162	2.86%	48.00%
1975	2,115	3.84%	51.81%
1980	2,750	2.56%	42.7%
1985	3,749	2.43%	3.85%

SOURCES: JOWETT 1976; QUIGLEY 1992

Although television evidently had an enormous impact on movie attendance, the postwar erosion of the attendance started even before television became a predominant entertainment medium in American society. According to Jowett (1976), demographic, economic, legal, and lifestyle factors combined with quality of the movies themselves *and* television contributed to the postwar decline of movie audiences. As the post war population grew older and more and more young people began to start families, movies began to lose its largest group - the group less than 30 years old who comprised more than 50 percent of movie patronage (Conant, 1960). As Lazarsfeld (1947) pointed out:

> The decline of frequent movie attendance with increasing age is very sharp. No other mass medium shows a comparable trend. This is probably due to variety of factors. Movie-going is essentially a social activity, ... and young people are more likely to band together for the purpose of entertainment. Then, for the movies one has to leave home, which probably becomes more distasteful as one grows older.

Meanwhile, the public's reaction to the movie quality appeared to grow bitter while the entertainment options available to them grew bigger. For example, a survey conducted by *Fortune* magazine in 1948 found 38 percent of the respondents believing that there were "fewer good movies" in 1948 than three years ago. A more disturbing finding of the *Fortune* survey, however, was the indication that a majority (50%) of the respondents were beginning to find alternatives to going to the movies (Jowett, 1976). The popularity of other alternative spectator amusement, such as professional sports, combined with the acceptance of such outdoor activities as camping and boating also indicated the defection from the movies. As is evident from the figures shown in the Table 1.1, the theater admission share continues to decrease in both total recreational expenditure and total spectator amusement expenditure.

The Justice Department meanwhile brought charges against the major studios for defiance of the antitrust laws. The *Paramount* case I, filed in July 20, 1938, was finally settled by the Supreme Court in 1946 (*Paramount* case II); it ordered the five major studios to divest their most profitable segment (exhibition) from their production-distribution activities and enter into consent decrees in other areas (Conant, 1960). The *Paramount* decrees came as a major blow to the industry already in trouble and had an impact on its structure, behavior, and performance. In the long run, however, noted Jowett, "the divorcement decree was but one of the several social and economic factors

which together caused a total shift in the pattern of motion picture attendance in the postwar period" (Jowett, 1976).

In addition to the ongoing problems in distribution and exhibition, the production costs of movies continued to grow while profits from the only ancillary market at the time-foreign sales-dwindled as a direct result of strict measures taken by the European countries to restrict the flow of foreign exchange. While the industry was struggling to get the audiences back to the theaters, television, the newly emerging medium, provided the public with a convenient alternative to moviegoing. With the proliferation of television, the movie industry entered an era which saw a systematic and continuous decline of the audiences. As Table 1.2 shows, by 1949 television became a true mass medium in the U.S. During this year the number of television stations on the air rose from 17 to 50 and the number of households with television receivers exceeded the 1948 total by 500 percent while the movie attendance started to decline.

Hollywood initially reacted to television merely as "visual radio" with no long term threat to movies. But it soon found that presumption painfully incorrect. As seen in Table 1.2, there is a very strong inverse relationship between television penetration and movie attendance[4]. Conant (1960), described the impact of television on the allocation of leisure time as "spectacular" and asserted that as a "conservative" description. After

[4] A Pearson correlation coefficient calculated using this data shows a very strong inverse relationship between the number of families with TV sets and average weekly movie attendance (r=-.83 significant at .001) and a stronger relationship between the number of TV households and the number of TV stations (r=.95 significant at .001)

TABLE 1.2

WEEKLY MOVIE ATTENDANCE IN RELATION TO TELEVISION PENETRATION

1946 - 1956

Year	FAMILIES WITH TV SETS ('000)	NUMBER OF COMMERCIAL TV STATIONS	AVG WEEKLY MOVIE ATTENDANCE (MILLIONS)
1946	8	6	90
1947	14	7	90
1948	172	17	90
1949	940	50	70
1950	3875	97	60
1951	10320	107	54
1952	15300	108	51
1953	20400	125	46
1954	26000	349	49
1955	30700	411	46
1956	34900	442	47

SOURCES: *Film: The Democratic Art*, Jowett, 1976

examining the introduction of television and movie attendance patterns, Stuart (1975) also found empirical evidence to substantiate the hypothesis that the introduction of television was the **principal** reason for the decline in movie attendance. He then concluded: "In the absence of television competition, there might have been a substantial increase in motion picture revenues between 1948 and 1954." The empirical evidence, in fact, only confirmed what the movie industry had already been experiencing.

Within the first ten years of television, movies lost nearly half of its audience evidently to the new medium (Table 1.2). Only a few in the film industry seemed to realize the actual impact of television on the movies and

what could be done to rescue it from apparent disaster. One such visionary was Samuel Goldwyn (1950). As he succinctly illustrated:

> A factor on our side is that the people will always go out to be entertained because human beings are naturally gregarious. But before the movie-goer of the future arranges a baby sitter, hurries through dinner, drives several miles, and has to find a place to park, just for the pleasure of stepping up to the box office to buy a pair of tickets, he will want to be certain that what he pays for is worth that much more than what he could be seeing at home without any inconvenience at all.

The implication of Goldwyn's observation is that movies must be substantially different from TV or they should offer something that TV cannot offer in order to bring the audiences back to the theaters. Acting on this premise, the industry evidently fought back first by offering color and then moving to epics and technological gimmicks such as 3-D, CinemaScope, Cinerama, stereophonic sound and Todd A-O, to distance movies from television. Although technological wizardry was able to win some audiences back, the industry was fighting an uphill battle against another more exciting technological breakthrough, namely television. And the odds, however, were against the movies with television offering "free" entertainment at the convenience of one's own living room. Eventually the "all out competition" failed, the movie industry started to cooperate and integrate with television (Jowett, 1976). An economic symbiosis began between the two media. Perhaps to its surprise the industry soon realized that there is money to be made by feeding the voracious appetite of television with its large inventories of old movies. Cooperation proved more lucrative than the competition. Once the public signaled their willingness to stay home and enjoy the so-called "free" medium, Hollywood started to flood television with its old movies. A special report prepared by Sindlinger and Company for the Theater Owners of America noted that in the last quarter of 1957, old movies constituted almost 25

percent of television viewing time (Jowett, 1976). It's no surprise then that the movie attendance dropped to an all time low of 37.7 million a week in the same year (Conant, 1960). By 1958, an estimated 3,700 movies had been sold or leased to television for an estimated $220 million (Jowett, 1976).

As Litman (1982) observed, in addition to selling theatrical movies, the major studios became suppliers to the networks of all forms of programming, ranging from prime-time and daytime series. As a result, by late 1950s television became Hollywood's biggest money maker. According to some estimates a single production company, such as Desilu, turned out more footage than the combined output of the five major studios (Jowett, 1976). The economic symbiosis that began between the two media in the mid 1950s took on a pattern of stability and mutual interdependence within a short span of about fifteen years (Litman, 1982). It had also drastically changed the economic structure of the movie industry by offering a strong ancillary market until the 1980s when the revenues from other outlets began to surpass television revenues.

Television and Motion Pictures

As seen in the preceding discussion, it was evident that television contributed more than any other single factor to weakening the theater audience. Ever since television permeated America in the 1950s, per capita movie attendance dropped by about 75 percent (*American Demographics*, September 1986. p. 60). Nevertheless, the new medium also proved to be a strong secondary market for the movies. The poor quality of television programming in the early days, combined with the television's great appetite for programming, forced television executives to turn to Hollywood movies to fill

the air time. The truce between the two media started when Hollywood began selling its old movies to television on mutually beneficial terms. In the beginning of this economic symbiosis, any money the studios made by selling TV rights to their mostly B-class movies was considered as windfall profits because these libraries had been fully amortized. However, as the demand increased, the studios quickly discovered that they had undervalued their old films. As a result, during the early 1960s, noted Balio (1985), a run-of-the-mill feature leased to the networks fetched $150,000 for two showings, as compared with an average price of $10,000 per film for the RKO library in 1955 (Balio, 1985). And the prices only went up.

According to Londoner (1985), during the 1960s the cost of a typical movie to the networks for three-year license rose from $150,000 to $800,000, fueled by the attempts of then young network ABC to gain some ground in the rating game. Searching for a programming strategy to move up from the third place in the network hierarchy, ABC decided to bet on theatrical movies and started to bid for movies that had proved their mass appeal at the box-office and was willing to pay above average prices for them. For example, when the average movie was fetching $400,000, ABC paid Columbia $2 million for *Bridge on the River Kwai*. And it paid off. When it was aired in September 1966, the nine year old movie made TV history by attracting an unprecedented audience of 60 million. It was able to beat such popular TV hits as the *Ed Sullivan Show* and *Bonanza* in the ratings (Balio, 1985). Stirred by ABC's success, the other two networks followed suit creating a bidding war for A-class movies. The newfound competitive bidding war by the networks doubled the average price of the movies from $400,000 to $800,000 by 1968 while theatrical classics,

such as *Cleopatra* and *Gone With the Wind* each fetched $5 million (Jowett, 1976). As a result, by late 1960s television had become a firm secondary market for theatrical movies. Except for a short period of time in the early 1970s, when the prices dropped in half, movie rights for broadcasting continued to grow. The prices gradually worked up to about $1 million by 1975. And by late 1970s movies were drawing close to $2.5 million in the network market (Balio, 1985).

Although television revenues were first considered as just "gravy" by the studios, they soon became expected and planned for. As the television market developed, studios started to use television revenues as collateral in obtaining financing. Still, network premieres typically began about a year-and-a-half to three years after the theatrical run (Balio, 1985). As Litman (1979) observed, television networks had greater difficulty in negotiating with studios as suppliers of theatrical films than as suppliers of other entertainment programming due to the lesser uncertainty attached to the movies that had already undergone the popularity test in the theatrical run. The growing power of the studios forced the networks to start financing what became known as made-for-television movies as a supplementary to the theatricals. This created a period of time with seven movie nights on TV. The made-for-TV movies and theatrical movies not only created a glut on the market but also made audiences more selective and consequently dropped the ratings. It took another four years - until 1972 - for the studios to tip the supply and demand relationship vis-à-vis the networks in their favor. By this time theatrical blockbusters and movies with bankable stars were able to draw lucrative prices in the television market. For example, networks paid $7.5 million for

The Deep, $15 million for *Alien* and $10-$13 million for any Clint Eastwood or Burt Reynolds film (Balio, 1985). This trend continued until the late 1970s when the new technological developments such as cable TV, videocassettes, pay-TV, superstations and independent stations emerged as new windows to offer motion pictures. These new windows of the late 1970s that grew during the 1980s opened more markets for movies and changed the economic parameters of the movie industry. As seen in Table 1.3, the broadcast television share of the domestic movie revenues dropped from 12 percent to 8 percent during the period of 1985 to 1990 and had the lowest annual growth compared to box-office, pay-TV and videocassette for the same period.

Table 1.3

DOMESTIC MOVIE REVENUES AND SHARES

Category	1985 ($ Millions)	Share	1990 ($ Millions)	Share	Compound Annual Growth
Box Office Rentals	1.1612	42%	2,160	32%	6%
Television	1,074	28%	1,642	24%	8.9%
Broadcast TV	442	12%	569	8%	5.2%
Pay TV	632	16%	1,073	16%	11.2%
Videocassettes	1,136	30%	2,925	44%	20.8%
Total	3,822	100%	6,727	100%	12.0%

Source: Veronis, Suhler & Associates. *Communication Industry Forecast*, July, 1992

The large home video and pay-cable audiences to which movies are first exposed sharply reduced the network audience for theatrical movies. As ratings dwindled, the networks expressed their reluctance to pay as much as in the past for feature film exhibition rights (Vogel, 1986). The networks also began to rely less and less on theatrical movies in their program planning. The programming trends of the recent past show the networks building audiences

around docudrama type made-for-TV movies with stories still afresh in the audience's memory and on popular pre-sold stories which are both less expensive to buy/produce than the theatrical movies but more effective in generating higher ratings. The networks, however, still remain as an important market for theatrical movies. But as figures in Table 1.3 indicate, its economic importance to the movie industry is largely shrinking. Television now accounts for only about one-fourth of the domestic movie revenues.

The evidence also suggests that the networks are becoming more selective about the movies they put on the air. Unlike the days of blind bidding where movie rights were bought even before the production process began, networks seem to play safe by relying more upon the movies that performed well at the box office counting a somewhat guaranteed television audience. For example, for the 1992-93 season the three major networks only bought 23 theatrical movies (CBS 14; NBC 7; ABC 6). But they included such blockbusters as, *Pretty Woman, Total Recall, The Hunt for Red October, Driving Miss Daisy, Another 48 Hours, Die Hard 2, Ghost* and *Indiana Jones and the Last Crusade* (*Broadcasting*, August 3, 1992. p. 21). As Litman (1982) had predicted a decade ago, the home video, pay television, and other markets have replaced the theatrical market as the primary transmission outlet for the movies. The loss of television as a major revenue center, however, was simply replaced by the newly emerging ancillary markets which now well exceed theater exhibition in dollars.

Box Office: The Primary Window

Until television began showing movies in the mid 1950s, the theater remained as the only outlet for motion pictures. And the only ancillary income studios earned came from foreign markets. By broadcasting movies, television broke the monopoly theaters held as the exclusive window for movies since the Nickelodeon replaced the Kinetoscope in the beginning of the century. But neither the industry nor the audiences regarded commercial television as an *alternative* window for movies. There is no evidence to show that people decisively abandoned going to the theater to see a movie knowing that it may be on television, say, a year or two later. In addition to the long waiting period, not all movies came to commercial television and the ones that made it to TV were often edited to keep them within a specific two hour time frame, including commercials (*New York Times*, March 9, 1993. p. B3). Therefore, until the early 1980s, with the maturing of premium pay cable, the theater remained as the primary outlet for movies where most of the revenues were collected and most of the viewing occurred (Vogel, 1986).

The flourishing new media technologies, such as videocassette, cable, premium channels, and pay-per-view, whose programming is, for the most part, built around the movies, however, offered a formidable challenge to the theaters in the late 1970s and throughout the 1980s. By offering un-cut, un-interrupted movies within a few months after the theatrical releases, these new outlets were able to redefine the place of the theater in the movie industry. As theater attendance to VCR rentals reached a ratio of one to four,[5] theater is no longer where most of the viewing occurred. Nor is it where most of the

[5]In 1992 4.1 billion videos were rented against the near one billion movie tickets sold.

revenues are collected. As shown in Table 1.3, the box-office share of the domestic movie revenue now consists of less than a third and it had dropped 10 percent during the period of 1985 and 1990 with a compound annual growth of a mere six percent. The decline has taken place despite the rise of the average theater admission price from $3.55 to $4.75 (Quigley, 1992). A breakdown of worldwide revenues reveals even a weaker position for the theatrical grosses. In 1980, for example, 80 percent of worldwide revenues were attributed to the theater grosses. Ten years later, in 1990, only 30 percent of the worldwide revenues came from box-office (*Time*, July 30, 1990. p. 56). This, however, did not upset the industry because, even though the revenue centers have changed, the overall revenues continue to grow. According to industry analysts, with several sources of revenues available, large grosses at the box-office are not that crucial in the present economic equation. In the growing multi-channel marketplace, the role of the theater is not necessarily to recoup the costs and make profits. Rather, says *Variety*'s Art Murphy:

> It [the theater] is the *launch pad*, and the big hit there is the big hit in all markets-in videocassettes, in pay, cable, network and syndicated TV, and all those markets around the world. A film's main job is to establish itself as something the public wants to *consume in the future*, where the real money is. (italics added)

Like Murphy, Douglas Gomery (1993), calls the first-run theater the principal "voting booth." According to Gomery, feature films still begin their marketing life in theaters and the theatrical performance is still crucial to the consequent ancillary markets. There is empirical evidence to support the notions of theater as the "launch pad," or the "voting booth." A recent survey of video store customers, for example, found 60 percent of those surveyed

leaving stores without renting anything because the movie they wanted to rent wasn't there. Moreover, the survey also found that people didn't choose alternative tapes because they were *unfamiliar* with the available options (*New York Times*, January 4, 1992. p. B4). So the theatrical release and the publicity attached to it play an important role in the performance of a movie at the markets that follow the theatrical release. Theater, therefore, is where the movie is introduced and publicized, attracts the media attention, gets critiqued and reviewed, builds the word-of-mouth publicity and eventually writes its own financial fate. As such, the theater appears to remain as the primary window in the release hierarchy while its financial importance has given way to newly emerged ancillary markets.

The Other Windows

As noted elsewhere in this chapter, currently two thirds of the domestic movie revenues and about 70 percent of worldwide revenues are earned from sources other than theatrical grosses. The non-theatrical shares continue to grow as technological advances constantly add new windows to deliver movies. For example, compared to the nearly 24,000 theater screens, there are 60,000 video rental outlets in the country. The importance of ancillary markets is such that acquisitions and mergers are planned and implemented with those markets in mind. For instance, when Disney recently acquired Miramax[6] as an autonomous division of Disney's distribution arm Bvena Vista Pictures, it specifically wanted to distribute Miramax's future films *and* to acquire video, cable, TV, pay-per-view (PPV) and all ancillary rights to its current library of over 200 films (*New York Times*, May 1, 1993. p. 17). The most important

[6]The independent distributor of mostly art films who released such low budget box office successes as, *The Crying Game, Sex, Lies and Videotape, My Left Foot* etc.,

financial centers of these "other windows," however, are videocassettes and pay-TV (or premium channels), while PPV, video-on-demand (VOND) and laser discs are making inroads to the market as their share is also on the rise. Following is an analysis of these new windows and their financial strengths and effects on the movie industry.

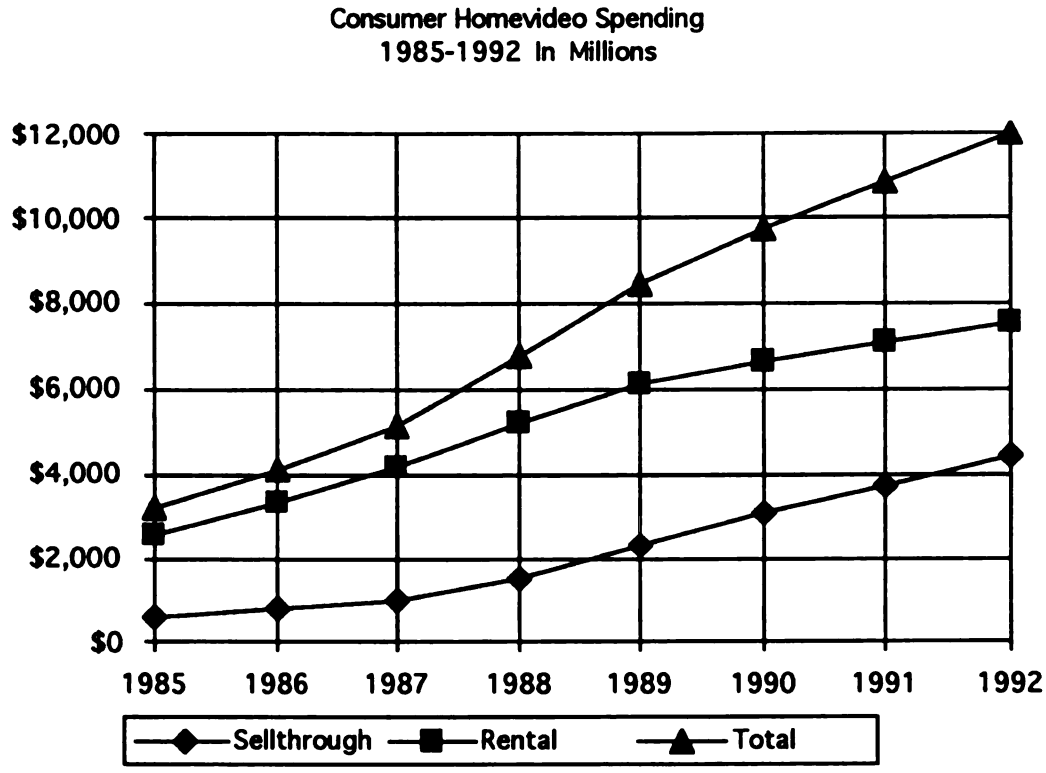
Videocassettes

For every theater in the country that offers a single movie at a given time, there are two-and-a-half video rental outlets that offer virtually thousands of movies. The growth of video rental stores, from a mere 2,500 in the 1980 to a phenomenal 60,000 in 1990, shows the rapid growth of the home video market. The home video market currently stands as the financially most important outlet for the movies. As observed by the industry investment bankers Veronis Suhler & Associates (1992), no other communication medium showed a similar growth during the past 15 years than the VCR. According to most recent estimates, about 80 percent of American households are now equipped with a VCR and the penetration is projected to reach 88 percent in 1995 (*New York Times*, February 4, 1993. p. B4; Veronis, 1992). Although purchase of a VCR is triggered by many of its potential uses, such as time shifting[7] and watching home videos, watching prerecorded videos appears to be the major use of the VCR. Rental of prerecorded movies currently surpasses all available means of watching a movie. Although no data are available for the average audience for a rented video, even a very conservative estimate of 1.5 per video rental would put the annual audience over 6 billion

[7] The ability of the viewer to tape a show for later viewing as well as eliminating commercials by editing them out or fast forwarding them

mark. As Figure 1.1 shows, consumers spent nearly $12 billion to rent and purchase

Figure 1.1



Source: *International Television and Video Almanac,* Quigly Publishing Co., 1992

prerecorded video cassettes in 1990 of which over 75 percent consisted of adult and children feature films (Quigley 1992). Over the period between 1985 and 1990, home video end user spending increased at a 32.7 percent compound annual rate, making it the fastest growing sector of the communication industry (Veronis, 1992).

The rental figures closely correspond with the available empirical evidence on moviegoing behavior. According to a survey done by Alexander & Associates, an industry consultant firm, 67 percent of the respondents prefer

to watch movies at home rather than go to a theater while only 22 percent prefer to go out to a movie (*New York Times*, February 6, 1992. p. B5). Although there is no evidence to show to what extent the theater audience overlaps with the rental audience, the stagnant nature of the theater attendance over the past two decades in contrast to the rising rental market suggests that videos are bringing new audiences to the movies.

Economical, social and technological factors seem to explain the recent upsurge in the home video market. Economically, it is much cheaper to rent a movie than go to the theater to see it. Ticket prices have risen 74.4 percent since 1980 to a current average of $5 as against the average video rental price for top rental currently range from $2.25 to $2.50 which is, in fact, coming down as the number of video stores flourish (Dept. of Commerce, 1992). While one ticket admits one person to the theater, the video could obviously entertain an entire family thus making the purchase a more economical one.

Home video also eliminates the refreshment expenses which are a major part of the movie bill, and in many cases the baby-sitter cost as well. Home video was also able to overcome virtually all the social problems attached to going to the theater which Samuel Goldwyn and Paul Lazarsfeld saw as reasons for the deterioration of the movie audiences in the 1950s. It eliminates the logistical problems such as arranging a baby sitter, having to hurry through the dinner, and driving several miles and finding a place to park. With VCR, one can also avoid the "distasteful" feeling of leaving the house to see a movie. Above all, unlike television, which offer a limited number of edited movies with commercial interruptions, video releases in fact, have begun to offer more than the theatrical release. For example, some movies are released on video with as

many as three different versions with different ratings (R, NC-17, Un-cut), and some are released with added footage known as the "director's cut.[8]" As such, the video version makes the movie more attractive than the theatrical version.

