Characteristics of Buyers and Renters of Cultural Goods: The Case of Movies

Collins, Alan; Fernández Blanco, Victor; Prieto-Rodriguez, Juan

Characteristics of Buyers and Renters of Cultural Goods: The Case of Movies

powered by ScholarOne
Manuscript Central™

CHARACTERISTICS OF BUYERS AND RENTERS OF CULTURAL GOODS: THE CASE OF MOVIES[a]

Alan Collins (University of Portsmouth, U.K.)*
Víctor Fernández-Blanco (Universidad de Oviedo, Spain)**
Juan Prieto-Rodríguez (Universidad de Oviedo, Spain) ***

Abstract

This paper identifies the characteristics of consumers of movies, watched on videotapes, in their homes. Models of the frequency of movie video buying and renting by individuals are estimated using data from the Spanish Cultural Consumption Habits Survey (Encuesta sobre Hábitos de Consumo Cultural). This survey featured information about videotapes rented and bought in Spain throughout 1998. Applying a multinomial probit modelling framework, this study analyzes whether there are two different video markets (renting and buying) and any discernible socio-economic characteristics for their respective consumers. The influence of film genres, on the renting of movie videotapes is also considered.

Key words: video, rent, demand, domestic leisure, multinomial probit models

*Alan Collins,
University of Portsmouth Business School, Richmond Building, Portland Street, Portsmouth, PO1 3DE (ENGLAND)
e-mail: alan.collins@port.ac.uk
** Víctor Fernández Blanco,
Departamento de Economía, Campus del Cristo s/n, Universidad de Oviedo, 33071 – Oviedo (SPAIN)
e-mail: vfernan@econo.uniovi.es
*** Juan Prieto-Rodríguez,
Departamento de Economía, Campus del Cristo s/n, Universidad de Oviedo, 33071 – Oviedo (SPAIN)e-mail:
jprietor@uniovi.es

1. Introduction

Empirical academic research on the movie video market, especially on the demand side, has been relatively sparse[1]. To some extent, this deficiency has been addressed by the availability of data from the Spanish Cultural Consumption Habits Survey (Encuesta sobre Hábitos de Consumo Cultural - EHCC) established by the Office of the Spanish Rights of Authors Collector (SGAE). The survey was conducted in Spain during 1998. Our aim was to use this database to analyse some demand aspects of the Spanish video industry. In particular, the key objective was to inform decision-making by identifying the key characteristics of consumers of videotape movies. on videotape. To this end, models are estimated of the frequency of video buying and renting. Multinomial probit models are developed to investigate whether there are two different video markets (renting and buying) and to identify the respective socio-economic characteristics of the consumers in these markets. The influences of various film genres, on the renting of videotapes[2] are also considered.

Watching movies on home videos is clearly a different experience from a movie theatre trip and the medium of television has also evolved to become a powerful force and rival to the film industry. That said, while movies lost a significant part of its audience at the movie theatres, movies themselves had become one of the principal elements of television channel programming. Hence, it might be argued that people were 'reminded' about consuming movies even more than before the development of the television industry[3].

The development of videotapes during the 1980s and 1990s created new opportunities to watch movies, since they increased consumers' autonomy in their leisure decisions and opened an important new audiovisual market. Thus, in 1996, in the most developed countries, over two-thirds of households had a VCR and, in the USA, film distributors obtained more revenues from home video than from movie theatres (Vogel, 2004)[4]. This situation currently remains since "...in 2003, Americans spent $22.5 billion on DVDs and videocassettes compared with $9.2 billion at the box office." [p.57] (*The Economist*, 2004). These figures reflect how important revenues from rentals

---

[1] However, there are some studies modelling cinema consumers' behavior. See, for instance, Cameron (1999), Walls (2005a).

[2] Since DVDs were not yet popular by 1998 the data deals virtually exclusively with videotapes.

[3] Fernández-Blanco and Baños-Pino (1997) analyses the effect of TV specifically in the context of the Spanish market. Macmillan and Smith (2001) do the same with respect to the British market, which is examined more generally by Hand (2002). Dewenter and Westerman (2005) study the German case.

[4] Meanwhile, in the USA during the 1980s, TV's contribution to total Hollywood majors revenues decreased from 19% in 1980 to 15% in 1989, but the development of the pay per view system allowed the majors to be more optimistic. Augros (1996) forecast that their revenues in this window would steadily increase. That work suggested an increase from 12 million dollars in 1987 to 807 million dollars in 2001.

and sales are nowadays for the film industry[5].

The Spanish experience mirrors the US case albeit with some time delay. By the 1990s consumption at-home was the most important way to watch films. Television, videos and, in very recent years, DVDs, are the principal windows that allows this domestic consumption. There is a big difference between TV and video (or DVD). In the last two cases, the consumer has greater autonomy in deciding what movie s/he is going to watch and to determine his (her) own viewing schedule. However, on TV, the programmers decide movie show times and the nature of the movies supply. A similar restriction applies to movie theatre attendance since consumers cannot modify the movie theatre's line up of movie presentations. Videotapes (and now DVDs) have allowed consumers to adjust their film consumption to their own timetable or time preferences and this characteristic is not shared with any other form of film consumption. One may consider TV film watching (including pay-per-view broadcasting) as the closest competitor for videotape film consumption since it is a feasible alternative for at-home film watching; however, consumers' autonomy is still lower, even though cable and satellite TV have increased the range of movies supplied and hence, consumers' flexibility in viewing. Given all these relationships, an important goal of this paper is to analyse the links between the movie videotape market and its alternatives for movie watching.

The paper is structured in the following manner. In the next section some connected literature is explored and then in the following section the main characteristics of the data set are briefly described. In section 4, the basic modelling framework is presented along with commentary regarding the basic *a priori* expectations concerning the buying and renting of videotapes. Section 5 then sets out a specific empirical investigation of the determinants of buying movies, including child-orientated movies. In section 6, the renting of videotapes is specifically analysed, taking into explicit account the effect of different movie genres. Concluding remarks are then offered in the final section.

2. Earlier Work

Although there are some works on video economics, specially on release strategies (Frank, 1994; Waterman and Lee, 2003), there are no previous specific studies of the demand for movies on videotape, though the impact of home video cassette recorders (VCRs) has been considered in the context of time series models of movie theatre demand (Cameron 1988; and, specifically for the

---

[5] Studies on movies box office and profits are more common. See, for instance, Smith and Smith (1986), De Vany and Walls (1999), Hand (2001) or Walls (2005b). De Vany (2004) and Moul (2005) offer good surveys on movies revenues, profits and success.

Spanish case, Fernández-Blanco *et al* 2002). There has also been some exploration of revenue sharing in the video rental industry (Dana and Spier 2001). Additionally, there has also been some work in the international trade of VCRs with respect to the role of voluntary export restraints (Ohashi 2002).

Arguably, of more direct relevance to this study is work based on purchase or rent decisions. Yet inevitably much of this work is based on corporate plant capacity decision-making and on the consumer side, most of the work is based on housing tenure choice issues, or the market for cars (e.g. Mannering *et al* 2002, Johnson and Waldman 2003). Yet arguably these studies do not sufficiently relate to consumer decisions in the market for small low-value durable information-based goods, such as movies on videotape. Interestingly, on the consumer side there has been considerable work on the hybrid form of 'rent-to-own' contracts on durable household consumer goods as distinct from direct purchasing (Anderson and Jackson 2001, McKernan *et al* 2003). Such hybrid contractual arrangements, however, do not seem to feature in the market for movies on videotape since renting a movie is undertaken for its direct use value while buying a video principally offers the option value of having the film to view at any time. This difference between direct use value and option value may very partially explain some of the differences in the profiles of renters' and buyers' found in this study.

Of some further related interest is the work of Varian (2000) who investigated information goods such as books, journals, computer software, music and videos. He noted that these can be copied, shared, resold, or rented. He found that when such opportunities for sharing are present, the content producer will generally sell a smaller amount at a higher price which may increase or decrease profits. Furthermore, he identified three circumstances where profits increase: (1) when the transactions cost of sharing is less than the marginal cost of production; (2) when content is viewed only a few times and the transactions costs of sharing are low; and (3) when a sharing market provides a way to segment high-value and low-value among consumers. While not focusing on an analysis of content producer strategy, this empirical study of buying and renting consumer (demand) characteristics does provide some limited sidelight into the nature of sharing behaviour, but only within the specific context of the household.

3. Key Features of the Data

The EHCC survey from which the dataset is assembled was conducted in Spain during 1998. Each quarter of that year a new random sample of 3018 people over fourteen years of age was

interviewed. The total sample size was thus 12072 people.[6] This survey can be defined as an opinion survey dedicated to analyzing the nature of cultural behaviour in Spain. It covers the most important fields of cultural consumption, including: performing arts, cultural industries (music, publishing and the audiovisual industry –including movie theatre attendance, video and TV viewing) and other group of leisure activities such as cultural formation, attendance at museums, natural parks, etc. It combines all this information with a set of socio-economic characteristics for the individuals interviewed, including: age, level of educational attainment, marital status, familiar responsibilities, and employment activity and family income. The key variables used, their variable format and their basic descriptives are presented in the Appendix.

