Managing Competition Through Barriers to Entry and Channel Availability in the Changing Regulatory Environment

Robert G. Picard
Jönköping University, Sweden

Bum Soo Chon
Korea National Open University, Korea

In this article, we explore factors that influence the number of broadcasters in a market and the achievement of optimal outcomes in broadcast markets. We explore a range of barriers to entry and means of overcoming those barriers in broadcast markets. We argue that choices regarding and influences on barriers to entry and channel availability act as forms of competition management in broadcast markets. Policymakers and regulators indirectly influence markets by altering the effects of those barriers and directly influence market activities by making decisions regarding the number of competitors, market structures, and—indirectly—the financial performance of broadcasters. We argue that barriers to entry can be controlled to produce competition levels and market outcomes that promote optimal social and economic outcomes.

Throughout the history of broadcasting monopoly and oligopoly, competition structures have existed worldwide because of spectrum scarcity, technological limitations, and political choices. During the past two decades, liberalization of broadcasting policy has permitted the expansion of broadcasting and the increasing reliance on commercial channels to provide additional services (Council of Europe, 1998; Davis, 1999; Dunnett, 1990; Silj, 1992).

Developments in cable and satellite television have concurrently increased the number of channels and programs available (Cable and Satellite Yearbook, 2002; Parsons & Frieden, 1998). Platform interconnectivity and interoperability between terrestrial broadcasting, cable, and satellite have developed, leading viewers to increasingly conceive them all as a single thing called “television.” Because of technical ease of moving between channels on each, substitutability of the services has been increasing among consumers who have terrestrial receivers and cable and/or satellite set-top boxes. Advertisers also are increasingly addressing the various broadcast platforms as a single entity with different channels and audience characteristics and now tend to make purchases across all three platforms as part of their television advertising expenditures.

Legislative bodies and administrative regulators worldwide have set and continue to determine the number of terrestrial broadcasters authorized within the constraints of the frequencies made available to them through the World Administrative Radio Conference. In some cases, determinations are made nationally; in other cases, they are regionally determined and nationally implemented, the latter being the case in Europe where joint spectrum management has existed since the 1961 Stockholm frequency planning agreement (International Telecommunications Union, 1961). Similar determinations are involved in determining satellite placement and frequency uses, but these are primarily international determinations.

Policymakers play a significant role in determining competition levels by allocating frequency to nations, by determining how much of the useable frequency will be used for broadcasting, and by determining the locations and broadcast power of broadcast licences. In doing so, they determine the number of competitors permitted, affect the willingness of capital sources to fund new entrants, and create advantages and disadvantages for some entrants. The policymakers’ actions are a form of competition...
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Barriers to Entry and Mobility

Barriers to entry are factors that halt or make it difficult for new competitors to successfully enter a market in which they have not previously competed.

There are two main types of entrants. The first are firms entering the market for the first time, that is, those establishing new businesses. An example of this type of firm is a newly established company that wishes to operate a television channel. The second type of entrant is pre-existing firms entering the market by expanding their markets or moving into a new type of market. Examples of this type of firm may be a radio broadcaster that enters television broadcasting, a television channel operator that is expanding its operations by establishing a channel in another geographic market, or a satellite channel that spins off a new but related channel.

New businesses encounter barriers to entry, and established business encounter what are called barriers to mobility. The barriers are typically the same in both cases (van Kranenburg, 2002). There are many types of barriers to entry and mobility. Among the major barriers are government policies, capital requirements, economies of scale, product differentiation, switching costs, limited access to distribution channels, and other types of competitive advantages.

Government policies can create barriers to entry. In broadcasting, the classic cases are the licensing and franchising regulations that may provide barriers to new broadcasters and cable casters. If a ministry of communication has only 12 available terrestrial frequencies, a company that is not granted use of one of those frequencies will not be able to operate a television station no matter how much it wishes to do so. National governments have a far stronger ability to control entry and competition levels in terrestrial television than they do in satellite television. In addition, competition policies, general media policies, and other regulatory controls may limit some firms from entering specific markets. For example, a newspaper firm may not be able to operate a television station if regulations prohibit such cross-ownership, or the operator of a television channel may not be permitted to operate additional channels.

