

JOINT VENTURES
IN THE
CABLE AND VIDEOTEX INDUSTRIES

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ABSTRACT

After a thorough analysis of joint ventures in the cable industry, we have determined both the reasons that these joint ventures were formed and the characteristics of successful joint ventures. The results were then applied to an analysis of the joint ventures in the videotex industry and we developed recommendations to the management of these and future joint ventures that might improve their chances of being successful.

This analysis was performed by completing a literature search of venturing strategies, joint venture theory, the cable and videotex industries, as well as the joint ventures in each of these industries. Telephone and personal interviews were then conducted with key persons involved in joint ventures in both industries. We combined this information to piece together the motivations, contributions and structure of nineteen cable joint ventures and seven videotex joint ventures.

The thesis is divided into three sections. The first section summarizes the findings of the literature review about joint ventures and the alternatives to joint ventures. The second section focuses on the cable industry. It reviews the history, structure and technology of the industry, knowledge of which is necessary to understand the motivations for joint venture formation. We describe the motivations, contributions, structures and results of each of the programming and franchising joint ventures. This section concludes with a detailed analysis of joint venture motivations and critical success factors in the cable industry. The final section repeats this structure of analysis for the videotex industry. After a discussion of the structure of the videotex industry, we present the motivations and contributions of each of the partners in various joint ventures. The conclusion recommends steps these joint ventures should follow to

insure success.

We found that gaining complementary skills, speeding market introduction of product, reducing uncertainty of project completion and gaining market power are all important motivations for forming joint ventures in the service industries that we studied. This parallels the motivations that researchers have discovered in the manufacturing industries. We also found four success factors for joint ventures: complementary skills, complementary company cultures, non-conflicting goals and clear agreement on management control. The videotex joint ventures between the national system operators, such as Videotex America and Viewdata Corporation of America, and local newspaper companies best meet these criteria.

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INTRODUCTION

1.1 PURPOSE

The videotex industry in the United States today is on the brink of becoming a major business. After years of field trials and market surveys the first videotex system with color graphics capability was launched in Florida in the fall of 1983. At least two more services will be launched regionally in 1984 with national rollouts occurring in 1985 and 1986.

A distinguishing feature of the industry, noticeable to even casual observers, is the high proportion of competitors that have formed joint ventures. Since a joint venture is not a common venturing strategy relative to some of the alternatives, a natural question to ask is why it is so prevalent in this industry.

Scholarly literature on joint ventures is concerned mainly with manufacturing industries and it was not clear how applicable the research was to a service industry such as the videotex industry. The central purpose of this thesis, therefore, is to provide a better understanding of why videotex firms enter joint ventures and to determine the elements that are necessary to insure a successful partnership. In the course of addressing these concerns the thesis will also help to determine the extent to which the existing joint venture literature applies to service industries.

The relevance of these issues is evidenced by the standing-room only audience attending a seminar about joint ventures at the Videotex '84 meeting in April. Well over half of the executives in attendance indicated that their companies were involved in, or were considering entering, joint ventures. Their main concerns focused on the central issues of this thesis: What are the reasons that a firm should consider a joint venture and what are the determinants of a successful joint venture.

1.2 METHODS

Although the central motivation for this project is provided by the videotex industry, our hypotheses were formed by researching the joint venture activity in the cable industry. The reasons for this are two-fold. First, the cable industry has been in existence for

over thirty years and provides a rich body of data relative to the videotex industry. Many joint ventures have had time to run their course and in many instances the principal players have been willing to candidly discuss even the ones that were not successful.

Secondly, the fact that there are many similarities between the industries makes it possible to draw conclusions from the study of joint venture formation in the cable industry that are applicable to the videotex industry. The relevant similarities and dissimilarities between the industries are discussed in the body of the thesis.

The information was collected in a variety of ways. The initial research consisted of an extensive literature review of journals, magazines and books. The majority of the information on the specific joint ventures was acquired through telephone or personal interviews. The interviews were supplemented, where necessary, with information from printed sources.

Whenever possible, all the partners of a joint venture were interviewed. Since this was not possible in every case, there are instances where one partner has supplied the information concerning the other partner in the venture. In the cases where the partnership dissolved due to differences in opinion no one source has been exclusively relied on.

A final point concerning methodology is that the joint ventures discussed here are not a random sample. We do however, feel strongly that they are representative of the joint ventures now present in the cable and videotex industries.

1.3 ORGANIZATION

The thesis is organized into three main sections which consider, in turn, theory, the cable industry and the videotex industry. Chapter 2 opens the theory section with a brief review of all the venturing strategies available to a firm. This provides the reader with an understanding of how a joint venture strategy compares to the other choices available to a manager who is considering a new venture strategy. Once joint venture strategy is placed in context, Chapter 3 explores joint venture literature in depth.

Using the previous two chapters as a foundation, the thesis moves into the research sections. Chapter 4 provides a brief history and a discussion of the overall structure of the cable industry. Chapters 5-7 then go on to present an analysis of the forces affecting the structure of the cable industry. Chapter 5 concentrates on the cable system operators while Chapter 6 is concerned with cable programmers. Chapter 7 focuses on the effect that changing technology has had on the entire industry.

Chapter 8 details selected cable joint ventures. The contributions and motivations of each partner are listed along with the structure of each partnership. Each joint venture is evaluated and the chapter concludes with a summary of the motivations that led firms to form joint ventures and the elements that seem to be crucial for success.

The final section investigates the videotex industry while drawing parallels with the cable industry. Chapter 9 is an overview of the videotex industry. Chapter 10 focuses on the competitive forces affecting the industry, thus laying the groundwork for the discussion of videotex joint ventures in Chapter 11.

Chapter 12 completes the thesis by framing a list of conditions that should be met before entering a joint venture in the videotex industry. We have concluded that out of all the elements that must be considered four of the most crucial are the issues of control, conflicting company cultures, similar goals and complementary skills.

VENTURING STRATEGIES

Roberts¹ suggests that when corporations find themselves squeezed by the stockholder's desire for growth of revenue and earnings and the saturation of their traditional product markets, they must seek to introduce new products to existing or new markets. Companies can develop and commercialize these new products either with internal venture strategies or with strategic alliances.

Each venturing strategy will fit particular needs, abilities and personnel at any one moment. The use of various venturing strategies -- what Roberts² calls venture merging and melding -- allows a greater diversity of financing mechanisms. A strategy that uses all of these individual venturing techniques will increase the likelihood of success in new product commercialization. In any case, a long-term persistence of at least five to seven years is required before the benefits of these strategies can be clear. Before reviewing the literature about joint ventures, we will briefly examine these other venturing strategies. The knowledge of these attributes is necessary

in a study of joint ventures since a firm usually decides on a joint venture only after deciding that the alternatives are less likely to be successful. Also, in many cases, a firm's reasons for deciding against the alternatives affect its expectations for the joint venture results.

2.1 Internal Venture Strategy

Berg et al.³ hypothesizes that diversified companies and companies with a high capability for internal transfer of technology have a greater ability to be successful at one of the four types of internal venture strategies:

- O R & D Strategy
- O Independent Business Unit Strategy
- O New Venture Division Strategy
- O Venture Spinoff Strategy

2.1.1 R & D Strategy

Most corporations choose to support their products with a research and development strategy. To implement this strategy, a department is established with complete responsibility for both process and product innovation. Ties between this department and product management or marketing vary. Companies that are good at R & D strategies, such as some consumer product companies, like Procter

and Gamble, or pharmaceutical companies, like Eli Lilly and Merck, have learned to build close relationships between product management and the R & D departments. This strategy has its limitations since it works best with different products for existing markets. Thus, companies choose this strategy as a means of maintaining sales revenues in a particular product market. If a company desires radically different products for existing or new markets, it must use one of the other internal or "external" venturing strategies.

2.1.2 Independent Business Unit Strategy

Given this name by the inventor, IBM, the Independent Business Unit (IBU) strategy is used to develop products that fail to fit with the "mainframe" of mind. IBM utilized this technique to develop and commercialize the IBM Personal Computer. Such products are developed differently than and separately from products developed by the typical R & D mechanisms within a company. The business communities common knowledge of IBM's successful implementation of this venturing strategy will may make the IBU as common as the SBU in the near future.

2.1.3 New Venture Division Strategy

Fast⁴ defines a new venture division as:

"...an organizational unit whose primary functions are (1) the investigation of potential new business opportunities, (2) the development of business plans for new ventures and (3) the management of the early commercialization of these ventures."

These organizations were quite popular in the late 60's and early 70's. Commonly named examples are the new venture divisions of Ralston Purina, 3M and DuPont. More recently, the new AT & T has committed approximately \$200 million a year to probably the largest new venture division in history in an effort use the talents at Bell Laboratories. These divisions usually are formed to coexist with R & D strategies within a company. However, the literature suggests that this strategy has had mixed, if not poor results. In developing these strategies, companies must be careful to obtain strong, long-term support from upper management levels, particularly when the new venture division is started as a major new strategy component of the company's overall corporate strategy. For example, if AT & T's political situation changes, the survival of the new venture division at its initial high level of investment will be difficult.

