

## **Motion Pictures: Consumers, Channels, and Intuition**

A Comment on:

“The Motion Picture Industry: Critical Issues in Practice, Current Research, and New Research Directions” by Eliashberg, Elberse and Leenders (2005)

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Key Words: movies, consumer choice models, marketing channels, models and intuition

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Eliashberg, Elberse and Leenders (2005) have convincingly shown that the motion picture industry is a fruitful research domain for marketing scholars. The authors (further to be referred to as EEL) mention many interesting issues, covering the three stages of the movie value chain, production, distribution, and exhibition. However, even a comprehensive review like this, cannot be exhaustive, and in this comment I want to discuss three additional topics about movies that need research, and for which the marketing discipline has concepts, models and theories to offer that can do an excellent job. These topics are: (i) consumer behavior with respect to movies; (ii) the movie marketing channel; and (iii) the role of intuition in managerial decision making with respect to movies.

### **Consumer behavior**

Interestingly, the EEL paper starts with the production of movies, and ends with the exhibition of movies, while paying little attention to the movie consumer, who is, after all, the ultimate destination of the motion picture value chain. From a marketing point of view where the customer is supposed to drive the business, this is remarkable. Maybe in the motion picture industry, the consumer is the great unknown and for that reason is somewhat obscure in the movie research literature. We think that more insight is needed in consumer behavior with respect to movies, and that existing concepts and analysis tools can help us to obtain this.

The consumer movie decision process can be divided into the well-known stages (Blackwell, Miniard and Engel 2001) of need recognition, search for information, evaluation of alternatives, purchase, consumption, and post-consumption evaluation.

What do we know about these stages? In the stage of need recognition, supply elements seem to be important drivers (e.g. advertising, announcements in theaters), whereas word of mouth plays an important role in the stage of information search (Eliashberg, Jonker, Sawhney and Wierenga 2000). But we have little generalized empirical insights in how these decision processes go and how they are influenced by social and commercial stimuli. For example, is there something like an evoked set of movies from which a movie consumer chooses at particular stage in the decision process, and, if so, how large is the evoked set of movies and what determines its composition?

The concepts and models that we use for modeling consumer choice in other categories of consumer products and services, can help us to get more insight in choice behavior with respect to movies. For example, multidimensional scaling models are routinely applied to identify the most important perceptual dimensions which consumers use when they form perceptions about products (see for example Malhotra and Birks 2006, Chapter 24). This approach can be used to find the underlying dimensions of the perceptions of movies, which as any other stimuli can be modeled as points in multidimensional cognitive space. Such perceptions also form the basis for the classifications of movies that consumers use, which may well direct their choice behavior. Suppliers of movies (distributors and exhibitors) use such categories as “comedies”, “thrillers”, and “action films”. It would be interesting to validate such classifications with movie consumers. Movie perception research might also discover attributes of movies which consumers use in their choice processes, of which suppliers are currently not aware.

Next, it is interesting to know how consumers make choices. Especially, the sequence of choices is important. For example, does the consumer first select a particular class (category) of movies and then chooses a particular movie within the selected class? And what comes first, the choice of the movie or the choice of the theater (EEL)? This is equivalent to questions in fast-moving consumer goods, such as: Does a consumer first decide on the form of margarine (cups or sticks) or on the brand (Kalwani and Morrison 1977)? Hierarchical models of consumer choice have been around for a long time to tackle such issues. Nested multinomial logit models (NMLM) can be used to test alternative hypotheses about the sequence of choices (Mc Fadden, 1981; Leeflang, Wittink, Wedel and Naert 2000, Chapter 12).

With such knowledge, the modern multi-theater/multiplex exhibitor company can realize important improvements through optimal scheduling. For an exhibitor with several theaters in the same city who has to decide which movies to show in which theater(s), the order of choice (theater first or movie first) is important. And if a movie consumer first chooses a category, and subsequently chooses a movie within this category, a multiplex should try to realize, as many starts of different movie categories as possible within a given time interval. This ensures that an arriving customer never has to wait very long for her preferred category.

To collect the relevant data, the movie industry can benefit from the expertise acquired in the fast-moving consumer goods (FMCG) sector. Panels of movie consumers should make it possible to follow the behavior of individual customers. Movie customer panels are currently employed in the industry, but use of such panels for the estimation of customer choice models is not common practice yet.

Another issue is the prediction of the consumer demand for a new movie, given the characteristics of that movie with respect to a number of attributes. With conjoint analysis we have a well-developed methodology available that has been successfully used for a broad range of product and services categories. A new movie is a particular combination of story type, actor, director, amount of special effects, and possible other attributes (for example happy ending or not). For sequels there is also something like a brand. It is worthwhile to explore the potential of conjoint analysis for movies. Conjoint analysis can be applied to estimate the part-worth functions ((Malhotra and Birks 2006) for the different attributes, which then can be used to predict the demand for a new movie, which represents a specific combination of attribute levels. This can be done for the whole population or for different subgroups of consumers (e.g. students versus nonstudents; male versus female).

