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BUILDING CABLE TELEVISION PENETRATION
IN THE TOP 100 TV MARKETS

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by

James D. Scott
Sebastian S. Kresge Professor
of Marketing

The University of Michigan

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ABSTRACT

A virtual freeze on the expansion of cable television service into the top 100 television markets ended in March 1972, when Federal Communications Commission regulations were relaxed to provide a more favorable climate for the penetration of CATV into such areas. This paper examines the key problems that must be overcome if this opportunity is to be exploited.

First, heavy investment is required to build or expand CATV systems in major metropolitan markets. Before such investment occurs, the prospect of profits must be favorable enough to justify the risks involved in making long-term commitments for expansion.

Second, if CATV revenues are to show satisfactory growth, system operators must develop and market a package of services that will attract new subscribers and get existing subscribers to buy added services. This task must be handled in a manner which will provide CATV with a competitive edge.

For examining alternative possibilities, the major markets are classified by the degree to which existing over-the-air television meets the needs of their television viewers. The alternatives which CATV operators may consider in seeking a competitive edge to attract subscribers in the major markets include, among others: (1) importing the signals of distant independent television stations offering attractive programs; (2) offering premium entertainment (pay cable television); (3) originating programs that have special appeal for local television viewers; (4) interconnecting cable systems by

microwave or satellite into program networks designed to make available to cooperating CATV operators those outstanding programs developed by other participants; (5) offering two-way interactive cable television services, such as home security systems and electronic shopping. These alternatives are discussed and evaluated.

In planning his marketing strategy, the CATV operator needs to be consumer oriented. Market research is suggested as a means of estimating potential demand for service alternatives. Analysis suggests that marketing plans should be made in anticipation of the time when economic conditions improve. Execution of an aggressive, well-designed marketing strategy may then produce the desired payoff in market penetration.

BACKGROUND

This article was prepared as a part of a continuing research program dealing with the implications of the growth of cable television for marketing and advertising and the marketing problems of CATV system operators. The project is supported by the Sebastian S. Kresge Research Fund.

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Introduction

Cable television (CATV) originally was developed to bring a clear television picture into homes which otherwise could receive either a poor signal or none at all. More recently it has been used to provide greater program variety to viewers in cities served by only two or three television stations. The advantages CATV offers to consumers have been great enough to lead them to pay installation fees ranging up to \$100 (average \$15) and monthly subscription fees averaging \$5.40. As of 1974, CATV provided service to approximately 8.1 million subscribers (perhaps 25.92 million people), or about 12.5 percent of total U.S. television households. There were 3,100 operating cable systems serving 5,770 communities in the United States in 1974. Total subscriber revenues totalled \$391 million in 1972.¹

In examining the outlook for the future growth of CATV, it becomes apparent that much depends on the success experienced by CATV system operators in their efforts to increase subscriber penetration in the top 100 television markets. An A.C. Nielsen survey in 1969, for example, indicated that household penetration was 1.6 percent in the major metropolitan areas as compared with 34.5 percent in small

*In gathering of data on which this chapter is based, valuable assistance was rendered by Paul Hsu, chairman, Department of Business Administration, National Chengchi University, Taiwan; Darrell Dahlman, Research Fellow, The University of Michigan, Ann Arbor. Several business executives who must remain anonymous also assisted by making available information which they had gathered on CATV. To all who contributed I express my sincere thanks. - JDS

¹"A Short Course in Cable, 1974," Broadcasting, Apr. 22, 1974, p. 23.

towns and 23.3 percent in rural areas. This pattern of development was fostered by a number of economic factors to be discussed later, but it was also importantly influenced by a virtual freeze on CATV expansion into the top 100 television markets, which had resulted from regulations issued by the Federal Communications Commission.

Partial relaxation of these regulations in 1972 improved the climate for CATV penetration into the 100 major television markets. These modifications provide potential for existing CATV operators in major metropolitan markets with an opportunity to expand subscriber penetration in their service areas. Before significant expansion in penetration is likely to occur, however, certain key problems must be overcome. It is the purpose of this paper to examine these problems, to note progress being made in their solution, and to outline future courses of action that appear to be necessary if the full potential of CATV is to be achieved.

Heavy investment is required to build or expand CATV systems in major metropolitan markets, where the cost of laying cable is estimated at \$75,000 per mile and up. Thus there is an important problem to be solved in providing the capital required for such expansion. This task is made more difficult in view of high interest rates (12.0 percent) being charged on prime business loans as of August 1, 1974. The extent to which CATV revenues may be expected to grow in the top 100 markets is, therefore, significant.

A second problem is developing and marketing a package of CATV services which will attract new subscribers to the CATV system and encourage existing subscribers to buy additional services, thus increasing CATV system revenues.

A third is the challenge of CATV program origination which will build subscriber audiences large enough to attract advertisers and thus provide essential revenues for system development. Once such programs have attracted adequate audiences, the CATV system operator must convince advertisers (and their advertising agencies) that program audiences contain potential buyers of their products. Audience research, therefore, appears to be essential at this point. Once it has been completed it can be used in promotion directed to advertisers and their agencies to inform them of the opportunities CATV advertising offers.

Before these problems and opportunities are explored, however, it is desirable to place the character of the problems facing the industry in proper perspective by viewing them against a background of information on the development of CATV and on its future outlook.

Background

Development of CATV

In assessing CATV's potential for future development, it is helpful to review briefly the character of CATV service, what it offers to the subscriber, and its present stage of development. Starting in 1949, CATV first developed in communities where, because of distance or

topographical obstructions, there was no local television broadcasting station and reception from the nearest stations in the area was either nonexistent or poor.² The strong desire of people located in such communities for television entertainment led to the development of community antennae systems for receiving broadcast signals and feeding them through a network of coaxial cables to the homes of individual viewers on a subscription basis. Sensitive antennae were erected on a specially selected site; broadcast signals received were modulated, amplified, and fed to subscribers through a cable system.

Beginning in 1953 the original concept was supplemented by microwave relay systems which brought the broadcast signals of metropolitan-area stations over long distances to remote communities having little or no television service. This development then made it possible for cable-system operators to offer their subscribers both a clear television picture and a greater variety of programs than could be provided by the community antennae alone. Program diversity remains an important feature of present day CATV.

According to Broadcasting, 1974 most cable systems offered between eight and twelve channels; the average for all was ten; in practice they carried an average of seven signals. Stations constructed after March 31, 1972, are required to have 20 channels; by 1977, all systems must meet this standard. The state-of-the-art maximum is about

²Adapted from E. Stratford Smith, "The Emergence of CATV: A Look at the Evolution of a Revolution," Proceedings of the IEEE 58, No. 7 (1970): 968-70.

48. Technology exists for two-way cable television, which permits subscribers to transmit signals directly back to the originating cable operator. Effective March 1972 cable firms in the top 100 markets were required by the Federal Communications Commission to have the capacity for such return communication, at least on a nonvoice basis.

Current status

CATV's growth has been one of the fastest in the communications field. Selected figures set forth in Table 1 demonstrate the progress that has been made since 1952 (as of January 1 of each year).

TABLE 1
PROGRESS IN CATV, 1952 to 1974

Item	1952	1962	1972	1974
Number of operating systems	70	800	2,750	3,100
Total subscribing households	14,000	850,000	6,000,000	8,100,000
Estimated number of viewers	*	*	18,500,000	29,920,000
Homes per system	200	1,062	2,182	2,400
Percentage of TV homes subscribing (household penetration)	.1	1.7	9.7	12.5

*Not available.

Sources: Broadcasting, TV Fact Book, No. 42, 1972-73; "Short Course on Cable, 1974," Broadcasting, Apr. 22, 1974, p. 23.

Additional growth may be anticipated. Between 1972 and 1974 the number of operating systems increased from 2,750 to 3,100. These systems served 5,770 communities.

Although the average size of the systems operating in 1974 was approximately 2,400 subscribers, there were twenty-two systems with 20,000 subscribers or more. The largest--San Diego--served over 75,000. The greatest number of systems (805), however, fell in the fifty to 499 class, and there were thirty-eight with fewer than fifty subscribers.