2.1.4 Venture Spin-Off Strategy

Unlike the IBU internal venturing strategy, some companies spin-off separate entities when a by-product of R & D does not fit the mainstream of the company's product development. Spin-off strategy is used to attract outside investment, to gain marketing and operating experience in a new product market, and to keep internal entrepreneurs from leaving the corporate umbrella.⁵

2.2 Strategic Alliances

Strategic alliances involve agreements between two or more companies with the purpose of developing and commercializing new products. A thorough literature search, revealed the following seven alternative strategic alliances for commercializing new products listed in order of increasing closeness of the relationship^{6,7,8}:

- O Licensing Strategy
- O Venture Capital Strategy
- O Venture Nurturing Strategy
- O Contractual (Cooperative) Venture Strategy
- O Joint Development Strategy
- O Joint Venture Strategy
- O Merger and Acquisition Strategy

2.2.1 Licensing Strategy

Among the seven inter-firm venturing mechanisms, a licensing agreement requires the least contact with another company. Licensing agreements require one party, usually a corporation to develop, market and pay royalties to a second party. The only control exerted by the second party on the first party are outlined in performance clauses in the license agreement. This venturing method is quite common for manufacturing and pharmaceutical companies. In fact, the largest selling prescription drug in the U.S., TAGAMET, was licensed by SmithKline Beckman from a foreign pharmaceutical company.

Hlavacek et al.⁹ write that licensing is the best strategy when a product is early in its development cycle. However, the founding company loses all control over the rate of market exploitation after licensing the product to another company. If the founding company might be an important factor to getting the product to market, then companies should seriously consider other venture strategies that keep the founders more involved.

2.2.2 Venture Capital Strategy

A company has a venture capital strategy when it does not get involved in the management of the companies in which it invests. Companies such as DuPont, Exxon, General Electric and Singer have all tried this strategy, but rarely does it have a significant impact on corporate growth.

2.2.3 Venture Nurturing Strategy

This strategy involves a capital investment in another company accompanied with managerial assistance. Roberts¹⁰ cites the Cabot Corporation as an example of a company that tried this approach but failed. More recent investments by IBM in Rolm, and by AT & T in Olivetti might be construed as venture nurturing relationships. These relationships look similar to joint ventures and have been mistakenly called joint ventures, but no separate entity is established to formalize the relationship. Many of the advantages of mergers and acquisitions can be obtained with the use of venture nurturing without their disadvantageous effects on flexibility. Also, this strategy seems effective in testing out potential acquisition candidates and in obtaining a "window" on new technologies.¹¹

2.2.4 Contractual (Cooperative) Venture Strategy

This venture strategy involves a close developmental effort between a buyer and supplier which usually involves an agreement.

This strategy varies from the joint venture strategy in two ways:

- No equity participation.
- No separate entity established.

Instead, the suppliers gain lead time on rival suppliers and it becomes familiar with the buyer's needs while the cooperative effort rids the product of bugs. The buyer gets the supplier's expertise in the solution of a problem, and maintains a long-term flexibility over other sources.¹² Many relationships developed between buyers and suppliers are actually contractual ventures in which the supplier makes an investment for equity in the buyer. For example, General Instrument's recent investment in United Satellite Communications, Inc. was accompanied with a contractual agreement between USCI and GI, which gives GI exclusive rights to supply the direct broadcast satellite earth station equipment to USCI customers.¹³ As with venture nurturing arrangements, these contractual strategies with an equity kicker are improperly called joint ventures. Since the venturing firm can make a profit through product sale even if the investment goes bankrupt, such venture capital investments have been quite popular.

2.2.5 Joint Development Strategy

Joint development strategies involve one-shot associations for projects that are more unstructured than contractual ventures. Berg et al.¹⁴ gives the example of Rockwell subsidiary Atomic International (AI) and its relationship with a public utility in 1972. In this effort, AI completed R & D that applied engineering and production expertise, gained while working on compact engine technology, to steam generation of electricity. The relationship with a public utility stimulated the commercialization of the product. Joint development strategies are effective for various informal arrangements from producer-customer relationships to large cooperative research projects.

2.2.6 Joint Venture Strategies

For the purpose of this thesis, we have defined joint ventures as a contractual arrangement between two or more parties that forms a separate entity in which each party receives equity. These agreements must be more than simply stock agreements. They must include a business plan and a description of the tangible and intangible assets that each partner will offer to the new entity.

These arrangements require complicated negotiations to insure that the strategy fits with both partners' strengths and weaknesses, as well as their objectives. Berg et al.¹⁵ suggests that this strategy has two important functions: acquisition of technology and vertical integration. Other advantages include reduced capital expenditures, achievement of production scale economies, rapid commercialization of new products, and increased expected returns (sometimes improperly called reduced risk). However, executives are more aware of the disadvantages of joint ventures, including disputes over procedures, conflicting goals of partners, antitrust possibilities and problems arising from splitting the joint venture project from a firm's operations. Thus, the majority of executives consider forming a joint venture as a last resort.¹⁶

According to theory, joint ventures should dominate the alternative venturing strategies, especially when partners have complementary strengths and weaknesses. In fact, the cable industry may be one of the first industries to use joint ventures as the status quo for developing new products.

2.2.7 Merger and Acquisition Strategy

Merger and acquisition strategies involve the combination of the assets of one company with the assets of another. This can come about by an agreement by both parties to merge or by one company acquiring the assets of another through either a friendly or a hostile takeover. In the past, especially in the sixties when P/E ratios were high, merger and acquisition strategies have been quite popular. Recently, however, stockholders have not always been happy with management's decisions to acquire a company.

The major problem with this strategy, like that of joint ventures, is fit. The problems of a particular company are not easily solved by the management of another. Unlike joint ventures, these strategies usually result in a loss of important managers who can be of importance in the acquired small company. Other advantages of the small company, such as flexibility, entrepreneurial spirit and other incentives to grow, are also lost upon acquisition. Thus, mergers or acquisitions frequently fail to meet expectations and many companies that have amassed a conglomeration of unrelated businesses are becoming candidates of leveraged buyout opportunities. For example, Warner Communications, Inc. fought off Rupert Murdoch, who considered the pieces of WCI more valuable than the sum of these pieces.¹⁷ Alternatively, many companies are selling off unrelated businesses - Time, Inc., IT & T and Gulf and Western have taken steps to reduce

their unnecessary assets. We can learn from these companies that mergers or acquisitions are appropriate only when the synergies between the companies are clear. Even then, an alternative strategic alliance might be more successful at tapping those synergies.

JOINT VENTURE THEORY

3.1 General Comments

Before 1972, few companies seemed interested in joint ventures. An active new issues market probably caused this disinterest. Then in 1971, the capital gains tax was boosted from 25 to 35% by the Tax Reform Act of 1969. This not only discouraged the new issues market, but also created less interest in secondary markets, forcing price/earnings ratios downward. With acquisition strategies looking less attractive, a search for new mechanisms of corporate investment began. Joint ventures attracted much renewed interest. In 1979, the capital gains tax was again decreased, but instead of seeing a decrease in the number of joint ventures, their number rapidly increased. The biotechnology and communications industries have been a focus of this joint venture activity. As will be discussed below,

changes in the Justice Department's policies on antitrust violations has been one major force driving the acceptance of joint venture strategies.¹⁸ Also, as corporations become more familiar with joint venture mechanisms, they become more interested in finding new opportunities to use their skills in joint ventures.

3.2 Patterns Across Industries

Joint ventures seem to occur more often in industries characterized by barriers to entry, rapid growth and relatively large R & D expenditures. The cable and videotex industries fit this description quite well. Joint ventures are less likely to occur in industries where product differentiation and brand identification create barriers to entry, such as the consumer product and ethical pharmaceutical industries.

To show this Berg et al.¹⁹ has used a parameter called intensity, which equals the number of joint venture participations in an industry divided by the number of firms in that industry, and activity, which equals the number of joint ventures. These parameters for several industries are positively correlated with parameters which measure entry barriers (industry concentration, average size of firm), R & D investment (R & D intensity, average capital expenditure) and industry growth.

3.3 Example: Chemical Industry Joint Ventures

A significant body of literature has accumulated about the abundance of joint ventures in the chemical industry. Much about joint ventures can be learned from this rather well studied industry. However, we caution that each industry has unique characteristics that govern joint venture pattern and that the conclusions drawn from any one of these industries may not be applicable across industries.

The major reasons firms in the chemical industry enter into joint ventures is to acquire skills and know-how (intellectual property: patents/technology) or to decrease the uncertainty of supplies. These firms form joint ventures with two equal partners (50:50) more than 80% of the time. Typically these are joint ventures between two companies. These alliances were usually dissolved through a buy-out where one partner purchases the interest of the other partner. They tend to be terminated only after a few years of operation.²⁰

Joint ventures with four or more partners seem to be most stable and 3 partner joint ventures seem to be least stable. Also, 51:49 splits have been more stable than 50:50 splits. The average size of the investment in these joint ventures ranged from \$1 million to \$100 million. Joint ventures started with more than an \$11 million capital commitment lasted the longest.²¹

3.4 Classification of Joint Ventures

Berg et al.²² classifies joint ventures in four broad categories (examples of each given in Table 2):

- O Construction and Land Development
- O R & D/Exploration
- O Production/Mining (and Initial Processing)
- O Marketing/Distribution

3.4.1 Construction and Land Development Joint Ventures

These joint ventures are formed mainly for financial and tax reasons. Berg et al.²³ believes that technology transfer is usually a minor aspect of construction and land development joint ventures.

3.4.2 R & D/Exploration Joint Ventures

Union Carbide best described the reasons for entering R & D joint ventures: "...to get there sooner with less risk." Corporations also form exploration joint ventures to decrease their risk by increasing their investment diversification and by increasing the likelihood of success. This technique has been called "risk pooling." This type of joint venture commonly has three or more parents.²⁴

3.4.3 Production/Mining (and Initial Processing) Joint Ventures

Production and mining joint ventures similarly may be due to risk diversification. This diversification may be necessary when a project has scale indivisibilities. Furthermore, these joint ventures bring together a firm with the resources and a firm with the technology.²⁵

3.4.4 Marketing/Distribution Joint Ventures

These joint ventures seem the most interesting because they involve much more than merely risk diversification. Motivation for these joint ventures also involves a large component of technology transfer. These joint ventures can be further subdivided into two categories: large/large and small/large joint ventures.