Capital requirements involve the financing needed to establish operations and pay start-up losses. Capital becomes a barrier when insufficient capital is available or when it is available only to certain firms or at preferential
rates to certain firms. A firm may have the knowledge and desire to establish and operate a television channel but not have the capital required to purchase the necessary equipment or pay initial operating costs. Similarly, the assessment of capital sources about the desirability of providing funding for additional competition will affect the availability of the capital, the terms for capital rent, and—ultimately—the development and speed of development of the new market.

Economies of scale are created when unit costs decline as volume used or produced increases. Existing firms with high volumes will thus operate at a lower cost per unit than a new firm entering the market and create competitive conditions that can make entry unprofitable and undesirable (Scherer & Ross, 1990; Teece, 1980). Because broadcasting produces nonphysical, public goods, economies of scale generally are not a significant entry barrier in radio and television. However, large established broadcasting firms can achieve economies of scale in the cost of purchasing supplies and programming, technical operations, and administration that provide them competitive advantages not available to competitors. This is especially true in the operation of multiple channels under single ownership.

Product differentiation creates consumer loyalties and identification with existing products and services. These loyalties create barriers to entry that are difficult for a new firm to overcome.

Switching costs are consumer costs associated with changing from the use of one product to another. Consumers who switch from one satellite television operator to another typically must make substantial investments in set-top boxes or pay higher subscription costs to cover equipment rental or purchase. This issue makes it more difficult for another operator to compete or for providers of new communication technologies that offer substantially the same benefits as existing technologies to enter markets. Switching costs can also be psychological as well as financial because there is some psychological discomfort when changing products with which one is familiar, and many consumers tend to evidence inertia when new products become available.

Limited access to distribution channels creates barriers that keep companies from distributing their product or service. In cable TV and satellite TV, for example, this type of barrier occurs when channel capacity is not high enough to make space available for additional channels or when a company controlling the system chooses not to make space available to a company that offers competing channels to its own.

Other competitive advantages are factors inherent in some firms that provide advantages over their competitors. These arise from factors such as patents, trademarks, reputation, experience, preferred locations, better employees, or innovations. If two firms are considering entering a new market, the better known will be likely to have more success because it already has recognition when it enters the market or if it offers a new product (Galbi, 2001; Todreas, 1999). Thus, a programmer such as “Canal +” may be able to enter a new cable market more easily than a smaller, less internationalized firm with less experience in foreign markets. Similarly, firms with experience in broadcasting may be more likely to receive an available broadcasting license than firms without broadcasting experience.

Entry barriers exist to varying degrees in all media industries (Picard, 2002), but the broadcasting and newspaper industries are generally recognized as the most difficult to enter. In a study of entry barriers to newspaper markets, Gustafsson (1994) argued that audience and advertiser inertia, capital requirements, revenue structure, and economies of scale are the main factors that entrants must break through to succeed. Three are directly related to economic issues, but the fourth involves behavioral issues of audience preferences and inertia that limits changes to their behavior and trying new entrants.

Entry into the broadcasting market faces the variety of types of barriers previously discussed, but there are differences in the import of various barriers to potential entry. Entrants face six critical barriers into broadcasting markets (Figure 1).

The primary barrier is governmental policy. As noted previously, through the granting of broadcasting licenses government regulators determine the markets that are served and the number of competitors. Decisions regarding licenses involve spectrum availability, but they also are based on a variety of economic, political, cultural, and social factors. Decisions may not be fully rational in economic terms because of these other factors.