Technologically, it is now possible to create the theater-like visual and sound effects at home for a price affordable to the average family. Virtually all television receivers with screen sizes greater than 20 inches are now equipped with stereo sound as a standard feature. And according to industry sources, unit sales of big screen television sets are expected to increase by 30 percent this year (*New York Times*, June 6, 1993. p. C1). While it took more than 30 years for television to deliver stereo broadcasting[9], home video got a head start by offering VCRs with stereo sound at an early stage. Over ten percent of the VCR households are now estimated to have machines with built in Multi Channel TV Sound stereo broadcasting (MTS) capability and over one million households with laser disc players which also reproduce superb quality picture and sound. The increasing popularity of this state of the art home video equipment, whose primary purpose is to enhance the quality of movie viewing at home, indicates the seriousness of the home video audience.

The industry data on home video also suggests a growing trend among the public to own copies of their favorite movies. A third of revenues in the 11 billion video industry came from purchases and the share is growing (*New York Times*, May 21, 1992. p. B 4). According to Veronis, Suhler and Associates, (1992) from 1986 to 1991 sales of pre-recorded videos grew almost 31 percent

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[8]Recent such releases include *Godfather III* with additional 12 minutes; *JFK* with additional 7 minutes; and re-release of longer versions of *Lawrence of Arabia*; *The Graduate* and *Blade Runner*.

[9]It was in 1984 the FCC approved the Multi Channel TV Sound broadcasting (MTS Stereo)

while rentals rose only 13 percent; and the Department of Commerce estimates that there are about 100,000 business establishments engaged in video cassette sales (*U.S. Industrial Outlook*, 1992). As seen in Figure 1.1, sales accounted for more than 4 billion dollars in 1992 and purchase of videos tends to grow as rentals appear to stabilize with VCR penetration near saturation.

In fact, it was the introduction of VCR that allowed the average family to own copies of their favorite movies and consumers seem to accept the notion. *Aladdin*, for example, sold 10.5 million copies in the first three *days* of release, topping the $217 million it grossed in theaters (*Newsweek*, October 18,1993. p. 58). According to a *Variety* survey, during the first two months of 1993 sales of all kinds of tapes were 15 to 20 percent higher than a year ago. And, as expected, movie titles tend to dominate the retail sales. For example, of the 19.6 million cassettes sold during the first two months of 1993, about 11 million were movies. The 1993 figures are bound to do better with *Beauty and the Beast* selling 20 million copies and *Aladdin* selling 25 million copies by the end of the year (*Advertising Age Fax*, December 16, 1993).

Responding to the consumers' demand, studios are offering more lower priced titles than ever before. Pricing strategies adopted by the studios show a quite effective marketing plan that help increase the sales. Depending on the theatrical performance of the movie, videos are priced either for rent, sale, or rent first and then sale. Movies that did well in the theaters, i.e. blockbusters in the $100 million class at the box-office and the movies that appeal to children, are often priced under $25 with a street price around $15 or less. Others are targeted towards the rental market and are priced between $75 and $100, a form of price discrimination. Sometimes a release that is priced for

rental is later lowered to a selling price. For example, after receiving all four major Oscars (Best Picture, Best Director, Best Actor and Best Actress) Orion re-released *Silence of the Lambs* under $20 which was originally priced at $99.98. The same studio sold an estimated five million copies of the following year's winner of seven Oscars, *Dances With Wolves*, within two months priced at $7.99 in an exclusive deal through McDonalds in 1992, it also had an initial price tag of $99.98. Although the rock bottom prices Orion offered were an attempt to come out of its financial difficulties, the marketing strategy worked so well that the other studios began to follow suit this year. In a recently announced deal between Paramount and McDonalds, *Ghost* and *Charlotte's Web* are scheduled for the Summer release (priced $5.99 each). The mass marketing of a title is also used to promote the release of the sequel as well. For example, *Addam's Family* and *Wayne's World* were sold for less than $6 to promote the theatrical sequels *Addam's Family Values*, and *Wayne's World II* -to be released in November and December 1993 respectively (*New York Times*, May 27, 1993. p. B4).

Table 1.4

UNIT TRANSACTION AND GROWTH PER VCR HOUSEHOLD

Year	Purchase Per HH	Growth (Percent)	Rentals Per HH	Growth (Percent)
1985	0.9	—	29.2	—
1986	1.3	44.4	28.8	-1.4
1987	2.0	53.8	33.6	15.1
1988	2.4	20.0	47.4	41.1
1989	2.8	16.7	52.7	11.2
1990	3.1	10.7	51.2	-2.8

Source: *Communication Industry Forecast.* July, 1992

To recoup the most out of the rental and sales market, the studios and video distributors are beginning to provide big titles more quickly than in previous years (*New York Times*, June 18, 1992. p. B4). Some titles are in fact released on video while the movie is still running in second run theaters, and the video release schedules and promotions are being planned with the theatrical release. As noted elsewhere in this chapter, the video release is planned to get the benefit of the theatrical promotions by offering the video before the memories of the movie fade away from people's minds.

Pay-Per-View

In retrospect, it is evident that the extravagant predictions made a decade ago about how pay-per-view would revolutionize television and movie industries and send the video stores out of business by siphoning the home video consumers did not quite materialize (*New York Times*, May 24, 1993. p. B5). After a decade of existence and an impressive 21 million homes[10] with pay-per-view capacity, pay-per-view is still trying to find its place in the home video industry. Pay-per-view was built on the premise that it can profit from major television events, such as sports, musical, and prize fights that cost the viewer somewhere between $15 to $40 per event and from the movies just off from the theaters that cost the viewer $4 to $8 per request. But the majority of the events that PPV expected to be profitable flopped as most of the events failed to get more than one percent of the PPV households requesting the events. Except for very few prize fights, wrestling and live concerts, the subscription rate fell well below the industry expectations of the 10 percent rate (*New York Times*, November 12, 1992. p. B5). Nor did movies on PPV

[10]Which exceed the "critical mass" of 20 million households the PPV industry thought in the beginning it would need to thrive

make an effect on the videocassette industry. The greatest impediment to PPV, according to Dantia Gould, the editor of *Pay-Per-View Update*, a monthly trade paper for the industry, is the cost. As Gould has observed:

> If the average cable bill is $30 to $35 a month you can see that if someone orders a fight for $35 and then a concert for $20 and then a couple of movies at $3.95, you wind up with a cable bill of $100 a month. I don't know if I'm really going to watch that much if the bill is going to be that high.

As a result, however, pay-per-view today is dependent more on offering movies and less on major events. There is no evidence to show that the regular video rental clientele is deserting the video stores in favor of PPV in a harmful magnitude. Rather, both systems appear to co-exist. However, as a PPV movie cost two to four dollars more than the video rental, it is unlikely that PPV offers a threat to the video stores and the cassette industry unless it is highly price competitive with video stores (Vogel, 1986).

In the meantime, there are some recent developments in the PPV industry to suggest that it is willing to test some new waters. For example, a recently announced joint venture by Carolco Pictures (producer of such big budget blockbusters as *Terminator, T2, Total Recall, Basic Instincts*, and *Rambo*) and Tele-Communications Inc., (country's largest cable company) revealed TCI's plan to invest as much as $90 million in Carolco in return for the rights to show up to four new Carolco movies on its PPV network three times on the weekend ***before*** they are released theatrically. The first of the four films is expected to be shown late 1994. Although the movies were not yet identified, it is speculated that a Carolco-Schwarzenegger movie will be one of them. According to industry analysts, whichever movies are chosen they will have to be major ones, because the screenings will be sold as "events" at fees

estimated to be between $20 and $40. The home video industry, however, took the move as a positive one for them. Commenting on the Carolco-TCI deal, an industry analyst at Paine Webber noted: "For video stores, it will be like having an extra-wide theatrical release" which will promote the movies for the video market (*New York Times*, May 6, 1993. p. B4).

Piracy has also become a problem for pay-per-view more than the other windows. A recent industry survey revealed that nearly two million households have illegal descramblers. According to the same survey, conducted for the Video Software Dealers Association, when viewers were asked where they first saw hit movies, 25 percent said theaters, 50 percent said on videotape and 25 percent said on pay-per-view, which is much larger than the loyal pay-per-view subscribers (*New York Times*. November 29, 1993. p. B10; October 1, 1993. p. B5). More than losing revenues, piracy hits hard on pay-per-view as studios lose faith on the medium. Due to the increasing number of illegal descramblers, studios now give big titles an exclusive 30-to-35 day window in video stores before making them available to pay-per-view. Expecting high cassette orders from video stores, Paramount even extended the video window to 80 days for three recent hit movies *Indecent proposal*, *Sliver* and *The Firm*, delaying the films' pay-per-view release dates to as late as March 1994 (*New York Times*. November 29, 1993. p. B10).

Looking at the sheer differences in consumption, price, and technical difficulties, industry experts see no immediate effects of pay-per-view on video rental. In 1992, for example, fewer than one movie per month was ordered by the pay-per-viewers while video store customers rented an average of 5.6 videos per month (*New York Times*. November 2, 1993. p. B10). The future of

pay-per-view, however, will likely to be determined by the performance of the latest arrival in the media industry: video-on-demand, in which pay-per-view becomes just one of the many players.

Video-On-Demand

Beyond several localized experimental areas, video-on-demand is from several years to maybe a decade away until its full potentials are offered (*New York Times* March 11, 1993. p. B5). Entertainment is just a part of this latest technological offering in which telephone, computer and entertainment industries are forming an alliance to offer à la carte video services for Americans to shop, bank, learn, communicate and entertain. All these activities become a part of the "*Information Superhighway*" that is being developed under the auspices of the Clinton Administration. According to then Apple computer chairman John Sculley, the revenues generated by this mega industry could reach $3.5 trillion worldwide by the year 2001[11] (*Newsweek*, March 1, 1993. pp. 75-76).

The competition for the dominance or a large share of this supposedly lucrative venture is already in full swing. All major players in the entertainment, telephone and computer industries have already made financial commitments to video-on-demand. For example, TCI is spending $2 billion on fiber optics and several hundred million dollars on digital-compression techniques to create a 500-channel cable system. Viacom International, which operates cable systems with a total of 1.1 million subscribers and owns cable programmers that include MTV and Showtime movie channel, and AT&T announced a market test of new technology that delivers movies on demand, as

[11]The entire U.S. GNP today is about $5.9 trillion

well as games and shopping services over cable-television networks. AT&T's Bell Laboratories is committed to provide the technology needed for advanced switches for routing information and large computers for sorting and retrieving movies and other programs. Just two weeks before the Viacom AT&T deal, US West announced that it would invest $2.5 billion with Time-Warner to build advance cable and information networks that would offer services similar to AT&T/Viacom (*New York Times*, June 2, 1993. p. C1). In the meantime Microsoft, the biggest software maker in the world, is reportedly exploring a possible alliance with several cable and entertainment companies (including Time-Warner and Tele-Communications) to establish Microsoft software as the standard for interactive TV that is being implemented. According to the industry experts, the potential alliance helps meld computing and television that would enable viewers to sift through huge amounts of data - from first run movies to encyclopedia entries to the morning news - using their TVs (*Wall Street Journal*, June 14, 1993. p. B6; *New York Times* June 14, 1993. p. C 6).

As far as video entertainment is concerned, video-on-demand takes pay-per-view a quantum leap forward. Still cable based, but using fiber optics as against the conventional copper cables, the new cable system is capable of carrying virtually thousands of channels. Hence, unlike the PPV, where customers pick what is available in the limited number of titles being offered at a given time, video on demand virtually offers, say, all the titles of a major video store plus all the TV programs, such as yesterday's news or last week's episode of *Seinfeld* by the consumer punching numbers on a telephone or a television remote control. Although re-cabling the nation's 100 million households with fiber optic cables is estimated to cost billions of dollars and

the remainder of the century, the process has already started. In fact, Time-Warner and TCI are already offering video on demand on an experimental basis in many states. Since July 1992, TCI's true video on demand allows customers to order from 1700 film titles or other programs any time they want by pushing a button. Within 10 minutes the movie starts and the fees range from 99 cents to $4 per film (*New York Times*, March 11, 1993. p. C1). As can be seen from the current offerings, expectations and projections, movies, old and new, represent a major portion of the video-on-demand menu. As such, the movie industry is in a win-win situation with video-on-demand. If all the projections were at least partially accomplished, it will greatly increase the demand for old and new movies. If it failed, there will be no major losses to the movie industry because its involvement in the venture is only to provide the software which is already being produced for other windows anyway.

Laser Disks

More than a decade after it was first introduced, and rejected, consumers now seem to be accepting the laser disc format. Although only an estimated one million households[12] are currently equipped with laser disk players, the industry believes that the format is growing steadily. According to the Laser Disk Association statistics, 10 million video discs and 206,000 video disk players were sold in 1991 compared to the 6 million discs and 159,000 players sold in the previous year.

Several reasons appear to be behind the popularity of the laser disc format that weren't there when it was first introduced in the early 1980s by RCA and the Phillips Consumer Electronics. First, the consumer now appears

[12]Approximately one percent of American households, as against the nearly 80 percent VCR households.

to be more serious about the quality of home video than he did a decade ago. For the discriminating consumer, laser disc provides superior quality home video. As Douglas Pratt, the editor of *Laser Disk Newsletter*, observed: "People are looking for the next step up in quality" (*New York Times*, June 3, 1993. p. B5). Second, there is a reasonably large inventory of movie titles available now on disc format which justify the purchase of hardware. For example, more than 10,000 titles are currently available on laser format and virtually hundreds of new and old titles are added to the inventory every month. Except for art films and a few independent releases, all movies are now simultaneously released on both, cassette and disc format. Third, the prices of the laser disc players are within the reach of the average household. The price came down from its early 1980 unit price of $1000 to current price of around $400. For that price a consumer gets a machine that not only plays laser movies but accepts three inch and five inch format audio compact discs as well. In a latest development that expects to boost the popularity of the laser format, two companies, 3DO of California and Philips Consumer Electronics, announced the release of machines that play back 5-inch compact discs instead of current 12-inch laser discs, audio CDs and video games. The 5-inch CD-ROM videos are expect to lower the production cost allowing companies to sell a laser movie for about $25 or less. The new format was well received by the industry which believes the multi-purpose machine will help boost the consumer acceptance of the laser format (*New York Times* May 27, 1993. p. B4). To gain consumer confidence to 5-inch compact disc format, Philips Electronics has recently announced its decision to release 50 Paramount films on compact disc format (*New York Times*. September 24, 1993. p. B4).

Compared with the other windows through which movies are delivered, the laser disc format has some unique features. First, at least for the time being, it is primarily dedicated to movies. Unlike the videocassette recorder, pay-per-view or video-on-demand, the purchase of a laser disk player shows a commitment on the consumer's part to rent or buy movies since the machine's exclusive or primary function is playing laser discs. With the popularity of laser discs, the movie industry also foresees a growing market to sell movies. Unlike videocassettes, all laser disc movie titles are priced to sell. A random week's video releases of the following titles show that while the videocassettes were priced at $95, the comparable laser discs were priced between $35 and $40, *The Distinguished Gentleman; Trespass; Hero; The Public Eye; Reservoir Dogs; The Player; Mr. Baseball.* As the current evidence suggests, the popularity of disc players will eventually provide another window for the movie industry.

Foreign Markets

Entertainment is America's second biggest net export, trailing only behind the aerospace industry. According to MPAA estimates the U.S. motion picture industry earned foreign revenues of $6.35 billion in 1990, an increase of about 20 percent over the 1989 earnings, that created a trade surplus of more than $5 billion. This revenue included theatrical exhibition, television, home video and pay-TV. Movies, however, represent a robust portion of the entertainment industry and since 1985 the overseas billings for American made movies have doubled (Corlis, 1990). It is estimated that the U.S. majors control 80 percent of the worldwide theatrical business and have a majority share of the box office in virtually every country in which U.S. films are shown

(Sochay and Litman, 1992). In Europe, for example, 70 percent of box office receipts are for American films and one half of India's film imports come from the U.S., and in Peru 90 percent of all films shown are American (Bernstein, 1990).

In France, Germany and Italy the U.S. now accounts for two-thirds of all movie tickets sold (*Time*, July 19, 1993. p. 67). The top five countries (Japan, Germany, France, Canada and the United Kingdom and Ireland) accounted for $692 million of all export rentals (U.S. Dept. of Commerce, 1992). The second major market, however, is the Far East and for the sixth straight year the leading export market was Japan with $236.7 million in film rentals for 1990, an increase of 17 percent compared to 1989. America's market share of movies in Japan in 1993 is 49.7 percent, up from 30 percent in 1988. As a result of intensive lobbying by MPEAA and U.S. government pressure, South Korea opened up the market for American movies in the late 1980s and now it stands as the second largest market for the U.S. distributors in the Far East (Sochay and Litman, 1992). Practically all U.S. movies now collect more revenues at the foreign box offices than at the domestic box office. As Table 1.5 shows, each of the 10 top grossing movies in 1992 earned more money abroad than at the domestic box office.

Foreign markets, like other ancillary markets, are crucial to the survival of the studios because movies are getting more and more expensive to make, thus hard to earn profits without the ancillary markets. The average production costs now amount to $28 million with another $11 million to advertise and publicize it. The average negative costs have nearly tripled over the last ten years (Sochay and Litman, 1992). As such, 8 out of 10 movies do

not recover their investment costs from exhibition in U.S. theaters. Consequently, without the financial help of foreign and other ancillary markets very few movies would even be able to break even at the domestic box office.

TABLE 1.5

10 TOP GROSSING MOVIES - 1992

TITLE	DOMESTIC GROSS (MILLIONS)	FOREIGN GROSS (MILLIONS)
BASIC INSTINCT	$117	$235
HOOK	$120	$180
ALIEN 3	$55	$125
JFK	$70	$120
PATRIOT GAMES	$83	$85
BEETHOVAN	$57	$85
FAR AND AWAY	$59	$66
MY GIRL	$58	$65
UNIVERSAL SOLDIER	$36	$59
FINAL ANALYSIS	$29	$46

SOURCE: *Variety* - January 4, 1993 p. 5

While the large domestic market and the deep pockets of the conglomerates help the U.S. film industry to keep the foreign competitors at a distance, it is the public good nature of motion pictures that allow the studios to make profits from international markets where the rentals simply exceed the distribution costs. As a public good, once produced, a movie can be distributed to an unlimited number of markets and the marginal cost of serving an additional market is only limited to the distribution cost and the cost of making an additional print of the negative. As such, it is the first print which takes virtually the entire production cost. The cost of making a second, third or hundredth print is just the cost of the print, about $2000 in today's rates,

which is negligible compared to the average of $21 million it takes to make the first copy. International syndicators even get away with these expenses by "bicycling" (i.e. the same print of a movie is shipped to the next country by the local distributor as a part of the purchase agreement). Therefore, as Thomas Guback (1969) succinctly put it, "we can have our films and foreigners can have them too." The public good nature of movies thus allows U.S. studios to function by the principle described by an industry spokesman as, "draw whatever price a market can bear" (*Variety*, April 27, 1988. p 3). As Acheson et al (1989) pointed out, regardless of the production cost, the studios will profit by showing a movie in any market in which rentals exceed the costs of distribution.

While the foreign share of the theatrical revenues now exceeds the domestic box office share and the total foreign revenues continue to grow, the revenue structure has changed over the past several years. For instance, according to Veronis, Suhler & Associates, while foreign box-office rentals have risen 15.7 percent annually since 1985, reaching $1.8 billion in 1990, the share of the average U.S. movie's foreign revenues generated by its theatrical run fell from 53 percent in 1985 to 37 percent in 1990. However, as in the U.S., home video abroad has become the largest source of movie revenues making up 46 percent of the foreign total, or $2.3 billion. In 1985, by comparison, home video accounted for only 33 percent of foreign movie revenues (Table 1.6). Home video has been the fastest-growing revenue stream in both domestic *and* foreign markets. Hence, as Sochay and Litman (1992) pointed out, new technologies, as in the historic past, have helped rather than hindered economic opportunities.

TABLE 1.6

FOREIGN REVENUE AND SHARES FOR MOVIES

Category	1985 ($ Millions)	Share	1990 ($ Millions)	Share	Compound Annual Growth
Box Office Rentals	887	53%	1,836	37%	15.7%
Television	237	14%	863	17%	29.5%
Videocassettes	564	33%	2,305	46%	32.5%
Total	1,688		5,004		24.3%

Sources: Veronis, Suhler & Assoc., Paul Kagan Assoc., Wilkofsky Gruen Assoc.,

U.S. success in exporting filmed entertainment in recent years is mainly due to the proliferation of traditional and non-traditional windows in foreign markets and the increasing privatization of media outlets in Europe, Far East and in the Third World. The number of theaters in Europe and Asia are in the rise. For example, new theaters have been built or are being planned for France, Germany, Italy, Spain, and Australia (Sochay and Litman, 1992). Most of these new theaters in Europe are joint ventures led by American investors. In Great Britain, for example, modern multiplexes have added 350 new screens that had doubled the theater attendance over a six-year period (*New York Times*, March 7, 1990. p. C1).

The rapid growth of foreign markets also affect the form, marketing, and distribution of American films influencing which movies get made and who stars in them. Movies that convey visual humor, action and special effects or contain little dialogue typically travel well overseas. For example, Warner Brothers made the third, fourth and fifth sequels (and now the sixth), to "Police Academy" partly because the first two did well abroad, even though American

interest seemed to wane after the first (*Variety*, September 9, 1991. p.1; *New York Times*, June 25, 1990. p. A1). So is the appeal of certain stars overseas. According to New York Times movie analyst Geraldine Fabricant, Carolco Pictures was able to raise about $60 million to make "Total Recall," because it is an action film and Arnold Schwarzenegger is an international star. Similarly, Warner Brothers had no qualms about producing "Lethal Weapon" or its sequel, both starring Mel Gibson. Yet, as no single overseas market is bigger than the domestic U.S. market, Hollywood executives still base their decisions primarily on the chances a film has in the U.S.

The success of American movies overseas, however, has come amidst variety of trade barriers foreign governments employ to restrict foreign, mainly U.S., film into national markets and growing piracy especially in the Third World (Sochay and Litman, 1992; U.S. Dept. of Commerce, 1992). A growing concern is quotas, which essentially limits screen time in theaters and television broadcast time and also restrict import of foreign films. To strengthen the local movie industries against the foreign movies (especially American), many foreign governments also offer subsidies for production and distribution of national productions, place restrictions on foreign remittances and turn a blind eye on copyright violations. According to U.S. government sources trade barriers and reasons for erecting them vary from country to country. Some foreign governments want a greater share of the profits while the others seek to protect indigenous film industries or to defend their language and culture against a perceived threat of foreign cultures (*U.S. Industrial Outlook 1992*). Whatever the objectives, the trade barriers reduce export earnings for the U.S. film industry and according to a senior

administrative official the U.S. take "would be significantly higher without the barriers" (*Time*, July 19, 1993. p. 67). The issue became so crucial in foreign trade negotiations that the most recent GATT (General Agreement on Tariffs and Trade) talks came to a deadlock on the issue of filmed entertainment. At present GATT or E.C. (European Community) do not have specific screen quotas on foreign (non-E.C.) movies. However, for TV , the E.C. now requires that 50 percent of each nation's programming be produced in the E.C. France, in fact, went further by requiring that 40 percent of their TV shows be produced in France.