By way of a brief snapshot from this dataset it can be seen that in 1998 home video consumption was more important than movie theatre attendance in Spain. In Figure 1, only 5.9% of Spanish people went to movie theatres once a week, meanwhile 13.8% rented one or more videotapes every week[7]. These figures do not include movie watching on TV or self-recorded videotape watching. Including them we can see that, film consumption at home is at least three times higher than that associated with movie theatre attendance.

**Figure 1
Cinema Attendance and Renting Videos
(percentage)**
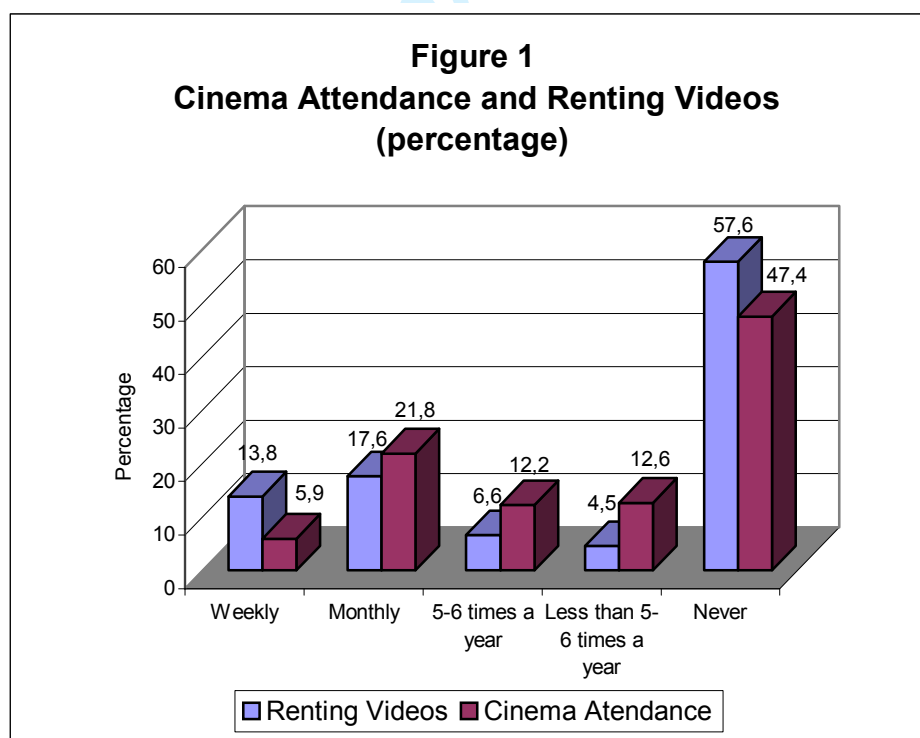
Source: EHCC 1998

---

[6] The EHCC was also conducted quarterly during 1997 but during this year, the survey was in a developmental phase and the interview questionnaire content was significantly different, such that it would not support the type of work we report in this paper. Accordingly, it was decided to use only the 1998 data.

[7] This fact can be easily understood when we consider that, in 1998, 73.4% of Spanish homes had a video set. On the other hand, theater ticket prices were increasing, while renting and buying video prices were both decreasing, probably because of the presence of strong new competitors such as piracy and pay per view TV systems.

4. Modelling Framework and Key Expectations

In the EHCC survey there are two questions about how frequent the interviewee buys or watches rented videotapes with a wide range of possible ordered answers[8]. Hence, we define two dependent variables (*BUYVIDEO* and *RENTVIDEO*) that allow us to discover buyers' and renters' main characteristics applying two ordered probit models.

Since renting videotapes is a more frequent activity than buying, the EHCC has included two different scales of frequencies for these two activities. Thus, the relationships between the unobserved preferences and the structure of answers are different in both cases and can be defined, following Greene (2003) as follows:

a) Buying videotapes

y_i = never = 0   if $y_i^* \leq 0$

y_i = less than one a year = 1   if $0 < y_i^* \leq \mu_1$

y_i = once a year = 2   if $\mu_1 < y_i^* \leq \mu_2$

y_i = two or three times a year = 3   if $\mu_2 < y_i^* \leq \mu_3$

y_i = four or five times a year = 4   if $\mu_3 < y_i^* \leq \mu_4$

y_i = six to nine times a year = 5   if $\mu_4 < y_i^* \leq \mu_5$

y_i = ten or more times a year = 6   if $\mu_5 < y_i^*$

b) Watching rented videotapes

y_i = never = 0   if $y_i^* \leq 0$

y_i = less than five times a year = 1   if $0 < y_i^* \leq \mu_1$

y_i = five or six times a year = 2   if $\mu_1 < y_i^* \leq \mu_2$

y_i = once a month = 3   if $\mu_2 < y_i^* \leq \mu_3$

y_i = two or three times a month = 4   if $\mu_3 < y_i^* \leq \mu_4$

y_i = once a week = 4   if $\mu_4 < y_i^* \leq \mu_5$

y_i = more than once a week = 5   if $\mu_5 < y_i^*$

The set of independent variables includes the interviewee's main socio-economic characteristics, the audiovisual home equipment and some variables that try to represent the

---

[8] It is important to note that the EHCC survey does not ask if the interviewee rented videotape, only if he or she watched a rented videotape. Furthermore, when the survey asks about video buying frequency it does not specify video type: movie, documentary, music etc…- although movies represent 90 per cent of the whole market.

relationships between video, movie theatre usage and TV.

We consider the characteristics of people who buy or watch a rented videotape via estimation of two ordered probit models. We can discern some characteristics in the models that simultaneously feature the renters and buyers general profile and confirm the basic *a priori* expected relationships (see Table 1). As expected, age has a negative effect, in that, the older a person is, the higher is the likelihood of them never buying or watching a rented videotape. Moreover, we can detect evidence for a positive income effect, which is a common hypothesis in cultural consumption research and has been a feature of the results of many previous empirical studies. For instance, Frey and Pommerehne (1989, page 9) found that 'an increase in per capita income of 1 per cent raises the number of visits to performing arts institutions per adult by roughly 3 per cent' and Withers (1980) also found that performing arts are luxuries. Moreover, Prieto *et al.*, 2005, found the same result for Spain through the estimation of a complete demand system.

A range of other household characteristics are also shown to be influential in intuitively clear economic terms. First, household size is likely to increase both buy and rent probabilities, since film video consumption offers household economies of scale. The presence of children under fourteen years of age is shown as likely to accentuate this effect. And both probabilities are likely to increase when the interviewee is the head of household or is his/her partner. Put simply, these are the individuals likely to have the greatest influence on household decision-making. People with no educational qualifications display the lowest probability of buying videotapes, reinforcing the previously highlighted income effect.

Living in a city is also shown to be positively related to consuming rented videotapes given the likely higher density and hence ease of exercising their renting opportunities (i.e. video stores). The effect on buying is weaker since this is likely to be a much more infrequent activity. Since a significant percentage of the buyers are also collectors - people who want to build their own film library, they are likely to be more insensitive (or inelastic) to searching and other transactional costs.

We have found a complementary relationship between movie theatre attendance and video consumption: i.e. the greater the interest in movies declared by the interviewee, the higher the probability of buying and watching rented videotapes. This phenomenon is confirmed in other studies in other markets (see, for example, Collins and Hand 2005). Furthermore, these probabilities also increase with increased attendance at movie theatres. People who go to movie theatres monthly have the highest probability of watching rented videotapes, largely because they are typically

people who have assumed household responsibilities and they may desire the video option to continue to satisfy their more intensive movie watching preferences. In a similar vein, we may posit a positive relationship between the consumption of television and video. They can be considered as complementary domestic (at-home) goods.

5. Determinants of Movie Videotape Purchases

Having examined the general characteristics of video buyers in the previous section we proceed to explore whether there are significant differences if we restrict our focus purely to movie buyers of videos.

As can be seen in Figure 2, combining general films and children's movies covers 90 percent of videotapes bought in Spain in 1998. This market share, capture almost the whole market. Using two probit models, it is possible to analyse the features that define, both, films and children-oriented movie buyers. The dependent variables (*PVIDEOFILM* and *PCHILDRENV*) take the value one when the last acquired videotape was a film (or a children movie, in the other case) and zero otherwise. Table 2 presents the results of these two model estimates.