Of special significance is the percentage of TV homes served by CATV. Overall household penetration of CATV was 12.5 percent in 1974; this system had its greatest strength outside the major population centers. An A. C. Neilsen survey in 1969 indicated that CATV had a 23.3 percent penetration of TV homes in rural areas, 34.5 percent in small towns, and 1.6 percent of TV homes in major metropolitan areas. Why is CATV penetration so low in large population centers, where there would appear to be a sizable potential market? While the high cost of constructing cable systems in metropolitan centers is one deterrent, of greater importance are the regulatory actions of the Federal Communications Commission.

Influence of FCC regulation on CATV

The FCC freeze on VHF channel allocation which was in effect from October 1948 to July 1952 encouraged the early development of cable systems in communities lacking television service.³ With the development

³E. Stratford Smith, "The Emergence of CATV...", pp. 970-71.

of microwave relay systems, in 1953, cable operators saw an opportunity to expand revenues and profits by offering program diversity in densely populated metropolitan areas served by only one or two television stations.

This movement prompted quick opposition from the established broadcasting stations on the grounds that: (1) CATV competition tends to reduce the audiences of existing local stations, which, since advertising rates depend on the size of audience reached, would tend to cut advertising revenues; and (2) the nonpayment of copyright fees on program material by CATV operators gives them an unfair advantage over local stations, who must pay for program material. The resulting controversy led the FCC first, to assert control over the importation of distant signals by microwave relays (1965); and, second, to assume total jurisdiction over all CATV systems, including microwave operations (1966). Rules were issued prohibiting the importation of distant signals into the 100 markets with the largest television household population as established by a list compiled from a survey by the American Research Bureau (ARB). Cable operators also were not permitted to duplicate on the same day programs carried by local television stations. These rules discouraged the entry of CATV systems into the top 100 markets.

In December 1968, these rules were replaced by extremely restrictive regulations which resulted in a freeze on new CATV installations and the importation of distant signals into the top 100

markets pending the adoption of a new set of rules. These restraints were criticized by the President's Task Force on Communication Policy.

As a result of the restrictions outlined above, there was little CATV growth in the top 100 markets. Cable operators claimed it was necessary to import outside programs in order to provide the diversity of entertainment which would attract subscribers already able to get a clear picture from existing local stations.

After considerable debate and controversy, the FCC issued a new set of rules, which went into effect on March 31, 1972, and were designed to permit CATV expansion and operation in major markets without jeopardizing over-the-air broadcasting.⁴ Such rules were:

1. Systems in the top 50 markets may carry signals of at least three network and three independent stations.
2. Systems in markets ranked in size from 51-100 may carry at least three network and two independent stations.
3. All systems in the top 100 markets are entitled to carry two distant signals. (According to the FCC, permission to carry two distant signals not available in the community was given to enable CATV to attract investment capital and to open the way for the full development of cable's potential.)
4. Systems in markets below the top 100 in size are limited to three network signals and one independent.
5. Those outside any definable market are not limited in the number of signals they carry.

⁴"The FCC Delivers on Cable," Broadcasting, Feb. 7, 1972: 17 ff.

At the same time, protection to over-the-air broadcasting was provided by the following rules:

1. Cable systems in the top 50 markets are prohibited from carrying any syndicated program for one year after its first appearance in any market and then for the life of the contract under which it is sold to a local station.
2. In markets 51-100 in size, different kinds of non-network material would be protected for varying periods of time up to two years.
3. The "same-day exclusivity protection" that previously has been afforded network programming, however, is reduced to simultaneous (same time) duplication.

Potential liability for copyright fees

The controversy over whether cable operators should pay copyright royalties to program producers has not yet been resolved.⁵ At issue is whether the carriage of a television program by a cable system constitutes a performance that makes it liable for royalty payment under U.S. copyright laws. In 1966 the U.S. District Court for the Southern District of New York ruled in the case of United Artists Television, Inc. v. Fortnightly Corporation (a CATV operator) that the cable firm had infringed on the United Artists' copyright when it retransmitted signals normally receivable in the subscribers' home viewing area. When the U. S. Supreme Court reviewed the case, however, it ruled in a five-to-one decision that under present statutes CATV incurs no liability for carrying copyrighted programs.

⁵Fortnightly Corp. v. United Artists Television, Inc.,
392 U. S. 390 (1968).

It should be noted, however, that the United Artists v. Fortnightly case involved a CATV system that carried only locally receivable signals. Accordingly, the Supreme Court decision on this case left unresolved the issue of whether copyrighted programs imported from distant stations by microwave constituted a "performance" and hence made the CATV operator liable for copyright payments.

This issue was addressed in a March 1973 Supreme Court decision in the CBS v. TelePrompster case. The Supreme Court held that cable systems do not have to pay copyright fees for carrying programs that originate at broadcast stations in distant cities.⁶ The Court noted that "the signals that a CATV system receives and rechannels, have already been released to the public" over the air and therefore, the cable operator's importation of previously broadcast material does not constitute a "performance" under the copyright law.

The decision overturned a judgment by the Federal Appeals Court of New York, which had distinguished between two kinds of activity by CATV systems, ruling that (1) when a CATV station re-transmitted television signals normally available in the subscribers' home viewing area, this did not constitute a performance, but (2) when the same system re-transmitted signals which could not normally be received on home sets, this did constitute a performance and accordingly made the cable operator liable for copyright payments.

⁶CBS v. TelePrompster, Second Circuit Court of Appeals, Docket No. 72-1800, March 8, 1973, reprinted in Rivkin, S. R., Cable Television: A Guide to Federal Regulations, (California: Rand Corp., R-1138-NSF, Mar. 1973).

The Supreme Court also commented that ultimately Congress must draft new copyright legislation to deal with cable television. The present Copyright Act was passed in 1909. Proposed legislation updating the Copyright Act has been held up in Congress since before the Fortnightly case was argued in the Supreme Court in 1968. A Senate Copyright Subcommittee, under the chairmanship of John L. McClellan, was encouraged to move ahead with this task by the TelePrompster decision.

One of the controversial issues raised in revising the copyright legislation is whether Congress should establish the initial rates to be paid copyright holders to insure their "reasonableness." Royalties proposed in the new legislation for payment by cable systems on copyrighted material are as follows:⁷

- 1 percent of gross receipts up to \$40,000
- 2 percent of gross receipts from \$40,000 to \$80,000
- 3 percent of gross receipts from \$80,000 to \$120,000
- 4 percent of gross receipts from \$120,000 to \$160,000
- 5 percent of gross receipts above \$160,000

Operators of small, independent cable systems are especially anxious to be exempted from copyright fees, and they base their case on the grounds of hardship. As a means of gathering data on the question, Senator McClellan requested the Community Antenna Television Association, a national association of independent cable operators, to prepare a report showing the potential effect of the proposed copyright fees on their operations.⁸ In compliance, the CATA solicited financial

⁷"Copyright Bill Is Moving Target as It Leaves McClellan's Hands," Broadcasting, Apr. 15, 1974, p. 17.

⁸"Trying to Keep Small Systems out of the Copyright Bank," Broadcasting, Dec. 31, 1973, p. 45.

statements from 1,000 operating systems not affiliated with the 25 leading Multiple System Operators (MSOs). From the 191 replies received, CATA divided the reporting systems into five categories based on size of subscriber totals. It then reported the collective revenues, expenses, and net revenues (prior to the repayment of debts and capitalization for system expansion) in each category. The results are summarized in Table 2.

TABLE 2
FINANCIAL SUMMARY OF
1,000 SMALL INDEPENDENT CABLE SYSTEMS, 1973

Number of Subscribers	Gross Receipts	Expenses	Net Profit	Net Profit per Subscriber
40 to 500	\$ 298,470	\$ 336,697	\$ 38,227 (loss)	\$ 7.62 (loss)
500 to 1,000	839,619	755,934	83,685	5.97
1,000 to 1,500	1,003,707	931,658	72,049	4.36
1,500 to 2,000	1,098,334	942,138	156,206	8.54
2,000 to 5,800	1,559,034	1,222,460	320,984	12.92

Source: Broadcasting, Dec. 31, 1973, p. 45.