The specific regulations, trade barriers or nontariff barriers that affect the movie industry is yet to be seen. The tariff and nontariff barriers, however, are not new phenomena and had been tried by European and other nations for over half a century to protect indigenous film industries and perceived threats to cultural sovereignty. As such, their true impact beyond the rhetorics should be evaluated in historical perspective. For example, Britain, Germany, France and Canada all had enacted some kind of laws that required film distributors and exhibitors to show minimum quotas of local fare. Yet, the U.S. movie industry has historically been quite successful in penetrating into all those markets. One very successful step taken by many American film-makers was to produce low-quality films, known as "quota quickies", so that the more financially rewarding American films were qualified to be shown. As Acheson et. al. (1989) pointed out, "many of those domestic films were of such poor quality that they were never shown, but they were necessary to allow an imported film to qualify for exhibition." Furthermore, as Sochay and Litman (1992) pointed out, "the stability of a monolithic European

cartel is still questionable. Despite the move toward a single market, there is no such thing as European cinema. Rather it is more realistic to think of it in terms of French, Italian, German, and British cinema." Moreover, only the Hollywood inventories will be able to fulfill the demand created by increasing windows opening up in E.C. nations and the Central and Eastern European countries.

While Hollywood won eventual copyright protection for its movies everywhere in the world (a victory, if properly implemented, that could add billions to Hollywood studios as MPAA estimates that piracy causes revenue losses in the range of $1 to 1.2 billion per year), in GATT and E.C. talks trade issues like the export of U.S. entertainment programs to Europe were shelved. The U.S. also failed to eliminate European and other domestic subsidies given to the U.S. competitors (*Newsweek*, December 27, 1993). Despite the regulatory difficulties the U.S. film industry appear to be in a very favorable situation in the global market. First, the expansion of television systems and the popularity of home video and other technologies throughout the world is bound to increase the demand for U.S. filmed entertainment products as only the U.S. majors are currently in a competitive position to meet the global demand. Second, the increasing production costs for movies seems to favor the U.S. film industry with its large domestic market and the deep pockets of the conglomerates.

Summary

The preceding discussion shows that the movie industry is not in the demise but holding quite strongly its place in the entertainment industry while the growing ancillary markets continue to support it. Although the traditional window, the theater, is in the decline, the audience for movies, in general, is on the rise perhaps unprecedented to any historical time. For example, while the best years for movies put the average weekly audience at 90 million in the late 1940s, a very conservative estimate of the current theater attendance and video rental figures alone put the weekly audience size at least in the vicinity of 100 million.

It is also important to recognize the impact of technology on the film industry. As seen in the preceding discussion, the movie industry is primarily technology driven. As Vogel (1986) has observed:

> Unquestionably the most potent impetus for change over the long term has been, and probably will continue to be, the development of technology. In the filmmaking process itself, for instance, the impact of technological improvements has been phenomenal. To see how far we have come, we need only remember that "talkies" were the special-effects movies of the late 1920s.

Undoubtedly, it is the technology that made *Jurassic Park* the highest grossing movie of film history with over $1 billion world wide rental revenues and. Historically, Vitascope came to rescue Kinetoscope and the introduction of sound brought the audiences back to the theaters. When a competing technology-television-diverted the audience's attention, color, 3D, CinemaScope, Stereophonic sound and other technological breakthroughs helped the survival of the industry until the competing technology itself became the savior. The financial benefits of the home video to the movie industry is unparalleled to any ancillary market the industry has seen in the past. Other

technological developments, such as pay-per-view, video-on-demand, and laser disc, are there to capture any fallout from videocassette users. Hence, the theater is neither dead nor dying. While its financial significance continue to weaken as the other windows become the new financial centers, theater seems to remain, as Murphy called, the "launch pad" where movies are introduced to the public. Moreover, as some industry experts concede, the growth of ancillary markets may also be responsible for brining new audiences back to the theaters. As Marc Merry, AMC Theaters director of corporate advertising noted on the recent success of the box-office:

> Unquestionably ancillary revenues are behind the increase in the number of films being made. But I also believe the general quality of production has risen and that the video business is responsible for more people going out to the movies. I'm certain that a lot of people saw *"Terminator"* on tape and it made them want to see the sequel in a theater (*Variety*, November 29, 1993. p. 1)

Above all, the technology has literally liberated the viewer. The unprecedented access the viewer now has to filmed entertainment, that is, his ability control *what*, *when* and *where* to see cannot be easily disregarded when analyzing the movie industry economics and its audiences. The importance of all theses windows to the audiences and their impact on movie attendance will be the focus of the remainder of this research.

Chapter 2

Motion Picture Attendance Research: A Review

Introduction

Considering its long existence, the movie audiences remarkably have been the least studied in mass media research. The industry did not see any compelling reasons to study the audiences until the new media, especially television, began to have a direct effect on movie attendance. The first known attempt by the movie industry to systematically study the audience reportedly took place in 1957 when the Motion Picture Association of America (MPAA) commissioned a survey to examine the moviegoing behavior among Americans (Austin, 1991). The newfound interest in studying the audience, in fact, came when television and other alternative leisure activities effectively claimed the consumer's leisure dollar and time. The findings of subsequent audience research carried out by the industry, however, remain proprietary (Austin, 1981).

While the industry attempted to understand audience behavior with a commercial interest and kept the findings to themselves, academic researchers concentrated more on the aesthetic aspects of the medium than its audiences (Austin, 1981, 1991; Dominick, 1983). Only over the last ten to fifteen years,

did an emergence of serious interest surface among media scholars to study movie audiences from a communication and economic perspective (Austin, 1981, 1981b, 1982, 1984, 1984b, 1991; Dominick, 1987; Litman, 1979, 1982, 1983; Litman & Kohl, 1989; Musun, 1969). Yet, they fell far behind the amount of audience studies done on, say, television, radio or newspapers. The lack of such research, argues Litman and Kohl (1989), "is largely traceable to the proprietary nature of financial data in the industry and the fact that certain creative/artistic elements in filmmaking are so complex (and subtle) that they remain beyond even the most sophisticated content analysis attempts to quantify them."

Academic research on movie attendance, however, concentrated mainly on two broad but essential research questions: (1) Why people *choose to go to movies* from among the wide array of entertainment options? And, (2) Why and how *a particular movie is selected* over all the other movies available at a given time and place? There are two dominant research approaches that sought to answer these questions. One is identified as the communication theory approach and the other as the economic/business approach (Litman, 1991). The communication theory approach uses social/psychological theories to explain why people choose to go to movies and why a particular movie is selected. This approach looks at the *individual* motives for movie attendance. The economic/business approach, on the other hand, studies the economics of the industry to explain movie attendance among a *group* of people as a precursor to financial success of the movies. This line of research looks at various elements of the supply side of the industry. While it acknowledges the effects of such demand factors as *price, income, quality of the product* and

available *substitutes* on the moviegoing habit of groups of people, the economic/business approach primarily focuses on the institutional factors affecting the entire vertical system of supply of films (Litman, 1989). As such, the economic/business approach has concentrated largely on the question why a particular movie is chosen over the other movies than why people select movies as an entertainment option. Interestingly, both approaches test the basic concept of movie consumption (which is, in fact, demand in action) and share many of the same variables in their analysis. But they differ on the data sources and manner in which they test hypotheses. The communication approach uses attitudinal survey research, whereas the economic approach examines the forces of the marketplace and uses aggregate data from industry and trade sources (Litman, 1989).

As such, the goal of this chapter is threefold: First it examines the communication approach to movie attendance and the social psychological theories behind it. The chapter then examines the economic/business approach and its theoretical base. Finally, it attempts to converge the two approaches to find common ground, theoretically and methodologically, to explain the movie attendance behavior. Further, an attempt is made to incorporate the structural and institutional changes taking place in the movie industry to assess their impact on attendance.

The Communication Research Approach to Movie Attendance

What is now known as the communication theory approach, in fact, is a two step attempt to explain movie attendance. First, it focuses on why people choose to go to movies among all the available leisure/entertainment options and then asks why and how a particular movie is selected over the others.

Although this dissertation research specifically focuses only on the latter, it will nevertheless introduce the necessary literature pertinent to the question of "why go to the movies" as a prelude to the present study.

Why Go to the Movies?

Most of the research that looked into people's motives for attending movies attributes such desires to relaxation, entertainment and to learning (Austin, 1981, 1984, 1991). The audiences, it has been argued, willfully select media content to satisfy social, psychological and intellectual needs, which are also the motives of leisure in general. Socially, movies serve as a lubricant. That is, movies may facilitate social contact and discourse in situations far removed from the theater. Psychologically, movies offer escape from problems and boredom. As such, attending movies, argues Austin, provides an experience similar to "attaining the psychic equilibrium deemed so valuable by many psychological theorists." Intellectually, movies help experience and understand things outside people's immediate surroundings. That is, movies fulfill intellectual or educational needs beyond their predominantly entertainment orientation. Accordingly, movies make people's own world more bearable, satisfy intellectual, aesthetic and religious needs, and provide relaxation. Two dominant social/psychological theories, the expectancy-value theory of motivation and the uses and gratifications theory, provides the theoretical framework necessary to explain how audiences satisfy those innate needs through movies. What follows is a brief review of those theories, their applications and a critique of the general applicability of them to explain movie attendance behavior.

Expectancy-Value Theory and Its Applications to Moviegoing

The expectancy-value theory, or rather theories, stem mostly from the early works of Tolman (1932; the expectancy concept), Lavin (1935; the valence concept), Atkinson (1964; achievement motivation theory), and Vroom (1964; work motivation theory). The expectancy-value approach to behavior is governed by two components, *expectancy* and *value*. The expectancy component refers to beliefs that actions will lead to certain outcomes (i.e. gratifications), and the value component refers to the value of these outcomes (i.e. the concept of valence). The theory also holds that the expectancies and values of outcomes combine multiplicatively to determine subsequent behavior (Galloway and Meek, 1981). As such, if E_i is the expectancy that an action will lead to outcome i, and V_i is the value of this ith outcome, then the overall value for an action is given by $\sum_i E_i V_i$. The action chosen would be the one that maximizes the expectancy-value summation (Bettman, 1979). When applied to consumption, the consumer takes an action to select a specific option from a relatively homogeneous class of events that maximizes the expectancy-value summation.

Applying the expectancy-value theory to explain why people attend movies, Austin (1991)[13] regards moviegoing as one in a cluster of several (presumably homogeneous) leisure options. For a given option the consumer assigns a weight based on his or her subjective evaluation of the outcome's importance or desirability and generates an outcome expectancy term, which is the consumer's best guess about the probability that choosing each leisure

[13]A search of literature into this area found no other attempts to apply expectancy-value approach to moviegoing. There were, however, several applications of the expectancy-value theory to explain many aspects of television viewing behavior which will be referred to later in this chapter.

activity will generate that specific outcome. The process also assumes that the consumer mathematically calculates the outcome of each leisure activity and the comparisons of each outcome result in the choice that maximizes the expectancy-value summation. However, given the theory's "general applicability," Austin (1991) shows some reluctance to use the expectancy-value approach exclusively to explain the movie selection process. Instead, he favors the uses and gratifications approach which focuses specifically on the mass media to explain movie attendance.

Uses and Gratifications Approach to Movie Attendance

The uses and gratifications approach has been the dominant paradigm in media research during the past two decades. As Austin (1991) observed, the uses and gratifications approach indeed focuses on mass media. In fact, a large majority of mass communication research carried out during that period has roots in the uses and gratifications approachs, more than any other single theoretical framework. As Palmgreen (1984) has noted "since the publication of Blumer and Katz's (1974) landmark volume, *The Uses of Mass Communication*, research into the uses audience members make of the mass media, the gratifications derived from media consumption, and their antecedents and consequences has continued at an accelerating pace." The uses and gratifications approach departs from "direct effects" and "limited effects" research and claims to look at what people do with media rather than how media affects their lives.

Although its roots can be traced back to some earlier works, the origin of gratifications research is attributed to Elihu Katz's writings in the mid 1950's where the now widely quoted statement "ask not what the media do to people,

but what people do with media" was derived. Contrary to the passive role assigned to the audiences by the "effects" research, the uses and gratifications theory postulates that: The audience is active, conscious and aware of their interests and motives; their media use is needs-and goal-oriented; they bend the media to their needs more so than they are overpowered by media; and media compete with other sources for need satisfaction (Katz, Bulmer, and Gurevitch, 1973; Elliott and Quattlebaum, 1979).

Austin (1991) notices conceptual similarities between the expectancy-value theory and uses and the gratifications approach. To Austin, the uses and gratifications approach serves as a substitute theoretical framework for the expectancy-value theory to explain movie attendance. "Uses," argues Austin, are similar to that of motivation while "gratifications" resembles the expectancy-value concept. Similar to the expectancy-value theory, the gratifications approach relies on the concepts of outcome values and outcome expectations. As the gratifications approach assumes an active audience, they purposefully select and attend to media to satisfy various needs. The rational (active) consumer's use of movies, therefore, is said to be aimed at gratifying his or her social, psychological and intellectual needs. Since audiences gain familiarity with media over time, argues Austin, "prior media experience helps determine media use as a means to fulfill needs." This indicates, as Weibull (1985) has noted, that uses and gratifications studies have focused excessively on habitual media behaviors. While both these approaches show some conceptual promises, their theoretical assumptions fall short in explaining "moviegoing."

Shortcomings in Expectancy-Value Theory and Uses and Gratifications Approach to Movie Attendance

As Palmgreen and Rayburn (1979) had observed [with reference to the uses and gratifications approach], "the true test of any theory lies in its ability to explain (and therefore predict) certain phenomena." Nevertheless, despite their many contributions, expectancy-value theory and the uses and gratifications approach fall short of being a formidable theoretical framework for explaining, and consequently predicting, movie attendance behavior. Although the uses and gratifications approach theoretically claims to have a general applicability across media for a wide variety of situations, attempts to test empirical associations between various gratification measures and media exposure, medium choice, and content choice have overwhelmingly been limited to the medium of television. In a review that was similar to a stock-taking of the uses and gratifications approach research, Palmgreen, one of the prominent advocates of the gratifications approach himself, admits the television bias in gratifications research. According to Palmgreen (1984), "a majority of studies to this point [until the mid 1980s] concern television, including total TV exposure, exposure to different program content types such as, television news, debates, and quiz shows, public television viewing, and viewing of specific programs." When the empirical applications of the gratification research deviate from television, it is often limited to newspapers and radio (Nordland, 1978; Rosengren, and Windahl, 1972; Kline, Miller, and Morrison, 1974; Becker and Fruit, 1982). These applications legitimize Weibull's (1985) criticism that uses and gratifications research has focused excessively on habitual media behaviors. Unlike television, radio, and newspapers, movie attendance is determined by choice rather than habit. In

fact, the idea of choice and selectivity in movie attendance is supported by Austin's (1981b) own research where he found that over 70 percent of both occasional and frequent moviegoers indicated that they were most likely to go to a movie when a picture of particular interest to them was being shown.

Only recently, Palmgreen and others (1987) attempted to explore the factors affecting the consumption of movies from a uses and gratifications perspective. In a rather limited application of the gratifications approach, they found that college students attend movies for a variety of social and information seeking reasons as well as entertainment. However, as LaRose and Atkin (1991) noted, "no attempt was made to relate these motivations to movie attendance behavior or to the consumption of movies in other distribution channels," which are becoming quite crucial to the audiences as well as to the industry.

The lack of movie oriented applications of the uses and gratifications approach may be partly due to the difficulties associated with conceptualizing and operationalizing the process. Evidently, the constructs associated with the uses of, and gratifications sought and obtained from, say, exposure to television and/or different program types (such as news, debates, quiz shows or public television), appears relatively easier to conceptualize and operationalize than the constructs associated with motion picture attendance where choice not behavior determine the use.

Moreover, because the broader research question here is *movie attendance* and not *selecting a movie*, the research task provides a greater conceptualization and operationalization challenge due to the fact that every movie can qualify to be a totally new experience. As such, audiences also face

the difficulty of seeking gratifications from a totally new experience while researchers face the difficulty of measuring something "unknown" to the audiences prior to the experience. As a result, studies that attempt to explain the movie attendance behavior using the gratifications approach are scarce among the wealth of gratifications research. The television bias in gratifications research, therefore, is somewhat tantamount to the drunkard searching under a street light for his house key, which he had dropped some distance away. Asked why he didn't look where he had dropped it, he replied, "It's lighter here!"

Notwithstanding the applicability to the movies, some researchers attribute the lack of general predictive ability in the gratifications approach to the absence of a "process" view and inadequacy of an explicit focus on "expectations." This urged them to integrate uses and gratifications with expectancy-value theory to predict exposure to mass media (Galloway and Meek, 1981; Palmgreen and Rayburn, 1982; Van Leuvan, 1981; Barrow and Swanson, 1988). Such integrations, however, had not been applied to movie attendance research. Moreover, other researchers found integrations of expectancy-value as not good behavioral predictors (LaRose and Atkin, 1991)

As noted elsewhere in this chapter, the application of expectancy-value theory to explain movie attendance assumes the availability of relatively homogeneous class of leisure/entertainment options to the potential moviegoer. That is, the alternatives are *close substitutes for each other*. Given the nature of the movie product, this is a somewhat rigorous assumption to meet because comparable leisure pursuits to movies may include such option as, plays, opera, television, concerts, ballet or sports events. The problem with these

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alternatives is that they demand quite different social, economical and cultural commitment from the consumer, which might add up to different "expectancies" and "values." The difficulty, however, is not only with the lack of homogeneous product classes but also with the assumption that the consumer is expected to have some *prior* knowledge about the potential outcome of seeing a movie to compare that with the other alternatives. In practice, however, as Bettman (1979) noted, consumers use a variety of simple heuristics in making choices and expectancy-value models fail to consider those heuristics used in making choices.

The most important question arising from this review of literature, however, is not whether the communication approach is able to answer the broad research question (i.e. why go to movies), rather, *how valid or appropriate that question is*. Under the current structure of the movie industry where the majority of the viewing occurs outside the traditional theater, one may doubt the need of two separate questions to explain the movie attendance behavior. First, the time order of events proposed by the communication approach (i.e. first resolving the problem of whether to see the movies and then what movie to see) may not necessarily be how movie attendance takes place. There can be many instances where *a* particular movie triggers the "moviegoing,"[14] an event stimulates interest in itself. As Austin (1981b) himself has found, moviegoers are most likely to go to a movie when a picture of particular interest to them is being shown. As such, the second question may *precede* the first or simply nullify the need of asking such a question because

[14] Austin himself admits this when he attempts to answer the second question: What movie to see?

once we are able to answer why a particular movie is selected it automatically answers the first.

Second, given the question "why go to movies" is a valid one, it overlooks some important situational factors, such as the roles advertising and marketing play in attracting audiences and the effects of changing demographics of the society on movie attendance. Empirical research on the effects of advertising and marketing on movie selection have found people rely on several information sources which are readily available in movie selection process (Faber and O'Guinn, 1984). Conventional wisdom also shows the important role advertising and promotion play in attracting audiences. The advertising budget of a typical movie, for example, currently run about $11 million and that is about 40 percent of the production cost. Besides direct advertising and release strategies, studios also make use of many promotional tools available to them. During the first couple of weeks of a new release, stars can be often seen on TV talk show circles. Tie-in promotions in collaboration with other products to promote movies and sell-through videos have also become a common practice in recent years (Maslin, 1993; Magiera, 1992).

Another drawback associated with the communication approach is that it is more or less based on the assumptions of "moviegoing" prior to the conditions associated with home video revolution. As seen in the preceding chapter, movie attendance dropped drastically with the advent of television *and* with the aging of the population. When the young (the largest proportion of the movie audience) settled down and started a family, the economics and social obligations attached to going to the movies became more demanding. That is, finding a baby sitter, driving to the theater and finding parking as well as

dining out as part of the movie outing, made it an event associated with a cost and many social obligations. It is in this context that television provided somewhat similar experience "free" of such complications. Until the advent of home video, movies had to find ways and means to convince the audiences that going to the movies is something worth getting out of the house for. And until the VCR and services such as pay-per-view and premium channels came along, audiences practically had no control over when and where to watch a movie, and "moviegoing" actually required "going" to the theater. But it is no longer the case. Now people can create their own movie schedules and evidence shows that they are increasingly doing so. It is these structural changes that have led people to rent more than five billion videos last year as against the one billion theater tickets they bought. Evidently, these structural changes have not been taken into account by the communication approach in its attempt to explain the movie attendance. As such, the communication theory approach faces the difficulty of explaining movie attendance strictly in social, psychological and intellectual terms.

Why A Particular Movie?

As noted in the preceding section, the communication approach look at moviegoing as a two step process and asks two questions. First, the decision to go to movies and then selecting *a* movie. Once the consumer has rationalized that going to the movies best fulfills his or her needs, what factors influence the selection of a movie? That is, why go to the movie 'X' rather than to the movie 'Y'? The communication theory approach uses diffusion of innovation theory to build a model that purports to explain the process involved in selection of a particular movie among all the movies available at a given time.

The diffusion of innovation theory explains how new ideas, practices or products are adopted. While the diffusion theory has originated in sociology and anthropology, its applications can be seen in many disciplines. It has developed across many fields of research over the past several decades and has been used to explain such diverse innovations as family planning, water boiling and diffusion of new technological breakthroughs (Rogers, 1983). Marketing and consumer behavior researchers have also adopted the general model of diffusion theory for use in their fields to explain new product acceptance and diffusion over time (Lowrey, 1991). According to Rogers (1983), who has formalized and popularized the diffusion theory, an individual proceeds through five steps in the process of adopting an innovation. In the diffusion process, people first become aware of the innovation and then form their own judgment about the innovation (these two steps are known as *knowledge* and *persuasion* stages). This is followed by the *decision making* stage where the potential adopter weighs the pros and cons of the innovation and makes a judgment on whether or not the innovation is to be adopted. The last two steps, *implementation* and *confirmation*, occur when the innovation is actually adopted. An important factor in diffusion theory is *time*. The time factor in diffusion research implies that not all people adopt a new idea simultaneously. Rogers (1983) identified five adopter categories of innovativeness and use the areas under the normal frequency distribution curve to explain their distribution. The adopter categories are: Innovators (2.5%); Early adopters (13.5%); Early majority (34%); Late majority (34%) and Laggards (16%) (Lowery, 1991; Rogers, 1983). When these areas under the normal curve are stated cumulatively, the logistic curve takes the shape of the

popular "S" curve. Rogers also describes dominant personality characteristics of each of these categories that affect their decision making.