Figure 2
Types of videotapes bought
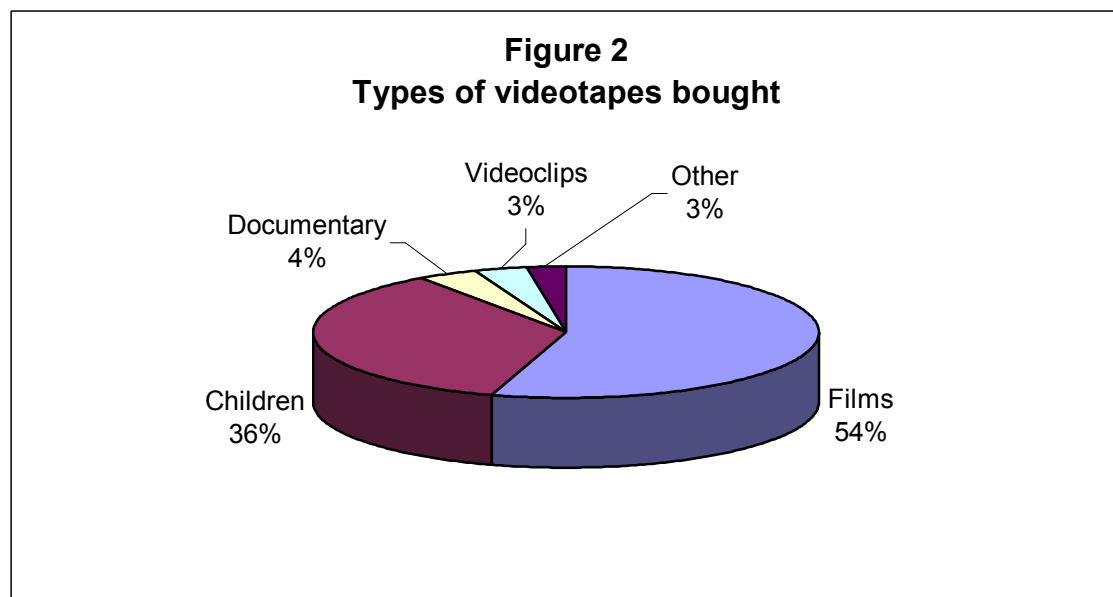
Source: EHCC 1998

The probability of buying a film decreases with age (0.2 percent each additional year, taking into account the marginal effects)[9]. Hence, young people, who are the most important movie

---

[9] Reported marginal effects account for the variation in the probability of the dependent variable due to an infinitesimal

consumers for the big screen, are also more likely to use these means to watch movies at home. This is not to say, however, that it is the children themselves who necessarily want them to watch movies at home, since it may actually reflect their guardians' preferences. This probability of purchasing also increases with household size, especially with the number of household members above 14 years old, and this fact can be a sign of the presence of economies of scale in domestic movie consumption. While the direct household income variable is not statistically significant, it is contended that there is a positive income effect linked to the positive influence of social-economic grouping (the probability of buying a film is 3 percent higher when the interviewee belongs to higher socio-economic groups) and the negative effect of the variable *STUDENT*, usually related to people with scarce monetary resources, in terms of marginal effects being a student decreases by 3% the probability of buying a film. This argument is reinforced by the observation that heads of households buy more film videotapes that any other household member category.

Those who are greater consumers of audiovisual media generally also have a higher probability of buying a videotape, especially among those who go to a movie theatre or rent a video at least once a week. Indeed, their probabilities of buying increase 5 and 6 percent, respectively. So film lovers, who consume movies in any window, are also good buyers of films in videotapes[10].

Since interest in theatre programmes on TV has a positive and significant impact on buying (interest in films on TV has also a positive but lesser effect) we can infer that culture-oriented people are more interested in buying films, perhaps because they want to construct their own film library or to own their favourite films.

Finally, the positive and significant coefficient of the *HABITAT* variable can be interpreted in terms of the higher the size of the population, the higher the presence of delivery opportunities.

The children's movie buying model presents some quite different results, probably because now the buyers purchase the videotapes for the children and principally not for him/herself. Hence, personal attitude and family variables are particularly influential. Women have a 1.5 percent higher probability of buying children's movies than men. The age variable displays U-shaped effect. It is decreasing till a minimum, at 21 years. Then, the probability of buying this type of videos begins to increase, corresponding to the range of ages when people take on family childrearing and childcare responsibilities.

---

change in each independent continuous variable or the discrete change for dummy variables shifting from cero to one.

[10] If we consider the positive and statistically significant effect of the variable *INTVTHEATER*, that measures the interviewee's interest on theatre programmes on TV, we can conclude that film buyers are also people with some significant measure of cultural consumption-based motivation.

The presence of children is clearly the most influential factor. Each additional family member under 14 years increases by 1.5% the probability of buying children's movie. This effect is reinforced with the negative influence of the number of household member above 14 years and the *SINGLE* variable that reduces this probability by 4%.

The interviewee and head of household's educational levels also have a significant effect. But, in the former case, the highest effect corresponds to only primary educational studies. However, the head of household's educational attainment effect is positive, with those having a university education displaying the highest probability of buying children oriented videotapes. Hence, it is possible to contend that the use of video in children's leisure is more common within families having a strong educational level.

Variables related with income are not significant, except in the case of *STUDENT*. And this is also the situation in the *HABITAT* variable. Then, the demand for children's movies seems to be less sensitive to certain economic variables like income or supply opportunities which can be interpreted as a proxy for transactional costs.

When the audiovisual variables are analysed, some interesting results are found. First, attendance at movie theatres and watching rented videotapes in particular, have a positive and statistically significant effect on the probability of buying children's videotapes. Both set of coefficients are positive and decreasing with frequency, hence the higher the regularity that a person attends movie theatres or watches a rented film the higher the probability of buying a children oriented videotape. We can suggest that there are good movie consumers who buy videotapes for (their) children too and, hence, cultivate their cinema taste. This behaviour is very important to establish the future customers of this industry. On the other hand, interest in films on TV (*INTVFILM*) is not statistically significant. Hence, it may be suggested that film lovers that mainly consume movies through TV (perhaps typically older people without an established interest in the new technologies) do not buy more children's videotapes than other people who are not interested in films. Second, TV consumption does not have any significant influence. This result could be due to the fact that the youngest and oldest interviewees are the most important TV consumers and they have a low probability of having children under their care. Furthermore, the idea of a positive relationship between cultural level and the probability of buying children's videotapes is reinforced by the positive effects of the head of household's educational attainment and interest in theatre programmes on TV (*INTVTHEATER*) and the inverse relationship between their educational attainment and TV consumption.

In summary, in comparing the determinants of buying films or children's videotapes, it may be found that, the presence of children and the cultural environment of the family are the principal determinants of buying children's videotape. All the buyers are regular audiovisual media consumers, but TV consumption does not have a significant influence on the probability of buying children's videotape. There is a positive income effect on buying film videotapes, but this effect is not found for buying children's film videotapes.

6. Renting Movie Videotapes by Genre

In section 4 the main characteristics of people who watch rented videos was presented. We can further hypothesize that there may be significant differences among consumers of different movie genres[11]. We can test this hypothesis because the EHCC survey also asks the interviewee about the genre of the film s/he had rented[12].

An initial feel for the relative attractiveness of each of these genres can be found by looking at Figure 3. Action films are the most watched: about 1/3 of the interviewees who had rented a movie, chose this type of films. Other genres with a considerable share of the video renting market are mystery/thriller movies (15%), comedies (14%) and adventures films (13%). It is perhaps a little surprising to note that children's movies, which have a 36% in the videotapes buying market, have only a 6% share in the renting market. One feasible explanation may be that due to the fact that children are more able to watch a film more than once, so that buying this type of film offers scale economies.

---

11 Walls (1997), Bagella and Bechetti (1999), De Vany and Walls (1999) and Fernández –Blanco and Prieto-Rodríguez (2003) have analysed the effect of genres on movie theatre attendance.
[12] This question was only available in the interview questionnaire used in the first quarter of 1998. Hence, our sample size is reduced to 3,300 individuals.

Figure 3
Percentage of videotapes rented by genre
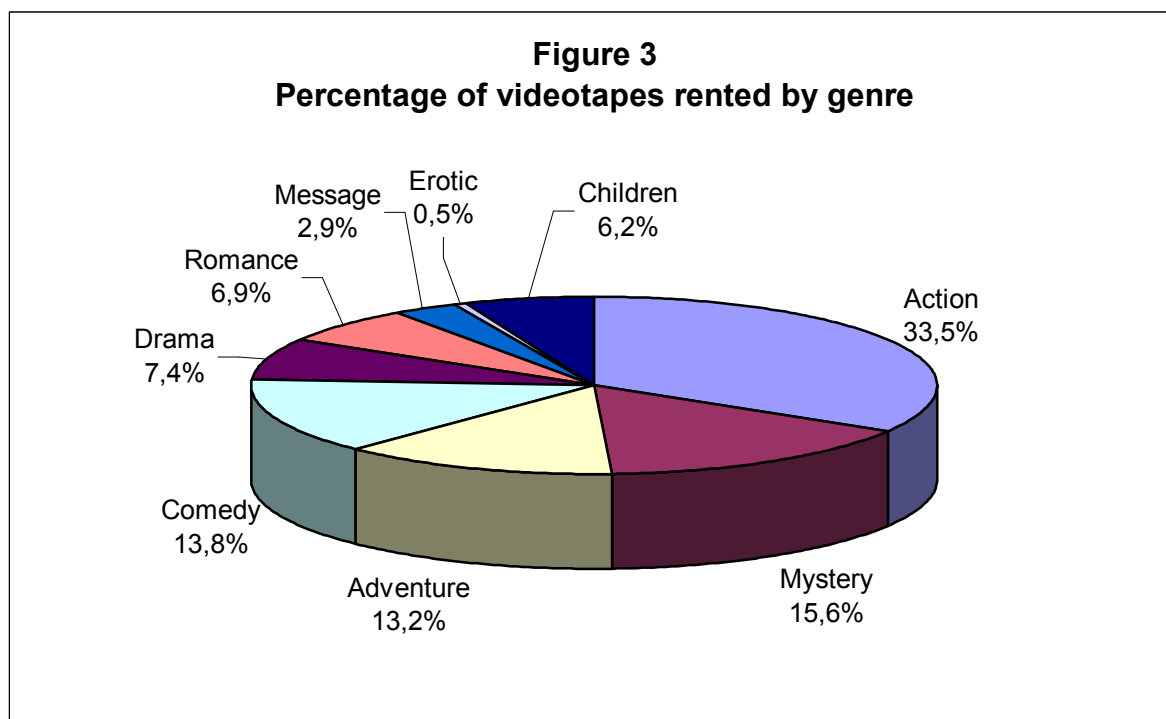
Source: EHCC 1998

Moving on beyond this descriptive analysis, model estimation is undertaken to help discern if there are consumer specific profiles for each of these genres. From the EHCC data it is possible to define a set of qualitative variables associated with each genre. Each dummy variable takes the value one if the last movie hired belonged to that genre and zero otherwise[13]. For each genre, a probit model was developed to examine how the probability of hiring a film is affected by a set of exogenous variable related to the use of audiovisual media and some other individual, household and socio-economic characteristics. Table 3 present the results by film genre[14].