The second most important barrier is the presence of dominant existing broadcasters. These broadcasters usually have significant experience in the market and established relationships with audiences and—in some cases—
advertisers that must be challenged by entrants and are difficult to overcome. In many cases, existing broadcasters have historic, special relationships with the government, and regulators may fashion policies to protect them or give them additional advantages when new entrants are permitted. This barrier means that entrants must compete with a dominant competitor that enjoys significant advantages unavailable to new broadcasters. It can be argued that the dominant rival itself is not a barrier but a representation of the barriers created by consumer inertia, economies of scale, and government preferences. The presence of such a favored broadcaster—a protected public service broadcaster, for example—creates a significant impediment for entry of other players.

A third significant barrier is availability of suitable programming. Access to and reasonable prices for desirable programming in film and program libraries and to studios, directors, writers, actors, and technical personnel needed to produce attractive programming are necessary for successful entry. These critical resources can be controlled by competitors by various rights and licensing arrangements, contracts, or capacity utilization of scarce facilities.

The fourth barrier is audience behavior and the necessity for entrants to overcome long-established uses of television and set patterns of viewing and channel choice. This inertia, discussed previously, creates adherence to use patterns that change slowly, and entrants need to change the patterns rapidly to acquire audiences that are interesting to advertisers who fund commercial operations. Although new entrants may induce some audience members to alter their patterns and use preferences, experiences worldwide over the past two decades indicate that the largest audiences typically remain with the preexisting channels.

The fifth significant barrier is that of consumer costs. In many cases, entry into broadcasting markets is not available in a simple free-to-air situation and involves entry through cable or satellite activities or—in the contemporary environment through digital terrestrial television—it requires consumers to make significant expenditures for hardware and service to receive the entrants’ channels. In such cases, entrants immediately face demand issues that result in smaller potential audiences than available in the free-to-air setting.

As previously noted, capital requirements for entry and operations before profitable operation are a significant barrier but not as critical for broadcasters as the previous barriers because of the potential for joint ventures and other financing arrangements that spread the amount needed and timing of capital contributions.

Technology also can pose a barrier in a technologically based industry. In terrestrial broadcasting, however, the general absence of proprietary basic technologies keeps it from becoming a significant issue, although it is more of an issue in satellite broadcasting and cablecasting.

### Overcoming and Reducing Barriers

Barriers to mobility can sometimes be overcome by the ability of existing firms to invest sufficient resources over a longer period of time. A well-funded firm may be able to postpone returns in the short term to mid term to achieve long-term returns. Small and start-up firms rarely have this option.

Firms introducing new techniques and methods of operations that avoid traditional cost structures can sometimes overcome barriers to entry. They also can be overcome by the introduction of products that are sufficiently innovative that they surmount the traditional barriers.

Joint ventures can be entered with existing firms in the market or in related markets or with firms that have resources needed to overcome the barriers. Such tactics allow one to lessen the risk borne by a single company and to pool competencies in various firms. For example, a magazine with no online experience or with personnel unfamiliar with the tasks needed to start an online magazine might enter a joint venture with a firm that provides online design and management services and telecommunications access.

Government policies can help reduce barriers as a means of increasing competition and the number of firms in an industry (Gustafsson, 1993). One mechanism is guaranteed and subsidized loan funds that provide venture capital or capital for technology acquisition. Operation subsidies that provide another source of revenue and reduce operating losses in start-up firms can also be provided in some settings. Preference awarding of licenses and franchises so that small companies have advantages in entering broadcasting or telecommunications is another mechanism of overcoming barriers for new firms.

Companies can create strategies to overcome the various barriers by providing different content, seeking different audiences, or entering with large operations that overcome economies of scale but require even more capital than the basic capital requirements. Gustafsson (1993) argued.