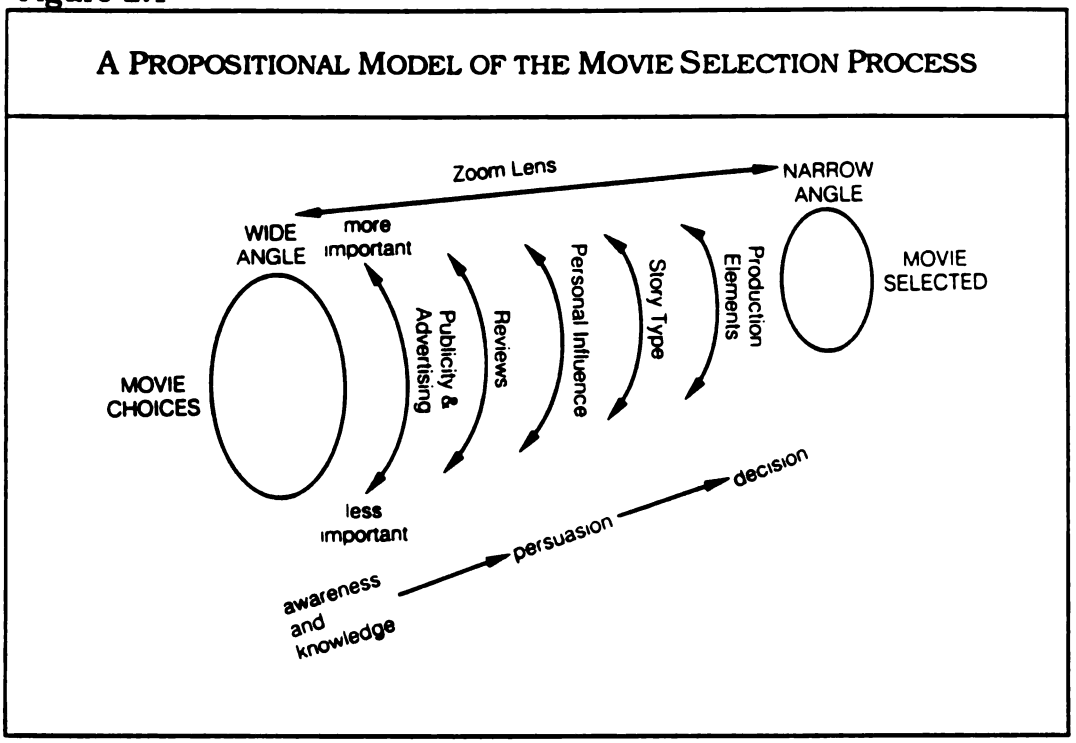
Austin (1991) asserts that, although movies in general can hardly be claimed as an innovation, any new movie that enters the marketplace can be considered as an innovation and adoption of that innovation is equal to the attendance of that film. He then tries to fit the five steps of the diffusion theory to movie attendance by explaining the steps involved in attending a movie from first hearing or reading about it to the actual attendance. In between these two events Austin tries to explain the release pattern, publicity and marketing efforts and the process audiences use deciding whether or not to attend the movie.

Current movie audiences, argue Austin, are quite selective in deciding which movie to see compared with the audiences of, say, the 1940s and 1950s. To explain how this choosy audience selects what movie to see, Austin proposes a model that involves the first three stages of the diffusion theory, namely: (1) awareness and knowledge; (2) persuasion; and (3) decision. At the awareness and knowledge stage, audiences "hear or read about" a particular movie and perhaps some of its attributes such as its stars, the story or the director. And the individual seeks more information concerning the innovation (= the movie) in order to proceed to the next step: Persuasion. At the persuasion stage the consumer tries to form a judgment about the innovation (= the movie) based on the things he or she has learned about it in the previous stage. The consumer, for example, may ask: "Do I really want to see that movie with De Niro?" If his or her own response to that question is positive, the process moves the individual to the third step: Decision. Decision simply

involves the acceptance or rejection of the innovation (ie. going or not going to the movie). However, argues Austin, the decision to reject the innovation (going to the movie) may change later on as the individual learns more about the innovation and decides to adopt it (=attend the movie) say, later on. Austin treats the remaining two steps of the theory, "implementation" and "confirmation," quite casually which only occur if and when the adoption has been chosen. Consequently, he says, implementation is the preparation to attend the movie and confirmation is the consumer's attempt to "reinforce the adoption decision and to avoid or reduce any dissonance that might arise."

For Austin (1991), the decision-making process in selecting which movie to see is analogous to a camera lens that possesses a zoom function and a series of focusing rings. The zoom motion accounts for the manner in which people decide to go to a movie and the focus rings represent the array of "conceptually similar attributes *of* or *about* a movie." At the wide-angle position, the audience member is faced with all the movie choices available and the close-up setting decreases the number of options (See Figure 3.1). Here Austin identifies two types of movie attendance. First is the type that first decides on the movie and then decides when to attend. For those, argues Austin, the zoom moves quickly to the close-up end. Second, for those who select going to a movie as an activity without a clear disposition to attend a particular movie, the process begins with the wide-angle position and continues with many or even all focusing rings and the decision depends on how well the focus rings line up.

Figure 2.1



Source: Bruce A. Austin. *Immediate Seating: A Look At Movie Audiences*. 1991

As the individual tries to narrow down the options (from wide-angle to the close-up end), he or she proceeds through five elements, namely: (1) publicity and advertising (trailers, awards, sequels, ads in the media); (2) reviews (media reviews, MPAA ratings); (3) personal influence (word of mouth); (4) story type (plot, genres); and (5) production elements (director, producer, stars). Each element (focus ring) possesses a set of variables and the complexity of the element increases as the number of variables increases. The production elements ring, for example, is the most complex. As seen in the figure above, the focus rings are arranged in order of when audiences would become aware of each and they correspond to the first three steps of the diffusion theory: awareness and knowledge, persuasion, and decision.

While the "zoom analogy" makes a reasonably strong model to explain the individual movie selection process, the forced entry of a segment of the diffusion theory, the innovation-decision process, makes it less powerful. The major drawback of this forced entry of the diffusion theory to the "zoom model" is the omission of the "adopter categories" and the time factor associated with the diffusion analysis. The adopter categories represent many situational factors that affect the adoptation of an innovation. For example, after reviewing thousands of diffusion studies, Rogers (1983) concluded that adoptation versus nonadoptation is related to (1) socioeconomic status, (2) personality variables, and (3) communication behavior. These individual differences, according to Howard (1977), have a greater impact on non-durable products than durables because "for durables there is somewhat closer conformity, possibly because durables are typically more involving and more likely to be 'new' than nondurables."

In fact, Austin's "zoom analogy" can stand alone as a model without the diffusion theory. The attempt to enforce *portions* of the diffusion theory only tends to weaken his model. As we will see in the next section, the crucial variables in the Austin model are the same as the set of variables the economic/business approach considered in their predictive models, thereby suggesting a convergence or synthesis.

The Economic/Business Approach

The economic/business approach examines the institutional factors affecting the financial success of motion pictures. As noted earlier, the primary concern of this approach is on decision making for a particular movie but not why people choose to go to movies as an entertainment option. By

focusing on aggregate data and incorporating the supply side of the industry, the economic/business approach attempts to explore the variables that influence the *collective* movie attendance decisions, the precursor to financial success. While there have been several attempts to explain movie attendance on economic terms over the past two decades (Garrison, 1971; Simonet 1977, 1987; Kindem, 1982; Dominick, 1983, 1987), Litman's collective research on motion picture economics best illustrates the business/economic approach (Litman, 1979, 1982, 1983; Litman and Kohl, 1991). Common to most of the economic approach research is the use of rental revenues as the criterion (the dependent variable) for movie performance and the use of quantitative statistical techniques to test hypotheses.

Litman proposes an economic model to empirically test the theoretical assumptions and industry folklore that underline movie attendance. While accepting the importance of demand and the interaction between demand and supply, Litman approach is more involved with the supply side elements of the industry. Litman (1983; Litman and Kohl, 1991) asserts that there are three crucial decision making areas that determine the financial success of a movie: (1) the creative sphere; (2) the scheduling and release pattern; and (3) the marketing effort. An incorrect decision in any of these areas can adversely affect the financial success of a movie. The Litman model measures a set of variables that are expected to affect each of these spheres using aggregate industry data.

The creative sphere refers to the *story type* (genres: eg. drama, science fiction, action-adventure, comedy, etc., and pre-sold plots), Motion Picture Association of America (MPAA) *ratings* (eg., G, PG, PG-13, R, NC-17), *director*

and *stars* , *production values* (eg., special effects, exotic locations). According to Litman, stories that are familiar through other media have a natural advantage of pre-selling the film and some genres appeal to a larger audience than others. Reputable directors are not only able to put all the creative talent together, but also have the necessary skill to bring outside financing to begin the product. Although star worship changes from time to time and movies with mega stars may flop, popular stars appear to have the power to attract audiences to the movie theaters nationally and internationally. Big budgets are capable of bringing higher production values to movies, which adds more special effects, exotic locations and skilled technical talent to a movie. The ratings assigned by the MPAA arguably send a message to the potential movie audiences about the general applicability of the movie. Certain ratings codes, such as PG (parental guidance suggested) argues Litman, are more sought after by the producers as they seem to have the largest audience applicability.

The second area of importance is the *scheduling* and *release pattern* that includes the influence of the distributor, release date and pattern, and theater bookings. It is argued that major distributors with their "deep pockets" could provide the necessary financial backing, and use their clout in the industry to find preferential access to the exhibitors. Although there can be "sleeper hits" in any given time of the year, a movie released in peak audience attendance times of the year (ie. during summer months, around Christmas and Easter holidays) can benefit from this natural attendance upswing.

Alternatives to the peak release are the exclusive and multiple bookings. By first releasing the movie to a limited number of theaters in selected big cities, the distributor can try to create a somewhat artificial demand for a

movie that presumably follows a positive word-of-mouth publicity. Multiple releases allow the distributor to create a "temporary excitement" before negative reviews and adverse word-of-mouth penetrate the audience.

The final area of importance is the *marketing effort*. A movie, says Litman, like any new product, needs to be marketed to the specific demographic segments through all the mass media. The extent of the media campaign is dependent upon the release pattern, budget, and the stars involved and is aimed to entice the eager moviegoer to the theater. The objective of the promotional campaign is to ignite the word-of-mouth which would eventually replace advertising as the leading promotional agent.

Although not under the direct control of the distributor, the promotional effort is also designed to benefit from critics' reviews and being nominated/awarded major awards like the Oscar. It is argued that positive reviews and major award nominations/receipts trigger the word-of-mouth which in turn boosts the box-office.

In order to estimate the relative importance of each of these three spheres and the variables associated with them, Litman's model uses aggregate industry data and estimates a revenue equation. Using regression analysis, it then tries to explain the variance in rental revenues associated with the variables in the model. In its latest empirical testing the Litman model was able to explain nearly one half of the variance in rental revenues (Litman and Kohl, 1989).

Towards A Hybrid Approach

It is evident from the preceding discussion that both communication and economic approaches help explain the substantially complex social phenomenon of movie attendance. While each approach has its own merits, neither one stands as a complete model that fully explains movie attendance behavior. This is largely due to the preferences given to the data sources, types of hypotheses being tested, inclusion and exclusion of certain predictor variables, and the research methods used for data collection and analyses.

Specifically, there are several major reasons that justify the need of a hybrid model in place of the communication and economic approaches. First, as the survey of literature pertinent to the communication approach revealed, the communication model does not take into account the structural changes in the industry and the constantly changing audience demographics. It is evident that an unprecedented number of people are now watching movies than any other time of movie industry's one hundred year history. Nevertheless, the majority of viewing is taking place outside the traditional theater. For example, rental of movie videos now surpass the theater attendance by a factor of four to one and this disparities continues to increase. Looking at the past few years' industry performances tells that this is not merely an aberration but rather a trend. These changes in the demand side have drastically altered the decision making process of the supply side of the industry which is evident by the way movies are sequenced and given time clearance for each successive exhibition window. The new technologies, as Litman (1991) has noted, that have been "blowing an ill wind for the motion picture industry ever since the arrival of television in the late 1940s," brought a whole new generation of

competitors to the exhibition side of the business in the 1980s. The new competitors include home videocassette, premium pay cable, and pay-per-view cable. Financially, home video has become the most important income source for the movie industry. Rental revenues now account for only a third of the domestic rental revenues. In this context, it is quite inadequate for an analysis to not incorporate these changes in the industry as one finds in the communication approach does.

Second, the communication approach also fails to accommodate the demographic and lifestyle changes in the society. There is little doubt that movies appeal to some demographic segments of the society more than the others. The rating system alone is a classic example of that. Besides the appeal of specific movies to specific segments of the audiences, demographics appear to have an impact on where and when the movies are seen. For example, it has been noted that as the baby-boom generation slides into middle age, Americans will seek more of their entertainment at home. According to the Consumer Expenditure Survey, reported in *American Demographics*, the home entertainment trend is real-but not at the expense of public entertainment. Spending on fees and admissions, for example, fell only slightly between 1986 and 1991, while spending on other entertainment, much of which is home-based, increased (*American Demographics* Desk Reference, July 1993). Moreover, householders aged 35 to 44 who are most likely to have school-aged children spend the most on videotapes as well as taking their children to the movies. This trend is evident from the recent success of G, PG, and PG-13 movies and consequent response from the movie industry by its willingness to produce movies that appeal to that demographic segment.

Movies with G and PG are also the biggest hits in the sell-through video market. The communication approach overlooks the importance of these institutional foundations and consequently becomes ***acontextual***.

Third, although the communication approach is audience oriented, the model has not yet been tested empirically in its entirety. As noted elsewhere, the model is supported by evidence gathered from different studies and some of those data sources date back to as late as 1950s, disregarding the drastic changes taken place in the industry and the society over the past two decades. Undoubtedly, the model accommodates some of the very important variables that are crucial to explaining movie attendance. Therefore, it would be more appropriate if they were tested together as a complete model to thereby examine the validity of those factors in the present context.

The economic/business approach, on the other hand, has its own shortcomings that can be overcome by converging its strong elements with the communication approach and by employing a different research method. First, economic models that rely on institutional data suffer from the proprietary nature of financial information that is almost impossible to acquire or available data that are incomplete. As Dominick (1983) has noted, "finding reliable economic data on the motion picture industry is difficult and the information that does exist is incomplete and in some cases contradictory." For example, only the movies that make at least one million dollars at the domestic box office are available to the researchers, thus preventing the inclusion of movies that are true financial "failures." Furthermore, the dearth of revenue data on home video industry force economic researchers to wait another few years until

reliable and complete data sources become available to include this important segment in their research.

Second, although the economic approach promptly recognizes the importance of structural changes in the industry, it was unable to accommodate those variables into the model first due to the lack of reliable data sources, and second the economic analysis looks to the supply side of the industry. For example, as Litman and Kohl (1989) have noted, they were unable to include advertising and promotional factors into their model due to methodological reasons. Furthermore, some of the variables, such as the impact of word-of-mouth advertising, demographic and psychographic factors can only be measured from the demand side using the "self-reports" of the audiences. As such, only a hybrid model would allow *all* advertising/publicity related factors to be included in a multivariate model to explain movie attendance. Moreover, an additional advantage of the proposed hybrid model would be the opportunity it provides to test the strength of the economic factors using household data.

Despite the shortcoming discussed above, the communication and economic models provide the only systematic approaches available to explain the movie attendance behavior. Accordingly, this study recognizes the importance of both, the communication and the economic/business approaches, and attempts to advance the explanatory power of the two research approaches by combining them and expanding them to include the structural and demographic factors and the growing home video industry. Consequently, it appears that a convergence of two approaches would provide a hybrid model that would benefit from the accomplishments attained by both

approaches. Furthermore, it is also evident that as the movie industry grow into a multi-facet industry with several alternative windows, no single approach or research method would be appropriate to single-handedly understand the nature of the industry and the changing audience needs. Hence a need for a hybrid approach.

The following chapter will elaborate on the research questions and methods.

Chapter 3

Research Questions And Methods

This chapter will elaborate on the research questions, variable selection and measurement criteria, the sample, and the data collection procedures.

Research Questions

> *Research Question 1:* What factors have the most influence when consumers are deciding which movie to see?

Rationale: As evident from the research cited in the preceding chapters, both, communications theory approach and economic/business approach, attempt to answer this research question with different data sources and operational procedures. The former approach focuses on individual decisions to choose which movie to see but largely overlook the structural and institutional factors affecting the decision making process. An additional weakness of the communications theory approach is that it has so far been unable to empirically test the explanatory or predictive power of the proposed model. The latter approach focuses on the collective theater attendance of the moviegoing public and uses rental revenues as the criterion for attendance. This approach uses aggregate industry data and recognizes the importance of structural and institutional variables on attending movies but fails to include them due to the inadequacy of data sources and measurement difficulties.

The objective of this research question therefore, is to study the factors affecting movie attendance decisions, from the demand side using the same variables suggested by the economic and communication research approaches.

> *Research Question 2:* What are the effects of the growing home video environment on movies seen in general and theater attendance in particular?

Rationale: As evidence cited in chapter one has revealed, home video has become the most important exhibition window for the movies. Rental statistics indicate that more people watch movies on video than in the theaters or all other windows combined. Domestically, it is the largest revenue center for the movie industry. Yet, our knowledge about home video more or less ends at the rental figures and revenue estimates. Although the broad financial impact is evident, how the audiences perceive home video is largely unknown. Also not known are the specific implications home video has and will have on theater attendance. Although the economic research had constantly reminded us the importance of growing new windows on theatrical revenues, specifically the home video, it was unable to measure their collective impact--a void this research question tries to fill.

As the two research questions indicate, this study is theoretical and exploratory. It is theoretical because it attempts to converge two theoretical approaches in favor of a unified model to explain movie attendance and test it empirically. As such, the first research question attempts to address the theoretical part. It is exploratory, because it attempts to explore the specific impact the home video industry has on movie attendance in general and theater attendance in particular. It further explores the possibility of using the same set of predictor variables that are being used to explain theater attendance on

video rental. As such, the second research question addresses the exploratory aspects of the study.

Selection of Variables

As the two research questions deal with theater attendance and video rental, two dependent variables will be used in the present study. The first dependent variable (labeled as MOVIE#) estimates the average monthly movie theater attendance of the respondents. Question number 1 in the survey instrument is used to measure this variable (see Appendix I for the questionnaire).

This variable will be used in two different forms in two types of statistical analysis. First, as a continuous variable in multiple regression equations and then as a discrete variable in discriminant analysis. The use of this variable as a criterion variable in multiple regression required assignment of approximate values to the variable by the researcher. As seen in the questionnaire, if a respondent attends one or more movies per month, the actual number is recorded and used. However, if the respondent's attendance frequency is less than once a month, he or she is then classified into one of the appropriate categories (i.e. "Once about every two to six months," or "About once a year"). To approximate a value that would be isomorphic to the real values of these two categories, .5 and .1 were assigned to the first and second categories respectively. Naturally, those who "never" go to movies received a true 0. Part of this measurement procedure is adopted from MPAA survey instruments. Given the sporadic nature of theater attendance among the older public, this seems to be the closest one can get to measure attendance on a continuum.

The discrete form of this variable required no researcher assigned values. In accordance with the industry definitions, those who go to the movies at least once a month were categorized as "frequent" moviegoers and those who attend less than a once a month as "infrequent" moviegoers. This form of the variable effectively divided the sample into two groups and is used as the discriminatory factor variable for discriminatory models.

The second dependent measure estimates the number of movie videos (or laser discs) rented during an average month and is labeled as VIDRENT. Question number 19 is used to operationalize this variable. This variable will be used as the criterion factor to estimate regression equations for video rental patterns.

Twenty-two independent variables will be used in the present study as predictors to explain theater attendance and video rental patterns. Twelve of them are related to creative and promotional aspects of movies as defined by Litman and Kohl (1989). The remaining ten variables measure demographics and price factors. As the research questions of this study emerged from economic and communications research and industry analyses, an effort is made to accommodate all the possible variables suggested by the appropriate theories and industry findings. Unfortunately there is no way to measure certain variables in the Litman model from the demand side using attitudinal household data. For example, the variables pertinent to the scheduling and release pattern, such as the importance of release pattern, number of screens, or the impact of production budgets, are impossible to operationalize meaningfully using household data without drastically changing the research design. As such, the set of variables that come under "scheduling" sphere in

the Litman model were not attempted to be measured in the present study. However, some new variables, derived from the analysis of home video industry, are included to fully explore the home video audiences and its impact on general movie attendance.

In the following section, the independent variables will be further elaborated with reference to the specific questions in the survey instrument that are used to estimate them.

Creative and Promotional Variables

The importance of Stars, Director, Story Type, MPAA Ratings, Critical Reviews, Theater Previews, Previously Known Story, Word-of-Mouth advertising, wining or Nominations of Awards such as Oscar or Golden Globe, Advertising in the Media, Star Appearance on TV Talk Shows, and the movie being a Sequel, are the variables that will be used as creative and promotional predictor variables of movie attendance and video rental. Most of these variables have been used before, and each will be discussed separately.

Importance of each of these variables to the audiences is measured on the basis of self reports. As question 5 of the survey instrument shows, respondents were asked to rate how important each of these factors is to them when they decide which movie to see. The rating scale ranged from 0 to 10 where 0 = "Not Important At All," and 10 = "Very Important." Variables are listed in the order in which they appear in the survey instrument.

The first variable from the creative sphere is STARS. This variable is expected to estimate the importance of a star or stars on the attendance decisions. While the conventional wisdom always tends to attribute a movie's

success to the star power, the actual contribution of "superstars" has changed from time to time. For example, Litman (1983) found that the presence of a star had no significant impact on rental revenues but Litman and Kohl (1989) found that the star actors and top directors were significantly related to financial success. Austin (1989) also asserts the significance of popular stars on attendance but argues that stars alone are rarely an important factor in attendance decisions. The ever increasing market value of "superstars" also indicates the faith the industry has on the stars. The stars, therefore, are expected to have a significant impact on attendance decisions.

Both, economic and communications research, recognizes the importance of reputable director (DIRECTOR) on financial success and attendance decisions. Economic research goes beyond the simple reputation of the director to his or her ability to blend all the creative aspects of a movie including the director's reputation in industry circles to obtain outside financing for a film project (Litman, 1989). While it is difficult to measure such attributes of a director from the audience's perspective, only the important of the director to the respondent on the attendance decision is measured.

In their last testing of the Litman model, Litman and Kohl (1989) used fifteen categories to describe the story type or genres (STORYTYP) e.g., Drama, Comedy, Action Adventure etc. The economic research measures the impact of each different genre category on rental revenues. However, testing the importance of each specific genre category also creates some problems since there are no established categories (Austin, 1991). As such, it is difficult to develop reliable measures to assess the importance of each genre type to the audiences as they often having difficulty identifying the proper genre except for

some overwhelmingly obvious categories such as Comedy, Western or Science Fiction. This research, then, measures the perceived importance of genres on attendance in general, not *a* specific genre.

The MPAA rating (RATINGS) - G, PG, PG-13, R, NC-17 - generally is an indicator of the degree of sexual content, violence and harsh language in a movie. Past research and industry preferences suggest the largest audience appeal for PG and PG13 movies while the R, X and "not-rated" movies scare off the audiences (Litman, 1983, 1989). Similar to the genres variable, economic research also measures the importance of individual rating types on revenues. Again, this research measures the importance of the overall concept of ratings and not the likes or dislikes of specific rating types.

The recent success of movies that were adaptations of, or based on, a previously known story (PRESTORY) that is familiar to the public shows the positive impact the familiarity of the story line has on attendance. As Litman and Kohl (1989) noted, the movies based on known stories (e.g., successful plays/novels, TV shows, cartoons etc.,) have a built-in advantage over those that start from scratch. The recent successes of *The Fugitive* (TV Show) *Schindler's List* (Book and the subject-Holocaust), suggest the importance of the known story in attracting the audiences. They also give a head start in marketing and promotions as audiences already possess some knowledge about the story line.

The last variable associated with the creative aspect is the sequel (SEQUEL). The attractive power of a movie that is a sequel of a one that the respondent has seen and liked is measured. While the economic research put sequel under the same category of a "previously known story/idea," sequel is

measured in this study as a separate variable with the potential or collapsing to a scale if positive correlation exists between the two.

Litman and Kohl (1989) regard advertising and publicity as the key to luring the avid movigoer into the theaters to begin the important word-of-mouth campaign. However, they were not able to include either one of these variables (advertising or word-of-mouth) due to the practical problems associated with measuring them. The inclusion of this variable may then provide some insights to their effects on attendance decisions. Two separate variables are measured, one for advertising in the media (ADVTSNG) and the other for the importance of other people's recommendations (WORDOFM).

Theater previews (PREVIEWS) have also not been included in economic research. Austin (1991) considers theater previews or "trailers," as a form of advertising that address an already interested group, and he includes them in his "zoom model" under the broad category of "Advertising and Publicity." The importance of this variable to attendance decisions is estimated here.