At first sight, it is difficult to define a typical profile linked to each genre, except for children's movies. Only a few variables, particularly gender and educational attainment level, introduce some significant differences.

At first sight, we could argue that adventure and comedy are the more eclectic genres: these kinds of movies are rented by males and females of any age or level of income -although in the case of adventure, the lower the income, the higher is the probability of renting. Further, illiterate people seemingly have the lowest probability of renting.

---

[13] The genres (and variables) included are the following: action (*VACTION*), mystery (*VMYSTERY*), adventure (*VADVENTURE*), comedy (*VCOMEDY*), drama (*VDRAMA*), romantic (*VROMANCE*), message (*VMESSAGE*), children's (*VCHILD*). Detailed definitions of all these variables are in the Appendix.
[14] The log likelihood ratios endorse the goodness of fit of these model estimates.

Drama and message, the more reflective genres, are particularly consumed by well-educated people (i.e. e. the probability of renting drama movies increases between 7 and 10% when the interviewee has university level education) and are culturally-oriented (if we consider interest in theatre programmes on TV as a proxy of cultural concern). In dramas this idea is reinforced by the negative effect of TV consumption.

In general, educational attainment level has a positive and increasing effect, so people with a university education have the highest probability of renting any kind of film, except for action movies. In this case, we find the opposite effect: that being, people with the lowest educational attainment have the highest probability of renting while this probability diminishes 25% among people with university level education.

The gender variable is of some interest. Women's probability of hiring is significant higher than men's one in the cases of mystery, message, romantic and drama films and looking at the size of the coefficients and the marginal effects, it seems that these latter genres are the closest to women's preferences overall. Only for action movies, men's probability is about 15% higher than women's.

Other variables only introduce some differences in certain genres. For instance, attendance at movie theatres has a positive and statistically significant effect on message movies, and a negative impact on dramas. Meanwhile, TV consumption increases the probability of hiring action movies and decreases the probability of hiring message pictures. Adventure films seem to be a family favourite because their probability of being hired on video increases with the family size. However, the consumption of love stories and mystery films decreases with the number of family members under fourteen. This fact could reflect that these movies supplied on video are orientated to adult audiences. Finally, it can be highlighted that TV consumption only has a positive influence on action movies

As has been pointed out previously, children's movies on video are clearly a distinct market segment. The key characteristic is that buyers and consumers are different people. Second, the presence of children in the family is the most relevant feature: each additional family member under fourteen increases 2% the probability of hiring these movies, while it decreases about a 0.75% with each additional member above fourteen. Sex and age variables are also relevant influences. Women hire more children's movies than men, perhaps as a consequence of the fact that the former are more concerned about children's care. Furthermore, age has a quadratic effect on the probability of hiring children oriented movies. This probability increases until the interviewee is 39 year old, that

is during the more likely period to have children under his (her) responsibility.

Two final results can be highlighted. First, the probability of hiring children's movies increases with the educational level of the head of the household, especially when s/he has had a university education. Hence, video can be observed as a more attractive leisure, or even learning, activity in families who may be perceived to have a higher cultural status or set of cultural aspirations. Second, that probability decreases with movie theatre attendance. This fact is fairly easy to rationalise when taking into account that young people are the greatest movie theatre attenders, and, in general, they do not typically have children.

7. Concluding Remarks

In this paper, using the EHCC 1998 survey data, multinomial probit econometric models are applied to consider whether there are two distinct video markets (renting and buying) and to identify the respective socio-economic characteristics of their consumers. Finally the influence of certain qualitative characteristics, especially film genre, on the renting and buying videotapes is examined. The key results from this modelling exercise show that video consumption can be considered as a complementary good to the other audiovisual commodities (TV and Cinema). It is also found that video buyers may be considered to be more discerning consumers than video renters, in the sense that among the former, educational level has a positive effect. We may suggest that from their perspective, movies are not only a leisure pursuit but also a cultural commodity. Accordingly, they may be contended to have a higher valuation of cinema in general, and certain art house or minority cinema output, such as those that more commonly feature in Europe. They also display an interest in other cultural goods such as theatre-related performances on TV.

Looking at video consumption itself, it is suggested that this activity offers household economies of scale in leisure. Further, it may be observed to be a more attractive leisure option, or even learning activity, in families categorized in terms of a higher cultural status, or by virtue of their cultural aspirations.

Looking to video consumption by genre it is found that action, mystery and comedy are the most preferred genres by video consumers in Spain. Women are more interested than men in thriller/mystery, drama, romantic and message films. Moreover, women hire more children's movies than men, perhaps as a result that the former are possibly more involved in the care of children (or at least in keeping them quiet and happy).

Since children's movies can be seen more than once and can be considered as part of the formative process, their higher percentage in buying than in renting allows us to think that we have found some empirical evidence for the existence of durable good consumption in buying videos. This idea is reinforced by indications of the presence of people seemingly interested in building their own film library. It has been observed that the probability of buying increases with movie theatre attendance, so recent blockbusters inevitably must continue to be a substantial part of the product range in video retailers; but it may also be worthwhile for them to persist in offering other kinds of films such as past blockbusters, classical movies etc.

APPENDIX

In this appendix the variables used in the modelling are defined and the basic descriptive statistics are presented in Table A1.

A. Dependent Variables

BUYVIDEO: Ordered discrete variable that captures the interviewee's videotape buying frequency; its corresponding values are defined in section 4.

RENTVIDEO: Ordered discrete variable that captures the interviewee's watching rented videotapes frequency; its corresponding values are defined in section 4.

PVIDEOFILM: Dummy variable; it takes value one when the last videotape acquired by the interviewee was a film, and zero otherwise.

PCHILDRENV: Dummy variable; it takes value one when the last videotape acquired by the interviewee was a children's videotape, and zero otherwise.

VACTION: Dummy variable; it takes value one when the last interviewee's videotape rented was an action movie, and zero otherwise.

VMYSTERY: Dummy variable; it takes value one when the last interviewee's videotape rented was a thriller, mystery or suspense movie, and zero otherwise.

VADVENTURE: Dummy variable; it takes value one when the last interviewee's videotape rented was an adventure movie, and zero otherwise.

VCOMEDY: Dummy variable; it takes value one when the last interviewee's videotape rented was a comedy, and zero otherwise.

VDRAMA: Dummy variable; it takes value one when the last interviewee's videotape rented was a drama, and zero otherwise.

VROMANCE: Dummy variable; it takes value one when the last interviewee's videotape rented was a romance, and zero otherwise.

VMESSAGE: Dummy variable; it takes value one when the last interviewee's videotape rented was a movie with a "message", and zero otherwise.

VCHILD: Dummy variable; it takes value one when the last interviewee's videotape rented was a children's videotape, and zero otherwise.

B. Independent Variables

MAN: Dummy variable; it takes value one when the interviewee is a man, and zero otherwise.

AGE: Continuous variable; it measures the interviewee's age.

AGE2: Continuous variable; it measures the interviewee's square age.

PRIMARY: Dummy variable; it takes value one when the interviewee has elementary studies, and zero otherwise.

HIGH SCHOOL: Dummy variable; it takes value one when the interviewee has intermediate studies, and zero otherwise.

DIPLOM: Dummy variable; it takes value one when the interviewee has three years of university studies, and zero otherwise.

LICENC: Dummy variable; it takes value one when the interviewee has more than three years of university studies, and zero otherwise.

The base case are illiterate people or with unfinished elementary studies.

HPRIMARY: Dummy variable; it takes value one when the householder has elementary studies, and zero otherwise.

HHIGH SCHOOL: Dummy variable; it takes value one when the householder has intermediate studies, and zero otherwise.

HDIPLOM: Dummy variable; it takes value one when the householder has three years of university studies, and zero otherwise.

HLICENC: Dummy variable; it takes value one when the householder has more than three years of university studies, and zero otherwise.

The base case is illiterate householders and/or those with unfinished elementary studies.