### Effects of New Broadcasting Competition

Introducing or increasing competition in broadcast markets produces both beneficial and harmful effects. Regulators need to balance the beneficial effects with the accompanying harmful effects to achieve an optimal outcome. An optimal outcome is created when the market structure maximizes social welfare. This is usually conceived in economic terms as the sum of consumer surplus and producer surplus. In policy and media terms, it is often conceived as achievement of desirable content availability, behavioral performance, and industry stability.
Beneficial Effects of New Broadcasters

The introduction of additional broadcasters to a market produces several beneficial outcomes. First, it increases the overall supply of programming. Each new channel adds additional broadcast hours to the total hours broadcast in the market, increasing the availability of programming offered to consumers. The supply increases linearly, assuming each additional channel offers a similar number of hours of programming as illustrated in Figure 2. In many cases, however, the introduction of competition has been accompanied by an increase in the average number of hours broadcast per day by broadcasters, with many preexisting broadcasters increasing their broadcast days by 6 to 12 hr. This, of course, increases the total hours broadcast even more dramatically.

The increased hours of programming concurrently increases viewers’ choices. This benefits consumers because it tends to provide them with a wider range of programming and more variety of programming at any given time. This occurs because when a limited number of suppliers exist, they tend to adopt programming strategies that narrow the range of programming offered, following Hotelling’s (1929) theoretical notion of the rationality of similarity in products offered. Indeed, program choice theory in oligopolistic broadcasting markets is based on providing a similar mix of programming with the primary differences being sought through the times that programs are offered and counter-programming strategies (see Eastman, Head, & Klein, 1989; Owen & Wildman, 1992). As the number of broadcasters increases beyond only a few competitors, broadcasters and other media tend toward product differentiation and niche strategies that find a location in which they can successfully operate, which tends to increase the overall diversity and variety of programming offered (Dimmick, 2003; Wolf, 1993).

When commercial funding is involved, the introduction of new broadcasting channels places downward pressure on advertising prices that tends to remove any excess profits generated in monopoly or near-monopoly broadcasting markets. This reduces the costs of purchasing advertising and has the effect of increasing demand for advertising time and bringing new advertisers to the television market. This ultimately helps smaller retail firms grow, contribute to the national economy, and compete more effectively with larger retail firms.

Another benefit of increased competition is that it tends to remove inefficiencies in the operations of monopolist or oligopolistic firms in the market. Because such firms are able to generate excess profits, they tend toward inefficiency and reduced productivity. Increasing competition by adding new broadcasters forces existing broadcasting firms to manage themselves more effectively to remove the inefficiency. This tends to increase productivity and value added to the national economy.

An additional benefit of increased channels is that it tends to promote the introduction or development of independent program production capabilities. Increased demand for programs across all channels combined with the inability of many preexisting channels to increase their production capabilities concurrently with increases in their broadcast hours and their need to seek efficiencies leads broadcasters to seek programs from independent producers. This promotes the development and growth of independent production companies that increase national employment and economic growth as well as introduce new ideas, content, and formats to the programs available.

Harmful Effects of Introducing New Broadcasters

Significantly increasing the number of broadcasters creates instability in the market by altering audience and advertiser use patterns and reducing financial resources to existing broadcasters. These have significant financial and quality effects.

Increasing the supply of channels and hours of programming tends to fragment the audience rather than significantly increasing consumption. This occurs because it does not affect the number of households with television and the average amount of viewing time. This has the effect of reducing the average size of the audience for each channel and thus the desirability of each channel’s advertisers. Demand for broadcasting does not grow proportionally with supply, so reducing entry barriers tends to create oversupply (Picard, 2001).

Audience fragmentation is also related to the amount of choice and broadcasters’ program choices. Because of program choice models used in broadcasting, each channel tends to provide a range of programming, and the range of types of programs offered among channels tends to be similar. It has been observed that “where a country

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**Figure 2.** Relationship between number of channels and total hours of programming broadcast.
has several channels, each tends to be watched by many people for a part of their viewing time. Smaller channels not only have fewer viewers but also attract less of these viewers’ viewing time than the larger channels (Barwise & Ehrenberg, 1988, p. 63). This situation leads to competition among channels to draw viewers from their competitors (Owen & Wildman, 1992). Ultimately, situations emerge in which three to four channels dominate viewers’ time, and other channels receive relatively low levels of viewership. If this structure produces anticompetitive effects in the economic market or harms welfare by reducing levels of diversity and plurality desired in a society, it may be seen as a form of market failure.