Winning or having been nominated for major awards, such as Oscar or Golden Globe (AWARDS), is considered by Litman and Kohl (1989) to be a key advertising/publicity tool. The financial significance of this variable is well recognized even in the trade circles. For example, the *Advertising Age* recently observed that "Oscar nominations and eventual Academy Award win--can as much as double a film's box-office business and provides strong mainstream appeal for "art-house" pictures (*Advertising Age Fax*, February 9, 1994). Litman and Kohl (1989) only included the nomination or wining of an Oscar in Best Picture, Best Actor and Best Actress category and found the nomination to one of these categories is significantly related to rental revenues. This

research attempts to take the awards factor one step forward and includes not only Oscars but also other recognitions such as Golden Globe, as these awards also receive increased media attention and subsequent publicity.

Appearances of stars on television show such as, *Today Show*, *The Tonight Show*, or *Late Night With David Letterman* (TVPROMOS), is a new variable included to assess the publicity value of star appearances on TV talk shows on attendance. In recent years this has become such a crucial publicity event that some studios book their big stars in more than one show in the same week to coincide with the release dates. This is certainly not as important as Awards on the attendance decisions but it would be interesting to see whether this factor is at least registering in the audiences' radar.

Demographic, Media and Economic Variables

Seven demographic variables were included in the survey instrument to be used as predictor variables for movie attendance and video rental patterns. They are also expected to be used as grouping variables for bivariate analysis. Age (AGE), level of education (EDULEVEL), and income (INCOME) were measured using the same categories used by the annual MPAA surveys and other standard measurement procedures used in mass media research. Three binary (dummy) variables were used for marital status (MARITAL), respondent's gender (GENDER), and absence or presence of children under 16 in the household (CHILDREN). The total number in the household (HHHEADS) is included as a continuous variable. The last seven questions (32 - 38) in the survey instrument are related to the measurement of demographic factors.

In addition to the demographics, several price and media related variables were also included as possible predictor and grouping variables. They

included: subscription to cable television (CATVSUB - Q#11), respondent's willingness to attend more movies if the admission prices were lower (ADMSN$ - Q#30), number of movie channels subscribed to (PREMIUM# - Q#13), the total cost for a movie outing (MOVICOST - Q#29), and an estimate of the percentage of movies seen in the theaters out of all movies seen during the past six months: (PERCENTG - Q#26). The inclusion of some of the media penetration/usage variables such as the number of movies watched on premium channels, pay-per-view availability, usage and frequency of usage (items 14 through 17) were primarily for descriptive purposes.

Additional questions were included primarily to compare video rental behavior with theater attendance and to measure audience perceptions about the home video window. Questions 6 through 8 and item 23 are designed to this effect. Four open-ended questions, adopted from Austin's (1989) research, were used to measure what attracted the viewers to their last movie seen in a theater and the last movie seen on video (items 2, 3, 21 and 22). Additional open-ended items were included to explore what the audiences most and least like about theater attendance and video rental (items 9, 10, 27 and 28)

The expected relationships between independent and dependent variables are largely governed by (a) the theoretical suggestions; (b) the current industry structure; and (c) the specific window (movie or video) the variable is used to explain. As such, the expected relationships will be discussed with the results in the following chapter.

Sample and Data Collection

The sample for this study was drawn from the general public[15] to represent a cross section of the movie going population. Although it is more painstaking than a readily accessible student sample, pure reliance on a convenient student sample might force the research to compromise the validity of the findings due to the atypical nature of such a sample. Moreover, it is believed that a randomly drawn representative sample will allow the use of inferential statistics meaningfully without violating the stipulated assumptions of the multivariate tests. Consequently, a random sample of general population appeared more appropriate to obtain more generalizable estimates of the variables.

Telephone survey method was employed to collect data because it enables the researcher to reach the respondents in a relatively economical and timely way still assuring a relatively higher data quality and an acceptable completion rate. Two telephone interviewers with previous experience in telephone interviewing were employed to assure the data quality[16]. Interviewing sessions were stretched to a 7 day period to allow time for maximum number of call-backs, again, to assure the data quality by increasing the response rate. While most interviewing took place between 6.00 p.m. and 9.30 p.m., on weekends interviewing began at noon and ended at 6.00 p.m. On two week days one interviewer worked from 9.00 a.m. to 5.00 p.m. to reach those people not available during the evenings. Interviewers were directed to call each number a minimum of four times.

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[15]Residents of East Lansing Local Access Transport Area (LATA) that includes: East Lansing, Lansing, Okemos, Holt, Mason, and Grand Ledge.

[16]Both interviewers were graduate students in the College of Communication Arts and Sciences who holds part time employment in research institutes doing survey research.

Random digit dialing, using the local LATA prefixes, was used to select and reach the sample. While random digit dialing is one of the most comprehensive method for selecting a random sample of telephone numbers, a large number of the numbers generated by this method tend to be invalid because some phones have been disconnected, some numbers generated have not yet been assigned, and for other reasons such as, the numbers assigned for businesses and commercial establishments. The adverse effects of this drawback are, however, not on data quality but on time and money.

Although most of the questions were derived from previous studies and information gathered from two focus group sessions conducted in December 1993, two pilot studies were conducted to refine the survey instrument on small samples (~20 subjects each) from the target population.

Telephone Survey Outcome

Table 3.1 presents the outcome of the telephone survey results and the completion rates. A total of 845 telephone numbers were called with 490 successful contacts. Of the 490 eligible respondents that were contacted, 414 (84.5%) agreed to take part in the survey while 76 (15.5%) refused. However, 48 of the 414 respondents who agreed to take part in the survey said they haven't seen a movie either in a theater or rented one on video during the past six months. As such, their interviews were not continued, so the effective sample size was 366 (414-48). As expected from a sample of random digit dialing, a large amount of numbers (181) were either not yet assigned, disconnected or assigned to business or government establishments. The 58.7 percent response rate appears to be in the higher end for a telephone survey

and might be attributed to the higher concentration of college students in some of the area prefixes in the sample.

The results of the study will be presented in the following chapter.

TABLE 3.1

TELEPHONE SURVEY RESULTS

	FREQUENCY	PERCENTAGE
COMPLETIONS	366	58.7
REFUSALS	76	12.2
NO ANSWER[1]	181	29.1
INELIGIBLES[2]	174	—
EXCUSIONS[3]	48	—
TOTAL	845	

[1]No Answer, Answering Machines, Call Backs, Busy Signal, Language barrier

[2]Disconnects, Not in service, Business

[3]Respondents who hadn't seen a movie in a theater or on video in previous 6 months

Chapter 4

Results

In this chapter, the results of the study are presented in the following order. The first section will present the sample demographics followed by a survey of the movie attendance patterns presented with the aid of univariate and bivariate analyses. The third section will be similar to the second but the focus will be on home video window. The results of multivariate statistical analysis are presented in the final section.

Sample Demographics

Table 4.1 presents the summary statistics of major demographic variables. Population distribution for major demographic variables are also presented in Table 4.1 based on 1992 census data. Of those interviewed, 56 percent were females and 44 percent were males. The sample seems to comprise about four percent more females than the actual population it expects to represent.

About one-fifth of the sample was 16 to 20 years old and the age grouping of 16 to 29 year olds accounted for slightly over one half (51.4%) of the sample. The age categories used in this study were adopted from the Motion Picture Association of America's (MPAA) annual motion picture attendance survey.

TABLE 4.1 SAMPLE DEMOGRAPHICS

VARIABLE	PERCENT (N=366)	FREQUENCY	POPULATION DISTRIBUTION*	
GENDER				
MALE	44%	160	48%	
FEMALE	56%	206	52%	
MARITAL STATUS				
SINGLE	59%	216	51%	
MARRIED/LIVING TOGETHER	41%	150	49%	
CHILDREN UNDER 16 IN HOUSEHOLD				
YES	28.7%	105		
NO	71.3%	261		
AGE				
16-20	20.5%	75	15-19	11.2%
21-24	22.4%	82	20-24	14.4%
25-29	08.5%	31	25-34	22.1%
30-39	18.6%	68	35-44	19.7%
40-49	16.1%	59	45-54	12.3%
50-59	05.7%	21	55-64	8.8%
60 OR OVER	08.2%	30	65 >	11.5%
INCOME				
UNDER $15,000	30.3%	111	UNDER $15,000	21.3%
$15,001-$25,000	11.7%	43	$15,001-$25,000	16.7%
$25,001-$35,000	12.6%	46	$25,001-$35,000	16.2%
$35,001-$45,000	10.7%	39	$35,001-$50,000	19.8%
$45,001-$55.000	09.3%	34	$50,001-ABOVE	26.0%
$55,001-$65,000	05.7%	21		
$65,001 AND ABOVE	12.0%	44		
REFUSED	07.7%	28		
EDUCATION				
LESS THAN HIGH SCHOOL	01.1%	4	15.7%	
HIGH SCHOOL COMPLETED	10.7%	39	27.6%	
SOME COLLEGE	51.9%	190	24.1%	
COLLEGE GRADUATE	21.6%	79	14.5%	
POST GRADUATE	14.8%	54	10.2%	
ASSOCIATE DEGREE	—	—	7.9%	

	MEAN	MEDIAN	STD DEV
NUMBER OF CHILDREN	1.9	2.0	.99
NUMBER IN HOUSEHOLD	2.89	2.0	1.57

*BASED ON 1992 CENSUS DATA

A majority of the households (54.6%) had annual incomes of $35,000 or less and 7.7 percent of the respondents refused to reveal their incomes--the only question in the entire survey where respondents refused to answer. Fifty-nine percent of the respondents were single, and the remainder were either married (38.5%) or living together (2.5%). More than one-fourth of the households surveyed (28.7%) had children under 16 living with them. The average number of children in households was 1.9 (SD=1.0). Overall, the average household had 2.89 (SD=1.57) persons, slightly larger than the national average of 2.5 persons.

As expected in predominantly a college community, there was a high education skew in the sample. Nearly 90 percent of the sample had at least a partial college education and almost 15 percent of the respondents had post-graduate training. Overall, the sample appears fairly representative of the population it is drawn from.

An Overview of the Movie Attendance Patterns

The purpose this section is to survey the general moviegoing patterns of the respondents. The findings reported in this and the following sections will be complementary to the multivariate analyses in answering the two research questions central to this study.

Using theater attendance frequency as the criterion, the movie industry categorizes moviegoers in four broad groups: *Frequent* (those who attend at least one movie per month); *Occasional* (those who attend at least one movie in two to six months); *Infrequent* (those who attend less than once in six months); and *Never* (those who reported not going to the movies at all) (MPAA, 1990). When the same criterion is employed, this study found the majority of the

respondents to be "frequent" moviegoers (54.3%), about 30 percent "occasional," and 8.2 percent "infrequent." Only 7.4 percent of the respondents reported that they "never" go to the theaters to see movies. Nonetheless, those who never go to a theater to see a movie were kept in the sample because subsequent probing found this group uses other windows, specifically home video, to see movies. The average adult frequents a theater slightly more than once a month (Mean=1.3). A little more than one-half of those surveyed (52.7%) attend movies one to four times a month. Perhaps the high skew is due to the somewhat over-representation of the "younger" people (16-24) in the sample.

The overall average attendance, however, appears to disguise the specific movie attending habits. A closer look at the different demographic subgroups shows that these groups significantly deviate from the average attending habits. For example, those who are single frequent movies significantly more often than their married (or living together) counterparts (Group Means: 1.51/.90; t=4.95; df=360; α=.001; two-tailed test). As expected, age makes a significant difference in movie attendance as well. Those who are in the 16 to 29 year age category attend significantly more movies than people 30 years or older (Group Means: 1.58/.92; t=5.18; df=350; α=.001; two-tailed test). It is no surprise then that the movie industry estimates show this age group (16 to 29) accounts for nearly one-half of the total domestic movie attendance (MPAA, 1992). Also as expected, those who have children living with them go to the movies significantly less often than those without children (Group Means: .99/1.37; t=2.89; df=244; α=.01; two-tailed test).

Further differences are also present with regard to the subscription of premium cable channels. Those who subscribe to premium cable channels (particularly movie channels such as HBO, TMC, or Cinemax) tend to frequent movies significantly more than those who do not (Group Means: 1.62/1.14; t=2.55; df=117; α=.01; two-tailed test). Although the cable TV subscribers, VCR/Laser Disc owners and males tend to go to the movies more often than their respective counterparts (Group Means: 1.36/1.21; 1.35/1.21; 1.39/1.28, respectively), the differences are simply due to chance than to a statistically meaningful regularity. These findings are consistent with annual MPAA survey results where neither gender nor cable subscription or VCR ownership had significant effects on theater attendance.

4. 3 Importance of Creative and Marketing Factors on Movie Attendance

As the research cited in preceding chapters pointed out, both communications and economic research traditions indicate the importance of a set of creative and marketing variables on individual and collective movie attending decisions[17]. Table 4.2 presents the importance assigned to those factors by the respondents. Variables are listed in order of their importance to the entire sample with corresponding means and standard deviations. Subsequent columns show the respective mean values for four demographic sub groups and the results of t-tests to assess the group differences.

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[17]The 12 variables listed in Table 4.2 are broadly divided into two groups adopting Litman's (1989) and Austin's (1991) classifications as "**creative**" [STARS, DIRECTOR, STORYTYP, PRESTORY, SEQUEL, REVIEWS, RATINGS] and "**marketing**" [WORDOFM, PREVIEWS, ADVTSNG, AWARDS, and TVPROMOS]

Table 4.2

IMPORTANCE OF CREATIVE AND MARKETING FACTORS ON MOVIE ATTENDANCE

(SCALE: 0=NOT IMPORTANT AT ALL; 10=VERY IMPORTANT)

	FACTOR	TTL SAMPLE MEAN (SD)	GENDER M/F	MARITAL MRD/SGL	CHILDREN YES/NO	AGE 16-29/30>
1.	STORYTYP	8.39 (1.44)	**8.18/8.54**	**8.57/8.26**	8.57/8.32	**8.10/8.69**
2.	WORDOFM	7.44 (1.71)	7.44/7.44	**7.75/7.23**	**7.77/7.31**	**7.22/7.67**
3.	STARS	7.05 (2.11)	7.07/7.02	6.97/7.10	6.98/7.08	7.15/6.93
4.	PREVIEWS	6.57 (1.82)	6.42/6.68	6.42/6.68	**6.91/6.43**	6.73/6.39
5.	REVIEWS	5.81 (2.31)	5.61/5.98	**6.27/5.50**	**6.34/5.60**	**5.21/6.46**
6.	ADVTSNG	5.73 (2.01)	5.93/5.58	5.65/5.80	5.89/5.68	5.90/5.55
7.	SEQUEL	4.87 (2.40)	4.81/4.91	4.97/4.80	5.05/4.80	4.68/5.07
8.	PRESTORY	4.79 (2.27)	4.70/4.86	**5.07/4.60**	4.79/4.79	**4.40/5.20**
9.	AWARDS	4.41 (2.42)	4.56/4.30	**4.71/4.20**	4.52/4.37	4.18/4.66
10.	TVPROMS	4.10 (2.25)	3.94/4.14	**3.77/4.25**	3.86/4.16	**4.38/3.71**
11.	RATINGS	3.80 (2.96)	**3.46/4.06**	**4.67/3.20**	**6.17/2.84**	**3.08/4.56**
12.	DIRECTOR	3.77 (2.53)	4.01/3.58	3.65/3.85	3.53/3.87	3.85/3.68
	Group Sizes	366	160/206	150/216	105/261	188/178

BOLD TYPES INDICATE THE MEAN DIFFERENCES THAT ARE SIGNIFICANT AT $\alpha \geq .05$
ALL TWO-TAILED TESTS.

As seen in the Table above, story type (STORYTYP) topped the list and the first six variables received above average ratings. Also evident is the mixture of creative and marketing factors in the rankings. What is more important, however, is the significant differences found between the sub groups. For example, although it is in the lower end of the list, the importance of MPAA ratings (RATINGS) significantly differs from group to group. As evident from the group means, older, married, females with children found MPAA ratings significantly more important in their movie attending decisions than their respective counterparts. Likewise, those who are married also

found STORYTYP, other people's recommendations (WORDOFM), reviews in the media (REVIEWS), wining or nomination of awards (AWARDS), and the movie being based on a previously known story (PRESTORY) as significantly more important than those who were not married.

It is revealing to find evidence to the effect that the importance of creative, and marketing variables are related to demographic and other life style factors. Correspondingly, "the young," "the single," and "the ones without children" are appear to place a lesser value on these factors than their respective counterparts. The empirical evidence simply shows how indiscriminant the young moviegoer is.

The Social Context of Movie Attendance

An important factor in movie attendance is the social context in which it takes place. Only a very small minority (5%) of the respondents goes to the movies alone. For the vast majority it is a social activity. Most young adults (16 to 24) go to the movies with friends or a date, and for those who are 30 years or above, going to the movies is a family activity. The social appeal of moviegoing goes beyond doing something with the family and friends. For some, it also means being part of an "unknown" crowd. For example, 53 percent of the respondents cited "going out" or "being in the crowd" as the most important reason for going to the theater to see a movie.

The social nature of going to the movies appears to cost the audiences dearly. On the average, it cost them more than 12 dollars to go out to see a movie (Mean $12.46; SD=$7.70). Again, the average tends to conceal the details as different subgroups spend well above the sample average. Naturally, the cost is a function of the magnitude of the social ties. As social ties grow,

so seems to be the cost. Those who are married, for example, spend twice as much as those who are single for a movie outing ($24.19 vs. $12.16; t=4.42; df=333; ∝=.001; two-tailed test). Similarly, those who are 30 years or older spend $21.50 for a movie outing compared to the $12.80 the "younger" spend (t=4.47; df=287; ∝=.001; two-tailed). As expected, larger differences also exist between those who have children living with them and with those who do not ($25.89 vs. $13.64; t=8.03; df=112; ∝=.001; two-tailed test).

TABLE 4.3

LEAST LIKE ABOUT GOING TO A THEATER TO SEE A MOVIE

	FREQUENCY	PERCENTAGE
PRICE (ADMISSION AND CONCESSION)	153	45.1%
NOISE (PEOPLE TALKING, RUDENESS)	64	18.9%
COMFORT (UNCOMFORTABLE CHAIRS, STICKY FLOORS)	35	10.3%
CROWDS	32	9.4%
LOGISTICS (FINDING A SITTER, PARKING)	18	5.3%
HAVING TO GO OUT	14	4.1%
NONE	10	2.9%
OTHER (PREVIEWS, SHOW TIMES ETC.,)	13	3.9%

(N=339)

The significance of price factor also emerged elsewhere in the study as well. When asked to name what the audiences least liked about going to a theater to see a movie, the high ticket and concession prices topped the list as the most cited reason (see Table 4.3). Furthermore, 75% percent of the respondents said they would go to the movies "more often" if the ticket prices were lower. As such, it seems reasonable to believe that it is mostly the high

costs and other "inconveniences" associated with going to the theater, not the movie quality itself, that keeps the majority away from the theaters. It also explains why the adults, as a group, are more cautious when it comes to theater attendance decisions. For those who are older the consequences are more expensive and time consuming than for the younger audiences who have more time, fewer social obligations and, above all, are likely to get cheaper admission prices as well.

What then do the movies offer to outweigh the audiences' antipathy and attract them to the theaters? The survey results appear to shed some light into this area. Responses to the open ended question that asked to single out the most important reason for going to a theater are categorized in Table 4.4. More than 95 percent of the audiences agree on four major reasons: escape (43.8%); technical superiority (31.7%); to see it now (10.3%); and the theater atmosphere (9.1%). The escape represents such reasons as "need to go out," "to relax," "to unwind," "to get away from kids," and "to get away from daily routine." Technical reasons include the "big screen," "superior sound quality," and the "life like" experience only the theater can offer. About ten percent of the audiences go to the theaters because they want to see the movies "now" or see it "before the others see it." About the same number of respondents like the theater "atmosphere" where they can be "among the crowds." These patrons, as economists would like to call it, perceive a degree of utility from the theater going experience that offsets the inconveniences (efforts) and costs (admission and other) to watch a movie in a theater.

TABLE 4.4

MOST IMPORTANT REASON FOR GOING TO A THEATER

	FREQUENCY	PERCENTAGE
ESCAPE (RELAX, UNWIND, GET AWAY)	145	43.8%
TECHNICAL (BIG SCREEN, SOUND QUALITY)	105	31.7%
TO SEE IT NOW	34	10.3%
THEATER ATMOSPHERE (BEING IN THE CROWD)	30	9.1%
NONE	7	2.1%
NOT ON VIDEO	4	1.2%
OTHER	6	1.8%

(N=331)

A rather qualitative measure, adopted from Austin's research, is used to look into the reasons surrounding the selection of a specific movie. A large majority of those who have seen a movie (81.2%) during the past six months did remember the movie by name. Table 4.5 presents the reasons that attracted audiences to the movie they have last seen[18]. While the list contains more than ten reasons, most of the audiences apparently agree on a few reasons. Among them, the stars, story line (the plot) and the story type (genres) contributed to about 50 percent of the attendance while advertising and publicity related factors accounted for about 25 percent of the attendance. The obvious limitation of this measure is its exclusive reliance upon the *last* movie attended, which may or may not be a typical movie. For example, the measure can be largely skewed if an "event like" movie, such as *Jurassic Park*, dominated the theaters during the period measurements were taken.

[18]This Table also presents the reasons for video rental

TABLE 4.5

FACTORS ATTRACTED TO THE LAST MOVIE/VIDEO

WHAT ATTRACTED TO THE LAST	VIDEO		THEATER	
	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
STAR	65	29.3%	60	22.0%
ADS/PROMOS/REVIEWS/PREVIEWS	16	7.2%	50	18.3%
STORY LINE	33	14.9%	47	17.2%
SOMEONE TOOK/WANTED TO SEE	11	5.0%	27	9.9%
STORY TYPE	18	4.9%	25	9.2%
KIDS WANTED TO SEE	18	4.9%	20	7.3%
RECOMMENDATIONS	19	5.2%	14	5.1%
AWARDS/NOMINATIONS	0	0%	8	2.9%
KNEW THE STORY	5	2.3%	6	2.2%
SEQUEL/FX/PREQUEL	5	2.3%	5	1.8%
DIRECTOR	4	1.8%	6	1.8%
OTHER	4	1.8%	5	4.0%
SEE AGAIN	16	7.2%	NA	NA
ATTRACTIVE COVER	4	1.8%	NA	NA
MISSED AT THE THEATER	2	.9%	NA	NA
	(N=222)		(N=273)	

The Other Windows: Watching Movies At Home

Cable television is universally available in the sampled universe and the subscription rate stood at 83 percent. About 30 percent of the cable subscribers also subscribe to at least one of the movie channels (HBO, TMC, Cinemax, Showtime or Disney), and premium channel subscribers watch an average of 6.7 movies on these channels per month. While a large majority of the cable households (82.3%) do have access to Pay-Per-View (PPV) services, requesting movies on PPV does not appear to be a popular activity. Only 14 percent of the PPV accessible households had ever requested and paid for a

movie on PPV and 80 percent of those who do, do so only about less than once a month.

Conversely, home video emerged as the most popular window for the movies. An overwhelming majority of the households has a VCR (86.1%) and a small percentage of those households (3.6%) are also equipped with a Laser Disc player. Interestingly, all the laser disc households do have a VCR as well. The average monthly rental of 4.1 videos is more than three times as much as the average theater attendance of 1.3 per month. The average audience for a rented movie stands at 3.3 people per household.