Conjoint analysis can also be used for the construction of electronic recommendation agents for movies. Such a recommendation agent would determine a person's part-worth functions and then come up with recommendations for films that fit this person's utilities. Such electronic recommendation agents have been developed for many product categories already (West et al 1999; Häubl and Trifts 2000). It would be an interesting addition to the current proliferation of online sources that provide movie information as observed by EEL.

For customer choice modelers there is a lot of interesting work to do in the motion picture industry,

### **The movie industry as a marketing channel**

The movie value chain, as described by EEL, represents a marketing channel, with distributors and exhibitors as its main channel partners. These two parties can be compared to the manufacturers and the retailers respectively, in FMCG. FMCG channels have received a lot of attention from marketing scholars, who have looked at issues such as channel coordination (Jeuland and Shugan 1983; Gerstner and Hess 1995), the bargaining problem between channel partners (Iyer and Villas-Boas 2003), the relative power of the channel partners (Kadialy, Chintagunta and Vilcassim 2000) and the distribution of profits between channel partners (Ailawadi 2001). It would be very interesting to apply these approaches to the movie marketing channel.

As EEL describe this, the movie industry is the home of several peculiar marketing phenomena. Most striking is the uniform ticket price policy, which is very remarkable, given evidently different price elasticities between movies. Also very special is the sliding-scale rent agreements between distributors and exhibitors, where the distributor gets a certain percentage of the ticket price, which is high in the first few weeks and declines as the movie's run proceeds. Another interesting phenomenon is that in the movie industry the distributors seem to do most of the advertising, whereas in FMCG the retailers are heavy advertisers as well. The question can be asked to what extent such arrangements stand in the way of attaining the channel optimum. The channel optimum is achieved when, given the set of movies available, and given the capacity of the exhibitors (theaters and screens), total ticket revenue plus the margin on concession minus the production and advertising costs is as large as possible. The rigid financial arrangements with fixed a-priori allocation of revenue over the parties, might lead to double marginalization effects (Spengler 1950; Jeuland and Shugan 1983). If each channel



partner maximizes its own profit, this may well lead to a suboptimal result for the channel as a whole. For example, in making decisions about which movies to schedule in a given week, the exhibitor will only take into account his own profit, and not the profit that is made on those movies by the distributor. This might lead to movies that are being played too long, if considered from a channel point of view. Alternatively, the distributor might underspend with advertising (again from a channel point of view), because he is weighing his expenditures only against his own margin on the additional sales caused by the advertising, and not against the margin made by the exhibitor. Ticket prices are fixed, but occasionally there are sales promotions (for example the second ticket free). Such promotions seem to be in the realm of the exhibitors, and again, because of the double marginalization problem, such price discounts might well be too shallow or not frequent enough, considered from a channel point of view. It is important to examine to what extent these institutionalized rigidities preclude channel parties from maximizing “the size of the pie” (EEL) and what they can do to coordinate the channel. Perhaps, one of the explanations for the continuation of possibly suboptimal arrangements is the transparency of the industry. Parties share a lot of information, to the extent that the Netherlands Antitrust Authority wants to put limitations on this (NBV 2004). It may well be that in such an open industry, where everybody sees what the others do, a kind of de facto equilibrium exists which is hard to break by the individual actors. Anyhow, from a marketing channel perspective, the movie industry is an intriguing object of study.

### **Intuition and models**

On the one hand, as EEL point out, movies constitute a data-rich industry. On the other hand, movies are strongly associated with feelings and emotions, and traditionally this industry values intuition and creativity more than formal analysis. Intuition plays an important role in decision making at virtually every stage of the movie value chain, from the creative decisions about the story concept, until the decisions about the number of screens on which a new movie will open. Even the more structured decisions about which movies to show in a given theater in a particular week, and how to schedule these in time (e.g. which films in the matinee, which films in the late evening) use a good deal of intuition. Intuition (our “sixth sense”) is an important component of thought that has its roots in the process of tacit learning (Hogarth 2001). Intuition results from information processing and often the intuition of movie executives is the result of a life-long experience in the industry. For products containing a large amount of creativity, such as movies the value of intuition seems to be especially relevant. Institutions like the Hollywood Stock Exchange (HSX) try to capture the intuition about movies from experts. The movie industry has also institutionalized forecasting services by experts, such as Box Office Mojo (Spann and Skiera 2003). In particular, intuition plays an important role when making forecasts about ticket sales. Such forecasts are the basis for decisions of whether or not to screen a particular movie, and if so, on which screen (room size) and at what time. It has convincingly been demonstrated that forecasts can become significantly more accurate when managerial intuition and statistical models are combined (Hoch 2001). It seems very worthwhile to explore this further for the motion picture industry. One of the strong points of experts is their superior pattern-matching skills (Hoch 2001, p 89). Eliashberg, Swami, Weinberg and Wierenga (2001) used this skill in obtaining

forecasts for the ticket sales of movies that had not been screened yet. Managers were asked to identify, in an historical database, “matching movies”, i.e. movies that are similar to the new movie in terms of genre and other characteristics. The matching movies were then be used to forecast opening weekend sales and the decay factor for the new movie. This example refers to the issue of how to capture the intuition from the expert.

The movie industry constitutes an ideal “laboratory” for the study of this and other issues dealing with the optimal combination of managerial intuition with data-driven models for the purpose of making the best possible decisions.

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