If channels added are dependent on commercial financing, the ability of the advertising market to support additional channels is crucial. Although new advertisers may enter the market, and existing advertisers may somewhat increase their expenditures, the growth of advertising expenditures does not equal the growth of advertising time available and thus reduces average income per channel (Picard, 2001). This reduces industry profitability and value added to the national economy and may lead to reductions in the overall workforce in the industry.

If the competition levels introduced are high, it can become ruinous to existing market structures, harm existing broadcasters, and make it impossible for new entrants to survive. Brown (2000) noted that “competition among channels will eventually result in each market determining the number of channels it can support with some channels incurring losses and ceasing operations and/or declining profits deterring further entry” (p. 4).

Because available revenue is split across channels, the average amount of expenditures for programming per channel declines (including that at preexisting stations). Heavily increasing competition forces broadcasters to reduce programming costs, and this is typically done by relying on inexpensive programming formats, imported programming, and reruns. Thus, significantly increasing the number of broadcast competitors reduces the overall quality of programming offered.

If the market were funded directly by consumers, quality reductions would reduce their willingness to pay and thus create an incentive for broadcasters to improve quality to benefit in the long run. However, because funding for free-to-air broadcasting does not emanate directly from viewers, this market-righting mechanism is very sluggish.

Because of the issues posed by revenues and costs, it is desirable to ensure that the entry of new competitors does not create such instability that firms already present in the market are mortally wounded and unable to survive, that the number of new entrants permitted is linked to the ability of the market to absorb them, and that the resources in the market are sufficient to maintain or achieve an acceptable level of program quality.

Optimal Structure of Broadcast Entry Barriers

Optimal policy for expanding broadcasting market offerings needs to be designed to reduce barriers to entry, to increase competition and choice, and to achieve the attendant economic benefits for consumers and society. While increasing competition, however, the policy needs to maintain sufficient barriers to ensure survival of existing and entrant firms so that the objectives and benefits of the policy-directed competition increases are achieved. This is necessary to achieve socially desirable content availability and quality levels as well as to create the economic benefits of increased competition. It is also a pragmatic necessity if policymakers are to avoid heavy political opposition by preexisting broadcasters to market entry policy proposals that clearly threaten their performance or survival.

These issues are illustrated conceptually in Figure 3. It shows that as the barriers are reduced to increase the number of broadcast channels, the threats to the survival of existing firms and new entrants rises.

Because of this issue, regulators need to determine the appropriate equilibrium of reducing barriers to increase competition, choice, and well-being while simultaneously controlling the reduction of barriers to avoid unreasonable economic harm to existing broadcasters, new broadcasters, consumers, and society. Additionally, regulators may wish to consider constructing advantages for domestic broadcasters to help maintain national identity and culture. If the reductions in barriers produce or can be expected to produce negative effects on quality of programming, regulators may wish to simultaneously introduce quality of programming initiatives including grants or subsidies for production of high-quality offerings or program quality requirements and monitoring.

![Figure 3. Effects of barrier reduction on threats to survival of broadcasters.](image-url)
Because lowering barriers to entry creates market instability, it is useful that the barriers be incrementally reduced so that entry of new broadcasters is staggered to avoid sudden market shocks that are harmful both in the short term and long term.

**Discussion**

Until recently, the broadcasting industry throughout the world was structured as a concentrated and regulated market. Because the fixed costs and large investments needed for broadcasting companies make economies of scale feasible for the industry, the majority of broadcasting markets are dominated by oligopoly (Motta & Polo, 1997a; Organization for Economic Cooperation and Development, 2003). However, given the fact that the barriers to entry have been justified for public interests, many factors are involved, and it is difficult in practice to determine the optimal number or size of broadcasters in the industry. Therefore, it is not easy to choose the best approach in regulating the level of market concentration and competition in the broadcasting market.