A considerably large proportion of the video audience appears not to overlap with the theater audience. When asked about the frequency of renting a movie that was already seen in the theater, a large majority (84.2%) reported that they "rarely" or "never" rent the movies already seen and 11.7 percent said they only do so "about half the time." To build upon this measure, a follow-up question asked about how often the respondents wait to see a movie on video rather than going to the theater. Nearly one-half of the people who rent videos do wait for the video rather than going to the theater "always" or "almost always" and a third (33.9%) do so "about half the time." In addition, the majority of the moviegoers (56.2%) would rent the video instead of going to the theater if a movie is simultaneously released on video with the theater release, and 56 percent are willing to pay more for such an early release than what they pay now to rent a movie. Even if these estimates are marginally acceptable, home video has undoubtedly become by far the largest window for the movies not only by mere penetration and usage levels but also how people perceive it as an independent exhibition window for the movies.

There are some noticeable similarities and differences between the theater and the home video windows. As shown in Table 4.5, the reasons that attract audiences to the theater are more or less the same for video as well. One noticeable difference is the impact advertising and publicity strategies have on the two windows. While advertising and promotional factors are the second biggest attraction for theater attendance, only 7 percent of the video rentals were affected by those factors (see Table 4.5 for a comparison). This seems quite normal because, unlike the theater release, the video release hardly has advertising budgets or promotional strategies built into it.[19] Moreover, the effects of reviews largely dry out by the time the video hits the stores. This finding also justifies the recent attempts by the industry to narrow the passage of time between the theater and the video release to benefit from the rippling effects of advertising and other promotions initially done for the theatrical release.

The most significant difference between the home video and theater windows surfaced when the audiences were probed about the most important reason for renting a movie. It is crystal clear why people rent movies: *price* and *convenience*. As Table 4.6 shows, virtually all video renters (91.5%), prefer to rent because watching at home is overwhelmingly convenient and far less expensive. As the respondents put it, they can "watch it at the convenience of home," "can watch any time I want," "watch it without leaving home" (categorized as "convenience") and "it's cheaper," "don't have to pay high ticket and concession prices" or simply "the price" (categorized as "price"). A

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[19]Except for most of the Disney movies and "mega-hit" titles such as *The Fugitive* and *Mrs. Doubtfire* where the video release is primarily intended for the sell-through market with low unit prices.

self estimate of the respondents finally revealed that only 36 percent of the movies seen during the past six months took place in a theater - hence it is clearly a less important movie window than it was 10 years ago.

TABLE 4.6

MOST IMPORTANT REASON FOR RENTING A MOVIE

	FREQENCY	PERCENTAGE
CONVENIENCE	181	59.3%
PRICE	98	32.1%
WATCH WHAT MISSED IN THEATER	11	3.6%
WATCH AGAIN	6	2.0%
OTHER (FAMILY EVENT, BAD THEATERS)	9	3.0%

(N=305)

Results of Multivariate Analyses

This section attempts to supplement the findings presented up to this point with more sophisticated multivariate analyses to assess the collective impact of the independent variables to explain the variability associated with theater attendance and video rental. Two separate sets of multivariate equations will be estimated--one for the movie attendance and the other for the video rental.

Table 4.7 present simple correlations for the entire set of independent variables with the two dependent variables[20]. Theoretical justifications for

[20]These simple correlations were obtained without any treatment to the missing values. As missing values will be substituted for regression analysis, the strengths and the significance levels of the present relationships may change as missing value treatments effectively change the sample composition.

selection of these variables were discussed in the preceding chapter and the direction of the relationship between independent and dependent variables will be discussed separately as their expectations may vary from one dependent measure to the other.

As seen in Table 4.7 only four of the twelve movie quality and marketing variables (DIRECTOR, STORYTYP, REVIEWS, AWARDS) are significantly correlated with theater attendance (MOVIE#). However, given the fact that this survey was conducted in March, 1994 during the weeks that surrounded the Oscar nominations and actual awards ceremony, it appears necessary to take some precautionary action before using this data in subsequent analysis. There is a possibility that the respondents' self reports could have been clouded by the events occurring at the time of the data collection. Specifically, media hype about the Oscars was at its peak and so were the highly praised reviews in all the media for the two prominent Oscar attractions, *Schindler's List*, and *Philadelphia* and director Steven Spielberg. As such, it was decided to weigh the relevant data to discount the "Academy Awards factor" of three of the four variables concerned here (DIRECTOR, REVIEWS, and AWARDS). An arbitrary weight of negative15 percent was assigned for those cases who had seen either one of these two movies[21]. However, although the magnitude of the coefficients had shown some positive and negative effects, the weighted variables did not significantly alter the results of either correlation statistics or regression analyses. Consequently, it was concluded that there is not enough evidence to believe that the performance of these variables was significantly affected by, what might be termed the "history effects."

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[21]Fortunately, this information was available and 31 respondents had seen *Schindler's List* and 44 had seen *Philadelphia*.

TABLE 4.7

SIMPLE CORRELATION MATRIX

	MOVIE#	VIDRENT	STARS	DIRECTOR	STRYTYP	RATINGS	REVIEWS	PREVIWS	PRSTORY	WRDOF M	AWARDS
VIDRENT	.0890	—									
STARS	.0887	.0073	—								
DIRECTOR	**.2043**	.0106	**.3210**	—							
STORYTYP	-.1080	-.0059	-.0210	.0549	—						
RATINGS	-.0624	.0329	.0118	.0347	.1205	—					
REVIEWS	-.1295	.0246	.1272	.0846	.1632	**.2083**	—				
PREVIEWS	.0909	.0507	.0607	.0912	**.1591**	.1091	**.1725**	—			
PRESTORY	-.0093	.0055	.1212	**.2675**	.0652	.0929	**.1929**	.0452	—		
WORDOFM	.0291	.0008	.1068	.0879	**.2005**	.1146	**.2225**	**.2163**	**.1960**	—	
AWARDS	**.1753**	.0001	**.2147**	**.4922**	.0280	.1138	**.2764**	.0120	**.3416**	**.2514**	—
ADVTSNG	**.1598**	-.0276	**.1958**	.0212	.0778	.1444	**.1713**	**.3713**	.0993	**.2419**	**.2105**
TVPROMOS	.0723	-.0440	**.2411**	**.1417**	-.0270	.0531	**.1696**	.0392	**.1953**	.0090	**.3475**
SEQUEL	-.0075	-.0352	**.2064**	.1114	.0019	**.1950**	.1304	.0592	**.3724**	**.1384**	**.2705**
PERCENTG	**.3406**	**-.5012**	-.0315	-.0183	.0612	-.0908	-.0483	.0092	-.0457	-.0280	-.0379
MOVICOST	-.0695	**.2656**	.0023	-.0392	-.0059	**.2601**	.1234	.0274	-.0348	.1281	.0407
ADMSN$	.0820	.1207	-.0168	-.0372	-.0898	-.0287	-.0735	.0235	-.1020	-.0905	.0081
MARITAL	**-.2004**	.1170	-.0090	-.0259	.0763	**.2104**	**.1406**	-.1119	.0746	**.1358**	.1090
CHILDREN	-.1108	**.2488**	-.0316	-.0136	.0285	**.5277**	**.1377**	.0838	.0439	.1022	.0191
HHHEADS	.0080	**.3188**	.0074	.0733	-.0082	.1965	.0781	.0483	.0489	.0442	.0958
AGE	**-.2222**	**-.1354**	.0025	.0166	**.2045**	**.1719**	**.2694**	-.1273	**.1877**	**.1512**	.1247
INCOME	-.0329	.1341	-.0049	-.0033	**.1366**	.1889	.2177	-.0761	**.1417**	**.1465**	**.2116**
EDUCATION	-.0034	.0355	-.0399	**.1403**	.0016	-.0208	.0325	**-.1352**	.0794	.0202	**.2287**

.Bold = Significant at .05 or Greater (two tailed test)

Table 4.7 Cont'd...

	ADVTSN	TVPROM	SEQUEL	PECENTG	MOVICST	ADMSN$	MARITAL	CHILDRN	HHHEADS	AGE	INCOME
VIDRENT											
STARS											
DIRECTOR											
STORYTYP											
RATINGS											
REVIEWS											
PREVIEWS											
PRESTORY											
WORDOFM											
AWARDS											
ADVTSNG	—										
TVPROMOS	**.2722**	—									
SEQUEL	.1046	**.3277**	—								
PERCENTG	.0082	-.0221	-.0914	—							
MOVICOST	.0613	-.0976	-.0077	**.2981**	—						
ADMSN$	.0857	.1034	-.0433	-.0753	-.1092	—					
MARITAL	-.0348	-.0935	.0878	**-.2344**	**.4398**	**-.1857**	—				
CHILDREN	.0197	-.1050	.0877	**-.3295**	**.5333**	-.0609	**.4572**	—			
HHHEADS	.0481	.0724	.1331	**-.3414**	**.2777**	.0762	**.2862**	**.4923**	—		
AGE	-.1150	-.1032	.0721	-.0270	.1718	**-.3526**	**.5025**	**.2245**	.0401	—	
INCOME	-.0188	-.0393	.1086	**-.1830**	**.3984**	**-.2569**	**.6680**	**.4248**	**.2472**	**.5796**	—
EDUCATION	-.0987	-.0425	-.0395	-.1220	**.2049**	**-.1431**	**.2153**	.1178	-.0659	**.1902**	**.3774**

Bold = Significant at .05 or Greater (two tailed test)

Three of the other independent variables, marital status, having children in the household, and age, (MARITAL, CHILDREN, AGE) are significantly negatively correlated with the theater attendance (MOVIE#). Their negative relationship with the movie attendance is within the range of theoretical expectations as an "elder," married populace with children tend to attend movies less frequently than their respective counterparts. Although not statistically significant, the cost of going to the movies (MOVICOST), willingness to go to the movies if admission prices were lower (ADMSN$), and the number of people in the household (HHHEADS) are within the range of expected theoretical directions. No a priori direction is expected for the variable household income (INCOME). INCOME is negatively correlated with theater attendance but shows a positive correlation with video rental, suggesting the higher the income the lower the theater attendance but consequently, the higher the video rental. This is a somewhat awkward relationship given the fact that going to the theater to see a movie is the more expensive option between the two.

AGE is also significantly negatively correlated with video rentals but the relationship is weaker than it is with movie attendance. While there is no a priori direction for this relationship, it is reasonable to expect a positive relationship between AGE and VIDRENT as the price and time sensitive "elder" population may find it more "convenient" and less expensive to rent than to go to the theater. As expected, theater attendance percentage (PERCENTG) shows a strong significantly negative correlation with VIDRENT. Although not significant, unlike with theater attendance, marital status (MARITAL) is positively correlated with VIDRENT suggesting a tendency among the married

to rely more on home video window than on theater for their movie viewing.

A salient factor in the correlations results is the very weak associations between the twelve movie quality and marketing variables and video rental patterns. Not only do they lack significance, their correlation coefficients are considerably low in many instances reaching near zero correlations. On the contrary, demographic and economic variables are more strongly related to video rentals some relationships gaining statistical significance.

Data Reduction Efforts

Given the merits of predictive models with fewer variables but greater explanatory power, several efforts were made to reduce the number of explanatory variables along the theoretical lines by making composite measures. Existing inter-correlations among the variables also encouraged exploration of the possibilities of composite measures. As a first step, a Varimax factor analysis was performed using all the twelve creative and marketing variables. The goal of this was to represent relationships among sets of variables parsimoniously. That is, if variables related to, say, the creative sphere of the movies such as director, stars, story type were related, it is expected that factor analysis would allow explanation of the observed correlations using as few factors as possible, consequently allowing estimation of predictive models with fewer variables. The results of the factor analysis are presented in Table 4.8 in Appendix II. As seen in the Factor Matrix, the results were not very promising in theoretical or statistical sense. First, while there were four factor loadings, the factors were theoretically meaningless and largely uninterpretable. For example, the six variables that loaded on Factor 1,

STARS, DIRECTOR, REVIEWS, PRESTORY, AWARDS, and TVPROMOS, are not theoretically related. Similar is Factor 4 where WORDOFM and SEQUEL showed heavy loadings. Theoretically, a variable like word-of-mouth makes more sense if loaded with Factor 2 where the advertising and publicity variables show heavy concentration instead of Factor 4. Factor 2 makes some theoretical sense as PREVIEWS and ADVTSNG show a strong correlation. However, it had left other advertising/publicity related variables such as WORDOFM and TVPROMOS out. Moreover, six out of twelve variables used in Factor Analysis tend to load on more than one factor suggesting their importance to more than one factor - statistically a very discouraging sign for factor analysis.

Regression Analysis Results for Theater Attendance

While the simple correlation analysis presented in the preceding section provided some useful information about the relationships between the independent and the dependent variables, the bivariate nature of simple correlations does not allow one to assess the *collective* impact of a set of independent variables on the criterion measure. As such, one of the more sophisticated multivariate analyses, multiple regression, is used to better understand how the independent variables collectively fit together to explain the variance in theater attendance. In addition to allowing one to assess the overall contribution of all the independent variables (the statistical fit, indicated by R^2), multiple regression also allow to assess the contribution of a particular independent variable in the context of other independent variables (partialling out the effects of other predictor variables).

Table 4.9 presents various summary statistics for the variables used in regression and discriminant analyses. For those variables that are continuous and polytomial, the means, standard deviations, and degree of skewness are presented. For binary (dummy) variables, only the means are presented to be used as proportions as standard deviation and skewness are not meaningful with such variables.

The regression equations listed in Table 4.10 presents the results obtained using the same set of variables but in different variable and sample configurations to assess the models that best fit statistically yet are theoretically meaningful. "Stepwise" method in SPSS is used after careful consideration of the impact of other variable selection methods such as "backward elimination" and "forward selection." While no method is superior than the other, it may be possible that one method may work better with one sample than another (SPSS, 1990). Quite interestingly, all the three data selection methods attempted (Stepwise, Backward and Forward) resulted in practically the same statistical fit (R^2) and more importantly, found the same set of independent variables to be significant. As such, the more popular "stepwise" method is chosen.

Equation 1, estimated using a partial sample of 301 cases as missing values remain untreated, includes all 21 independent variables. Equation 2 is estimated using all the variables in equation 1 but the missing values for the variables INCOME (28 cases), MOVICOST (31 cases), HHHEADS (9 cases), and PERCENTG (3 cases) were substituted by their respective averages. As seen in the Table 4.10, the second equation, with the missing values treated, provide a slightly better statistical fit as it explains about two percent more

TABLE 4.9

SAMPLE STATISTICS FOR VARIABLES IN REGRESSION AND DISCRIMINATORY ANALYSES
(N=366 UNLESS OTHERWISE STATED)

VARIABLE	MEAN	STD DEV	SKEWNESS	CORRELATION WITH MOVIE#	CORRELATION WITH VIDRENT
MOVIE#	1.26	1.27	2.07	—	.089
VIDRENT	4.12	3.95	1.80	.089	—
STARS	7.05	2.11	-1.05	.088	.007
DIRECTOR	3.77	2.53	.33	.204**	.010
STORYTYP	8.39	1.44	-1.37	.108[a]	.006
RATINGS	3.80	2.96	.45	.062	.033
REVIEWS	5.82	2.31	-1.03	.129[a]	.025
PREVIEWS	6.57	1.82	1.03	.091	.051
PRESTORY	4.79	2.27	-.07	.009	.006
WORDOFM	7.44	1.72	-1.34	.029	.001
AWARDS	4.41	2.42	.16	.175*	.001
ADVTSNG	5.74	2.00	-.76	.160*[ab]	.028
TVPROMOS	4.06	2.25	.04	.072	.044
SEQUEL	4.87	2.40	-0.14	.008	.035
PERCENTG	35.89	34.33	0.80	—	-.501**
MOVICOST	12.46	7.70	1.33	-.070	.267[a]
HHHEADS	2.89	1.57	1.15	.008	.319**
AGE	3.37	1.89	.35	-.222**	-.135*
EDULEVEL	3.38	.90	.30	-.003	.134
INCOME	3.24	2.14	.57	-.033	.036
		BINARY VARIABLES			
ADMSN$	.75	na	na	.082	.121
MARITAL	.41	na	na	-.200**	.117
CHILDREN	.29	na	na	-.111[a]	.249**

*Significant at .01 **Significant at .001

[a]Became significant after mean substitutions [b]Lost significance after mean substitutions

variance in the dependent measure (R^2=.2069 vs R^2=.1871). However, the second equation lost one of the independent variables (AWARDS) as the missing value treatment change the original composition of the sample. Extreme care was taken to see whether the missing values were random or take an identifiable pattern. To find this out, the sample was first divided into two groups--those observations with missing data on INCOME and MOVICOST (the two variables with largest number of missing cases) and those with complete data--and was examined the distribution of the dependent measure (MOVIE#) using t-tests. The results found no statistically significant differences between the groups thus confirming the randomness in missing values.

Equation 3 is similar to equation 2 but is estimated without the variable INCOME. Although income was found to be a significant predictor for theater attendance (as seen in equations 1 and 2), it appears to highly inter-correlate with several other predictor variables suggesting potential multicollinearity problems (see Table 4.7 - correlation matrix). The problem with collinear variables is that they provide very similar information and may weaker each other when used in conjunction, hence is difficult to separate out the effects of individual variables. However, it is quite premature to exclude a variable as collinear on the basis of simple correlation results as they might have different effects in the presence of other variables. As such, two more sophisticated diagnostic tests (Tolerance and Variance Inflation Factor (VIF) and Eigenvalues and Condition Indexes) were performed using SPSS to see the true nature of multicollinearity in the context of other predictor variables. As the results of these tests suggest (see Table 4.11 in Appendix II for the test results) income, in fact, seems to share an unacceptable amount of its variance with AGE and

TABLE 4.10

REGRESSION EQUATIONS FOR MOVIE ATTENDANCE

DEPENDENT VARIABLE: AVERAGE MONTHLY THEATER ATTENDANCE

	NON STANDARDIZED BETA COEFFICIENTS				
IND VARIABLE	EQN 1	EQN 2	EQN 3	EQN 4	EQN 5
DIRECTOR	.0761*	.1272*	.0903*	.1055*	.1078*
REVIEWS	.0869*	.0958*	.0963*	.1231*	.0194*
ADVTSNG	.0784*	.0673*	.0952*	.0696*	.0270*
AWARDS	.0543*	.0843	.0610*	.0537*	.0319*
STORYTYP	.0663	.0776	.0671	.0943*	.0805
PREVIEWS	.0611	.0516	.0740	.0735*	.0396
RATINGS	.0187	.0294	.0280	.0362*	.0072
AGE	-.1354*	-.1344*	-.1848*	—	-.0660*
MARITAL	-.6406*	-.6948*	-.5610*	—	-.2225*
INCOME	.1557*	.1749*	—	—	—
CONSTANT	1.07	1.13	1.63	1.39	-.188
R^2	**.1871**	**.2069**	**.1753**	**.1483**	**.2064**
ADJ R^2	.1677	.1935	.1615	.1316	.1929
F (SIG)	9.63 (001)	15.47 (001)	12.71 (001)	8.90 (001)	12.11 (001)
STD ERROR	1.09	1.14	1.16	1.18	.372
N	301	366	366	366	366

EQUATION 2: MISSING VALUES SUBSTITUTED WITH MEAN VALUES

EQUATION 3: REGRESSED WITHOUT THE INDEPENDENT VARIABLE "INCOME"

EQUATION 4: REGRESSED ONLY THE CREATIVE AND MARKETING VARIABLES

EQUATION 5: LOGARITHMIC TRANSFORMATION (BASE 10) OF THE DEPENDENT VARIABLE

*SIGNIFICANT AT .05 OR GREATER

VARIABLES NOT SIGNIFICANT AT .05 LEVEL IN ANY OF THE ABOVE EQUATIONS: STARS, PREVIEWS, PRESTORY, WORDOFM, TVPROMOS, SEQUEL, MOVICOST, ADMSN$, CHILDREN, HHHEADS, EDULEVEL

MARITAL. Consequently, INCOME was excluded from subsequent estimates and the results are presented in equation 3. The results, as it turned out, seem to be a good compromise. Because, although equation 3 resulted a model with three percent less variance explained than equation 2, AWARDS, which lost its significance as missing values were substituted, re-entered the equation as a significant predictor.

Equation 4 is estimated by regressing only the 12 variables that deal with movie quality and marketing leaving the demographic and economic predictive factors out. And this equation presents some very interesting results. The new equation has a lower statistical fit as it only explains about 15 percent of the observed variability (R^2=.1483), compared to the preceding models, which is not unusual given the evidence of impact of other predictor variables like AGE and MARITAL. Nevertheless, the new equation resulted in a model with three new statistically significant theoretically sound variables (STORYTYP, REVIEWS and RATINGS). Although the statistical fit is lower, this equation provides some useful information relevant to the research question. For example, as discussed earlier in this chapter, the importance of these three variables significantly differs from group to group (ie., married to single, "young" to "old," and households with and without children) when group differences were estimated using t-tests. Intrinsically, when the importance of these variables was assessed collectively in regression analysis, the group differences (impact of demographic variables) appear to prevent these variables entering the equation as significant factors (as regression constantly assess the interdependency of variables in its entry and deletion strategies).

The fifth and the final equation in this section, is similar to equation 3 but uses a logarithmic transformation (base 10) of the dependent measure. The log transformation is a result of series of tests performed to check the linearity of the continuous variables. A casewise residual test performed under Subprogram Regression of SPSS revealed a slight departure of the dependent variable from normality (this may be due to the way in which values were assigned to the dependent measure, described early in the preceding chapter, which created a large number of cases for two values). Under these circumstances, SPSS suggests the transformation of either the dependent or independent variables, or both, to approximate normality (SPSS, 1990). All three transformations were attempted and only the transformation of the dependent measure resulted an improvement in the statistical fit. As the distribution of the variable has a positive skew, the log transformation appears to be the most appropriate.

Quite interestingly, the equation with the transformed criterion measure achieved a statistical fit equal to that of the equation 2 even without the INCOME factor. In terms of the number of variables in the equation, both, equations 3 and 5, have the same variables while the latter has a better statistical fit of almost 21 percent of the variability explained (R^2=.2064) when the dependent measure is "straightened out" with log transformation. Thus making it a better model.

Some other interesting things happened when we move from the simpler to more complex statistical analysis. For example, while CHILDREN is negatively significantly related with movie attendance in correlation analysis, its significance disappeared in combination with other variables and did not enter

into any of the equations. It may be possible that the children factor can works both ways. Although having young children put an additional burden on going to the theater (as it is necessary to find a sitter and other logistics), the children that are relatively older may be a factor that attracts parents to the theaters, thus offsetting the negative impact. This is also evident from the responses given to one of the open-ended items where 7.7 percent cited "kids wanted to see" as the reason for going to the last movie.

However, RATINGS, PREVIEWS, and ADVTSNG, which were not significant in correlation analysis, but appear to share their variances with demographic factors, did enter into the model in the absence of demographics (equation 4). What is quite noticeable is the entry of more or less the same set of variables in all equations under different sample and variable configurations. This indicates the robustness of the estimation process.

In looking at all the five equations collectively, there are four creative variables, DIRECTOR, REVIEWS, ADVTSNG, and AWARDS, and two demographic variables, AGE and MARITAL, that always relate significantly to the theater attendance. This is true even when the sample and the variable configurations were altered, indicating their strong association with the dependent measure.