INCOME: This variable measures the interviewee's family income defining some intervals whose mark of class varies from 72.13 to 3906,58 euros per month.

N14: Number of children under fourteen years.

N14MORE: Number of family member above fourteen years.

SINGLE: Dummy variable, it takes value one when the interviewee is single, and zero otherwise.

MARRIED: Dummy variable; it takes value one when the interviewee is married, and zero otherwise.

The base case is widows or divorced.

HOUSEHOLD: Dummy variable; it takes value one when the interviewee is the householder, and zero otherwise.

SPOUSE: Dummy variable; it takes value one when the interviewee is the partner, and zero otherwise.

The base case is people with any other family position.

HICLASS: Dummy variable; it takes value one when the interviewee belongs to the high social class, and zero otherwise.

MIDCLASS: Dummy variable; it takes value one when the interviewee belongs to the middle social class, and zero otherwise.

The base case is people who belong to the low social class.

SELFEMPLOYED: Dummy variable; it takes value one when the interviewee is self-employed, and zero otherwise.

EMPLOYEE: Dummy variable; it takes value one when the interviewee is an employee, and zero otherwise.

RETIRED: Dummy variable; it takes value one when the interviewee is retired, and zero otherwise.

STUDENT: Dummy variable; it takes value one when the interviewee is student, and zero otherwise.

The base case is inactive people devoted to household tasks.

HABITAT: Ordered discrete variable; it takes values from one to nine from villages under 2,000 inhabitants to metropolitan areas.

TV: Dummy variable; it takes value one when the interviewee has a TV at home, and zero otherwise.

VIDEO: Dummy variable; it takes value one when the interviewee has a VCR at home, and zero otherwise.

COMPUTER: Dummy variable; it takes value one when the interviewee has a computer at home, and zero otherwise.

INTERNET: Dummy variable; it takes value one when the interviewee is connected to the Internet at home, and zero otherwise.

DAYSTV: Number of days that the interviewee watches TV in a week.

HOURSTV: Number of hours that the interviewee watches TV in a day.

INTVFILM: Dummy variable; it takes value one when the interviewee is very interested on films on TV, and zero otherwise.

INTVTHEATER: Dummy variable; it takes value one when the interviewee is very interested on theatre programmes on TV, and zero otherwise.

VNORMAL: Number of "normal" videotapes, delivered in shops, acquired by the interviewee last three months.

VPART: Number of videotapes, linked to parts and delivered in newsstands, last three months.

RENTVIDWEEK: Dummy variable; it takes value one when the interviewee watches movies on video at least once a week, and zero otherwise.

RENTVIDMONTH: Dummy variable; it takes value one when the interviewee watches movies on video monthly, and zero otherwise.

RENTVIDYEAR: Dummy variable; it takes value one when the interviewee watches less than five movies on video in a year, and zero otherwise.

The base case is defined as when the interviewee never watches movies on video.

CINEWEEK: Dummy variable; it takes value one when the interviewee goes to the cinema at least once a week, and zero otherwise.

CINEMONTH: Dummy variable; it takes value one when the interviewee goes to the cinema monthly, and zero otherwise.

CINEYEAR: Dummy variable; it takes value one when the interviewee goes to the cinema less than seven times in a year, and zero otherwise.

The base case is defined when the interviewee never goes to the cinema.

VALCINEMA: Ordered discrete variable; it takes values from one to six measuring the interviewee's interest in movie releases, regardless of nationality.

VALUSA: Ordered discrete variable; it takes values from one to six measuring the interviewee's interest in American movie releases.

VALSPAIN: Ordered discrete variable; it takes values from one to six measuring the interviewee's interest in Spanish movie releases.

VALEU: Ordered discrete variable; it takes values from one to six measuring the interviewee's interest in European movie releases.

Table A1
DESCRIPTIVE STATISTICS

VARIABLE	MEAN	ST. DEV.	MÍNIMUM	MÁXIMUM	Nº OBS.
MEN	0,4660	0,4989	0	1	12072
AGE	42,9471	19,3534	14	98	12072
AGE2	2218,97	1823,256	196	9604	12072
PRIMARY	0,4895	0,4999	0	1	12072
HIGH SCHOOL	0,2203	0,4144	0	1	12072
DIPLOM	0,0726	0,2596	0	1	12072
LICENC	0,0625	0,2420	0	1	12072
HPRIMARY	0,4681	0,4990	0	1	12072
HHIGH SCHOOL	0,1538	0,3608	0	1	12072
HDIPLOM	0,0585	0,2347	0	1	12072
HLICENC	0,0592	0,2361	0	1	12072
INCOME	166169	83149,71	12500	650000	11880
HICLASS	0,0702	0,2556	0	1	12072
MIDCLASS	0,7444	0,4362	0	1	12072
HÁBITAT	6,6478	2,6697	1	9	12072
SINGLE	0,3515	0,4775	0	1	12072
MARRIED	0,5322	0,4990	0	1	12072
HOUSEHOLD	0,3117	0,4632	0	1	12072
SPOUSE	0,3964	0,4892	0	1	12072
N14	0,4458	0,7926	0	10	11705
N14MORE	2,8407	1,3165	1	14	12072
SELFEMPLOYED	0,0564	0,2307	0	1	12072
EMPLOYED	0,3276	0,4694	0	1	12072
UNEMPLOYED	0,0506	0,2192	0	1	12072
RETIRED	0,1803	0,3845	0	1	12072
STUDENT	0,1532	0,3602	0	1	12072
CFPARADO	0,0413	0,1990	0	1	12072
TV	0,9890	0,1044	0	1	12072
VÍDEO	0,7247	0,4467	0	1	12072
COMPUTER	0,2362	0,4248	0	1	12072
INTERNET	0,0235	0,1516	0	1	12072
TVDAYS	6.7373	1.0276	0	7	11971
TVHOURS	2.7786	1.7636	0	24	11948
INTVFILM	0.5640	0.4959	0	1	12072
INTVTHEATER	0.1471	0.3542	0	1	12072
CINEWEEK	0,0592	0,2361	0	1	12072
CINEMONTH	0,2177	0,4127	0	1	12072
CINEYEAR	0,2484	0,4321	0	1	12072
VALCINEMA	4,2788	1,3864	1	6	12066
VALUSA	3,1210	1,3738	1	6	11778
VALSPAIN	3,1431	1,3050	1	6	11855
VALEU	2,4795	1,3242	1	6	11815
BUYVIDEO	6,2921	1,4939	0	6	9027
VNORMAL	0,2876	1,3225	0	40	12072
VPART	0,0872	1,3474	0	90	12072
CVIDEOFILM	0,0718	0,2582	0	1	12072
CVIDEOINF	0,0485	0,2147	0	1	12072
RENTVIDEO	5,4724	2,0329	0	6	12014
RENTVIDWEEK	0,1368	0,3436	0	1	12072
RENTVIDMONTH	0,1746	0,3797	0	1	12072
RENTVIDYEAR	0,1109	0,3140	0	1	12072
VACTIÓN	0,1043	0,3057	0	1	12072
VMYSTERY	0,0487	0,2153	0	1	12072
VADVENTURE	0,0413	0,1989	0	1	12072
VCOMEDY	0,0430	0,2028	0	1	12072
VDRAMA	0,0230	0,1500	0	1	12072
VROMANCE	0,0214	0,1446	0	1	12072
VMESSAGE	0,0091	0,0950	0	1	12072
VCHILD	0,0194	0,1379	0	1	12072

REFERENCES

Anderson, M.H. and Jackson, R. (2001) A Reconsideration of Rent-to-Own, *Journal of Consumer Affairs* 35(2) 295-306.

Augros, J. (1996) *L'Argent D'Hollywood.* Paris: L'Editions de Harmattan.

Bagella, M. and Bachetti, L. (1999) The Determinants of Motion Picture Box Office Performance: Evidence from Movies Produced in Italy, *Journal of Cultural Economics* 23 237-256.

Cameron, S. (1988) The Impact of Video Recorders on Cinema Attendance, *Journal of Cultural Economics*, 12(1), 73-80.

Cameron, S. (1999) Rational Addiction and the Demand for Cinema, *Applied Economics Letters*, 6(9), 617-620.

Collins, A. and Hand, C. (2005) Analyzing Moviegoing Demand: In Individual-level Cross-sectional Approach, *Managerial and Decision Economics* 26, 319-330.

Dana, J.D. and Spier, K.E. (2001) Revenue Sharing and Vertical Control in the Video Rental Industry, *Journal of Industrial Economics* XLIX (3) 223-245.

De Vany, A. and Walls, D. (1999) Uncertainty in the Movie Industry: Does Star Power Reduce the Terror of the Box Office? *Journal of Cultural Economics* 23 285-318.

De Vany, A. (2004), *Hollywood Economics. How Extreme Uncertainty Shapes the Film Industry*, London and New York: Routledge.

Dewenter, R. and Westerman, M. (2005) Cinema Demand in Germany *Journal of Cultural Economics* 29 213-231.

Economist, The (2004) Romancing the Disc, 370 (8361) p57.

Fernández-Blanco, V. and Baños-Pino, J.F. (1997) Cinema Demand in Spain: A Cointegration Analysis, *Journal of Cultural Economics* 21 55-75.