CATA then computed how much the proposed copyright fees would reduce the net revenues of each size category above. This was done by assuming the fee would be \$.60 per subscriber, except in the 40-500 category, where it would total \$.59. The computed reduction in net profit per subscriber is shown in Table 3.

TABLE 3

PROJECTED EFFECT OF COPYRIGHT LIABILITY ON
SMALL INDEPENDENT CABLE SYSTEMS

Number of Subscribers	Net Profit per Subscriber (without Copyright Payment)	Net Profit per Subscriber If Copyright Fee Is Paid	Percentage of Reduction in Net Profit
40 to 500	\$ 7.62 (loss)	\$ 8.21 (loss)	7.7
500 to 1,000	5.97	5.57	11.1
1,000 to 1,500	4.36	3.76	13.6
1,500 to 2,000	8.54	7.94	7.1
2,000 plus	12.92	12.32	4.7

Note: Assumed fee: \$.59 per subscriber for 40-500 category; \$.60 per subscriber for all other categories.

Source: Broadcasting, Dec. 31, 1973, p. 45.

On the basis of their calculations the CATA concluded that "if small, independent cable systems are not exempted from the monetary requirements of forthcoming copyright legislation, operations that are now 'just treading water' could be subject to disastrous financial setbacks."

Early in April 1974, the proposed new copyright bill was approved by the Senate Subcommittee and sent to the parent Judiciary Committee,⁹ containing some provisions perceived as favorable to cable operators and some that were perceived as unfavorable. On the negative side was a provision prohibiting cable systems from importing live

⁹"Copyright Bill Is Moving Target...", p. 17.

sports broadcasts from distant stations except when the same event is broadcast locally. Also, the fee scale that cable systems are to pay for the right to retransmit broadcast programs was regarded as too high. Cable interests had lobbied for a 50 percent reduction. Copyright owners, understandably, regarded the proposed fee schedule as too low. They had argued in favor of leaving the establishment of fees to arbitration and omitting them from the copyright law. The proposed legislation does provide for a review of the fees eighteen months after adoption of the bill. The National Cable Television Association had lobbied for the total exemption from copyright fee liability for cable systems with fewer than 3,500 subscribers, but this concept was not accepted by the subcommittee.

When the copyright revision bill passed through the Judiciary Committee on June 12, 1974, however, action favorable to the cable industry was taken on the objectionable features of the bill mentioned above. When the Committee "marked up" the bill, they completely eliminated the sports blackout provision and also reduced the proposed copyright fee schedule by 50 percent.¹⁰ The Committee did stipulate, however, that the fee schedule be reviewed by a copyright tribunal six months after the law is enacted and that it be reviewed at five year intervals thereafter.

¹⁰The Video Publisher, 4, No. 4, (June 20, 1974):1.

Although it was originally anticipated that the Judiciary Committee's report would be written about a week after the bill was marked up, and that it could get onto the Senate floor in July 1974, a request of the Senate Commerce Committee for time to review the bill delayed the movement of the legislation. The Commerce Committee, overseer of the FCC, which in turn regulates cable and over-the-air broadcasting, argued that copyright legislation should come under its purview.¹¹ The committee was, therefore, granted a 15-day referral period for consideration of S. 1361, the Omnibus Copyright Revision Bill.

Early in August 1974, accordingly, the Commerce Committee released its report on the proposed legislation. It recommended four amendments to the bill: (1) inclusion of cable systems in Hawaii and Puerto Rico in the compulsory licensing scheme, (2) directions to the FCC to promulgate sports carriage rules for cable systems, (3) exemption from copyright liability for pre-1972 systems serving communities that otherwise would not receive television service, and (4) exemption of broadcasters from performance royalties for recorded music. Finally the Commerce Committee stressed that its actions on S. 1361 should not be interpreted as an endorsement of that bill either in its original form, as it had been amended by the Judiciary Committee, or even with the amendments listed above recommended by the Commerce Committee itself.

¹¹CATV, 8, No. 32 (Aug. 12, 1974):5.

In view of the fact that Commerce Committee action on the copyright revision bill did not take place until August 1974, and because of the delays in legislative actions caused by the involvement of Congress in the Nixon impeachment activities, observers believed that the likelihood of House action on the proposed legislation during the Ninety-Third Congress was nil. As of this writing, therefore, the copyright question remains unresolved. Cable operators who are considering entering one of the top 100 television markets or expanding their facilities, if already in operation there, still face an important uncertainty as to their potential liability for payment of copyright fees. How soon this uncertainty will be resolved is difficult to predict, but until it is resolved it tends to have a negative effect on plans to increase CATV penetration in the top 100 television markets, and it is believed to impair the ability of the cable industry to attract the capital needed for substantial growth.

Local regulation

Earlier discussion indicates the influence of FCC regulation on CATV development and operations. Cable operators hoping to enter the top 100 television markets, or already providing service there, are also subject to franchising and regulation from city governments. In order to build a CATV system in a major market the cable operator must be awarded a franchise by the local government, which is likely to carry with it the payment of a stipulated franchise fee to operate in the community. Local authority to franchise and regulate cable television derives from the cable system's need for access to city

streets and other rights-of-way, but it must take place within the framework of federal and state laws and regulations.¹² Such franchises regulate the services offered and the rates charged, as well as other aspects of the system's operations.

More specifically, municipal franchise authorities must follow certain standards if their franchises are to obtain an FCC Certificate of Compliance--without which a cable system cannot carry any broadcast signals. In granting franchises the authorities must consider legal, personal, financial, technical, and other qualifications of applicants by means of a full public hearing. The FCC rules also require that the franchising authority approve the rates charged to subscribers--i.e., the rates established initially and, as well, subsequent revisions to rates in response to changing cost or demand considerations. This provision limits the freedom of action of the cable operator in establishing rates that will foster penetration of the market and still provide an adequate return on his investment.

Significantly, under the FCC rules the franchise may not prohibit pay television. It must make provisions for handling subscriber complaints. The initial franchise duration may not exceed fifteen years. Also the cable system must begin construction within a year after the FCC has issued its certificate of compliance. It must wire a "substantial percentage of its franchise area each year" (20 percent

¹²W. S. Baer, Cable Television: Handbook for Decisionmaking (Santa Monica, Calif.: Rand Corp., Feb. 1973), pp. 91 ff.

is suggested). Finally, the franchise fees paid to the municipality cannot exceed 3 percent of subscriber revenues without specific approval of the FCC.

State regulation

With the growth of CATV, several states have also taken steps to regulate certain aspects of cable operation. According to Morton Aaronson, of the Massachusetts Cable Commission, in 1973 there were three states that had separate state commissions charged with regulating cable.¹³ Massachusetts was the first, New York was the second, and Minnesota had recently enacted legislation setting up a separate commission.

In 1973 there were approximately seven states that had Public Utility Commissions with cable bureaus and there were approximately 30 states that had legislation pending in various degrees with regard to state regulation of cable television.

According to Aaronson, state commissions have beneficial contributions to make to both the public interest and the interest of the cable industry. In Massachusetts, for example, the commission found governing city officials lacked understanding of cable television. Here the function of the state commission is to provide information to guide local authorities in carrying out their franchising and regulatory activities. Such guidance, he claims, helps to assure that cities and towns have adequate provisions regarding public access to the

¹³"Federal/State/Local Regulatory Jurisdiction," Management Volume, 22nd Annual NCTA Convention Official Transcript, June 1973, pp. 305-6.

cable system and that local origination of programs is encouraged, among other civic responsibilities.

In terms of the cable industry, the guidance of the state commissions can serve to make sure cities and towns are not unreasonable and unrealistic in what they require from the cable operator. A state commission can also help the cable industry with access to pole rights. In both New York and Massachusetts, for example, the cable commissions were taking specific steps in 1973 to see if they could evolve regulations which would give the cable industry reasonable access to pole rights. Most state utility statutes require that the pole rental fees which telephone and power companies charge cable systems for attachment of their cables be regulated and held at a modest level. This is especially important in some areas where utilities, in efforts to restrict CATV operations, have raised pole rentals by several hundred percent.