In all five models, the entire set of independent variables is linearly related to the dependent variable as all the F values are all significant at .001. The F is a test of the null hypothesis that $\mathcal{B}_1=\mathcal{B}_2=\mathcal{B}_3=\mathcal{B}_4....\mathcal{B}_n=0$. The statistical fit ($R^2$) ranges from .1483 to .2069 meaning between 15 percent to 21 percent of the observed variability in theater attendance can be explained by DIRECTOR, REVIEWS, ADVTSNG, AWARDS, STORYTYP, PREVIEWS,

RATINGS, AGE and MARITAL. While there is no such thing as good, best or optimal R^2, it can be viewed as a measure of the explanatory power of a regression equation. Provided theoretically sound variables are included, R^2 is one statistic that can be used to evaluate the "goodness" of an estimated regression equation (Johnson, Johnson and Buse, 1987). However, as R^2 is greatly affected by the data sources used to estimate the regression equations, given the use of individual household data, 15 to 21 percent of explained variance provide encouraging and acceptable results. Moreover, this range of explained variance is consistent with other communication research at household level.

Discriminating the "Frequent" and "Infrequent" Moviegoer

In an effort to further explore data beyond multiple regression analysis, another linear statistical technique, discriminant analysis, is used where the same sets of independent measures serve as "discriminatory function variables" to classify cases into one of the groups. As such, the same criterion variable, average monthly movie attendance (MOVIE#), is converted into discrete form to divide sample into two groups called "frequent" and "infrequent." The "frequent" category included those who go to the movies at least once a month and "infrequent" category included those who attend movies less than once a month. There were 127 (41%) "infrequent" moviegoers and 184 (59%) "frequent" moviegoers in the sample (N=311). In fact, this form of the dependent measure is more close to its original form than the one used in regression analysis. As the assumptions for discriminatory analysis remain similar to those for the multiple regression, INCOME was not considered as a sound predictive factor in the analysis.

Table 4.12 presents the results of discriminant analysis. Standardized canonical discriminatory function coefficients (similar to the beta weights in multiple regression) are presented along with the means and standard deviations for each variable and other summary statistics. Prior probabilities were set at .41 for "infrequent" group (as 41% of the sample belong to this group) and .59 for the "frequent" group reflecting the actual proportions. The overall model is significant at $\propto$ =.001 (χ^2=72; df=9), meaning the mean differences were not due to chance alone. Wilks Lambda is .7891 and canonical correlation is .4592. As the variation explained in the dependent measure by the discriminatory function variables equals one minus lambda (1-.7891=~21%), the smaller the lambda the better the statistical fit of the model. In two group situations (eg. Frequent vs Infrequent), lambda is equal to the squared canonical correlation coefficient (.4592^2=~21%) which is similar to R^2 in regression analysis. The statistical fit of the discriminatory model, therefore, is similar to what is achieved with the best regression model.

Table 4.13 present the classification results of discriminatory analysis. Correctly classified cases appear on the diagonal of the table (bold faced). For example, of the 127 cases in the "infrequent" category, 83 (65.4%) were predicted correctly to be the members of that group while 44 (34.6%) were "misclassified" to the infrequent group. Similarly, 133 out of 311 (72.3%) of the frequent group were correctly identified while 51 (27.7%) were misclassified. Overall, the discriminatory model correctly classified 69.45 percent of the cases (216/311). The combined distribution of the scores for the two groups is shown in Figure 4.1. One symbol represent five cases and the overlap between the two groups can be seen by the overlapping symbols.

TABLE 4.12

DISCRIMINANT ANALYSIS OF MOVIE ATTENDANCE

DEPENDENT VARIABLE: AVERAGE MOVIE ATTENDANCE CLASSIFIED AS "FREQUENT" AND "INFREQUENT"

		MEAN (STD DEV)	
DISC FUNCTION	STD COEFF	INFREQUENT	FREQUENT
DIRECTOR	.1650*	3.56 (2.45)	4.11 (2.58)
STORYTYP	.1435*	8.45 (1.31)	8.39 (1.52)
REVIEWS	.2167*	6.07 (2.07)	5.58 (2.46)
AWARDS	.3152*	4.00 (2.18)	4.73 (2.55)
ADVTSNG	.1964*	5.40 (2.29)	6.00 (1.78)
AGE	-.8717*	4.02 (1.83)	2.75 (1.68)
MARITAL	-.2743*	.48**	.31**
ADMSN$	.2883*	.66**	.84**
CHILDREN	-.1705*	.37**	.49**
CONSTANT	1.298		

*SIGNIFICANT AT .05 OR HIGHER

χ^2=72.00 DF=9

WILKS LAMBDA .7891 – CANONICAL CORRELATION .4592

VARIABLES NOT SIGNIFICANT AT .05: STARS, RATINGS, PREVIEWS, PRESTORY, WORDOFM, TVPROMOS, SEQUEL, MOVICOST, HHHEADS, EDULEVEL

**STANDARD DEVIATIONS NOT MEANINGFUL

Consequently, if the discriminatory (independent) variables used in the model were able to predict the group classification in total accuracy, there would be no overlapping symbols in the graph. In other words, the overlapping shows the "unexplained" variance in the criterion variable. The correct classification percentage of 69.45% and the statistical fit of 21% seems reasonable for non-aggregate household data.

TABLE 4.13

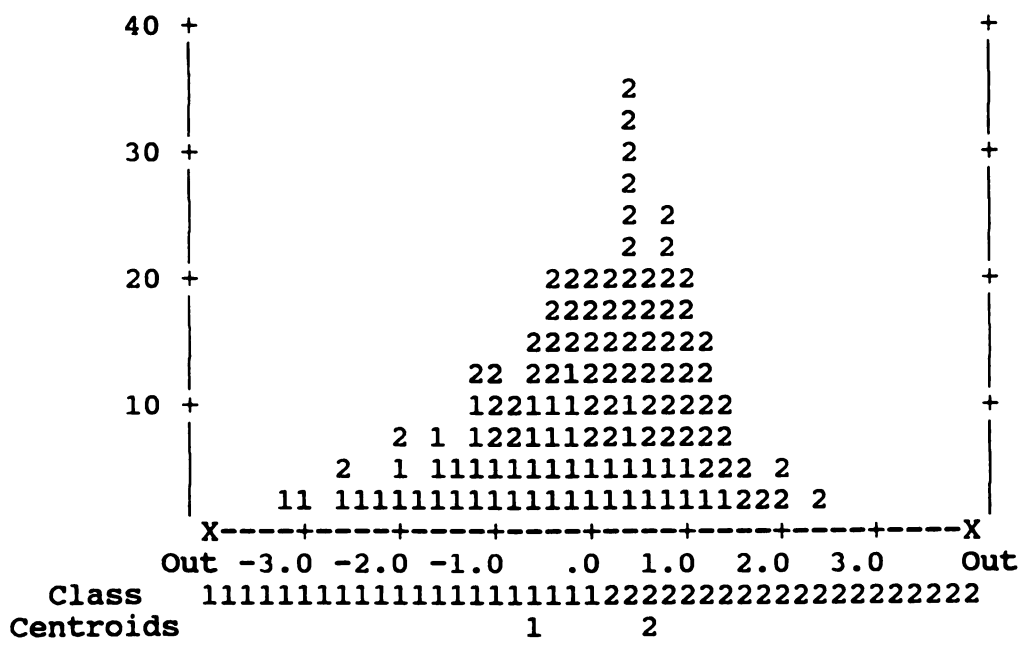
CLASSIFICATION RESULTS: DISCRIMINANT ANALYSIS

		PREDICTED GROUP MEMBERSHIP	
ACTUAL GROUP	N	INFREQUENT	FREQUENT
INFREQUENT	127	**83 (65.4%)**	44 (34.6%)
FREQUENT	184	51 (27.7%)	**133 (72.3%)**

PERCENT OF "GROUP" CASES CORRECTLY CLASSIFIED: 69.45% (216/311)

FIGURE 4..1

ALL-GROUPS STACKED HISTOGRAM
CANONICAL DISCRIMINANT FUNCTION



EACH SYMBOL = 5 CASES 1=INFREQUENT; 2=FREQUENT

Results of the discriminant analysis appear to be theoretically stronger and statistically similar to regression analysis. Five creative and marketing variables (AWARDS, REVIEWS, ADS, STORYTYP and DIRECTOR), together with age (AGE), admission prices (ADMSN$), marital status (MARITAL), and children in the household (CHILDREN) are statistically significant discriminatory variables for correctly predicting the "frequent" and "infrequent" moviegoers. It is certainly an improvement over the regression analysis to see five creative and marketing variables entering the equation *together* with demographic factors, which did not happen in any of the regression equations. In addition, the significance of two other predictor variables, CHILDREN and ADMSN$, also shows further improvements as they provide more insight information. How and why the discriminant analysis resulted a better model with same data will be discussed in the "discussion" section.

4. 10 Regression Analysis Results for Video Rental

The regression equations listed in Table 4.14 presents the results for video rental patterns. The same set of independent variables, plus a new predictor variable, labeled PERCENTG, are used to estimate these equations where the dependent variable is the average monthly video rentals (VIDRENT). The new predictor variable, PERCENTG, represent the proportion of movies seen in the theaters over the past six months. Income is also a significant factor in video rentals but was excluded from subsequent analysis due to its known problems. As noted elsewhere in this chapter, the theoretical justifications for the inclusion of these variables are coming from their usage to explain theater attendance -- consumption of the same product (i.e., movies) but through a different medium.

Normality test performed on the dependent variable (VIDRENT) revealed to have a fairly normal distribution therefore no need for transformation. Entry techniques and assumption checks used in these equations are similar to the ones used in theater attendance analysis. Similar to the previous analysis, three equations are estimated, one without treating the missing values and the other with missing values substituted with mean values.

TABLE 4.14

REGRESSION EQUATIONS FOR VIDEO RENTAL

DEPENDENT VARIABLE: AVERAGE MONTHLY VIDEO RENTAL

	NON-STANDARDIZED BETA COEFFICIENTS		
IND VARIABLE	EQN 1	EQN 2	EQN 3
AGE	-.5331*	-.3224*	-.4910*
PERCENTG	-.0485*	-.0465*	-.0504*
CHILDREN	.2962*	.2655*	.3052*
MOVICOST	.0948*	.0599*	.0726
INCOME	.2950*	—	—
CONSTANT	6.25	5.36	6.90
R^2	**.3210**	**.3003**	**.2746**
ADJ R^2	.3094	.2916	.2665
F (SIG)	27.70 (001)	27.87 (001)	33.87 (001)
STD ERROR	3.14	3.12	3.39
N	301	301	366

EQUATION 2: WITHOUT INCOME, MISSING VALUES UNTREATED

EQUATION 3: WITHOUT INCOME, MISSING VALUES TREATED

*SIGNIFICANT AT .05 OR GREATER

VARIABLES NOT ENTERED TO AT LEAST ONE OF THE EQUATIONS: ALL 12 CREATIVE AND MARKETING VARIABLES, ADMSN$, HHHEADS, EDULEVEL

Equation 1 in table 4.14 shows the five variables that are significant when all the variables, including income, were entered using the "stepwise" method. The equation is estimated using a partial sample (n=301) as missing values remain untreated. Equation 2 is estimated without income and equation 3 with same variables as equation 2 but with missing values substituted with mean values. As seen in table 4.14, once the missing cases were included, MOVICOST lost its significance and did not enter the equation. It also lowered the explained variance by about 2.5 percent. All the other variables are still significant but no new variable entered to the model. In a situation like this it is advisable to keep the previous model as the new model is weaker in theoretical power and the statistical fit than the previous one. The actual remedy here is to have a larger sample, which is not practical at this point.

What is obvious at the outset is the insignificance of all the creative and marketing variables in all three equations. Although the extremely low correlation coefficients between VIDRENT and all the creative and marketing variables had forewarned this outcome, it is surprising to see that none is entered as significant. The only variable that came close to the entry limit (significant at .06) is SEQUEL, a variable that was not significant with any of the theater attendance equations but makes sense as the audiences may want to see the prequel on video.

Age still remains as a significant factor in explaining video rentals. However, it is somewhat surprising to see a negative coefficient for AGE because it seems reasonable to expect people relying more on the convenient home video window as they grow older. Unlike in the movie attendance equations, marital status, however, is not a significant predictor for video

rentals. This seems quite logical as watching a video takes place at home, thus eliminating the need to go out, which is more appealing to the married. As expected, PERCENTG has a negative coefficient, suggesting a relatively low tendency toward video rental among those who attend theaters more. CHILDREN entered to the video rental equation with a positive coefficient suggesting the households with children tend to rent more than non-children households. The significance of MOVICOST also suggests that for those who have to spend more for a movie outing, home video provides a less expensive alternative. Again, the importance of both of these variables is not surprising as the early results found that "price" and "convenience" to be overwhelmingly attractive reasons for renting rather than going to the theater.

The statistical fits (R^2) of theses' equations range from .2746 to .3210 which is about 10 percent more than the equations estimated to explain the theater attendance. The most important variable in explaining the video rental is PERCENTG which alone explains about 17 percent of the variance in video rental.

In the following chapter these results will be discussed and some conclusions will be drawn upon with suggestions for future research

Chapter 5

Discussion and Conclusions

In this chapter, the results reported in the previous chapter will be discussed and conclusions will be drawn upon. Suggestions for future research will also be presented in the light of present research experience.

Theater Attendance

The average adult goes to the movies about once a month. If the industry classifications were to be used, about one-half of the respondents are "frequent" moviegoers. To a large extent, the sample statistics closely match the attendance habits found by the industry research and some prior studies (Austin, 1989; MPAA, 1992). For example, age, education, and marital status significantly influence the theater attendance habits as young, single and the college educated tend to go to the movies more often than their respective counterparts. Consistent with what the industry has noted lately, there seems to be an upward swing in attendance among older demographic segments. For example, the average attendance rate of those who are 50 to 59 years of age ranked only behind the young adults (16 to 24 age category). However, as the differences did not attain statistical significance, it seems premature to conclude that whether this is a trend or just an aberration. Likewise, the tendency among males to frequent theaters more often than females shows no statistically significant regularity as well.

Besides demographics, only the subscription to movie channels (pay cable) seems to have a significant influence on movie attendance. Quite interestingly, however, watching movies on premium channels apparently is not a substitute to theater attendance. Instead, those who subscribe to at least one movie channel tend to go to the movies significantly *more* than those who do not, suggesting that it may be their interest in movies that might have motivated them to subscribe to movie channels in the first place. This relationship may also help explain why the annual attendance figures remained largely unaffected over the past ten years in spite of the growth of these alternative exhibition windows. The following section will focus on the specific factors that influence the attendance decisions.

Determinants of Theater Attendance

In looking at the results of collective impact of predictor variables on theater attendance several findings are of note. In all five regression equations five variables, DIRECTOR, ADVTISNG, REVIEWS, AGE, and, MARITAL were always significantly related to attendance even under different sample conditions and variable configurations. AWARDS was significant only under different sample size. STORYTYP, PREVIEWS, and RATINGS attained significance only when creative and marketing variables were entered without demographic variables. Among all the demographic variables included, AGE and MARITAL were the only to attain significance.

Age emerged as the most important predictor of attendance and the first variable to enter the equation explaining about 6 percent of the variability. The negative coefficient of AGE suggests an inverse relationship between age and theater attendance and confirms the known association that exist between the

young and movie attendance. The strong relationship between age and attendance is also evident from the group t-test results. As bivariate analysis indicates, the young moviegoers not only dominate the attendance, but are also quite indifferent to the quality of the movies in their selection process. For example, factors such as the story type, critical reviews and ratings seem to matter less for them than to the older audiences. Instead, their attendance decisions are largely influenced by advertising and promotional factors.

Marital status, a binary variable that is significant in all equations, was able to add 4 percent to the explained variance. The negative coefficients of marital status that ranged from -.5610 to -.6948, tells us that being married decrease the number of movies seen by .56 to .69 than their single counterparts. Similar to age, marital status is also associated with other factors that influence attendance decisions. As group t-test results revealed, the married audiences place a significantly higher value on the factors such as the story type, word-of-mouth advertising, awards and ratings, in their decisions to attend movies.

The importance of advertising and promotional factors on attendance seems overwhelming. Of the six advertising and publicity related variables included (ADVTISNG, REVIEWS, PREVIEWS, AWARDS, WORDOFM, and TVPROMOS), four variables were significantly related to attendance decision. The most prominent are the paid advertising in the media and critical reviews. In all the equations estimated, advertising is the most important variable besides age. In terms of the explanatory power, advertising is equal to marital status that added 4 percent to the explained variance. The significance of critical reviews is consistent and added about 2 percent to the statistical fit.

The AWARDS (nomination or winning of major awards) also a significant contributor to attendance decisions as it entered all but one equation. Theater previews, a new variable which was adopted from Austin's model, is as important as reviews but its entry was conditional. Previews entered as a significant predictor of attendance in the absence of demographic factors suggesting its appeal to the specific demographic sectors. The insignificance of word-of-mouth is quite surprising given its reputation as the most effective form of "advertising" for movie attendance and the rank it earned as the second most important factor affecting attendance decisions (see Table 4.2). Another new promotional variable attempted for the first time, TVPROMOS, (appearance of movie stars on television programs like *Tonight Show* or the *Late Show*) did not gain significance in any of the equations. Perhaps its popularity is not yet widespread or established or may not have been measured comprehensive enough.

Despite their wide recognition as important factors affecting attendance, this is the first time practically *all* advertising and publicity related factors were included in a multivariate predictive model to explain theater attendance. Consequently, the significance of four advertising and publicity related variables uncovers some new information and confirms some of the early findings of communication and economic research. The strong relationship between attendance and advertising, together with the significance of theater previews, provide empirical evidence to show filmgoers' reliance on outside sources for information to help them with decision making. The regression results, together with the results of bivariate analysis, show that advertising and promotional factors have an overwhelming impact on attendance decisions.

It is no wonder then the industry is spending as much to advertise and promote a movie as to make one. The advertising budgets, for example, have more than doubled to an average of $12 million over the past ten years--apparently to fulfill the moviegoers' thirst for information. As Litman and Kohl (1989) noted, advertising serves a dual purpose. First it lures the avid moviegoer to the theater and then it helps build the word-of-mouth campaign. Current data suggest that the advertising and promotional monies are well spent and help meet the aforementioned goals.

Overall, the creative variables fared very weakly in regression equations. For example, from the five creative variables included (STARS, DIRECTOR, STORYTYP, SEQUEL, and PRESTORY), only the director entered in all five equations. Story type (genre) attained significance only in the absence of demographics. Each of these two variables added 2 to 3.5 percent to the explained variability in attendance. The significance of DIRECTOR seems more consistent as it entered in all five equations suggesting the familiarity of the director does matter in attendance decisions. Quite interestingly, the importance of the director did not gain much support in individual ranking of important factors on attendance. Yet, director attained significance in all equations. On the contrary, STARS was ranked as the third most important factor in attendance decisions and was the most cited reason that attracted filmgoers to their last movie. Still, STARS didn't attain significance in any of the equations. Perhaps, what's a star is too subjective or abstract to measured or defined.

Distinguishing "Frequent" and "Infrequent" Moviegoers

The discriminant analysis was performed with the desire to statistically distinguish between the "frequent" and "infrequent" moviegoers using the same set of independent variables as discriminating factors. It was believed that the operational procedure used to measure the dependent variable in regression equations (average attendance level) would probably be better if treated as a discrete variable than a continuous one. The erratic nature of movie attendance by a large number of respondents--167 of the 366 surveyed go to a theater 'once about every other month' or 'once about every six months'--further supported this decision. The dependent measure was then converted to a discrete variable to form "frequent" and "infrequent" groups.

The results of discriminant analysis are statistically similar to the regression results as it also explained about 21 percent of the variability in the dependent measure. The model also correctly classified 69.45 percent of the cases using nine independent variables of the model as discriminatory functions. The variables in the discriminatory model, it generally confirm the regression results rather than breaking new grounds. Similar to the regression equations, age entered as the most important discriminatory variable contributing most to the overall discriminant function. Similar to the regression models, demographic and advertising/publicity variables emerged as stronger contributors to the overall discriminant function than the creative factors. There are, however, some minor improvements in the discriminatory model compared to the regression analysis. First, the model was able to correctly predict "frequent" and "infrequent" moviegoers using five creative and promotional variables *together* with demographics. As such, the demographic

variables seem to cooperate with creative and publicity factors to distinguish group differences. Second, two new variables, having children in the household and admission prices, emerged as significant predictors of "frequent" and "infrequent" moviegoers. The negative coefficient of CHILDREN suggest that those in the households with children are less likely to be in the "frequent" moviegoer category. The significance of the ADMSN$ suggest a higher probability of falling into the "frequent" moviegoer class if admission prices were lower. However, it seems that the most significant contribution of discriminant analysis is the reconfirmation of the regression results. The minor improvements are the benefits one gains by compromising the dependent measure to a "cruder" discrete form.

Overall, the findings emphasize the overwhelming importance of advertising and promotional factors on attendance decisions. Their influence is strikingly greater on the younger moviegoers but all demographic subgroups seem to be receptive to advertising and promotional campaigns. These empirical findings support the importance of Austin's "Publicity & Advertising Focusing Ring" in his "Zoom Model." Furthermore, the significance of director, critical reviews, awards, and story type, are consistent with the results of economic/business studies of Litman, (1983) and, Litman and Kohl (1989). The degree of consistency found between the current research and economic/business research is encouraging given that they were arrived at using entirely different data sources and different research methods. The importance of demographic factors needs to be evaluated beyond the significant entry of age and marital status into regression equations. The finding that some creative and publicity variables (story type, theater previews

and ratings) attained their significance in the absence of demographic variables suggests the interdependence of these variables with demographics and their relationship with attendance. The results showed that demographic differences not only have direct effects on attendance, they also affect the significance of other factors and in turn, influence attendance decisions. In the empirical world, these complexities are translated into the appeal of certain aspects of the movies to certain groups and the importance of social institutions in attendance decisions. More sophisticated research designs are needed to sort out these complex relationships.

Video Rental

While the results discussed in the preceding sections tend to help explain movie attendance and reconfirm some of the early results, the most revealing findings are the ones that shed light into the viewing that takes place outside the traditional theater--which will be the focus of this section.

Among the three leading delivery channels that compete with each other to bring movies to living rooms (pay cable, pay-per-view, and home videocassette), home video has emerged as the indisputable winner. Despite the heavy concentration of young, educated and high income households in the sample, popularity of both, pay cable and pay-per-view, seems minimal. Less than one-fourth of all the households subscribe to at least one pay cable channel and, even among the cable subscribers, the subscription rate for premium channels only goes up to 29 percent. Pay-per-view even fared worse. Although it is largely accessible, with availability to over 80 percent of the households, only 14 percent of them have ever ordered and paid for a movie on pay-per-view. The lukewarm acceptance of pay cable and pay-per-view

seems to justify the recent industry decision to give home video the exclusive 4 to 5 week window before making the movies available to pay cable and pay-per-view. It appears that the industry is simply, and correctly, responding to the signals it receives from the market to maximize profits by "determining the optimal sequencing and time clearance for each successive exhibition window" (Litman and Kohl, 1989).

With an 86 percent penetration rate[22] and average rental of over four cassettes per month, home video is undoubtedly the most widely used exhibition window for the movies. Eighty-five percent of the households with a VCR rent two or more tapes a month and virtually all VCR households rent at least one movie per month. According to industry classifications, these statistics means that VCR has turned more than 80 percent of the nation's households into "frequent" movie viewers. A technology that started as a time-shifting device for the avid TV viewer had eventually rose into the pinnacle of movie offering. The mere size of the home video audience speaks for this. For example, the average audience of 2.9 persons per each video rental[23], taken together with the industry estimates of 4.1 billion videos rented last year, put the audience size for home video over 10 billion mark. This is more than double the size of the audience the movie industry had enjoyed during its heydays in the late 1940s when weekly attendance levels reached 90 million and several times greater than the annual 1.1 billion attendance marks for theaters for last three decades.