Large/large joint ventures combine the strengths of two or more major forces. For instance, chemical and manufacturing companies may combine their expertise in a joint venture.

Small/large joint ventures combine the technologically advanced small company with the marketing force of the large company. These are probably the most common of all joint ventures. Berg et al.²⁶ writes that about 57.9% of all joint ventures are small/large joint ventures. This interest in large-small combinations reflects the fact that a large percentage of all technological innovation comes from

small companies.

3.5 Motivation for Forming a Joint Venture

When executives from various industries were asked to give the reasons they decided to form joint ventures with other firms, Berg et al.²⁷ recorded one of seven reasons:

- O To use a patent held by a partner.
- O To use the partner's technological expertise.
- O To gain production scale economies.
- O To gain market and distribution scale economies.
- O To penetrate a market rapidly.
- O To jointly specify performance characteristics.
- O To circumvent financial constraints.

More generally, the literature points to four major reasons for joint ventures: to reduce uncertainty, to increase innovation and market power, to benefit from idiosyncracies in tax and corporate law, and to increase financial flexibility.

3.5.1 Reduce Uncertainty.

The major reason firms participate in joint ventures seems to be to reduce uncertainty. This is verified by the fact that manager-controlled firms form more joint ventures than stockholder-controlled firms.²⁸ They can reduce uncertainty in two ways: increase diversification or decrease the uncertainty of project

completion.

Joint ventures allow firms to diversify, i.e. to spread their investments among more projects. Managers believe that diversification reduces uncertainty and should increase the value of the firm; however, this diversification results only in lower unsystematic variation in their investment returns (out of synchronization with market returns). Since portfolio managers can more easily diversify this unsystematic portion of the return variance by buying a variety of stocks, joint venture diversification should actually have little effect on security price. Thus, although diversification may be perceived as a reason for forming joint ventures, it may not be an accurate assessment of the benefits of this venturing strategy.

The questionnaire of Berg et al.²⁹ revealed that joint ventures also reduce the uncertainty of technological completion of a project. This effect could also reduce the unsystematic portion of the variance in the expected investment return. But in as much as joint ventures increase the expectation of success, and therefore, increase the expected investment returns, through the combination of two necessary skills, they increase the value of the partner's securities. Thus, joint ventures may be formed to increase the certainty of project completion.

3.5.2 Increased Market Power.

By increasing innovation and by combining forces with other firms, joint ventures can increase the market power of the partners. By increasing their market power, they can charge higher prices, increase their profitability and become a market leader with less concern for the competition. Bachman^{30,31} suggests that because investment in technical knowledge is long-term, joint ventures may reduce the barriers to innovation created by long-term risk.

If joint ventures increase the parent's market power, the expected value of the investment return increases. Thus, an improvement in market power would significantly increase the value of the parent's securities.

Berg et al.³² suggest that joint ventures are formed to increase market power by showing that joint ventures seem to be prominent in industries with high entry barriers, such as industries with preexisting distribution channels, large capital requirements and scale economies. However, joint ventures are not important when barriers to entry are brand identity or product differentiation.

An increase in innovation can create the improvement in market power. Consider that the first company to market a new product usually has the highest market share.³³

Berg et al.³⁴ give several arguments supporting the notion that joint ventures should increase innovation. Their economic argument says that joint ventures get the best of both the large and the small parent: the high revenues of the large parent and the low development costs of the small parent. The combination of these cash flow attributes results in higher revenue than if either company were to develop the product independently of the other. Thus, they conclude that joint ventures should stimulate innovation.

Berg et al.³⁵ also discuss ten other arguments that suggest that joint ventures increase innovation: 1. Joint ventures combine overlapping or related technologies; 2. Joint ventures supply necessary technical assistance to a firm entering a new market; 3. Joint ventures make possible the sharing of business risks; 4. Joint ventures enable more effective use of specialized and scarce managerial talent; 5. Joint ventures ensure sales outlets or supplies of raw materials for a new product; 6. Joint ventures provide a means for achieving economies of scale; 7. Joint ventures stimulate industry wide R & D; 8. Joint ventures avoid some duplicative R & D; 9. Joint ventures provide a means of R & D scale economies; 10. Joint ventures reduce fixed R & D costs. Although some of these may not stimulate innovation, such as effects on scale economies, they make it seem likely that joint ventures do increase the innovative skills of the parents.

3.5.3 Benefits from Idiosyncracies in Tax and Corporate Law.

Berg et al.³⁶ also list some reasons that joint ventures may be formed to take advantage of loopholes in tax and corporate law. Use of the joint venture as a method for off-book financing seems to be widely accepted as a reason that corporations form joint ventures. For example, a corporation can issue debt for the joint venture without having the debt affect the parent's balance sheet. This seems to be the reason 50:50 joint ventures are popular; 51:49 joint ventures would require one partner to use consolidation accounting methods with the joint venture, which would obviate the tax advantages.

Since royalties from licensing agreements are taxed at the corporate income tax rate, tax law favors joint ventures over licensing. Joint ventures give the technical contributor depreciation tax shields to offset the dividend tax rate. Furthermore, joint ventures are taxed at the capital gains tax for realized returns.

Other advantages the law provides joint ventures include the limited liability for the holders of the joint ventures equity and transfer pricing advantages where profit is not taxable. In addition, the Reagan Administration has recently introduced a bill in Congress that may give antitrust immunity to corporations participating in R & D joint ventures.

3.5.4 Increased Financial Flexibility.

In actuality, joint ventures are a useful way of obtaining external sources of financing for investment projects. Joint ventures allow banks and other institutional investors to invest in debt secured by the joint venture's cash flows and assets. The alternative financing methods have numerous limitations. Besides having higher transactions costs, the amount of financing may be limited by the current equity and debt holders. Also, the cash flows from alternative financing methods are quite complicated to estimate and, subsequently, requires a high return. On the other hand, the cash flows associated with senior debt from a joint venture are quite clearly related to the specific investment objectives of the joint venture. As a result, at some point in the financial structure of a corporation, joint venture debt costs less than subordinated debt and these corporations naturally choose the cheaper, joint venture strategy.

Also consider the financing of the vertical-child joint venture by a small and a large parent. Here, the large parent is a buyer of the products supplied by the joint venture child. This large parent is more than willing to finance a project for a product that it needs, while the small parent gets the best financing terms available for a planned project. The creative financing provided by a joint venture strategy increases the availability of capital.

3.6 Antitrust Issues

A large part of the literature about joint ventures deals with whether joint ventures are anticompetitive. Up until the last administration, antitrust has been a major deterrent to the formation of joint ventures. For instance, in an industry where joint ventures are common, DuPont has consistently avoided forming joint ventures because the Justice Department might react negatively. We raise five major issues here:

- O Vertical issues.
- O Horizontal issues.
- O Profitability issues.
- O Innovation issues.
- O Legislation issues.

Vertical joint ventures are anticompetitive when the joint venture denies vital inputs to competitors when market foreclosure occurs to a joint venture's competitors or when the joint venture is a major supplier to upstream parents (also increases collusion; 3). Furthermore, Fuschfeld³⁷ clearly showed that complex linkages resulting from joint ventures in the iron and steel industries could cause a decrease in competition.

Joint ventures between parents that sell products to the same markets, called horizontal joint ventures, may be anticompetitive. Brodley³⁸ noted that the most broad application of antitrust law to joint ventures occurs when the markets overlap. Pfeffer and Nowack³⁹ showed that industry concentration increases with the number of

horizontal joint ventures. This suggests that joint ventures between parents with overlapping markets is anticompetitive. However, a slightly different measure of the number of horizontal joint ventures showed that only a few joint ventures are actually formed between companies with overlapping markets.⁴⁰

A correlation between an industry's high profitability and its joint venture intensity would suggest that joint ventures were anticompetitive. Berg et al.⁴¹ showed that parent-parent horizontal joint ventures do increase with the profitability of an industry, but that non-horizontal joint ventures are associated with a low industry profitability.

As mentioned earlier, joint ventures may actually increase innovation in an industry. For instance, Berg et al.⁴² showed that high joint venture activity was associated with high R & D intensity. As Berg et al.⁴³ have written, "Joint ventures may increase the number of independent and viable centers of initiative in the economy." This evidence suggests that although under some conditions joint ventures have an anticompetitive effect, the large majority of joint ventures may actually increase competition in an industry.

3.7 The Evolution of a Joint Venture

The majority of literature about joint venture evolution is written about the marketing and distribution joint venture between a small and a large company.⁴⁴ We will discuss this literature in context with a discussion of how all joint ventures evolve. Joint ventures commonly evolve through five phases:

- O Initiation.
- O Courtship.
- O Negotiations.
- O Success or failure.
- O Dissolution.

3.7.1 Initiation.

In this phase, a company chooses a new product venture, examines alternative new venturing strategies to commercialize the product, and chooses a potential joint venture partner. Questions a large company would ask concerning a potential joint venture with a small company include:

- O Is the new product venture appropriate considering the company's strengths and weaknesses?
- O Which is the most appropriate venturing strategy?
- O Which small company is appropriate?
- O Does the company need an interaction with this small company?
- O How could the company get what it needs from the small company with minimum legal and financial exposure?

The small company must consider other issues including:

- O Does the large company have a respected reputation?
- O Does the company need the financial resources to perfect and exploit a new product?
- O Is the large company hungry for the new product?

Both partners should be asking:

- O Does the large company have the appropriate marketing channels and experience for the new product?
- O Does one company have strengths where the other has weaknesses?