Fernández-Blanco, V. and Prieto-Rodriguez, J. (2003) Building Stronger National Movie Industries: The Case of Spain, *Journal of Arts Management, Law and Society*, 33 142-160.

Fernández-Blanco, V. *et al.* (2002) *Cinéfilos, videoadictos y telespectadores. Los perfiles de los consumidores de productos audiovisuales en España*, Madrid: Colección Datautor, Fundación Autor.

Frank, B. (1994) Optimal Timing of Movie Releases in Ancillary Markets: The Case of Video Releases, *Journal of Cultural Economics* 18 125-133.

Frey, B. S. and Pommerehne, W. W. (1989) *Muses and Markets: Explorations in the Economics of the Arts*, Oxford: Basil Blackwell.

Fundación Autor (2000) *Informe SGAE sobre Hábitos de Consumo Cultural*, Madrid: Colección Datautor, Fundación Autor.

Greene, W. (2003) *Econometric Analysis* (5th Edition) New Jersey: Prentice-Hall.

Hand, C. (2001) Increasing Returns to Information: Further Evidence from the UK Film Market, *Applied Economics Letters*, 8(6), 419-421.

Hand, C. (2002) The Distribution and Predictability of Cinema Admissions, *Journal of Cultural Economics* 26(1) 53-64.

Johnson, J.P. and Waldman, M. (2003) Leasing, Lemons and Buybacks, *Rand Journal of Economics* 34(2) 247-265.

MacMillan, P. and Smith, I. (2001) Explaining Post-War Cinema Attendance in Great Britain, *Journal of Cultural Economics* 25 91-108.

Mannering, F.; Winston, C., and Starkey W. (2002) An Exploratory Analysis of Automobile Leasing by US Households, *Journal of Urban Economics*, 52(1) 154-176.

Moul, C. (2005) *A Concise Handbook of Movie Industry Economics*, Cambridge: Cambridge University Press.

Ohashi, H. (2002) Anticipatory Effects of Voluntary Export Restraints: A Study of the Home Video Cassette Recorders Market 1978-1986, *Journal of International Economics* 57(1) 83-105.

Prieto-Rodríguez, J.; Romero-Jordán, D. and Sanz-Sanz, J. F. (2005) Is a Tax Cut on Cultural Goods Consumption Actually Desirable? A Microsimulation Analysis Applied to Spain, *Fiscal Studies*, 26(4), 549–575.

Smith, S. and Smith, K. (1986) Successful Movies: An Preliminary Empirical Analysis, *Applied Economics*, 18(5), 501-507

Varian, H.R. (2000) Buying, Sharing and Renting Information Goods, *Journal of Industrial Economics* XLVIII (4) 473-491.

Vogel, H. (2004) *Entertainment Industry Economics*. 6th edition, Cambridge: Cambridge University Press.

Walls, D. (1998) Product survival at the cinema: evidence from Hong Kong, *Applied Economics Letters*, 5(4), 215–219.

Walls, D. (2005a) Demand Stochastics, Supply Adaptation, and the Distribution of Film Earnings, *Applied Economics Letters*, 12(10), 619-623.

Walls, D. (2005a) Modelling Heavy Tails and Skewness in Film Returns, *Applied Financial Economics*, 15(17), 1181-1188.

Waterman, D. and Lee, S. W. (2003) Time Consistency and the Distribution of Theatrical Films: An Empirical Study of the Video Window, Paper presented at the Econometric Society Winter Meeting, Washington D.C.

Withers, G. A. (1980) Unbalanced Growth and The Demand for Performing Arts: an Econometric Analysis, *Southern Economic Journal*, 46, 735–742.

Table 1
Determinants of Renting and Buying Videotapes

	RENTVIDEO		BUYVIDEO	
	COEFFICIENT	T-STATISTIC	COEFFICIENT	T-STATISTIC
CONSTANT	-0,1167	-0,581	-1,8183	-7,432*
VALUSA	0,0502	4,324*	0,0435	3,028*
VALSPAIN	-0,0062	-0,558	-0,0035	-0,249
VALEU	0,0037	0,330	0,0338	2,356*
VALCINEMA	0,0467	3,748*	0,0594	3,849*
MAN	0,1015	2,358*	-0,1214	-2,315*
AGE	-0,0261	-4,007*	0,0003	0,041
AGE2	-0,0001	-1,505	-0,0002	-2,866*
PRIMARY	0,0420	0,678	0,1622	1,900**
HIGH SCHOOL	0,0179	0,260	0,1904	2,054*
DIPLOM	0,0522	0,635	0,1816	1,686**
LICENCI	-0,0408	-0,451	0,1281	1,125
HPRIMARY	0,0070	0,171	0,0915	1,817**
HHIGH SCHOOL	-0,0404	-0,806	0,0799	1,349
HDIPLOM	-0,1074	-1,555	0,0729	0,917
HLICENC	0,0528	0,599	0,1065	1,095
INCOME	0,0001	4,097*	0,0001	1,850**
N14	0,0488	2,768*	0,1811	8,525*
N14MORE	0,0668	5,677*	-0,0015	-0,096
SINGLE	-0,1863	-2,491*	-0,0948	-1,151
MARRIED	0,0204	0,333	0,0723	1,016
HOUSEHOLD	0,1513	2,274*	0,1406	1,750**
SPOUSE	0,1554	2,082*	-0,0160	-0,188
HICLASS	-0,1112	-1,198	0,1303	1,232
MIDCLASS	0,1145	2,454*	0,1360	2,123*
SELFEMPLOYEE	-0,0595	-0,846	0,0395	0,475
EMPLOYEE	-0,0004	-0,008	-0,0454	-0,757
UNEMPLOYED	0,0443	0,619	-0,1350	-1,517
RETIRED	0,0119	0,170	0,2072	2,384*
STUDENT	-0,0839	-1,177	-0,3899	-4,539*
COMPUTER	0,0493	1,515	0,1121	2,952*
INTERNET	0,0345	0,438	0,1506	1,945**
TVDAYS	0,0112	0,884	0,0077	0,496
TVHOURS	0,0332	3,998*	-0,0286	3,128*
INTVFILM	0,1227	4,424*	0,0840	2,490*
INTVTHEATER	0,0621	1,577	0,2553	5,602*
VNORMAL	0,0163	1,925**		
VPART	-0,0050	-0,546		
CVIDEOFILM	0,3837	7,728*		
RENTVIDWEEK			0,5462	12,252*
RENTVIDMONTH			0,3022	7,070*
RENTVIDYEAR			0,3252	6,515*
CINEWEEK	0,2893	4,972*	0,2612	3,805*
CINEMONTH	0,3035	7,549*	0,1577	3,285*
CINEYEAR	0,2265	6,589*	0,1551	3,671*
HABITAT	0,0461	8,731*	-0,0023	-0,356
μ_1	0,1593	21,0 02*	0,094	14,027*
μ_2	0,3936	34,304*	0,297	25,012*
μ_3	0,7196	48,071*	0,786	38,534*
μ_4	1,1424	60,895*	1,140	42,735*
μ_5	1,8025	69,207*	1,320	43,192*
N	9124		8417	
χ^2(42 d. f.)	3199,626		1452,668	

* Statistically significant at the 5% level
** Statistically significant at the 10% level