Recent works (Motta & Polo, 1997a, 1997b) have emphasized the need for stability in the level of concentration in the broadcasting industry. According to Motta and Polo (1997b), "competition among TV companies is based not only on the choice of the program varieties broadcast, but also on the attractiveness (or quality) of program schedules" (p. 296). The key point is that rivalry among broadcasting programs can be explained in terms of investment for the programs, not by the variety of programs alone.

This gives a key advantage to established broadcasters in securing their ability to compete in terms of investment. Thus, due to these higher fixed costs, there are a limited number of broadcasters in a market that can finance the costs of making and distributing programs with optimal quality and public service.

This argument is similar to Sutton’s (1991) explanation that dominant firms have higher fixed costs and maintain persistent concentration. More specifically, Sutton emphasized that the relation between concentration and market size is weaker for endogenous sunk costs that grow with market size. As a result, because of sunk costs in the broadcasting industry, decreasing barriers to entry alone does not effectively decrease the level of concentration (Motta & Polo, 1997b). Additionally, as has been shown in the radio industry, free entry in the broadcasting market can also lead to social inefficiency (Berry & Waldfogel, 1996).

Some empirical evidence supports these views. In measuring the relation between structure and variety in the music recording industry, Alexander (1997) argued that high and low levels of concentration result in lessened variety, and maximum variety is promoted by a moderately concentrated structure. Goldfarb (2003) also maintained that less differentiated markets are more concentrated and that markets with higher sunk costs are more concentrated. Van der Wurff, Van Cuilenburg, and Keune (2000) emphasized that moderate competition improves content but that high competition results in ruinous competition that produces excessive sameness and diminishes the quality of media products. As a result, the barrier for entry should not be set too high or too low in regulated media markets.

Theoretically, the optimal degree of program differentiation can be determined. Mangăni (2003) conducted an analysis concerning quality and variety competition between commercial television broadcasters competing in a duopoly market, and summarized the main point as follows:

Under certain circumstances, the firm providing the lower quality program faces no demand. This occurs because the high quality firm has the strategic opportunity to move towards the center of consumer distribution along the horizontal characteristic (variety dimension). Therefore, when competition takes place between broadcasters, a "natural oligopoly" result can be obtained even if we are considering products (programs) defined by more than one characteristic. This seems relevant because it is impossible, when modelling product (not broadcasting) markets, to obtain a “finitess property” result. The finitess property can thus be restored when we consider broadcasting or similar markets. (Mangăni, 2003, p. 314)

A central question faced by regulators today is how broadcasting firms and markets should be organized to promote economic efficiencies and encourage variety and plurality in programs. In this article, we show that competition policy alone does not guarantee achievement of the basic social objectives for the broadcasting industry such as maintaining a pluralism of views or providing greater variety in programs. Given that broadcasting companies are social, cultural, economic, and political institutions, they need to be examined in terms of their social, cultural, and political contexts as well as their economic efficiencies.

Because competition alone does not ensure plurality or diversity of programming, merely lowering barriers to entry in the broadcasting market will not produce optimal outcomes. Achieving optimal public service outcomes will require maintaining some barriers to entry so that an oligopolistic market structure is maintained as well as behavioral regulation to constrain possible monopolistic abuses that such a concentration of power may bring and to ensure effective investments in program quality and diversity.
Robert G. Picard  
(robert.picard@jibs.hj.se)

is Hamrin Professor of Media Economic and Director, Media Management and Transformation Centre, Jönköping International Business School, Jönköping University.

Bum Soo Chon  
(ccblade2@yahoo.co.kr)

is a full time Lecturer at Department of Media Arts & Sciences, Korea National Open University. His research focuses on economic aspects of the media and entertainment industry.

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