3.7.2 Courtship.

Once the potential partners recognize a specialized opportunity for cooperation, the companies should allow lengthy exploration of technical and commercial issues. Participants must give full disclosures. The companies must reach an agreement about what each company's technology can or can not do. They must then agree on a business plan and contingencies for possible dissolution. Finally, the parents must disclose specific mutual expectations of respective contributions and benefits. The more completely these issues are worked out before sitting down to negotiations, the greater the likelihood of a marriage.

3.7.3 Negotiations.

In making an agreement, a precise definition of mission is necessary. This includes stating the markets, geographic regions and end-user groups. The specific responsibilities of each party must also be delineated. Accounting procedures and distribution of profit or losses must be planned in the agreement. Furthermore, performance clauses are necessary if no separate corporation is formed. Periodic performance reviews should be established in the agreement and a policy machinery should be provided. Also, the agreement should include provisions for dissolution of the joint venture. To insure the success of these negotiations, the future joint venture management team should be involved.

Several types of costs must be considered during negotiations. For instance, participants should consider transaction costs, such as legal costs and the costs of due diligence. Participants should use different capital contributions to make adjustments for inequalities in technical contribution. Participants should also consider the costs associated with strategic presentation of information and loss of control.

With respect to small and large company joint ventures, the small company must realize that prodding a large company through the negotiation phase will actually slow progress. The large company usually begins to wonder why the small company is in such a hurry.

The small company must gain leverage by bluffing the large company that it may lose the investment opportunity to a competitor. The small company should also follow up the joint venture negotiations by immediately expanding their marketing plans as was outlined in the agreement. To speed this marketing expansion, the small company should initiate additional joint venture relationships. Frequent meetings with top management of both companies will also improve the chance of a successful joint venture.

3.7.4 Success or failure.

The literature suggests that several factors affect the success of a joint venture. Bachman⁴⁵ found that in the chemical industry, three factors affected the joint venture success: complementary technologies, economies of scale and risk reduction through the combination of specialized know-how. Hlavacek et al.⁴⁶ gives four reasons that 50:50 small/large joint ventures fail: the small partner fails to keep up its financial investment on an equal basis with the large company; a partner realizes a poor fit; one company oversells its contribution; and the technology and marketing skills of the two companies do not match adequately. The literature clearly emphasizes that joint ventures based solely on financial arrangements will be unsuccessful. Adequate planning may be the number one prerequisite of

lasting and successful joint venture relationships.

Another problem mentioned frequently is an "impedence mismatch" problem.⁴⁷ These problems arise from differences among the partners in value or culture. These problems can be seen most prevalently in the large/small joint venture, but probably affect other joint ventures as well. For instance, while large companies see small companies as a "fly-by-night," shoestring operations, the small company sees the large company as sluggish in its decision making.

3.7.5 Dissolution.

Greater than a third of all joint ventures are terminate in less than three years.⁴⁸ These terminations are for one or more of six reasons:^{49,50}

- O Antitrust proceedings initiated against the parents.
- O Depressed prices for the joint venture's product.
- O Technical obsolescence of the new product.
- O Liquidation of a coparent.
- O One partner with better use for its capital.
- O Joint venture large enough to become independent.
- O Risk reduction no longer needed.

3.8 Conclusion to Joint Venture Theory Chapter

This chapter has outlined the numerous issues that confront a firm when it considers undertaking a joint venture. Seven points have been considered:

- O The types of industries most likely to have a high rate of joint venture activity.
- O The economical functions of joint ventures.
- O The structural factors that lead to a stable joint venture.
- O A general joint venture classification scheme.
- O Motivations for forming joint ventures.
- O Joint venture evolution.
- O Elements crucial to joint venture success.

While all of these issues are relevant to joint venture formation, this thesis concentrates on isolating motivations and the elements that successful joint ventures have in common. We feel that these are currently the areas of most concern to prospective joint venture partners in the cable and videotex industries.

According to theory, firms are motivated to form joint ventures in rapid growth industries with high barriers to entry including high capital costs. The specific motivations that researchers have uncovered are acquisition of skills, reduction of supplier power, increased expected returns, risk diversification, scale economies, attainment of capital and rapid market entry.

Likewise, researchers have found that the factors necessary for success in joint ventures include presence of economies of scale, complementary technologies and the reduction of risk through specialized knowledge.

The thesis now shifts from theory to practice in examining the joint venture activity in the cable and videotex industries. Throughout the remainder of the thesis we will be referring back to this chapter to compare joint venture theory to what is actually occurring in these industries.

CABLE INDUSTRY INTRODUCTION

After a brief examination of the history and structure of the entire cable industry, the dominant forces in the industry will be investigated. The information is presented using Porter's framework.

4.1 Origination of Cable Television

The cable industry got its start in the late 1940s and early 1950s when the country was being introduced to television. While people in metropolitan areas were being entertained by talented performers such as Milton Berle and Bob Hope many rural Americans were denied this pleasure because of an inability to receive undistorted television signals. The reason for the lack of reception was in many instances not simply distance as many people believed, but the impedance of the signals by uneven terrain.

The earliest systems were built in mountainous areas located a considerable distance from broadcast stations. For example, L.E. Parsons, the owner of a local radio station, brought television reception to the residents of Astoria, Oregon, located in a mountainous area, 125 miles from Seattle. Parsons set up an antenna on the roof of an eight story building and, by running wires from the antenna to his set, was able to receive clear pictures produced by signals emanating from Seattle's KRSC-TV.

Community acceptance was immediate and Parsons had his hands full connecting television sets to his master antenna using coaxial cable. According to Parsons, lines were strung from "house to house through a city block...and Astoria has some pretty large blocks--we'd come to the street, then we would set up a little radiating antenna with one of our amplifiers feeding it and pick it up on the other side of the street and continue for another block. We'd run all around town this way."⁵¹

Initially, Parsons did not have many of the problems and concerns that have plagued the industry over the years. Franchising, regulation and access to programming were not among the troubles that immediately concerned him. For example, the television station whose signal he was rebroadcasting saw Parsons' cable service not as competition but as a way to increase their audience. As a result, Parsons was given written permission to rebroadcast the signal of KRSC-TV. Furthermore, there were no FCC regulations to comply with.

In fact, Parsons' system touched off an internal FCC debate concerning the commission's jurisdiction over the cable industry. This debate went unresolved for almost fifteen years. Another advantage that Parsons had over later cable operators was that at first he was allowed by Astoria's town council to run cable virtually free of restriction. Only later was he made to officially apply for a franchise.

In the years immediately following the initial builds, cable systems, many of them owned by multiple system operators (MSOs), began to proliferate and with this proliferation came protests from broadcasters, government regulation, franchise requirements and fees and eventually a demand for more from a cable system than the ability to transmit broadcast stations clearly. Each of these factors along with more sophisticated technology helped to shape the development of the cable industry.

4.2 Industry Structure

In his book, Competitive Strategy, Michael Porter argues that "industry structure has a strong influence in determining the competitive rules of the game as well as the strategies potentially available to the firm."⁵² There is no doubt that the structure of the cable industry has played a central role in the abundance of joint venture activity that is taking place--a strategy so prevalent that

one analyst described it as "practically the hallmark of capitalization structures among cable programmers."⁵³ As will be shown later in the thesis, joint ventures are also common among cable operators.

In its present state the industry as we define it, is composed of two sets of players--each comprising a separate industry. (This study does not include equipment suppliers since these firms are not very active in cable joint ventures.) These two actors are the cable system operators who install the cable and manage the system and the cable programming service providers which supply the bulk of the entertainment. There is a great deal of overlap since some companies are vertically integrated, being involved with both operating systems and programming, while some parent firms have separate subsidiaries, each of which is involved in one facet of the industry. Both groups of firms will be treated in this thesis since they are both heavily involved in joint venture activity and to ignore one in a study of the cable industry would be equivalent to doing research on baseball and focusing only on the owners and the stadiums while ignoring the players. The term, "cable television industry" as used in this thesis will refer to both system operators and cable programmers.

In the following two chapters, the cable industry will be analyzed using Porter's five basic competitive forces. This process is done for both system operators and cable programmers since many of the characteristics of the forces are not the same for the two.

CABLE SYSTEM OPERATORS

A belief that is commonly held within the industry is that it is inefficient to have more than one cable system in the same geographic region. Therefore, although cable operators are not explicitly given exclusive contracts, the awarding of the franchise virtually guarantees a local monopoly for the life of the franchise term. The potential rewards have resulted in fierce competition among system operators for franchises and sometimes shockingly high requirements established by local franchising commissions.

The number of franchises still available however, is relatively small since presently over 62% of the television homes in America are passed by cable with this figure steadily increasing.⁵⁴ As a consequence, the number of basic cable subscribers has been on the rise and, at the beginning of 1983, 30% of all television homes subscribed to cable. Table 5.1 shows the amount of cable penetration over the years. Table 5.2 lists the top 25 system operators ranked in order of subscribers.

* Best copy/text quality available.