Table 2
Determinants of Buying Film and Children's Movies Videotapes

	General Films			Children's Movies		
	Coefficient	T-Statistic	Marginal Effect	Coefficient	T-Statistic	Marginal Effect
CONSTANT	-1,8817	-6,67*	-0,2001	-1,9252	-5,00*	-0,0885
MAN	-0,0238	-0,40	-0,0025	-0,3184	-3,42*	-0,0146
AGE	-0,0193	-2,15*	-0,0021	0,0173	1,25	0,0008
AGE2	0,0001	0,69	0,0000	-0,0004	-2,66*	0,0000
PRIMARY	0,0745	0,75	0,0079	0,4863	3,09*	0,0224
HIGH SCHOOL	0,0698	0,64	0,0074	0,4435	2,66*	0,0204
DIPLOM	0,0682	0,53	0,0072	0,3324	1,77**	0,0153
LICENC	0,0437	0,32	0,0046	0,4023	2,08*	0,0185
HPRIMARY	-0,0204	-0,32	-0,0022	0,0837	1,03	0,0039
HHIGH SCHOOL	-0,0143	-0,19	-0,0015	0,1548	1,66**	0,0071
HDIPLOM	-0,0521	-0,51	-0,0055	0,3136	2,56*	0,0144
HLICENC	-0,0635	-0,52	-0,0068	0,3284	2,15*	0,0151
INCOME	0,0000	0,38	0,0000	0,0000	0,67	0,0000
N14	-0,0072	-0,26	-0,0008	0,3134	12,68*	0,0144
N14MORE	0,0381	2,18*	0,0041	-0,0874	-3,41*	-0,0040
SINGLE	-0,0127	-0,12	-0,0013	-0,8139	-5,77*	-0,0374
MARRIED	-0,0236	-0,26	-0,0025	0,0323	0,31	0,0015
HOUSEHOLD	0,1706	1,79**	0,0181	-0,1091	-0,75	-0,0050
SPOUSE	0,1302	1,27	0,0138	-0,3970	-2,76*	-0,0183
HICLASS	0,2514	1,98*	0,0267	-0,0042	-0,02	-0,0002
MIDCLASS	0,1152	1,53	0,0122	0,0817	0,83	0,0038
SELFEMPLOYEE	0,0584	0,56	0,0062	-0,0576	-0,51	-0,0026
EMPLOYEE	0,1176	1,59	0,0125	0,0263	0,34	0,0012
UNEMPLOYED	-0,1644	-1,48	-0,0175	-0,1356	-1,01	-0,0062
RETIRED	0,0295	0,27	0,0031	-0,0358	-0,23	-0,0016
STUDENT	-0,2664	-2,66*	-0,0283	-0,2414	-1,79**	-0,0111
COMPUTER	0,0943	2,08*	0,0100	-0,0040	-0,07	-0,0002
INTERNET	-0,0136	-0,12	-0,0014	-0,0410	-0,28	-0,0019
TVDAYS	0,0227	1,20	0,0024	0,0014	0,06	0,0001
TVHOURS	0,0326	2,90*	0,0035	-0,0005	-0,03	0,0000
INTVFILM	0,1214	2,99*	0,0129	0,0365	0,74	0,0017
INTVTHEATER	0,2158	4,06*	0,0229	0,1184	1,82**	0,0054
RENTVIDWEEK	0,5716	10,83*	0,0608	0,3384	5,27*	0,0156
RENTVIDMONTH	0,3192	6,10*	0,0339	0,1302	2,08*	0,0060
RENTVIDYEAR	0,2320	3,79*	0,0247	0,0756	1,02	0,0035
CINEWEEK	0,4430	5,63*	0,0471	0,2063	1,85**	0,0095
CINEMONTH	0,2631	4,49*	0,0280	0,1842	2,68*	0,0085
CINEYEAR	0,1526	2,87*	0,0162	0,1200	2,06*	0,0055
HÁBITAT	0,0176	2,26*	0,0019	-0,0021	-0,23	-0,0001
N	11415			11415		
χ^2(42 d. f.)	624,1961			963,0165		

* Statistically significant at the 5% level
** Statistically significant at the 10% level

Table 3
Determinants of Video Renting for Different Movie Genres

	ACTION		MYSTERY		ADVENTURE		COMEDY	
	coefficient	marginal effect	coefficient	marginal effect	coefficient	marginal effect	coefficient	marginal effect
CONSTANT	-0.7885	-0,2900	-0.248	-0,0594	-1.7422	-0,3748	-0.7888	-0,1724
	(-2,009) *		(-0.549)		(-3.741) *		(-1.556)	
MAN	0.4223	0,1553	-0.1544	-0,0370	0.0694	0,0149	0.0548	0,0120
	(6.472) *		(-2.113) *		(0.87)		(0.733)	
AGE	0.0094	0,0034	-0.0245	-0,0059	0.0184	0,0040	-0.0084	-0,0018
	(0.679)		(-1.573)		(1.149)		(-0.488)	
AGE2	-0.0002	-0,0001	0.0004	0,0001	-0.0001	0,0000	-0.0001	0,0000
	(-1,303)		(2.12) *		(-0.649)		(-0.417)	
PRIMARY	-0.3667	-0,1349	0.0154	0,0037	0.1793	0,0386	0.5241	0,1146
	(-2,515) *		(0.087)		(1.004)		(2.125) *	
HIGH SCHOOL	-0.5149	-0,1894	0.1012	0,0243	0.2396	0,0515	0.601	0,1314
	(-3,362) *		(0.547)		(1.28)		(2.387) *	
DIPLOM	-0.6795	-0,2499	0.0922	0,0221	0.2478	0,0533	0.5437	0,1189
	(-3,913) *		(0.449)		(1.185)		(2.026) *	
LICENC	-0.6958	-0,2559	0.0795	0,0191	0.3727	0,0802	0.4958	0,1084
	(-3,774) *		(0.37)		(1.698) **		(1.771) **	
HPRIMARY	-0.0799	-0,0294	0.0759	0,0182	-0.0466	-0,0100	0.0489	0,0107
	(-1,038)		(0.819)		(-0.496)		(0.51)	
HHIGH SCHOOL	-0.2147	-0,0790	0.1036	0,0248	0.1222	0,0263	0.0848	0,0185
	(-2,383) *		(0.976)		(1.137)		(0.774)	
HDIPLOM	-0.2288	-0,0841	0.1006	0,0241	0.1214	0,0261	0.0147	0,0032
	(-1,827) **		(0.707)		(0.837)		(0.099)	
HLICENC	-0.2678	-0,0985	0.0222	0,0053	-0.1581	-0,0340	0.102	0,0223
	(-1,707) **		(0.126)		(-0.847)		(0.547)	
INCOME	-0.0001	0,0000	0.0001	0,0000	-0.0001	0,0000	0.001	0,0000
	(-1,544)		(0.237)		(-1.656) **		(1.373)	
N14	-0.0425	-0,0156	-0.087	-0,0209	0.0647	0,0139	-0.0582	-0,0127
	(-1,352)		(-2.252) *		().753 **		(-1.5)	
N14MORE	0.0126	0,0046	-0.0039	-0,0009	0.0477	0,0103	-0.0297	-0,0065
	(0.59)		(-0.161)		(1.907) **		(-1.137)	
SINGLE	0.163	0,0599	-0.1761	-0,0422	0.1358	0,0292	-0.1419	-0,0310
	(1.032)		(-1.006)		(0.697)		(-0.751)	
MARRIED	0.1279	0,0471	-0.157	-0,0376	0.2267	0,0488	-0.1728	-0,0378
	(0.928)		(-1.043)		(1.346)		(-1.03)	
HOUSEHOLD	-0.0319	-0,0117	-0.092	-0,0221	-0.0316	-0,0068	0.0976	0,0213
	(-0,266)		(-0.653)		(-0.212)		(0.684)	
SPOUSE	0.1766	0,0649	-0.2088	-0,0500	0.0011	0,0002	-0.073	-0,0159
	(1,325)		(-1.37)		(0.007)		(-0.461)	
HICLASS	0.128	0,0471	-0.0428	-0,0103	-0.0801	-0,0172	-0.3106	-0,0679
	(0,798)		(-0.238)		(-0.43)		(-1.606)	
MIDCLASS	0.0717	0,0264	-0.1061	-0,0254	-0.1835	-0,0395	-0.0344	-0,0075
	(0,797)		(-1.008)		(-1.712) **		(-0.307)	
SELFEMPLOYEE	0.1376	0,0506	0.0157	0,0038	0.1167	0,0251	-0.2799	-0,0612
	(1,012)		(0.1)		(0.736)		(-1.608)	
EMPLOYEE	0.0919	0,0338	0.0347	0,0083	-0.0107	-0,0023	-0.1724	-0,0377
	(0,934)		(0.309)		(-0.092)		(-1.417)	
UNEMPLOYED	0.1625	0,0598	-0.1575	-0,0378	-0.0547	-0,0118	-0.0063	-0,0014
	(1,242)		(-1.022)		(-0.343)		(-0.04)	
RETIRED	0.028	0,0103	-0.5411	-0,1297	0.2026	0,0436	-0.0077	-0,0017
	(0,151)		(-2.387) *		(0.966)		(-0.032)	
STUDENT	0.0106	0,0039	-0.098	-0,0235	0.1079	0,0232	-0.125	-0,0273
	(0,086)		(-0.691)		(0.727)		(-0.836)	
COMPUTER	-0.0211	-0,0078	-0.0148	-0,0035	-0.011	-0,0024	0.008	0,0018
	(-0,389)		(-0.24)		(-0.171)		(0.126)	
INTERNET	0.1466	0,0539	0.1772	0,0425	-0.0927	-0,0199	-0.0717	-0,0157
	(1,127)		(1.233)		(-0.564)		(-0.451)	
TVDAYS	0.0329	0,0121	-0.0084	-0,0020	-0.0375	-0,0081	-0.0112	-0,0024
	(1.426)		(-0.328)		(-1.474)		(-0.432)	
TVHOURS	0.0711	0,0261	-0.0242	-0,0058	0.0082	0,0018	-0.0183	-0,0040
	(4.713) *		(-1.281)		(0.447)		(-0.991)	
INTVFILM	0.1067	0,0392	0.0598	0,0143	0.0162	0,0035	-0.0585	-0,0128
	(2.152) *		(1.043)		(0.274)		(-0.999)	
INTVTHEATER	-0.0101	-0,0037	-0.0086	-0,0021	-0.3612	-0,0777	0.148	0,0324
	(-0,132)		(-0.099)		(-3.562) *		(1.644)	
VNORMAL	0.0068	0,0025	0.0249	0,0060	0.0028	0,0006	-0.018	-0,0039
	(0,432)		(1.426)		(0.146)		(-0.842)	
VPART	0.015	0,0055	-0.0892	-0,0214	-0.1002	-0,0216	0.0153	0,0033
	(0.989)		(-1.753) **		(-1.873) **		(0.915)	
CVIDEOFILM	0.0835	0,0307	-0.0838	-0,0201	0.0787	0,0169	0.088	0,0192
	(1.113)		(-0.938)		(0.864)		(0.972)	
CINEWEEK	0.0134	0,0049	0.0282	0,0068	0.066	0,0142	-0.0647	-0,0142
	(0.14)		(0.258)		(0.568)		(-0.566)	
CINEMONTH	-0.06	-0,0221	0.0131	0,0032	0.0796	0,0171	-0.0658	-0,0144
	(-0,865)		(0.162)		(0.954)		(-0.776)	
CINEYEAR	-0.0143	-0,0053	-0.0296	-0,0071	0.0781	0,0168	0.0241	0,0053
	(-0,216)		(-0.379)		(0.98)		(0.297)	
HÁBITAT	0.0009	0,0003	-0.006	-0,0014	-0.0258	-0,0055	0.0195	0,0043
	(0.091)		(-0.51)		(-2.146) *		(1.557)	
N	3320		3320		3320		3320	
c²(38 d. f.)	209.5955		47.9936		62.4194		67.9351	

* Statistically significant at the 5% level
** Statistically significant at the 10% level

Table 3
Determinants of Video Renting for Different Movie Genres (cont.)