The trend toward state regulation has important implications for the cable operator who is in, or planning to enter, one of the top 100 television markets. Of special significance where state regulation exists is the question of whether CATV systems are placed in the same class as any telephone or power utility and subject to the same rate-making procedures they are.

In discussing the question of state regulation of CATV systems, Archie Smith, chairman of the Rhode Island Public Utilities Commission, made some significant comments at the 1973 National Cable Television Association (NCTA) Convention. In addition to his other duties as

Public Utilities Administrator, he is assigned the task of awarding all cable franchises in Rhode Island and regulating CATV operators.¹⁴ He argues that "regulation of the CATV industry is inescapable if we are to assure proper and safe construction of plants and maintenance of systems and uninterrupted viewing of wholesome and worthwhile programs at reasonable charges."

Then then adds:

For regulation to be effective and for the future CATV requirements of the public to be met, cable regulation must reward excellence in management.... This calls for incentive regulation, not the computation of original cost or fair value and the application of a fixed rate of return to such figure. That is the usual type of rate regulation. Neither is the common carrier type of regulation based on operating ratios appropriate. Cable communications, being in its infancy, must be encouraged to experiment and innovate in all areas of its operations. Involved regulatory rate hearings with excessive procedural requirements would tend to inhibit new services. Up to this time the market place has adequately regulated cable rates. When rate regulation becomes necessary, rate control will be enacted in the same manner that rate control of electric, gas, and other utilities occurred, that is, when there was a very high degree of market penetration.

For the present, rate regulation should restrict itself to an oversight or surveillance function to assure the public that rates, both for subscription and leasing of channels, are published and subject to review to assure that they are not discriminatory and are uniform for various classifications of users and uses.

¹⁴Ibid., pp. 322-23.

Also important to the cable operator is the issue of whether the state regulatory body imposes a tax on his operations. The Connecticut Public Utilities Commission, for example, proposes an annual 6 percent utility tax on cable system gross income.¹⁵ This appears sizable when compared with the FCC rule that franchise fees paid to the municipality cannot exceed 3 percent of subscriber revenues without specific approval of FCC.

In summary, we must keep in mind as we discuss elements of marketing strategy appropriate for building penetration in the top 100 television markets that the cable operator interested in doing business in these markets is subject to regulation by the FCC and also by a state regulatory body or the local municipality in which his system is located or by both, and his decisions on building and operating must be made within the restrictions promulgated by these agencies.

Special problems in large urban markets

Cable operators face a difficult challenge in developing a profitable business in the large urban markets. While Manhattan is a special case, discussion of problems encountered by TelePrompter Cable TV and Sterling Manhattan Cable Television in developing this market may be useful to operators who receive franchises in Chicago, Detroit, and similar cities lacking CATV as they develop plans for opening these markets.¹⁶

¹⁵Cable Television: Communications Medium of the Seventies (New York: Samson Science Corporation, 1970), p. 17.

¹⁶"Tough test in New York: Can Wired City Be Made to Pay?" Broadcasting, Oct. 29, 1973: 28-33.

Off-air reception of television signals is mixed, at best, all over Manhattan, and this provides the strongest single inducement for television viewers to subscribe for cable service. Consumers have little to gain in program diversity in New York City, however, since over-the-air broadcasting already provides seven VHF signals and five UHF stations.

Sterling Manhattan's experience shows that only about 30 percent of potential subscribers (those living in buildings into which cable has gained entry) will sign for the cable service. As long as better reception remains the principal attraction, this proportion will not rise substantially. By October 1973, Sterling Manhattan had signed up 59,000 of the 185,000 potential subscribers passed by its cables--a 32 percent penetration. TelePrompter Cable Television had gained 55,000 subscribers out of 253,000 passed, a penetration rate of 28 percent.

These systems face special problems that tend to run up their costs in providing service. One is the city franchise requirement that cable be placed underground. The main trunk lines of the cable companies share already existing under-the-street conduits with other utilities. A second important problem, which has proved to be the most expensive of all, is the New York City landlord. In Manhattan, right of entry must be gained to an apartment building before individual households can be given service. In addition, entry to a block must be obtained before the various apartment buildings can be wired. A few recalcitrant landlords can keep a whole block from getting service by refusing entry from the trunk line in cases where there are no reasonable alternate entry points.

There is also a problem with absentee landlords, particularly in Harlem. They must be located, often at considerable expense, before the cable can get to its customers. Such obstacles slow down and limit penetration.

Then too, some landlords use their gatekeeping power to secure a share of the cable television revenue. Landlords of buildings which the cable operator is especially anxious to enter have successfully held out for as much as 5 percent of monthly subscription fees paid by the building tenants.

An additional major marketing problem in upper Manhattan is the fact that a third of the people move at least once every two years, a rate substantially above the national average. In the average franchise outside New York the subscriber retention factor is high. The cable service in such areas is almost like a telephone, people keep it for a long period. In upper Manhattan, by contrast, as the moving vans arrive and depart the selling job has to be done over and over.

While it is true that developing the top 100 markets poses challenging cost, financial, and marketing problems, such markets also offer the greatest potential to cable operators who approach them wisely.

A Samson report, for example, highlights the following opportunities:

Residents of large metropolitan centers live closer together and generally spend more on entertainment than their suburban and rural counterparts. Higher population densities and higher incomes and educational levels mean more potential subscribers per mile of the distribution cable, thus lowering the cost-per-subscriber for the cable operating system. Poor TV reception in the city plus the desire

for additional programs as an information and entertainment source offers an attractive market for the system with extra channel capacity.¹⁷

Outlook for Future Growth of CATV

Now that FCC regulations which are designed to get cable moving without jeopardizing over-the-air broadcasting have been promulgated, what is the future outlook for CATV? In 1974 there were 8.1 million cable television subscribers--12.5 percent of U. S. television households. In its 1971 projections of future growth of cable television, the Sloan Commission estimated that the number of cable subscribers in 1980 would probably range between 29 million and 37 million, depending on the number of viewing alternatives available by the end of period (see Table 4). This would translate into household penetration figures of from 48 percent to 61 percent of U. S. television households.¹⁸ On the basis of this analysis the Sloan Commission projected household penetration by 1980 of from 40 percent to 60 percent.

¹⁷Cable Television: Takeoff into Sustained Growth (New York City: Samson Science Corp., 1972), p. 39.

¹⁸Sloan Commission, On The Cable (New York: McGraw-Hill Book Co., 1971), pp. 39, 215.

TABLE 4

ESTIMATES OF ANTICIPATED GROWTH IN CATV
1974 TO 1980

<u>Item</u>	<u>1974</u>	<u>1980</u>	
		<u>Sloan Commission</u>	<u>Baer</u>
Number of subscribers (millions)	8.1	29 to 37	30
Household penetration (in percentage)	12.5	48 to 61	42

Sources: 1974 data - Broadcasting, "Short Course in Cable, 1974," April 22, 1974, p. 23. Sloan Commission, On The Cable, (New York City: McGraw-Hill Book Co., 1971), p. 215. Walter S. Baer, Cable Television: Handbook for Decision-Making, (Santa Monica, Calif.: Rand Corporation, Feb. 1973), pp. 7-10.

The Sloan Commission projections were made in 1971 at a time of considerable overoptimism as to the future of CATV but before the FCC promulgated the new rules in March 1972 which were designed to relax the freeze on cable television. In a 1973 study for the National Science Foundation, Walter S. Baer analyzed the growth of CATV households in the United States over the previous decade.¹⁹ He found that the growth in cable subscriptions had averaged 23 percent annually during that period. Projecting this rate of growth to 1980 he arrived at an estimate of 30 million cable subscribers, or 42 percent of U. S. television households for that year. This would be at the bottom of the range estimated by the Sloan Commission (40 percent to 60 percent). The National Cable

¹⁹ Walter S. Baer, Cable Television: Handbook for Decision-Making (Santa Monica, Calif.: Rand Corp., Feb. 1973), pp. 7-10.

Television Association, an industry group, has predicted a lower range of 35 percent to 40 percent.

Baer notes, however, that cable growth during the period 1971-72 was slower than before. The 1971-72 percentage growth when projected to 1980 results in only 15 million cable subscribers, or 21 percent of television households. According to Baer, therefore, estimates of cable subscribers in 1980 range from 15 million to perhaps 44 million with the most likely figure being 30 million, or a penetration of 42 percent of television households.