TABLE 5.1 CABLE SUBSCRIBERS

Basic Cable Service: 1970-1983

<u>Year</u>	<u>TV Homes</u>	<u>Systems</u>	<u>Subscribers</u>	<u>Percent of Cable Penetration of TV Homes</u>
1970	59,389,000	2,490	4,500,000	7.6
1971	60,775,000	2,639	5,300,000	8.7
1972	62,969,000	2,841	6,000,000	9.5
1973	65,244,000	2,991	7,300,000	11.2
1974	66,575,000	3,158	8,700,000	13.1
1975	68,771,000	3,506	9,800,000	14.3
1976	70,573,000	3,681	10,800,000	15.3
1977	71,556,000	3,832	11,900,000	16.6
1978	73,307,000	3,875	12,000,000	17.7
1979	73,901,000	4,150	14,100,000	19.0
1980	75,793,500	4,225	16,000,000	20.0
1981	77,251,800	4,375	18,300,000	23.7
1982	81,495,500	4,825	21,000,000	25.0
1983	83,462,600	5,600	25,000,000	30.0

Source: National Cable Television Association

TABLE 5.2 TOP 25 SYSTEM OPERATORS

<u>MSO (Multiple System Operator)</u>	<u>Subscribers</u>	
1. Tele-Communications Inc. (TCI)*	2,500,000	(9/83)
2. American Television and Communications (ATC)	2,300,000	(9/83)
3. Group W Cable	1,917,000	
4. Cox Cable Communications	1,400,000	(9/83)
5. Warner Amex Cable Communications	1,350,000	
6. Sorer Cable Communications	1,315,000	(9/83)
7. Times Mirror Cable Television	855,311	(9/83)
8. Newhouse (Includes MetroVision, NewChannels, Vision)	769,649	(9/83)
9. Viacom Cablevision	696,561	
10. Continental Cablevision	696,000	(8/83)
11. United Cable Television Corporation	601,000	(9/83)
12. Sammons Communications Inc.	566,929	
13. Rogers CableSystems	467,073	(9/83)
14. Telcable Corporation	375,295	(9/83)
15. Cablevision Systems Development	360,000	(9/83)
16. Heritage Communications	356,224	
17. Capital Cities Cable Inc.	335,800	(6/83)
18. UA (United Artists) CableSystems Corporation	331,300	
19. Comcast Cable Communications	320,000	
20. General Electric Cablevision	318,000	
21. Jones Intercable Inc.	277,964	(11/83)
22. Tele-Media	260,000	(7/85)
23. Wometco Communications	256,350	
24. Daniels & Associates Inc.	238,000	
25. TCI Group	222,711	
<u>TOP 25</u>	<u>110,000,207</u>	

Source: National Cable Television Association

Dennis Liebowitz, a cable industry analyst predicts that within several years 85% of the homes in the country will be passed by cable.⁵⁵ As a result, the bidding wars for new franchises are dissipating and attention is focusing on developing the franchises that have been granted. These are important facts to keep in mind as the competitive forces affecting the industry are examined.

5.1 Barriers to Entry

5.1.1 Government Policy

Federal Regulation--The development of cable systems has ebbed and flowed in direct correlation with the regulatory tide. Initially, the Federal Communications Commission (FCC) virtually ignored the industry, but this changed in the early 1960's when the FCC promulgated a number of rules that severely curtailed the growth of cable systems for a decade. The FCC began to relax its restrictions in the early 1970's, and today the bulk of the restrictions that cable operators face are imposed by local authorities when franchises are awarded.

For many years the FCC's regulatory policies were guided by the desire to insure localized television service as opposed to regionalized television where smaller communities were served by television stations operated in larger metropolitan areas. The Commission believed that "as many communities as possible should have the opportunity of enjoying the advantages that derive from having local outlets that will be responsive to local needs."⁵⁶ The FCC felt that the importation of distant signals--defined as signals that most viewers in an area would not be able to receive with an ordinary antenna--by cable systems was a threat to the stated policy of supporting local stations. The thinking was that viewers would tend to favor the programming of the imported channels over the local stations' programming. Local stations then would lose advertising support and go out of business.

This philosophy led to the FCC ruling in the Carter Mountain case of 1962 denying a Wyoming cable operator the right to transmit distant signals via microwave. In 1963, the courts upheld this ruling, opening the door for the FCC to establish rules and procedures regulating system operators. In 1966, the FCC ruled that distant signals could not be imported into the top 100 markets unless approved at an FCC hearing. In 1968, this rule was strengthened and since the main value of a cable system in most metropolitan areas was not clearer reception but additional stations, cable system development remained frozen between 1968 and 1972.⁵⁷

In 1972, new rules were agreed upon which allowed the carriage of a limited number of distant signals into metropolitan areas and, as a result, cable systems began to be built at a rapid rate. In 1980, the FCC lifted the distant signal restrictions. This means that "only three rules remain for the commission to administer. The first, the sports blackout rule, prohibits a cable system from importing the signal of a station broadcasting a local home game if the event is not broadcast locally; the second rule protects broadcasters against simultaneous cable importation of their network programming; and the third rule requires all cable systems to carry the signals of local stations."⁵⁸

Local regulation--The standards that a cable operator must meet, along with the services provided and the rates to be charged vary from locality to locality. (There is, however, a rate ceiling imposed by the FCC.) Over the years, as the competition for franchises increased and local franchise authorities realized the value of a local cable monopoly, the requirements increased in number and in cost. Subsequently, some operators have promised more than they can deliver and have had to renegotiate with local authorities to lower their obligations after being granted a franchise. Warner Amex has recently been in the news frequently because of this type of trouble with several of its large urban franchises.

Some of the key factors that local cable commissions consider when awarding a franchise are:⁵⁹

- O The franchise fee an operator is willing to pay
- O The reputation of the operator
- O The financial and technical capabilities of the operator
- O Whether local investors will be allowed to participate in the venture
- O Concessions to franchising authorities
- O Services provided

The last two items include such considerations as providing interactive services, providing certain programming for the basic rate, set fees for each tier of service and the setting aside of a certain number of public access channels.

Operators have gone to what many believe to be excesses to win franchises. One example is in Boston where "among other oddities Cablevision agreed to offer bonds to city residents so they can share in the system's potential. Every Bostonian will be able to buy up to 25 \$1000 bonds bearing a guaranteed rate of return of 16%."⁶⁰

A bill sponsored by Senator Barry Goldwater is being considered in the Senate which attempts to eliminate the haphazard establishment of requirements. It proposes federal standards and administration of both new franchise awards and refranchising agreements.

Copyright liability--For years a debate raged over whether cable operators had to pay program producers copyright fees for the programs shown on their systems. In 1976, legislation was passed requiring cable operators to pay a certain percentage of their revenues to a

Copyright Royalty Tribunal which then distributes them to the various programmers. Payments totalled \$25.5 million in 1981, which averages out to about 1% of operators' non-pay revenues.⁶¹ Rules were recently adopted requiring operators to pay up to 3.75% of gross revenues to the tribunal.

5.1.2 Product Differentiation

Product differentiation plays an important role in two ways. First, in order to win a franchise a system operator must convince the local franchising commission that his operation is best suited to the needs of the locality. Attempts are made to differentiate service based on the criteria listed earlier in the local regulation section. If an operator cannot prove that he is superior to his competition concerning some, if not all, of these points then he has little hope of winning franchises and the right to reap the benefits of a local monopoly.

The second aspect of product differentiation concerns the selling of the service to individual subscribers once the franchise has been won and the cable laid. Despite having a local monopoly, the system operator needs to employ a trained sales force to make consumers aware of the differences between cable services and other leisure-time services, most notably broadcast television which viewers receive for

"free." With the cost to install a system increasing, the percentage of subscribers must remain high. Salesmen, going door to door, practice selling techniques designed to differentiate their product in the customers' eyes with the ultimate goal being, as one system operator's sales manager put it, "to increase the customer's perceived value of Cablevision."⁶² This aspect has increased in importance recently as the emphasis has turned toward increasing the number of cable subscribers in existing franchises.

5.1.3 Economies of Scale

Porter defines economies of scale as "declines in unit costs of a product (or operation or function that goes into producing a product) as the absolute volume per period increases."⁶³ Economies of scale are certainly evident in the operation of a cable system. The fixed costs of installing and operating a system comprise a large percentage of a system's cost when compared to the variable costs of hooking up and servicing an additional customer. Therefore, the per unit cost of providing cable service drops as the number of subscribers increases.

System operators such as American Television and Communication (ATC) are attempting to take advantage of scale economies in areas where they own smaller systems through a contiguous franchise strategy. This involves the acquisition of separate franchises in

neighboring localities so that the benefits accruing from economies of scale in functions such as marketing, sales and installation can be realized.

5.1.4 Capital Requirements

The cost per mile to construct a new cable system was estimated to be \$19,935 in 1982.⁶⁴ Costs vary depending mainly on the franchise requirements and the location of the franchise. In the cities where at least some of the cable must be laid underground, costs can be as high as \$250,000 a mile versus \$10,000 a mile in suburban and rural areas where cable is strung on telephone poles.⁶⁵

For example, the Pittsburgh franchise cost Warner Amex \$80 million to construct, and the Sacramento franchise weighed in at a cost of approximately \$200 million.⁶⁶ When ever-increasing marketing costs are considered, it is easy to see that an operator of a large metropolitan franchise must have large financial resources at his disposal.

The large amount of capital required, in combination with the existence of economies of scale have accounted for increasing concentration in the industry. In 1969, the top eight companies accounted for just over a quarter of all subscribers. In 1982, that figure had risen to almost 43% as shown in Table 5.3.

Table 5.3 Concentration of Ownership in Cable TV Industry.
(Subscribers to Top 8 Companies as percent of Total Subscribers)

<u>YEAR</u>	<u>PERCENT</u>
1969	25.1
1970	27.4
1971	30.4
1972	35.4
1973	36.9
1974	36.9
1975	36.5
1976	34.6
1977	33.4
1978	33.8
1979	37.8
1980	38.8
1981	42.9
1982	42.8

Source: National Cable Television Association

5.1.5 Switching Costs

Once a system operator has obtained a franchise he has a definite advantage over his competitors when it is time to renew the franchise. This is due to the switching costs involved with having a new operator install a new system. Although there would be no cost to the franchising authorities in the financial sense, other, non-monetary costs are associated with changing system operators that make it infeasible to do so. In fact, "franchise renewal has been by far the most common means of refranchising [since it]...is not only simpler,

faster and cheaper than comparative bidding but also is less fraught with legal perils for a city."⁶⁷

As far as the individual consumer is concerned, he usually has no other cable service to switch to. If he wants to watch cable programming he must subscribe to the local system.