	DRAMA		ROMANCE		MESSAGE		CHILDREN	
	coefficient	marginal effect	coefficient	marginal effect	coefficient	marginal effect	coefficient	marginal effect
CONSTANT	-1.7415	-0,2296	-0.9519	-0,1136	-1.4375	-0,0687	-1.6998	-0,1221
	(-3.003) *		(-1.662) **		(-1.959) *		(-2.569) *	
MAN	-0.3499	-0,0461	-0.6229	-0,0744	-0.2311	-0,0110	-0.2834	-0,0204
	(-3.803) *		(-6.472) *		(-1.757) **		(-1.922) **	
AGE	-0.0188	-0,0025	-0.0173	-0,0021	0.0174	0,0008	0.0562	0,0040
	(-0.992)		(-0.868)		(0.626)		(2.257) *	
AGE2	0.0003	0,0000	0.0002	0,0000	-0.0001	0,0000	-0.0007	-0,0001
	(1.175)		(0.883)		(-0.388)		(-2.402) *	
PRIMARY	0.3076	0,0406	-0.0361	-0,0043	--	--	-0.1455	-0,0104
	(1.167)		(-0.153)		--		(-0.61)	
HIGH SCHOOL	0.2951	0,0389	0.0712	0,0085	0.1613	0,0077	-0.3051	-0,0219
	(1.089)		(0.29)		(1.24)		(-1.199)	
DIPLOM	0.7946	0,1047	0.0708	0,0085	0.1642	0,0078	-0.4915	-0,0353
	(2.782) *		(0.266)		(0.897)		(-1.652) **	
LICENC	0.5191	0,0684	-0.1662	-0,0198	0.6098	0,0291	-0.4466	-0,0321
	(1.744) **		(-0.578)		(3.321) *		(-1.431)	
HPRIMARY	0.0527	0,0069	-0.085	-0,0101	0.1082	0,0052	0.2981	0,0214
	(0.434)		(-0.681)		(0.628)		(1.948) **	
HHIGH SCHOOL	0.0104	0,0014	-0.06	-0,0072	-0.0312	-0,0015	0.4267	0,0306
	(0.075)		(-0.427)		(-0.157)		(2.508) *	
HDIPLOM	-0.2286	-0,0301	0.172	0,0205	0.3065	0,0147	0.595	0,0427
	(-1.252)		(0.98)		(1.373)		(2.61) *	
HLICENC	0.3093	0,0408	0.103	0,0123	-0.1326	-0,0063	1.0931	0,0785
	(1.458)		(0.445)		(-0.532)		(3.853) *	
INCOME	0.0001	0,0000	0	0,0000	-0.0001	0,0000	-0.0001	0,0000
	(1.769) **		(0.15)		(-0.389)		(-1.05)	
N14	0.0305	0,0040	-0.0935	-0,0112	-0.118	-0,0056	0.3032	0,0218
	(0.692)		(-1.793) **		(-1.579)		(6.862) *	
N14MORE	0.0272	0,0036	0.0382	0,0046	-0.0533	-0,0025	-0.1091	-0,0078
	(0.901)		(1.225)		(-1.111)		(-2.377) *	
SINGLE	0.2693	0,0355	0.0538	0,0064	-0.2379	-0,0114	-0.3867	-0,0278
	(1.253)		(0.25)		(-0.908)		(-1.493)	
MARRIED	-0.0878	-0,0116	-0.2368	-0,0283	-0.2751	-0,0132	0.195	0,0140
	(-0.462)		(-1.265)		(-1.25)		(0.976)	
HOUSEHOLD	0.2354	0,0310	0.5725	0,0683	0.0151	0,0007	-0.182	-0,0131
	(1.351)		(3.194) *		(0.064)		(-0.689)	
SPOUSE	0.1187	0,0156	0.0619	0,0074	0.0832	0,0040	-0.2828	-0,0203
	(0.652)		(0.334)		(0.348)		(-1.085)	
HICLASS	-0.0378	-0,0050	0.121	0,0144	0.3573	0,0171	-0.1167	-0,0084
	(-0.162)		(0.487)		(1.309)		(-0.389)	
MIDCLASS	0.1607	0,0212	0.2363	0,0282	-0.0921	-0,0044	0.1544	0,0111
	(1.099)		(1.525)		(-0.463)		(0.907)	
SELFEMPLOYEE	-0.0398	-0,0052	-0.36	-0,0430	0.2399	0,0115	-0.2953	-0,0212
	(-0.204)		(-1.664) **		(0.894)		(-1.326)	
EMPLOYEE	-0.1207	-0,0159	-0.2291	-0,0273	0.1931	0,0092	0.0569	0,0041
	(-0.896)		(-1.663) **		(0.971)		(0.431)	
UNEMPLOYED	0.0468	0,0062	-0.2804	-0,0335	0.2972	0,0142	-0.0773	-0,0055
	(0.259)		(-1.443)		(1.12)		(-0.339)	
RETIRED	0.1074	0,0142	-0.3704	-0,0442	0.5023	0,0240	0.4193	0,0301
	(0.43)		(-1.342)		(1.505)		(1.537)	
STUDENT	-0.2366	-0,0312	-0.1684	-0,0201	0.4048	0,0194	0.1722	0,0124
	(-1.367)		(-0.965)		(1.594)		(0.776)	
COMPUTER	0.0658	0,0087	-0.0622	-0,0074	-0.0069	-0,0003	-0.1238	-0,0089
	(0.871)		(-0.776)		(-0.065)		(-1.275)	
INTERNET	-0.2011	-0,0265	0.0761	0,0091	-0.3804	-0,0182	-0.2084	-0,0150
	(-1.01)		(0.396)		(-1.232)		(-0.773)	
TVDAYS	0.0227	0,0030	0.0122	0,0015	-0.0869	-0,0042	-0.0367	-0,0026
	(0.679)		(0.368)		(-2.517) *		(-1.038)	
TVHOURS	-0.022	-0,0029	-0.0441	-0,0053	-0.0761	-0,0036	-0.0373	-0,0027
	(-0.944)		(-1.755) **		(-1.88) **		(-1.322)	
INTVFILM	-0.0686	-0,0090	-0.1688	-0,0201	-0.1558	-0,0074	-0.1226	-0,0088
	(-0.97)		(-2.342) *		(-1.579)		(-1.5)	
INTVTHEATER	0.158	0,0208	0.2345	0,0280	0.0412	0,0020	-0.0018	-0,0001
	(1.58)		(2.32) *		(0.289)		(-0.015)	
VNORMAL	-0.0054	-0,0007	0.0132	0,0016	-0.0659	-0,0032	0.0059	0,0004
	(-0.212)		(0.569)		(-1.131)		(0.24)	
VPART	0.002	0,0003	0.0068	0,0008	--	--	0.024	0,0017
	(0.094)		(0.32)		--		(1.296)	
CVIDEOFILM	-0.0102	-0,0013	-0.0367	-0,0044	0.0044	0,0002	-0.1145	-0,0082
	(-0.093)		(-0.327)		(0.025)		(-0.855)	
CINEWEEK	-0.3469	-0,0457	0.148	0,0177	0.3857	0,0184	-0.6117	-0,0439
	(-2.382) *		(1.067)		(1.99) **		(-2.594) *	
CINEMONTH	-0.0532	-0,0070	0.0796	0,0095	0.2187	0,0105	-0.1859	-0,0134
	(-0.535)		(0.744)		(1.359)		(-1.667) **	
CINEYEAR	-0.1282	-0,0169	-0.0311	-0,0037	0.1972	0,0094	-0.1064	-0,0076
	(-1.334)		(-0.299)		(1.249)		(-1.09)	
HÁBITAT	0.0422	0,0056	0.0073	0,0009	-0.0012	-0,0001	0.0139	0,0010
	(2.645) *		(0.469)		(-0.056)		(0.795)	
N	3320		3320		3320		3320	
c²(38 d. f.)	95.9872		103.7965		98.5328		280.0039	

* Statistically significant at the 5% level
** Statistically significant at the 10% level