In a paper published in February 1974, Baer commented further on trends in cable subscriptions.²⁰ He noted that in less than two years the American mood had changed sharply from unreflective optimism to skepticism or downright pessimism about the future of cable television. He cited industry overexpansion, high interest rates, and projections of a general economic downturn as factors which had led cable companies to cut back their plans for construction in the major U. S. cities. He reports that some companies had even backed away from accepting local franchises on which they had spent many thousands of dollars to win.

According to Baer, "it is likely that the pendulum has once again swung too far. Cable television still represents a growing force in the American communications system--a force that could bring significant changes in society's use of communications in the next two decades. The Communications Revolution promised by cable has not been thwarted, but rather slowed to a more evolutionary pace."

²⁰Walter S. Baer, Cable Television in the United States--Revolution or Evolution? (Santa Monica, Calif.: Rand Corp., Feb. 1974), pp. 1-4.

Continuing, he notes that the 23 percent annual growth rate in cable subscriptions during the decade prior to 1971 was now beginning to level off. "Fewer new cable systems began operating in 1972 than in 1971, with a similar downward trend likely for 1973 when the statistics are compiled. Most systems in areas of poor broadcast TV reception are now well saturated; usually over 50 percent of the homes with access to the cable already subscribe. Consequently, there is little room left to grow in these areas, and further growth must be in the major population centers, where construction costs are high, competition with broadcast television keen, and government regulation more restrictive. Cable has not yet effectively penetrated these major markets, which contain more than 80 percent of the nation's population. As a result, many past projections of cable subscription growth in the 1980s...seem over-optimistic. The Sloan Commission predicted that 40 to 60 percent of the nation's households would be cable subscribers by 1980. Today, the industry would be happy to achieve half that total, but even a 25 percent estimate for cable penetration in 1980 may be too high."

Another viewpoint is expressed by the U. S. Department of Commerce in its publication, U. S. Industrial Outlook, 1974, released in late October, 1973.²¹ In its review of the cable industry, it states that "subscribers will continue to increase at an annual rate of 16 percent, numbering 23.5 million by 1980.... The outlook for cable television is

²¹U. S. Department of Commerce, U. S. Industrial Outlook, 1974, (Washington, D.C.: U. S. Government Printing Office), pp. 288-89.

bright provided that the very substantial capital required is available on reasonable terms and that undue delays are not encountered in the issuance of franchises and FCC certificates of compliance."

The projections reviewed above are formed on the basis of certain assumptions as to the comparative service offered by CATV versus over-the-air broadcasters, the growth in the proportion of families with color television receivers, the anticipated changes in average household income, the size of installation and subscription fees charged by cable systems, and the offering of specialized consumer services by CATV without competition from traditional broadcasters, among other considerations. In the pages that follow, certain of these influences will be examined in depth, together with other important factors which will tend to influence the long-run performance of CATV in penetrating television households. This analysis will identify the problems that must be solved by cable television operators if the industry is to achieve its full potential, and it will also identify the opportunities that may be grasped by wise decision making, sound planning, and effective execution of appropriate strategies.

Franchise grants and certificates of compliance

Before new or expanded cable facilities may be put into operation in the top 100 markets not served by CATV, municipal or state authorities must issue a franchise to cable operators and then the FCC must issue a Certificate of Compliance. Only a few of the center-city areas of the major metropolitan markets had cable systems in 1972 when the FCC issued the new regulations relaxing the freeze on cable entry into such areas.

These included New York City, Los Angeles, San Diego, San Francisco, and Seattle. In almost every case, however, there were suburban cable systems surrounding these major cities, and their operators, as well as many other aspiring firms, had submitted applications to franchising authorities for center-city systems. Franchising of these systems was expected to proceed slowly because of the intense rivalry between competing applicants for the right to serve these markets. All of the 100 major markets are likely to be served by cable systems. Samson Science Corporation projects the growth in total U. S. cable television systems from 1972 through 1980 as shown in Table 5.

TABLE 5
PROJECTED TOTAL U. S. CABLE TELEVISION SYSTEMS
1972-1980

As of January 1	Net Increase	Total Operating Systems
1972	145	2,760
1973	150	2,910
1974	180	3,090
1975	210	3,300
1976	185	3,485
1977	170	3,655
1978	155	3,810
1979	140	3,950
1980	120	4,070

Source: Cable Television: Takeoff into Sustained Growth, (New York City: Samson Science Corp., 1972), p. 45.

In May 1973, Don Andersson, Director of Statistical Services, NCTA, reported that the FCC had issued certificates of compliance to 119 proposed new systems in the top 100 markets.²² Under the FCC rules all are required to complete significant construction within one year from the date of the certificate grant. As of May 1973, grants had already been issued for such major cities as the following:

Philadelphia, Pennsylvania - the number 4 market
St. Louis, Missouri - number 11
Columbus, Ohio - number 27
Tulsa, Oklahoma - number 24
Chattanooga, Tennessee - number 78
Jackson, Mississippi - number 77
Memphis, Tennessee - number 26
Moline, Illinois/Davenport, Iowa - number 60
Sioux Falls, South Dakota - number 85

According to Andersson, the total population in these grant areas was approximately 7.8 million. At 3.1 persons per home this translates into more than 2.5 million housing units. Since 13 million homes were estimated to be passed by cable lines as of 1973 the construction of systems in front of 2.5 million additional homes would mean an increase of 19 percent in the potential market (2.5 divided by 13 million).

Time required for development²³

Not only does cable penetration of major urban markets depend on the action of regulatory bodies in franchising the operator and issuing a certificate of compliance, but it also takes time to construct the cable system and prepare it to serve the viewing public. Preparing an initial proposal to compete for a franchise may take from one to six months.

²²The Complete Guide to Cable Marketing, NCTA Marketing Workshop Transcript, Dallas, Tex.: Public Affairs Department, National Cable Television Association, 1973, p. 198.

²³Samson, Cable Television...Growth, p. 39.

Municipal action on the franchise may require from one month to more than five years. Construction time depends on the difficulty of construction, cooperativeness of existing utilities, availability of funds, and subscriber acceptance of the new system. Available capital may dictate that the system be constructed in segments, with cable service offered to home owners passed by the first segment before construction is begun on the next segment. Success in getting consumers to subscribe to cable service may furnish a portion of the funds to finance further extension of the system.

According to industry observers, once a system is installed and the initial subscribers are connected, profitable operation is approximately three years ahead. An effective marketing strategy which will build subscriber penetration rapidly past the breakeven point is clearly of greatest importance.

Services which build penetration

Sound marketing strategy requires that management offer the consumer services which will give the cable system a competitive edge. Let us examine the competitive situation in the major urban markets, then consider what combination of services is most likely to lead television viewers to subscribe for cable television.

The generally good reception of over-the-air broadcasting in most large urban markets negates one of the key benefits that initially led to the establishment of community antenna systems, although major cities, where skyscrapers often completely block or distort television signals, such as New York, are exceptions. The increasing proportion of

television viewers owning color sets, however, has made users more particular about the quality of reception. The new owner of a color set often faces the necessity of installing a more costly antenna than sufficed with a black-and-white set. If cable television service is available, he may choose this alternative as a means of getting the desired quality of reception. Color-equipped homes in the United States as of November 1972 totalled to 38.3 million, or 59 percent of all U. S. television homes.²⁴ Samson Science Corporation estimates that by 1982 60 million homes will have color sets or 80 percent of all U. S. television households.²⁵ This trend should tend to stimulate CATV penetration of major markets.

Another benefit that led television viewers in medium-sized and smaller communities to subscribe to CATV was the additional programs that cable service made available to them. In many of the top 100 markets television viewers already receive all three networks, one, two, or three independent stations, plus an educational outlet. Where this is true, cable has little to offer in additional program alternatives. Clearly the character of over-the-air television competition in each of the major markets is an important consideration in estimating the likelihood of achieving a profitable market penetration.

²⁴Broadcasting, Feb. 12, 1973, p. 77.