5.2 Existing Rivalry

The intense rivalry exhibited between operators for franchises has died down as the proportion of the country wired for cable has increased. It was noted previously that over 85% of the country will be passed by cable in the next several years. With few new franchises still available, most operators are achieving revenue growth by acquiring and/or trading for existing franchises and by taking measures to increase revenues per subscriber and penetration rates in existing systems.

Thus, the rivalry that was so evident in the franchise bidding wars of past years is becoming less apparent as operators attempt to maximize the revenues of the systems that they currently own.

5.3 Substitutes

Thirty years ago, cable's main competition came from the broadcasting industry. For a number of years, with the help of FCC regulations constraining cable operators, the broadcasting industry was able to keep the expansion of cable systems in check, but that is no longer the case. Cable operators now face new competitive rivals in the form of subscription television (STV), multipoint distribution services (MDS), direct broadcasting systems (DBS), and satellite master antenna television (SMATV). These competitors threaten to take away current or potential cable subscribers by providing them with the same programming or types of programming but using communication technologies that circumvent the cable systems.

Some of these subscribers are in extremely rural areas where cable is not likely to ever appear. However, in areas where cable has recently become available, customers tend to stick with the type of service that they initially purchased even though cable generally offers more services at a lower price.

The competitive technologies also pose a potential threat as far as programming costs are concerned. Prices for programming will be driven up as the demand for it from competing technologies increases.

5.4 Buyer Power

As has been mentioned earlier, the local franchising commission has a large amount of bargaining power when bids are solicited for a new franchise. This power is severely limited in refranchising decisions by the high switching costs which are present.

Although the maximum fee that a cable operator can be charged is 5% of annual revenues, local franchising authorities still take advantage of their favorable situation by extracting large concessions from operators. Of course, this is becoming less of a problem as the number of available franchises diminishes.

The individual subscriber has little bargaining power once the franchise has been awarded. If he wants to receive cable television reception then he will have to use the franchised operator.

5.5 Supplier Power

System operators deal with two principal groups of suppliers: equipment suppliers and cable programming suppliers. Equipment suppliers provide necessities such as coaxial cable, converters, amplifiers. At the present time, with the number of new builds not as high as in recent years, the demand for their product is not as great as the supply so, as a result, they are not a threat to system operators.

Cable programmers also provide a service that is essential to system operators since they provide the bulk of the product that the cable system distributes. As a result, these services such as HBO and Showtime/The Movie Channel have considerable leverage over system operators.

System operators realize how crucial the control of programming is and some have taken appropriate measures in order to protect themselves. For example, Time, Inc., which owns ATC, the second largest multiple system operator, also owns HBO, the largest supplier of pay cable programming. Showtime/The Movie Channel, the second largest pay cable programmer is jointly owned by three companies with extensive cable system holdings.

The current attitude, however, is generally one of cooperation as both system operators and programming services work together in an attempt to increase pay and basic subscriptions. One example of this is a promotional campaign initiated by Music Television (MTV). MTV is providing system operators with free radio and newspaper ads encouraging customers to subscribe to their cable system so that they can receive MTV. MTV also provides operators with MTV T-shirts at cost to be given away free to new subscribers.⁶⁸

5.6 Conclusion

The system operator portion of the cable industry is characterized by its high barriers of entry in the form of large capital requirements, scale economies and numerous--though decreasing--government regulations. The environment is an extremely competitive one during the bidding process and even when the franchise is secured the system operator must deal with suppliers (cable programmers) who are many times in a position of power. These factors make system operators likely candidates to be joint venture partners according to the theory developed in the previous chapter.

CABLE PROGRAMMING

This chapter examines the forces affecting cable programmers. After a brief discussion of the various types of cable programming channels, Porter's framework is again used to examine the structure of this industry.

6.1 Types of Programming

Besides locally originated programming there are four main categories of programming shown on cable systems:

1) Distant channels--These are usually normal broadcast channels that originate far enough away so that the majority of homes in the viewing area cannot receive them with a normal antenna. The cable operator will receive them via microwave transmission and retransmit them over cable as part of the basic service. Distant channels have become less important as the number of pay channels and specialized programming channels has increased. Also, operators have decreased the number of

distant channels they have carried since the end of 1982 when copyright payments went up significantly.

2) Superstations--these are normal broadcast stations that also send their programming to cable operators via satellite. These stations are offered as part of the basic service and operators are charged a few cents per subscriber per month. Ted Turner's WTBS in Atlanta is the most well known of these stations.

3) Pay cable programming--Pay television had been considered by the industry in one form or another for years but it was not until September, 1975, when Home Box Office (HBO) first transmitted its programming via satellite that the concept turned the corner towards profitability. HBO and its competitors offer a combination of movies and special entertainment to viewers for a monthly fee averaging \$10. This is in addition to the fee paid for basic service. Cable operators split the fee with the programming service.

4) Advertising-supported programming channels--These channels usually cater to a targeted audience with specific programming. Examples are ESPN--a virtually all-sports network and Lifetime which airs programming targeted to women. Most of these channels charge cable operators a few cents per subscriber and are offered free to the viewer as part of the basic package. The majority are also advertiser

supported with the service selling time to national advertisers. Advertisers are slowly coming to the realization that cable ads are a good buy. As more of these channels are given Nielsen ratings (a minimum of 12.5 million subscribers is needed to get on the Nielsen meter) advertising revenues should increase substantially. The winning over of advertisers is crucial to the success of most of these channels.

The operator earns revenues by selling two or three minutes of local advertising time per hour. Some operators also earn additional revenues by charging an extra fee for these channels instead of making them available as part of the basic package. The operator is sometimes prevented from following this strategy due to local franchise agreements.

All of these programming services, with the exception of distant channels, are usually available nationally and are beamed to cable operators via satellite. Table 6.1 shows the increase in pay subscribers in the last decade.

With this information in mind it is now appropriate to examine the competitive forces at work in the programming side of the cable industry.

TABLE 6.1 CABLE SUBSCRIBERS

Pay Cable Service: 1973-1982

<u>Date</u>	<u>Pay Cable Units (in millions)</u>	<u>Systems with Pay Cable</u>	<u>Percent of Households Penetration of Pay Cable</u>	<u>Percent of Pay Cable Penetration of Households</u>	<u>Average Pay Rate</u>
12/31/73	0.035				
12/31/74	0.140				
12/31/75	0.469	170	11.1	23.6	\$7.85
12/31/76	0.578	264	10.6	22.3	\$7.87
12/31/77	1.642	604	12.2	25.3	\$7.92
12/31/78	3.289	1,029	17.9	35.0	\$8.09
12/31/79	5.732	1,752	22.3	41.3	\$8.44
12/31/80	9.142	3,072	27.9	50.6	\$8.80
12/31/81	15.522	5,975	37.6	68.8	\$9.02
12/31/82	23.791	9,626	42.0	76.4	\$9.56

Figures from Paul Jagan Associates, Inc.'s The Pay TV Census and The Pay TV Newsletter, May 1, 1983.

SOURCE: National Cable Television Association

6.2 Barriers to Entry

6.2.1 Government Policy

As is the case with the cable operators, there is an atmosphere of deregulation surrounding the cable programmers. Several years ago the restrictions dictating the age of movies that could be shown on cable were lifted putting the pay cable channels on an equal competitive footing with the broadcast networks in terms of competing for movie rights.

Program regulation on a local level is concerned mostly with the suitability of some of the offerings. Nudity is commonplace on some of these channels which raises questions of censorship. The guiding principle seems to be that since subscribers have a choice of what they want to see, they do not have to pay for any channels whose programming they find objectionable.

Cable programmers have had several encounters with the Justice Department concerning Antitrust violations. In 1980, the Justice Department disallowed a programming joint venture formed by four studios and Getty Oil. This new venture, named Premiere, was formed to compete with HBO. The films produced by the studios would be supplied exclusively to Premiere for 9 months after their release. The Justice Department ruled that this would severely hamper competition in the industry. A similar argument was used to discourage three studios from going into a joint venture with Warner Amex Satellite Entertainment Corporation (WASEC) to run The Movie Channel, an HBO competitor.

6.2.2 Product Differentiation

Pay Cable--Much effort is expended by the cable services to make both the system operators and the public aware of the uniqueness of their particular service. HBO has a loyal customer base that must be overcome in order for a competitor to be successful. The concepts of multipay, where system operators offer more than one pay service to subscribers; and packaging services together at a discount have helped HBO's rivals overcome resistance. Still, many people balk at paying an additional sum to purchase a service that they perceive to be essentially the same as what they currently have. Mike Weinblatt, the head of Showtime/The Movie Channel, stated in a recent interview that his services needed to increase brand awareness in order to be able to successfully compete with HBO.⁶⁹

A campaign to differentiate a product in the face of a dominant market leader is very expensive and time consuming. It is also particularly risky since this type of venture has no salvage value if entry fails.⁷⁰

Advertising-supported channels--Whereas the pay channels are attempting to appeal to a broad cross-section of the American public, advertising supported channels are trying to create brand awareness and customer loyalty within certain segments of the population. The channels strive to locate a segment large enough to attract advertising interest and then to create brand awareness and consumer

loyalty within that segment so it is protected from competition. This is the same strategy used by radio stations and magazines. In fact, one industry employee decribed these channels as being video magazines due to their similarity in marketing strategy.⁷¹

6.2.3 Economies of Scale

There is no doubt that economies of scale pose a crucial barrier to cable operators. The programmers' costs are attributed primarily to purchasing or producing entertainment and marketing their services.

Since most of the costs are fixed, a large subscriber base is required to make a profit. HBO, with approximately 12.5 million subscribers, has a profit margin of 20-25% but they are the exception. Showtime, before its merger with The Movie Channel, had almost 5 million subscribers and was barely breaking even.