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[22]Close to the 88% penetration rate the industry had predicted by the year 1995.

[23]This is the weighted average after discounting for possible fraternities and sororities in the sample by trimming the top 10% of the cases. The sample average is 3.3 per/HH.

As evident from these results, home video's huge success can be largely attributed to two factors: price and convenience. Audiences perceive home video as the least expensive and most convenient window to see movies. But price and convenience are only half the story and tend to overlook the role played by the industry to bring about home video to its current popularity. It is the classical "invisible hand" that put the private interest of the industry with the interests of individuals to create the current situation. For example, as the financial significance of home video increased, the industry responded by gradually shortening the clearance time between theater and video--sometimes to a point where the video is released when the movie is still in its first theatrical run--and shifting the clearance sequence from pay-per-view to home video. As a result, home video has become the first exhibition window outside the theater to offer movies in such a short time to more than 80 million of the nation's households. Neither pay cable nor pay-per-view has given such an appealing opportunity to such a large populace before. Moreover, unlike pay cable or pay-per-view, home video does not select titles; each and every movie is guaranteed to come on video sooner, not later. The ones that did well in the theaters come sooner to reap the benefits of successful theater performances and the word-of-mouth publicity. The ones that did not do well also come sooner to recoup whatever it can from the video market before it completely fades away from the people's mind. As a result, about one-half of the audience now "always" or "almost always" wait for the video to see the movies. Furthermore, more than one-half the audience would rent the video rather than going to the theater if the option were offered to them by simultaneously releasing movies to theater and on video. And a majority is willing to pay more

for such an early rental opportunity. The specific factors that influence video rental will be the focus of the following discussion.

Determinants of Video Rental

Quite surprisingly none of the twelve creative or promotional variables included in regression analysis are significantly related to the video rental patterns. However, the insignificance of marketing related variables can be attributed to the virtual absence of advertising efforts to promote video releases by the movie industry. In fact, information on new video releases is only publicized through in-store advertising and on videos themselves (similar to theater "trailers") which only exposes them to the already committed renter. Only Disney titles and "mega-hits" that are meant for sell-through market use some TV advertising and product tie-in promotions. Still, they are quite limited and nominal compared to the big promotions for the initial theatrical release. As such, it probably is the absence of easily identifiable advertising and promotional strategies that made these variables insignificant.

The insignificance of creative variables such as, the STORYTYP, STARS or DIRECTOR depicts the indiscriminant renter who appears to relax his or her standards when renting a movie compared with going to the theater to see one. Naturally, the relatively lower financial risks involved with renting (the average rental is around $2 per video compared to the average $5 admission per person plus concession prices) and the low involvement associated with renting (logistics involved such as, finding a sitter, leaving home) seem to explain why the renters apparently place a lower value to creative factors when it comes to renting. In fact, these findings suggest that the moviegoers may have developed two different standards for the two exhibition windows. The 'try

anything' attitude for the videos and 'play cautious' attitude for going to the theaters, conceivably based on the cost and involvement. A bad rental choice, therefore, is financially more tolerable and the "opportunity cost" can be minimized by turning the VCR off--much easier task than leaving the theater especially when the movie is often the center of the planned activities for the evening.

The four variables that are significant seem to clearly explain the dynamics of the home video market. Percentage of movies seen in the theaters (PERCENTG) emerged as an important predictor of video rental which alone explained about 17 percent of the variance in video rental. As expected, the negative coefficient of the percentage suggests an inverse relationship between theater attendance and video rental. This relationship appears to indicate that home video, unlike pay cable or pay-per-view, is gaining acceptance from the moviegoers as a substitute to theater attendance, an indication that suggests possible audience shift from the theaters. However, the use of this variable as a predictor of video rental should be done somewhat cautiously as this seems to be an endogenous variable. The strength of PERCENTG may be overblown to an extent since all the respondents that do not attend movies but do rent them were given 100 percent.

The second variable to enter the equation was MOVICOST--the average cost for a movie outing. It added about 5 percent to the explained variance and is positively related with video rental suggesting that rental is more popular among those who have to spend more at the theater. Naturally families with children fall into this category. As correlation results indicate, households with children also go to the movies less but rent more videos. Therefore, as

expected, CHILDREN is significantly positively related to video rental. The significance of CHILDREN suggests that home video serves as a better (cheaper and convenient) way to see the movies for families with children.

The significantly negative relationship between age and video rental is somewhat surprising given its similar relationship with theater attendance. It seems logical to expect a positive relationship that suggests a higher rental tendency among the older people as renting is more convenient than theater attendance. However, if home video is emerging as a substitute for the theater window for *all* the moviegoers, the negative relationship appears to be the correct direction. However, further research with larger, better representative samples will be needed to find the proper direction of the relationship between these two factors.

What are the implications of this enormous success of home video on theater attendance? The results of this study show that home video has greatly enhanced the accessibility to the movies and consequently increased the net audience to an unprecedented level. While it is almost impossible to dissect the video audience into its root components, the data, however, seems to suggest some identifiable trends. First, it is clear that the moviegoers did not totally desert the theaters to flock the video stores. It is more likely that moviegoers became more selective in their theater attendance in the face of video alternative. As such, it is likely that the growth of video audience will eventually come out at a cost to the theater. However, it will be a while until the true impact of the audience erosion might show up in attendance figures and a link can be established. The process would also be a rather slow one as neither the industry nor the moviegoers apparently want to totally abandon the

theater. Yet, as the industry continues to shorten the clearance time between theater and video as a measure of profit maximization and viewers, on the other hand, continue to acquire better viewing facilities (stereo VCR, big screen TV), as measures to optimize the benefits, home video is likely to affect the theater attendance levels that remained quite stable since the1960s.

Interestingly, unlike the early days of TV, when the industry fought it tooth and nail to hold the audiences defecting to TV, the current shift seems to be carefully orchestrated by the industry through timely clearance and proper sequencing of home video releases for the obvious reason that it is not losing its audience to another medium. In fact, a financially strong home video window, which appears to have no strong seasonal bias like the movies, will have a tendency to solve some complex distribution problems as studios may be able to avoid fiercely competitive release dates of summer and Christmas. Finally, after everything is said and done, the distributors will be the ultimate winners as the new exhibition windows constantly enlarge the net audience for the movies. A significant change for a industry that enters its second century.

Limitations and Suggestions for Future Research

One of the great strengths of this study appears to be the timeliness of the research questions it attempted to address at a time when the movie industry seems to be at crossroads. The proliferation of new technologies, especially home video, is bound to change the way motion pictures are distributed and exhibited, and above all, consumed. This timeliness also presented some obstacles that need to be addressed in future research to fully understand the overall movie attendance habits.

The most important aspect at this point seems to be the development of a comprehensive research plan to fully explain the home video industry. As it was evident from the current research, our knowledge about the home video industry seems limited to the annual rental figures provided by the industry. Even from the supply side, no information is available at least to know whether there are seasonal tendencies or demographic/psychographic differences exist with video rental patterns as it is the case with theater attendance. This dearth of knowledge directly affects the hypothesis development and the development of measuring instruments. As such, the primary task of the future research in this area is to carry out a comprehensive exploratory study of the role of new technologies (specifically home videocassette, pay cable and pay-per-view), to understand the uses of these exhibition windows. In addition, there should be a parallel survey of the supply side of the industry as the industry appears to take proper cues from the market behavior. The latter would be more demanding and painstaking as it involved proprietary data the industry prefers not to share. Yet, careful reviews of trade journals appear to fill much of the gaps as more information seems to emerge with the maturing of these technologies. Another possibility appears to be a collaborative research effort with the industry.

In addition, there are some methodological concerns that need to be addressed pertinent to this line of research. First, the future research should begin with a larger, nationally representative sample (in effect, several nationally representative markets). This seems quite important at the exploratory level since future hypotheses will be derived based on this benchmark research. Moreover, the penetration and the uses of other

exhibition windows, such as PPV and pay cable, tend to show their true uses in a larger national sample. Although the current study used a random sample of the general public, the biases associated with an atypical market like Lansing were painfully apparent in the data analysis stages.

It also seems impossible to study both, theater attendance and video rental using one theoretical and one research approach. Furthermore, as home video maturing to a separate market, a whole new theoretical approach seems quite necessary to study this secondary market. Conventional predictor variables used in past research to explain theater attendance seems no longer sufficient for understanding video rental patterns. Consequently, it seems more appropriate at this point to suggest separate demand estimates for each sector of the industry (i.e. theater attendance and video rental) with different predictor variables based on different theoretical models. The boundaries of this line of research should also be expanded to include the audiences that watch movies on over the air TV. While survey research provides very useful information to measure attitudes and behavioral patterns, it seems necessary to supplement this method with some qualitative methods such as depth interviews and case studies that might also include the study of groups of renters in selected markets, ideally with the cooperation of some video rental stores.

Finally, it seems quite necessary that future research should benefit from both, communication and economic research approaches in conceptualization and operational stages as no singly theory seems to explain this complex consumption pattern totally. First, as evident from the results, convergence of communication and economic approaches would allow the

inclusion of structural changes into the research design together with changing movie consumption patterns. This seems quite necessary as home video now seems to emerge as a substitute to theater attendance. These changes in the demand side have drastically altered the decision making process of the supply side of the industry which is evident from the way movies are sequenced and given time clearance for each successive exhibition window thus making the inclusion of the economic approach almost mandatory in future analysis of movie attendance. The necessity of a hybrid approach is also evident from the significant influence found in demographic variables in the predictive models for movie attendance and video rentals. In the present study, for example, only the demographic factors emerged as significant predictors of video rental patterns demonstrating their influence as well as the need for different predictor variables in future research than what was used in the current research. As noted before the use of conventional predictor variables employed to explain the theater attendance seems no longer adequate to explain the growing home video usage. Furthermore, some variables, such as the effects of word-of-mouth advertising and psychographic factors can be more appropriately be measured from the demand side using the "self-reports" of the audiences. Above all, it is also evident that as the movie industry grows into a multi-facet industry with several alternative windows and moviegoers seems to have developed different standards for different exhibition windows. As a result, no single approach or research method would be sufficient to single-handedly understand the nature of the industry and the changing audience needs. It is in this context that a convergence of two research approaches seems quite beneficial in future research.

Appendix 1

Hello, my name is _____ , and I am calling from the Department of Advertising at Michigan State University. We are conducting a survey to help understand the movie attendance and video rental patterns of the general public. This survey will take about 6 to 8 minutes to complete and no one will try to sell you anything. The information you provide us will remain confidential and anonymous. Your participation in this survey is entirely voluntary and you may choose not to answer certain questions or may discontinue the interview anytime. Are you 18 years or older?

[IF "YES" CONTINUE. IF NOT ASK FOR AN ADULT AND REPEAT THE INTRO]

To begin with... **Have you seen a movie in a theater or rented one during the past six months?**

☐ YES ⇨ GO TO Q #1 ☐ NO ⇨ THANK THE RESPONDENT AND TERMINATE

---

1. In an average month about how many times do you go out to see a movie in theaters? [consider only the theater attendance]

0 1 2 3 4 5 6 7 8 9 10+

[If "0" ask whether the respondent go to the movies at least 'once about every two to six months' or 'about once a year?']

22 ☐ Once about every two to six months
33 ☐ About once a year
99 ☐ DK/RF 88 ☐ Never ⇨ SKIP TO Q #5

2. Can you recall the last movie you saw in a theater? 2 ☐ NO ⇨ SKIP TO Q #4

1 ☐ YES ↓ [WRITE THE NAME BELOW] 9 ☐ DK/RF

3. What attracted you to that movie?

4. With whom do you usually go to the movies?

1 ☐ With friends
2 ☐ With acquaintance
3 ☐ With family
4 ☐ With a date
5 ☐ Alone
6 ☐ Other
9 ☐ DK/RF

5. Now I am going to read you some of the factors people say are important to them when they decide which movie to see. On a scale of 0 to 10, where 0 means "not important at all" and 10 means "very important," please tell me how important each of these factors is to you when you decide which movie to see. ***How important is...***

⇨ that the movie has a star or stars you like?

NOT IMPORTANT AT ALL										VERY IMPORTANT
0	1	2	3	4	5	6	7	8	9	10

⇨ that the movie is directed by a director you like?

0	1	2	3	4	5	6	7	8	9	10

⇨ the story type of the movie? (that is, Drama, Western, Action Adventure, Comedy, Sci-Fi etc.)

0	1	2	3	4	5	6	7	8	9	10

⇨ the ratings of the movie? (that is, G; PG; PG-13; R; NC-17 or X)

0	1	2	3	4	5	6	7	8	9	10

⇨ the reviews on radio or television, or newspapers, or magazines?

0	1	2	3	4	5	6	7	8	9	10

⇨ the previews you see at the movies or on video?

0	1	2	3	4	5	6	7	8	9	10

⇨ that you know about the story from a novel, play, or a television show?

0	1	2	3	4	5	6	7	8	9	10

⇨ the recommendations of other people?

0	1	2	3	4	5	6	7	8	9	10

⇨ the nomination or winning of awards like Oscar, or Golden Globe?

0	1	2	3	4	5	6	7	8	9	10

⇨ the advertising in the media? (that is, TV and radio commercials, newspaper ads etc.,)

0	1	2	3	4	5	6	7	8	9	10

⇨ hearing about the movie from the stars who appear on programs like the *Today Show*, or late night TV shows?

0	1	2	3	4	5	6	7	8	9	10

⇨ that the current movie is a sequel of a one you have seen and liked?

0	1	2	3	4	5	6	7	8	9	10

6. Some people say that it is easier to decide to rent a movie than to go a theater to see it. Do you, Strongly Agree, Agree, Neither agree nor disagree, Disagree or Strongly Disagree?

1 ☐ SA 2 ☐ A 3 ☐ N 4 ☐ D 5 ☐ SD 9 ☐ DK/RF

7. Suppose a movie was available on video at the same time it was released to the theaters, how often would you rent the video instead of going to the theater? Would you say it is...

1 ☐ Very Often 2 ☐ Often 3 ☐ Sometimes 4 ☐ Rarely 5 ☐ Never 9 ☐ DK/RF

8. Would you be willing to pay more for such an early release than what you usually pay now to rent a video?

1 ☐ YES 2 ☐ NO 9 ☐ DK/RF

9. If you were to single out the **most important** reason for going to a theater to see a movie, what would it be? [WRITE IN VERBATIM]

10. What do you **like the least** about going to a theater to see a movie? [WRITE IN VERBATIM]

NOW A FEW QUESTIONS ABOUT CABLE TV AND VIDEO RENTAL

11. Is cable TV available where you live? ⇨ 1 ☐ YES
2 ☐ NO ⇨⇨⇨ SKIP TO Q #18 9 ☐ DK/RF

12. Do you subscribe to cable TV? ⇨ 1 ☐ YES
2 ☐ NO ⇨⇨⇨ SKIP TO Q #18 9 ☐ DK/RF

13. Do you subscribe to any of the following movie channels? [check all that apply]

☐ HBO ☐ Cinemax ☐ Showtime ☐ Disney ☐ TMC (The Movie Channel)
☐ DK/RF ☐ NONE ⇨ SKIP TO Q #15

14. In an average month, about how many movies do you watch on these channels?

0 1 2 3 4 5 6 7 8 9 10+

15. Is pay-per-view (request TV) available where you live?

1 ☐ YES 2 ☐ NO ⇨⇨⇨ SKIP TO Q #18 9 ☐ DK/RF

16. Have you (or anyone in your household) ever requested, and paid for, any movies on pay-per-view?

1 ☐ YES 2 ☐ NO ⇨⇨⇨ SKIP TO Q #18 9 ☐ DK/RF

17. How often do you request movies on pay-per-view? Would you say it is about...

1 ☐ more than once a week
2 ☐ once a week,
3 ☐ once every two weeks,
3 ☐ once a month, or
4 ☐ less than once a month?
9 ☐ DK/RF

18. Do you have a... VCR? ⇨⇨⇨⇨⇨ 1 ☐ Yes 2 ☐ No 9 ☐ DK/RF

How about a Laser Disc player? ⇨ 1 ☐ Yes 2 ☐ No 9 ☐ DK/RF

[IF 'NO' TO THE BOTH ASK THE RESPONDENT RENT MOVIE VIDEOS. IF 'YES' GO TO THE NEXT; IF 'NO' SKIP TO #31]

19. In an average month about how many movies do you rent? [videos or laser discs]

0 1 2 3 4 5 6 7 8 9 10+

20. When you or someone in your household rents a movie, about how many people watch it? ⇨⇨⇨ ☐

21. Can you recall the last movie you rented? 2 ☐ NO ⇨ SKIP TO Q #23 [NEXT PAGE]

1 ☐ YES ⇩ [WRITE THE NAME BELOW] 9 ☐ DK/RF

_____

22. What attracted you to that movie?

_____

23. *Following questions deal with the way people rent movie videos. For each question the answer can range from Always to Never. To begin with...*

⇨ How often do you go to the video store with a particular movie in mind to rent? Would you say it is...

☐ Always ☐ Almost always ☐ About half the time ☐ Rarely ☐ Never ☐ DK/RF

⇨ How often do you rent something else if the movie you are looking for is not available? Would you say it is...

☐ Always ☐ Almost always ☐ About half the time ☐ Rarely ☐ Never ☐ DK/RF

⇨ How often do you go to another video store if the movie you are looking for is not available? Would you say it is...

☐ Always ☐ Almost always ☐ About half the time ☐ Rarely ☐ Never ☐ DK/RF

⇨ How often do you rent "newly released" movies? (eg. the top 30 titles) Would you say it is...

☐ Always ☐ Almost always ☐ About half the time ☐ Rarely ☐ Never ☐ DK/RF

⇨ How often do you rent the movies that are not in the 'new releases' shelves? Would you say it is...

☐ Always ☐ Almost always ☐ About half the time ☐ Rarely ☐ Never ☐ DK/RF

⇨ How often do you rent the movies you have **already seen in the theater**? Would you say it is...

☐ Always ☐ Almost always ☐ About half the time ☐ Rarely ☐ Never ☐ DK/RF

⇨ About how often do you wait to see a movie on video rather than going to a theater? Would you say it is...

☐ Always ☐ Almost always ☐ About half the time ☐ Rarely ☐ Never ☐ DK/RF

24 Have you purchased any movie videos in the past? ⇨ 1 ☐ Yes 2 ☐ No 9 ☐ DK/RF

25. With whom do you usually watch movies **at home?** (on video)

1 ☐ With friends
2 ☐ With acquaintance
3 ☐ With family
4 ☐ With a date
5 ☐ Alone
6 ☐ Other
9 ☐ DK/RF

26. Thinking about all the movies you have seen over the past six months in the theaters and on video, about what percentage did you see at the theaters? ⇨ [With 100% being the total]

27. If you were to single out the most important reason for renting a movie rather than going to the theater to see it, what would it be?

28. What do you **like the least** about renting a movie?

29. Including the concession prices, about how much do you spend when you go out to see a movie in a theater? ⇨ [may also including baby sitting costs and the like]

30. Do you think you would go to the movies (in theaters) more often than you do now if the ticket prices were lower?

1 ☐ Yes 2 ☐ No 9 ☐ DK/RF

Finally, a few more questions about yourself to help us interpret the survey data.

31. Do you currently work?

1 ☐ Yes ⇨⇨⇨⇨⇨⇨ ☐ Full Time OR ☐ Part Time
2 ☐ No
9 ☐ DK/RF

32. Are you... 1 ☐ Single 2 ☐ Married, or 3 ☐ Living together? 9 ☐ DK/RF

33. Do you have children under 16 living with you now?

1 ☐ Yes ⇨⇨⇨ How many? ⇨ [ ]
2 ☐ No
9 ☐ DK/RF

34. Including yourself, how many people live in your household? ⇨ [ ]

35. Your age is between...[READ OPTIONS]

1 ☐ 16-20
2 ☐ 21-24
3 ☐ 25-29
4 ☐ 30-39
5 ☐ 40-49
6 ☐ 50-59
7 ☐ 60 or older
9 ☐ DK/RF

36. Your education level is...[READ OPTIONS]

1 ☐ Less than high school
2 ☐ High School completed
3 ☐ Some College
4 ☐ College graduate
5 ☐ Post graduate
9 ☐ DK/RF

37. Which of the following income categories best describe your household income?

1 ☐ Under $15,000 per year
2 ☐ $15,001 to $25,000
3 ☐ $25,001 to $35,000
4 ☐ $35,001 to $45,000
5 ☐ $45,001 to $55,000
6 ☐ $55,001 to $65,000
7 ☐ $65,001 and above
9 ☐ DK/RF

That's all the questions we have and thank you very much for your time

---

INTERVIEWER: Mark the gender of the respondent ⇨⇨⇨ 1 ☐ Male 2 ☐ Female

Appendix 2

TABLE 4.8

FACTOR MATRIX

VARIABLE	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4
SATRS	**.46913**	.02971	.46503	.22735
DIRECTOR	**.44974**	.41950	.26150	.39131
STORYTYP	.09826	.38240	**.41427**	.14366
RATINGS	.34314	.18298	**.54158**	.28238
REVIEWS	**.44470**	.31951	.32191	.26148
PREVIEWS	.12109	**.69584**	.29826	.20324
PRESTORY	**.48978**	.45328	.19746	.16169
WORDOFM	.42151	.24053	.24173	**.47668**
AWARDS	**.72221**	.18787	.01256	.16331
ADVTSNG	.40725	**.57258**	.33516	.19123
TVPROMOS	**.67342**	.05300	.14012	.24665
SEQUEL	.51631	.31872	.04912	**.55632**

TABLE 4.11

TOLERANCE AND VARIANCE INFLATION FACTORS

VARIABLES IN THE EQUATION			VARIABLES NOT IN		
VARIABLE	TOLERANCE	VIF	VARIABLE	TOLERANCE	VIF
AGE	**.602263**	**1.660**	SATRS	.855528	1.169
DIRECTOR	.991837	1.008	STORYTYP	.930377	1.075
ADVTSNG	.941977	1.062	RATINGS	.901605	1.109
REVIEWS	.876237	1.141	PREVIEWS	.815575	1.226
INCOME	**.475057**	**2.105**	PRESTORY	.869008	1.151
MARITAL	**.531190**	**1.883**	WORDOFM	.879956	1.136
			AWARDS	.644385	1.552
			TVPROMOS	.877947	1.139
			SEQUEL	.956757	1.045
			MOVICOST	.768705	1.301
			ADMSN$	.861889	1.160
			CHILDREN	.756679	1.322
			HHHEADS	.831450	1.203
			EDULEVEL	.821773	1.217
			GENDER	.928711	1.077

SMALLER TOLERANCE INDICATES A LINEAR COMBINATION WITH ANOTHER VARIABLE

Table 4.11 Cont'd...

COLLINIEARITY DIAGNOSTICS

				VARIANCE PROPORTIONS					
Number	Eigenval	C Index	Constant	Director	Reviews	Advtsng	Marital	Age	Income
1	5.71610	1.000	.00158	.00651	.00315	.00273	.00579	.00388	.00379
2	.63862	2.992	.00460	.06902	.00682	.01386	.27866	.00517	.02361
3	.24194	4.861	.00645	.84719	.03751	.04026	.08725	.01470	.00269
4	.16331	5.916	.00422	.00970	.00025	.16217	.40415	.39646	.06760
5	.10974	7.217	.00001	.00120	.10756	.02373	.21861	.21891	.84023
6	.08882	8.022	.01681	.00084	.78276	.20439	.00002	.26312	.05813
7	.04146	11.741	**.96633**	.06554	.06197	.55287	.01051	.09775	.00395

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