²⁵Samson, Cable Television...Growth, p. 9.

In this connection, the analysis of Greg Liptak, LVO Cable, Tulsa, Oklahoma, is noteworthy. His comments follow.

I think that selling cable TV in the nation's top 100 markets will be a difficult job. I think it will require a cable system which delivers pictures of excellent quality, combined with as many services as is possible to deliver.

I'd like to confine my comments to a competitive marketing situation found in 55 of the nation's top 100 markets, where all three television networks, as well as an educational station, are available off-the-air in good quality, probably on "rabbit ears."In this type of market, no independent television service exists.

The key question, I think, at the present state of our industry, is: How well will cable do in the competitive environment, i.e., full network service and an ETV?...

First of all, I don't think it's possible to operate a really successful cable television system in this competitive environment with just two distant independent signals and a couple of automated services.... I don't believe it's possible to achieve an operating level of success, and defining that as 40 percent penetration of the market, with this type of limited service package. I think in this competitive market situation, every practical service must be presented.

I think we have a major factor going in our favor: I think people in America today are fed up with the number of commercial interruptions on commercial television.... Further, I think people are disgusted with the early start of reruns on the networks.... Because of these factors, cable has a tremendous opportunity today to provide an alternate choice for the people of our nation.

Obviously, distant independent stations, ... will be particularly valuable where no independent service is currently available off-the-air. If a cable system is fortunate enough to have good independents authorized and ... the quality of programming varies widely between the independent(s), then that cable system is off to a running start in providing a new alternative to its customers. If the independents that are authorized for given cable systems do their job well, or by counter programming, then these signals will be, in my opinion,

the principal sellers on our new cable systems in the nation's top 100 markets, particularly in the 55 markets where no independent service is currently available....

Other selected services such as the weather channel, news, stocks, and so on, fill a definite need in our cable systems, but taken individually, they're not key factors in getting consumers to buy cable. An aggregate, ... is important.

Obviously, other local programs, particularly sports, will be significant; other specialized channels such as the religious programming developed and currently in use by a number of cable systems...have [some] appeal.

We must, I believe, strive to develop as many of these specialized subscriber services as we possibly can and we must see to it that these services are programmed at convenient times for our customers. We must not overlook the attractiveness of pay cable services in getting subscribers into our major market systems.

My conclusion is that cable systems can achieve success, defining success as initially attracting subscribers near the 40 percent penetration level in competitive environments where full network service and an educational station are available off-the-air....assuming, of course, an excellent service honestly rendered and at the right price.²⁶

While bringing in attractive independent signals may be an important benefit to offer viewers in the 55 markets discussed above, what marketing strategy must be followed to attract subscribers in the remaining 45 major markets where three network stations are available, plus one, two, or three independent stations, as well as one educational signal--all received with rabbit ears?

²⁶The Complete Guide to Cable Marketing, pp. 202-6.

Bill Pitney, Cox Cable Communications, Atlanta, Georgia, illustrates the challenge of such a competitive situation in discussing the problem his firm faced in 1973 in St. Louis, Missouri.

I'm faced with a situation in St. Louis, Missouri, very similar to this. We've been certified for two distant independent signals, one from Kansas City, and one from Bloomington, Indiana. St. Louis has three networks and two fine independents and I can't conceive that an independent from Kansas City or an independent from Bloomington is going to be any significant factor in that market as far as attracting a viewing audience. So we had to take a different approach and do some different thinking.

We don't have the answers yet, but we are going to start some construction this year. And I'm very hopeful that by the time that I have to turn that plant on, that I have found some premium TV that will generate some revenue for me.

.....

I don't think anyone knows what premium TV will do for you. It needs to be tested yet. There are some tests going on but they're not conclusive at this point in time. If I can buy enough time before I have to open the St. Louis market, maybe we will have found an answer to this.

I think that it's a big part of the future of cable TV. We've got to have it. We've got to have something to fill in the gaps between now and ten channels off a satellite. Again I don't have the answers but we are certainly looking for them.²⁷

After the panel discussion during which Liptak and Pitney made the points cited above, Paul Kagan, of Paul Kagan Associates, Inc., New York City, underscored the problem in the following comments:

In the suburbs of New York, for example in New Jersey, where Columbia Cable has systems operating, this is not a distant signal equation at all. ...What do I do when I get into a top 100 market where distant signal importation is not going to be in the picture? In Columbia Cable's case, they've reached saturation levels of anywhere from 30 to 40 percent based on conventional cable, you know just what's in the air, and the Knickerbocker-Ranger package.

²⁷The Complete Guide to Cable Marketing, pp. 215-216.

I know of other systems in metropolitan areas that don't even have a Knickerbocker-Ranger package that have been able to achieve a 30 percent saturation level based on the fact that some people will take service because of some reception problem that they have in their locality. Some people will take it on a status basis. Some people will take it on an automatic channel basis, as I would take it just for the stock market ticker. Because \$5 per month for a stock market ticker is competitively priced with any other stock market service available.

So if we address the subject perhaps not at the level of what do we have to do to achieve 40 percent saturation, but on a situation where we can reach a reasonable cash flow level, such as 30 percent saturation in the suburbs of a major metropolitan area....

If we are in a situation like that, and we can reach 30 percent without distant signal importation, then comes the fun: How do we get to make money in this system? What can we market in this top 100 market, meaning no distant signals?²⁸

In response to this question, Bill Pitney said, "Paul, I think that we have to turn our attention to premium TV in those markets. And I don't mean it has to be a supplement to that market. We've got to find some premium TV to go into that system, because you cannot depend on distant signals' making the market for you. ...I think for present-day operation in some of the top 100 markets, the distant independent signals will sustain you until such time as pay TV of some form develops a little farther than it has until now."

In view of the importance attached to importing signals of distant independent stations in 55 of the top 100 markets, during the foregoing panel discussion Don Andersson of NCTA called attention to certain "economic

²⁸The Complete Guide to Cable Marketing, pp. 214-215.

and regulatory facts of life" which are unique to the major urban markets. His comments relate strictly to the "non-grandfathered" proposed new systems in the top 100 markets, subject to the restrictive regulations spelled out in the FCC's cable television regulations of March 1972. According to Andersson,

There are two aspects of these rules that have significant bearing on the development and marketing of big city television systems.

First, the signal carriage rules and some subsidiary matters relating to them. Second, those regulations which impose cost burdens above conventional system costs. The carriage rules are deceptively simple. You can carry the in-market signals and those which are significantly viewed, and, with an exception of a handful of markets within the top 50 with three independent stations that can be imported, you can reach out to import two independents. If you can stay away from those in the top 25 markets, you can go anywhere to bring in your independents.

But, if you choose, as nearly all the operators are doing, the major independents in the top 25, you are restricted to a choice of one or both of the two nearest top 25 markets. So, the benefits received under the carriage rules are thus restricted by a mileage factor. They are further eroded under the exclusivity rules which require varying degrees of protection for syndicated programs in the home market, differing in the length of the protection period, depending on whether your markets are 1 to 50 or 51 to 100.

Several attempts have been made to ascertain the severity of imported program losses that exclusivity protection will influence. The Rand Corporation came up with a study revealing that in the larger markets, those with two or three independent stations, imported signals would be unavailable 50 to 65 percent of the time. Now, this applies to about 18 of the 50 markets.

For all other markets in the first 50, signal(s) would be unavailable 20 to 40 percent of the time. In markets 51 to 100 there would be no signal for about 16 percent of the time.

Now, on the same day that they issued the new rules, the FCC also offered up a new proposed rule-making, which, if effectuated, would prohibit the importation of a televised sporting event into a market if a home [town] sports team was engaged in a similar sporting event on the same day. This could have a serious effect on cable TV in many of the major markets.

As for the increased costs, the rules dictate there is a requirement for a twenty-channel system...that it be a two-way facility. And there are the costs of access channels. For most markets there will also be the cost of microwaving in those distant signals. In some markets, if the cable system chooses to select from the two nearest top 25, where the best independents are, it could mean reaching out for signals in markets that are more than 900 miles away. Unrelated to the rules are the increased costs per mile of plant anticipated in major city construction through the necessity of undergrounding in many of the middle city areas.