The advertising supported channels also need many subscribers since their revenue per subscriber is lower. For example, The Weather Channel was on the brink of closing operations at the end of 1983 despite being carried on systems with a total of 10 million subscribers.

6.2.4 Capital Requirements

The amount of money required to start a programming channel, be it pay or advertising supported is not trivial. John Lack, of WASEC estimated over a year ago that starting a new pay service "would cost hundreds of millions of dollars."⁷² That is probably a low estimate since programming costs have shot up in the recent months as the demand for quality programming has exceeded the supply.

Examples of high programming fees abound in the recent history of the industry. In December, 1983, Showtime/The Movie Channel made a semi-exclusive agreement with Paramount to be the only pay cable network to air the studio's films. Industry sources report the cost of the arrangement to be in excess of \$500 million.

This is the latest step in a bidding war that in 1983 saw HBO go on a talent buying spree which "bid up the price of talent to a level that [Showtime] could not afford."⁷³ During this spree HBO paid a number of artists over \$1 million in advance in order to secure the rights to air their concerts.

Besides programming costs, initial capital is also needed for transmission equipment, administrative and marketing expenses and this large capital outlay does nothing to insure immediate success. Herb Granath, president of ABC Video warns that "anybody getting into this business will have to endure years of losses."⁷⁴. This means that the operator of a cable channel not only has to provide a large amount of

capital but must also be willing and able to wait for an extended period of time to see a positive return on the investment.

6.2.5 Access to Distribution Channels

Another barrier which plays an important role in the industry is a programmer's ability to have a system operator carry its programming. The operator is constrained in the number of programming services he can offer by the channel capacity of his system. Table 6.2 shows the number of systems grouped by channel capacity.

TABLE 6.2 CHANNEL CAPACITY

Systems & Subscribers: By Channel Capacity

<u>Channel Capacity</u>	<u>Systems</u>	<u>Percent of All Systems</u>	<u>Basic Subscribers</u>	<u>Percent of All Subscribers</u>
0 - 6	52	0.89	21,370	0.07
7 - 12	1,938	33.32	3,883,028	13.36
13 - 21	1,193	20.51	4,588,067	15.79
22 - 35	1,581	27.18	13,257,853	45.62
36 - 53	503	8.65	4,137,727	14.24
54+	187	3.22	1,997,468	6.87
Not Available	<u>352</u>	6.22	<u>1,175,283</u>	4.02
TOTALS	5,816		29,060,755	

Source: National Cable Television Association

A further constraint is that system operators must carry the three networks and up to three independent stations as mandated by the FCC. Also, local agreements stipulate a certain number of public access channels. This means that an operator with a system capacity of less than 21 channels--a group representing almost 30% of subscribers--has to choose the programming services which he believes will produce the most revenues. This is a tough sell for a new programming service with an unproven product.

The situation is improving since many franchises are currently or will soon be rebuilt with larger channel capacity. Most of the new systems have a 36+ channel capacity.

6.2.6 Switching Costs

The good news for new pay cable competitors is that switching costs to the subscriber are low. A phone call to the system operator will result in a free service call to change services. In the newer systems with addressable converters, the system operator can flick a switch and "make the change from service to service in 60 seconds."⁷⁵

6.3 Existing Rivalry

The competitive situation among programmers is best summed up by Bill Daniels of Daniels and Associates which is one of the top 25 MSOs in the country. He states that "with few exceptions, the place where you make your dough in the cable business is being a cable operator. Today HBO is making a tremendous amount of money but it took a big risk...Software is so competitive. It's not that way as a local operator. In very few instances do you have two cable systems in the same area. We're not faced with the competitive problems of the software programmers."⁷⁶

The competition, which was always fierce, has increased due to the fact that, after years of rapid growth, during which entrants were attracted despite formidable barriers, the industry slowed a bit in 1983. The increased competition took several forms. In pay cable, it was highlighted by the bidding war mentioned earlier as programming channels scurried to secure exclusive rights to product.

The competition among advertising channels varies from segment to segment depending on segment size and the number of competitors attempting to divide it up. One particularly vicious battle involved Ted Turner, owner of Cable News Network (CNN). Faced with a new competitor in the Satellite News Channel (SNC), Turner established CNN2 which had a headline format similar to SNC. All three networks responded by offering all-night news shows, so in the space of a few

months, the customer was faced with not one but six services offering continuous or extensive news. In addition, some local news shows increased their length from one to two hours. The result was that there simply were not enough subscribers or advertising dollars to go around and the inevitable shakeout occurred. Two of the networks dropped their shows and Turner bought out SNC for \$25 million.

6.4 Substitutes

It is obvious from the news channel example that network broadcasting channels are powerful substitutes in the competition for viewers and advertising dollars.

The networks also serve as substitutes to pay cable channels in the eyes of the firms who own the rights to the movies and sports packages that both groups bid for. CBS and NBC have been negotiating with several movie studios about getting theatrical films before they go on pay television. The enmity that the networks feel for the pay cable channels is exemplified by NBC Entertainment President Brandon Tartikoff who recently stated that "at some point, the value in the endeavor goes beyond the business deal. By doing this we'd be weakening a competitor."⁷⁷ If the broadcast networks can offer well-known movies before pay cable, a key advantage of pay cable will vanish. It could also mean a return of some of the advertising dollars that have begun to trickle to cable.

Broadcast television is the most obvious threat to cable programmers at the present but it is by no means the only one. Movie theaters, video cassettes and a new service called Telefirst which allows a subscriber with a VCR to tape a film transmitted over a VHF channel overnight, are all substitutes for cable programming. Live sporting and cultural events are also substitutes for the viewer's time and attention as are other leisure activities.

The presence of such a large amount of substitutes makes it hard for a programming service to attain the level of subscribers it needs to show a profit. Realizing this, some programmers are investigating other methods to transmit their product to customers. The following section explains this further.

6.5 Buyer Power

The buying power of MSOs will slip if the cable system substitutes mentioned in Chapter 5 gain in popularity. It is conceivable that a cable programming service will sell its product to operators of DBS and SMATV systems in the future in order to increase revenues. If this happens then the MSOs' bargaining power will diminish.

The operators' bargaining power is currently handicapped by the fact that cable programming is crucial to the success of their franchises. Most metropolitan subscribers sign on because of the programming that is offered with either the basic or pay services. If these services are not offered then the single most important attribute of a cable system for many people no longer exists.

The advent of multipay--the practice of offering the subscriber more than one pay service--increased operator revenues, although it reduced their power over pay cable programmers. The result is that pay services are less often denied access to an operator's system.

The increasing number of systems with a large amount of channel capacity means that operators can carry more services which bodes well for many of the advertising supported channels. It also means that operators have less room to squeeze programmers for favorable rates or more ad time to sell.

This is not to say that the operators are totally at the mercy of the programming services. Some of the larger MSOs have considerable leverage given the number of subscribers they service. Some MSOs have banded into groups to negotiate favorable rates with the pay cable programmers. Another measure that system operators have taken to strengthen their position is to secure their own sources of programming as was mentioned earlier.

6.6 Supplier Power

The major suppliers to the programming services are film studios, independent producers, syndicators and owners of sports teams. These suppliers hold a large amount of power over programmers for several reasons:

- O There are other industries besides the cable industry which provide these suppliers with sizeable revenues.
- O The suppliers' products are crucial to the programmers' business.
- O Some of the suppliers pose a credible threat of forward integration.
- O The demand for the product eclipses the supply.

Programming services, especially pay cable programmers, have attempted to alter this balance of power by forming alliances with the studios which give them exclusive pay cable rights to some of the studios' products. Many pay cable and advertising channels have their own production studios to supply some of their programming needs.

6.7 Conclusion

Until recently, cable programming has been a high growth industry that attracted a large number of entrants. Now there have been a few failures and, with the bloom off the rose, a potential entrant must soberly consider how wise it is to invest in an industry characterized by high scale economies in marketing and administration, rapid change and the need for a sizeable amount of capital in order to launch a service. A capital outlay of any size is a risky bet in this highly competitive industry, (the competition comes from direct competitors and readily available substitutes) that is still experiencing growing pains. As is the case with system operators, these firms are operating in an environment that is conducive to forming joint ventures.

CABLE TECHNOLOGY

As mentioned in the last chapter, cable technology developed to satisfy the demand of those individuals who could not receive broadcast television signals because they lived in an area either surrounded by irregular terrain or located a long distance from the signal's origin. To complete the link between the program originators and the television viewers, system operators like L. E. Parsons installed high gain receiving antennas at points where an undistorted broadcast signal could be received, amplified and relayed to the community.

The changing technology of this link has played a central role in the development of the cable industry. A cable analyst nicely summed up the effect that technology has had when he stated that "necessity is the mother of invention. With cable and its competitors, technology is racing ahead of demand. Something new is happening all the time."⁷⁸

The cable industry is affected either directly or indirectly by technology that changes the link between program originator and the home user of video services. The cable industry is affected directly when a new technology decreases the cost or increases the services of cable signal transmission. Technological change indirectly affects the cable industry when it improves the position of a competitor industry by decreasing the costs of a different transmission technology between program provider and the home user. Each of these categories will be discussed in turn.

7.1 The Direct Effects of Technological Change

Technology affects the link directly by improving two types of signal transmission technologies: from origination to cable system operator, and from headend to subscriber.

7.1.1 Technological Change--From Origin to Cable System Operator

After the cable operators established the link that made them the receivers, amplifiers and retransmitters of broadcast signals, two important new technologies affected cable system operators: microwave and satellite transmission technologies.