So, on the one hand, we have a system that will cost more to build; on the other hand, we won't be able to offer much more station programming than is already available in the top markets. CATV's historic pitch, "There is more to see on cable TV" has been considerably muted by the FCC.

Certain markets, however, because of their proximity of others will be able to draw on the more profitable independent stations in key markets which carry the home and away games of several major league sports teams; which have the where-with-all to buy the better film packages and which can afford the higher caliber syndicated shows. Other markets will have access to more inferior programmed independent stations.²⁹

Underscoring the above comments is the analysis presented by W. Bowman Cutter, Executive Director of the Cable Television Information Center, at the NCTA convention in April 1974,³⁰ who stated that, under

²⁹ Ibid., pp. 196-197.

³⁰ "NCTA Told Cable Growth Hinges on Changes in Method of Regulation," Broadcasting, Apr. 29, 1974, p. 21.

existing FCC regulations, cable is being denied an attractive commodity to market. "Entertainment of some sort is the basic vehicle of cable growth," Mr. Cutter noted. But at present, he acknowledged, "cable just doesn't have a service to offer." He claimed that with the present limitations on the number of television signals a system can bring into its market, the extent of cable penetration might not surpass 25 percent of the nation's television households. But if just four more signals were permitted each operator, Mr. Cutter speculated, that expectation would double.

One of the principal problems of today's regulatory environment, according to the Rand Corporation's Henry Geller, is that while the FCC's present cable rules were designed to encourage cable's growth in the top 100 markets, economic limitations coupled with the problems cablemen have experienced in marketing the services made available to them by the commission have resulted in a virtual moratorium on viable development.

The challenge that confronts cable operators in developing services which will appeal to viewers is indicated by Alfred Stern, Chairman of Warner Cable Corporation, New York City, in a talk delivered in December 1973.³¹ Mr. Stern said venturers had "learned that cable in the larger markets is not an essential commodity." In areas that already enjoy a multitude of communications and leisure-time services, cable is "more an optional added luxury than an electronic necessity."

³¹"Pie in the Sky Turns to Egg on the Face in Big-City Cable," Broadcasting, Dec. 10, 1973, p. 42.

The industry has also discovered that major-market subscribers will not cling to the medium, as will their small-town counterparts, if the service proves disappointing. This, he acknowledged, has caused an "immense turnover problem."

Beyond that, said Mr. Stern, it "could be quite a while" before specialized cable services "are ready for delivery on a large scale" in the big markets. "The hardware isn't there and the software isn't there," he said. "The hard truth is that the development of new services is still merely in the experimental stage."

In spite of this pessimistic view, certain cable operators have been successful in selected urban markets. At the Chicago NCTA convention in April 1974, for example, Ed Drake of LVO Cable, Tulsa, Oklahoma, reported on his firm's recent successful entry into Tulsa.³² In this instance, the cable system was introducing that market's first independent service-stations from Dallas in the spring of 1974 and Kansas City later. Initial saturation was reported at 58 percent.

While the LVO system was being built at an urban cost (eventually over \$15 million), the Tulsa experience was not regarded as valid for a Boston, Oakland or similar city by Paul Kagan in comments reported in Cablecast. Kagan did point out, however, "That there is a considerable number of Tulsas yet to be built,...is one big reason why the cable industry gave off an aura of confidence amid their troubles in Chicago this year [1974]."

³²"Urban Cable: Still Tomorrow's Battlefield," Cablecast, Paul Kagan Associates, Inc., Apr. 23, 1974, p. 6.

He noted that

American TV & Communications, for example, is providing initial independent service in Columbus, Ohio, where it expects to have a huge financial success (12-channel, single cable, no converters), and Albany, New York, where it plans to turn on its system May 2, 1974.

.....

It is also netting 40 percent saturation on first passes through Orlando, Florida, where it has turned the debut of the market's first UHF independent into a plus by promising immediate reception of the tempermental UHF signal. ATC is also planning major new construction in Fresno, California, Durham, North Carolina, and San Diego, California, and seeks franchises in Spokane, Washington, Shreveport, Louisiana, and Roanoke, Virginia. (The list is really longer. ATC has no dearth of projects and appears capable of financing all of them.)³³

Kagan cites ATC as an example of a firm that has been successful in spite of recent difficulties in the industry,³⁴ making sound acquisitions over the years, conservatively avoiding over-extending itself in the wrong markets, and generally hitting just about all of its internal targets. ATC's earnings are up, and its annual subscriber growth has been sustained at 20 percent since inception in 1968.

Kagan lists as keys to ATC success "its very careful picking of markets in which to operate, and the way it has handled its finances." Rather than fall in love with the biggest of cities following the FCC's 1972 cable rules, President Monty Rifkin is quoted as saying ATC "adopted a more conservative approach and looked to those potentially viable markets where the addition of two or three independent signals could make a meaningful impact on viewer choice."

³³Ibid.

³⁴Cablecast, July 18, 1974, pp. 1-2.

According to Ritkin

There are approximately 14.5 million television homes located in markets which do not receive any independent station signals (approximately TV markets 30 through 100) with only 1.6 million of these homes currently served by cable....

Significantly, of nineteen franchises ATC is operating or developing, seventeen fall within markets 27 to 100. More than 800,000 homes in presently franchised areas are not yet passed by cable and more than 500,000 of these receive no independent TV service off-the-air. It all translates into years of future internal growth.³⁵

According to Kagan,

Despite its early leveraged look, and the big construction that lies ahead, ATC still had \$15 million of unused credit lines, is not in need of new equity or debt financing, and could conceivably construct all present franchises without a return trip to the money markets.

When it went public five years ago, ATC had 100,000 subscribers in forty-four communities in seventeen states. Today it serves nearly 430,000 customers in 130 communities in thirty-one states.³⁶

Consumer reactions to CATV

In determining what CATV services are to be offered in a major urban market, a key consideration is the information on the demographic characteristics of the television viewers to be served. Interesting data gathered in one CATV market by Louis E. Boone in 1969 is summarized below:

The objectives of this research were to determine whether the Consumer Innovator and Consumer Followers of Community Antenna Television Service could be identified on the basis of distinguishable socio-economic characteristics and personality traits and to identify these characteristics possessed by Consumer Innovators which distinguish them from later adopters.

³⁵ Ibid.

³⁶ Ibid.

The Consumer Innovator possesses different personality traits than does the later adopter of CATV service. He tends to exhibit more leadership potential, be more socially mobile, possess more self-confidence, a greater acceptance of newness, and higher achievement levels than the later adopters.

The proving of these hypotheses points to the existence of "Consumer Innovators" and the possibility of identifying these first buyers in any community. This should allow the market planner to segment his market and utilize this group as a test of his product's acceptance. Rather than using whole cities as test markets, it may be possible to focus on Consumer Innovators and observe their purchase behavior. Also it should be possible to utilize the information regarding their personality traits to construct promotional campaigns, designed specifically to appeal to these individuals.³⁷

One of the benefits CATV service offers consumers is a greater diversity of programs than is available over-the-air. Accordingly, it is significant to examine whether CATV viewers actually utilize the increased number of programs available to them. This question is examined by Melvin A. Harris in a study published in 1971.

This study investigates television consumption behavior in terms of channel use as related to channel availability. The study examines whether television consumers make or will make use of all available channels in a multiple channel television system....

Four hundred eighty households with all channel reception capabilities were randomly selected from the metropolitan areas of eight different markets surveyed by the American Research Bureau during the fall of 1970.... Respondents chose programs from projected program schedules to indicate channel use.

³⁷Louis E. Boone, "The Diffusion of an Innovation: A Socio-Economic and Personality Trait Analysis of Adopters of Community Antenna Television Service," Dissertation Abstracts, Economics, Aug. 1969, pp. 465-A, 466-A.

The findings of the study were:

1. Across all current channel availabilities, consumers use only three to six channels.
2. When projecting program viewing from a six, twelve, or eighteen channel prime time program schedule, consumers use only about four channels.
3. High consumers of television use more channels than low consumers.
4. Channel use increases as the number of available channels increases, but not in proportion to the increase of available channels.
5. Commercial network services are the most used channels, with additional channels being used more by high consumers.
6. High users of a program guide project use of more channels than do low users of a program guide.

Conclusions reached are:

1. The average television consumer does not use all the television channels that are available to him, as most of his use is limited to the three network channels and one or two public or independent channels.
2. The average television consumer would not use many more channels, even if twenty or forty channels were available.
3. An increase in the number of available channels would lead to a fractionalizing of the audience, mostly among the non-network channels.
4. In terms of audience size, the importation of additional channels into a market by cable would be most detrimental to independent and public channels.
5. The segment of the audience that uses public and independent channels the most is the segment that watches television more than average.

6. In terms of overall television use, public television stations are not primarily serving a neglected audience, as the majority of consumers who used public television channels watched television more than five hours per day.
7. Independent television stations should promote the use of their channel rather than just the viewing of any particular single program, because specific programs may well be ignored if the channel is not regularly used.
8. Sales practices of independent television stations should emphasize the unique characteristics of their audience in terms of amount of television viewing, age of household head, and family size.³⁸

Importance of good programming

While considerable emphasis has been placed on the ability of CATV operators to import signals from distant independent stations with high quality program schedules, it is not enough for CATV operators to rely on retransmission of programs of over-the-air television stations in their quest for building subscriber penetration. They should also give high priority to the origination of programs to be cablecast over their own channels. Dr. William Melody of the University of Pennsylvania made the following comments on this point before a state regulatory convocation in June 1974:

Communications opportunities opened by cable will not be developed by the simple creation of capacity. They will depend directly on the resources committed to software. In fact, despite the substantial investment

³⁸Melvin A. Harris, "Television Consumption Behavior: Channel Use in Relation to Channel Availability," Dissertation Abstracts, Mass Communications, March 1972, p. 5257-A.

required to wire the nation, we must anticipate that full development of cable opportunities will require an even greater investment in software.³⁹

The significance of good local-origination programming is suggested in the assessment of cable's 1974 prospects appearing in the Broadcasting Cable Sourcebook, 1974. This article notes that during 1973 "the industry began to look around for ways to augment the monthly subscriber revenues and increase profitability. First on almost everyone's list of possibilities was pay cable. The technology for delivering movies and sports for pay bloomed during the year and cable operators began to have visions of added revenues, increased saturation levels, and a means to crack the signal-saturated urban markets."⁴⁰

However, in October 1973 Edwin A. Deagle, Director of Analysis at the Cable Television Information Center, Washington, D.C., questioned whether subscription programming and satellite interconnection will save the cable industry. Cable's future, Dr. Deagle contends, is not in entertainment but in the medium's potential as a substantial vehicle for broadband distribution systems. He believes pay cable cannot sustain the industry because "pay cable is another form of entertainment. What people want in television is mainly what they're getting now"--the general-interest fare currently available on the networks.

³⁹Cablecast, June 18, 1974, p. 4.

⁴⁰"New Revenues Bring Bright Hue to Cable's 1974 Prospects," Broadcasting Cable Sourcebook, 1974, p. 4.

Cultural and theatrical presentations lack sufficient mass appeal; major sports events are already on television; and films, he asserts, "may draw a few more people into the industry but not a hell of a lot more."

The main problem, Dr. Deagle feels, is that the number of television households--now placed at around 65 million--has nearly reached a peak. Thus, if the number of distribution sources is increased by pay cable and satellites, the audience for all programs will decrease.

...A "much stronger definition of market analysis must be produced," he says. And that analysis will show cable's marketplace falling within two major categories--closed-circuit distribution to institutional users and home terminals.... Subsequently, he foresees a "tremendous amount of investment" in cable systems as entrepreneurs become aware of their potential in digital communications. That investment should result in a few new systems employing a full range of the advanced technologies by 1980. And from there, Dr. Deagle says, the "neighbor effect" will take over. As consumers become aware of the advantages those technologies offer, cable "will catch on very rapidly."⁴¹

Summary and Conclusions

The outlook for future growth in CATV depends on the success experienced by CATV operators in increasing subscriber penetration in the top 100 television markets. As a result of FCC's relaxation of regulations

⁴¹"One Man's View: Cable's Going down Wrong Road," Broadcasting, Oct. 15, 1973, pp. 29-30.

in 1972, the climate is now more favorable for entry into or expansion of CATV service in these markets. If cable operators are to take advantage of this opportunity, however, several key problems must be overcome.

1. Heavy investment is required to build or expand CATV systems in major metropolitan markets. Obtaining necessary capital is a serious challenge, especially in view of high interest rates being charged on prime business loans. Even if interest rates were to decline in 1975, potential lenders would want to know if the prospects of profits are favorable enough to justify the risk involved in making long-term loans to CATV systems.

2. If revenues are to show satisfactory growth, CATV operators must develop and market a package of services which will attract new subscribers to the CATV system and encourage existing subscribers to buy additional services. This must be handled in a manner which will give CATV a "competitive edge."

3. In selecting the package of services to offer subscribers, CATV operators may find it useful to divide the top 100 markets into two groups according to the amount and type of over-the-air television service available.

The more promising category should include 55 of the 100 major television markets where all three television networks, as well as an educational station, are available in good quality. No independent television service is available, however. Observers believe it is where

strong independent service is missing that CATV has the greater potential for building penetration. Possible approaches to increase subscribers include the following:

- (a) Import the programs offered by authorized distant independent television stations that have strong audience appeal.
- (b) Offer premium entertainment (pay television) so that the viewer may enjoy programs without commercial interruptions. Availability of outstanding features on pay cable television might be welcomed by many viewers when nothing new or interesting is coming via the networks.
- (c) Consider other local programs which may hold significant attraction for viewers, local sports events, religious presentations, as well as other specialized types of features that may appeal to particular audiences.
- (d) Originate programs that have a special appeal to a local audience. Popular CATV-developed programs can be made available to CATV systems in other areas as one way to recover the programming costs.

Interconnection of CATV systems via microwave or by satellite are also possibilities for making good local origination programs widely available.

The marketing strategy to follow in attempting to build CATV penetration in the remaining 45 major markets presents a more challenging problem. Here television viewers have available the three networks, one,

two, or three independent stations, plus one or two educational outlets--all clearly receivable often by rabbit ears. Obviously, the CATV system has little to offer in terms of either improved reception or program diversity. What alternatives should the CATV operator consider in such markets?

- (a) Experimenting with premium (pay) cable television is clearly in order. Even in these markets, television viewers may respond favorably to full-length movies, musicals, or sporting events which are presented without commercial interruptions.
- (b) Offering various automated program services via CATV may round out a program package that will attract some viewers. Service such as news, weather, stock ticker, time, and music are valid possibilities.
- (c) Originating local programs, participation in cable program networks, and similar devices merit high priority. If programs can be developed that have special appeal to local viewers, then the CATV operator will have a competitive edge.
- (d) Since the FCC regulations of March 1972 require all new systems to provide two-way transmission capability, there is the possibility that cable operators in the top 100 markets may also turn to new services that draw on this technology.

One service under serious consideration by cable operators is that of home security systems. This might include automatic warning systems for a fire, burglary, etc., which would not only warn the homeowner of

danger, but also alert the fire department or police. Research is needed to determine the cost and demand for such a service.

The development of electronic shopping service is another application of two-way interactive capability being explored by cable operators. A related development attracting considerable interest is experimentation with electronic banking. These interactive services hold long-run promise. Experiments involving such two-way services should be followed closely.

From the foregoing analysis it is clear that the CATV operator must be consumer oriented in planning a marketing strategy to develop penetration in the top 100 television markets. Analysis of the potential markets for promising CATV services is badly needed, but has not been undertaken extensively to date. CATV operators should consider undertaking market tests where promising service alternatives are offered in limited areas for a reasonable period of time. Such market tests would provide information on the costs of offering these services as well as on the consumer demand for them. The investment in such research need not be large. Yet the information gained might well be invaluable in making plans that promise a successful attack on major urban markets when economic conditions become favorable for such action. Execution of an aggressive, well-designed marketing strategy may then provide the desired payoff in major market penetration with a prospect of profit commensurate with the risk involved.