In the late 1950s microwave technology allowed the transmission of undistorted television broadcast signals from distances of several hundred miles. The television signals were transmitted via microwave to the system operator's headend (central receiving and distribution site) where the microwave signal was separated from the broadcast signal. Microwave carriage allowed broadcast signals to be seen, distortion-free, in areas where they would not normally be received. The result was added variety for cable subscribers. The resulting improvement in cable service quality and the number of channels that could be received by cable owners dramatically increased the demand for cable. Up until microwave technologies were introduced, cable markets remained only those geographical areas with poor reception. These markets were usually small and as more stations were granted licenses and began broadcasting, even the larger medium size city markets began shrinking. With the introduction of microwave, a twelve channel system became feasible and the large urban markets, with their three broadcast channels became interested in cable.

Regulation in the mid 1960s that restricted cable distribution of distant signals slowed the progress of this continual drive to make cable more tempting to the urban markets. It was not until 1975 when deregulation of the industry had begun that a breakthrough in signal transmission occurred: Home Box Office (HBO), a first run movie programming service, announced that it would beam its signals via satellite to system operators nationwide who would pick up the signal

using an earthstation. HBO until that time had been a regional pay cable network transmitting its programming by microwave and videotape. HBO's decision to use satellite technology to transmit programming had ramifications both within, and outside of, the industry since it dramatically reduced the costs of programming distribution. It "altered the business plans of cable TV system operators, equipment manufacturers, communications common-carriers, the performing arts, sports promoters and private investors."⁷⁹

HBO's decision, in conjunction with the FCC's approval and licensing of low-cost, small diameter earth stations, paved the way for other services to emerge and today, of course, the market is flooded with programming channels transmitting via satellite. Table 7.1 lists the various satellites along with the services using them. Thus, satellite distribution of cable programming resulted in a more varied cable service offering than was available to a cable subscriber.

The introduction of satellites also created a new entry barrier for programming services since the acquisition--through rent or purchase--of satellite transponders became necessary in order to reach subscribers. After the first transponders were utilized on SATCOM IV, was established. A resulting problem was that cable operators had to buy a second earth station directed towards the new satellite. This created headaches for programming services such as The Entertainment Channel which found itself on a poorly utilized satellite system.

*Best copy/text quality available.

TABLE 7.1 CABLE SATELLITE LINKS

Satellite lineup

Satcom III-R (RCA Americom)	Transponder
AP News Cable	6
ARTS and Entertainment	1
Bonhomme's Easy Listening (audio)	3
C-SPAN	19
Cablecast Network (audio service)	16
CBN Cable Network	7
CBS Cable Network	14
CNN Medical News	15
Cinema (EAS)	20
West:	23
Down Jones Cable News (test)	3
United Video	3
Southwest Satellite Systems	6
ESPN (United Video test)	3
ESPN	7
Extra Video	16
MEDIAST	24
West:	13
HTA	16
Arts & Ent	6
The Learning Channel	16
Lifestyl Limited Video audio service	3
Lifestyl	3
United Video audio service	17
United Video audio service	3
MSN - The Musician Channel	22
MTV	11
National Jewish Television	16
News and Easy audio service	6
Newsday	1
PTV	2
Quadrant (test)	6
Quadrant (test)	6
SSS	6
Satellite Radio Network (audio service)	2
SCAN (audio service)	6
Spirit of East	12
West:	10
Showtime The Movie Channel	5
Showtime (test)	8
UP Cable News (test)	6
UP Customized Cable News (test)	6
USA Network	9
United Video	22
Video Compact	16
The Weather Channel	21
WFSU (United Video audio service)	3
WGN (United Video)	3
WTES-SSS	6
Satcom IV (RCA Americom)	
Burns (video)	15
Bravo (ESPN)	2

Financial News Network (CBS)	2
Home Sports Entertainment (Gales)	4
Home Sports Entertainment (Houston)	11
KRGO FM	17
National Christian Network (Daytime)	7
PayCov (evenings)	12
SCAN	3
SPN	3
Trans	17
Satcom V (Launched 4th Quarter 1983) (test)	
Satcom II-R (Launched April 7, 1982) (no national programming services)	
Satcom III-R (Launched Sept. 8, 1983) (no cable)	
Westar IV (Western Union)	
Transponder	
AmSat	5D
AmSat Digital Traffic	6A 7D
Emmerton Satellite	3D 12F
Cable News Network News (test)	6A
Hughes Television Network	1X 2X 3X
SIN	3A
Word Communications	1D 5X 12D
Westar V (Western Union)	
Transponder	
The American Network	10F
AmSat Digital	7D
ARTS and Entertainment	12D
BE	10F
The Disney Channel (Word Communications)	1A 6F
USA (test)	2F 3A
Financial News Network	1D
Group W Satellite Corp.	7X 8X 11D 12D
Mad Eye Square Garden (Hughes TV network)	6D
National Network (Group W)	9D
National Jewish Television	12X
Sprint TV (Word Communications)	3C
WOR-TV (Robert Word Corp.)	2D
Comstar D-4 (AT&T/GTE)	
Transponder	
County Music Television	5F
ESPN	7V
OH TV	4V 5V
The Scent Network	6F
Galaxy I (Hughes)	
Transponder	
C-SPAN	13
The Disney Channel	20
Galavision (SIN)	20
Group W Broadcasting and Cable	2, 8, 12, 22
MEO	1, 3, 17, 19, 21, 23
Showtime The Movie Channel	14
SIN	6
Times Mirror	5, 10
Turner Broadcasting	7, 18
Viacom	14, 16
WOR-TV	15
Note: A company name in parentheses following a service or network designates the transponder owner.	

Source: Cablevision, March 5, 1984

7.1.2 Technological Change--From Headend to Subscriber

The major improvement in this retransmission technology has been the improvement in transmission quality, the ability to deliver new types of two-way services and, as with the programming distribution technologies, the increased capacity to provide a variety of programming. Some of the earliest systems were wired with twin lead wire which was very unsatisfactory. "The characteristics of this cable changed with different kinds of weather...Another annoying drawback...was that if the residents of the first house [in the system] turned off their set at 9:00 P.M., the rest of the neighbors' sets went off right down the twin-lead line--they were effectively without television."⁸⁰ The use of coaxial cable solved these problems to allow reception of a higher quality picture.

Coaxial cable had the added advantage of increased bandwidth which allowed an increased variety of cable services. When the franchises for many small U.S. communities were being developed, coaxial cable with a 72 megahertz bandwidth was used. These systems had a 12 channel capacity since each video channel requires approximately 6 megahertz of bandwidth.⁸¹ Today, over 50 channels can be fit on cable with bandwidth exceeding 300 megahertz and system operators are sometimes doubling that capacity by laying dual cable. The system operators' ability to carry more channels complements the growing number of services that are being offered.

Technological changes in the transmission of signal from cable operator to the subscriber have also stimulated the creation of dynamic, interactive services in which the subscriber can participate. Since 1972, most new builds have installed interactive (two-way) cable.⁸² Interactive cable provides the potential for a subscriber to make transactions and have some control of the programming he receives. Some systems actually allow the subscriber to participate in the program. For example, Warner Amex Cable Communications' (WACC) Qube service in their Columbus, Ohio system has had boxing viewers vote for the the winning boxer in their estimation. The votes are tabulated and shown on the screen. Besides allowing the viewer to participate in programming, interactive cable opens up the possibility of supplying transactional services like shopping and banking at home. These services will be provided more frequently as the percentage of systems with interactive capabilities grows larger.

Addressability has also surfaced as one of the key technological issues in the recent history of the industry. Homes equipped with addressable converters can be controlled individually from the system operator's headend. This allows the operator to offer multiple tiers of pay programming and two way services without making a service call each time a subscriber changes his services. More importantly, addressability allows a simple method to provide homes with one time, pay-per-view events. Since pay-per-view is expected to increase dramatically in the next decade cable operators are equipping with a

technology which allows them to easily control the flow of programming into individual homes.

According to Irving Kahn--the former president of TelePrompTer who has been called "a visionary of the industry"--laser technology will cause the next major change in the industry. Glass fiber cables used by laser technology will allow bandwidths more than 20 times larger than the widest bandwidth coaxial cable. Also, the cost of the glass fiber will be much less costly than coaxial cable. Kahn listed many other advantages to laser technology; however, fiber cables are presently only being laid between headends. Apparently, the only problem holding up a broader acceptance of laser technology is the high cost of the equipment required to convert from laser back to traditional signals for the television reception of the signal. Considering that the cable industry has a multibillion dollar investment in traditional transmission technologies, we suspect that they will be sluggish in accepting laser technology. Only the competition might stimulate a more rapid adoption of this novel technology that would give the cable industry a clear advantage over other links between program originators and the home video user.

7.2 The Indirect Effects of Technological Change

While the technology important to the cable industry improved, other technologies developed to make the link between the program originator and the home video service user. The four major types of competitors are subscription television (STV), microwave distribution systems (MDS), direct broadcasting systems (DBS), and satellite master antenna television (SMATV). Following is a description of technologies involved in transmitting the signals for each system.

MDS--As cable operators began using microwave to transmit and receive long-distance programming, competitors developed the technology to transmit programming directly to television viewers. Programming is transmitted in this system via line-of-site microwave signals. MDS is a 5-8 channel system (as with other airwave communications methods, the FCC determines the amount of bandwidth allocated to MDS) that until recently was targeted at hotels and apartment buildings. Now that smaller, less expensive antennas have been developed, it is also being marketed to single family homes.

MATV/SMATV--MATV and SMATV technologies developed as a result of the buying power of large apartment buildings who originally obviated the cable operator by having a master antenna which their tenants could use to receive clear network broadcasting signals. An SMATV system is simply an extension of this concept with an earth station of the type cable operators use to receive programming from the same satellites used to transmit to system operators. In essence, the technology is the same as that used by the cable industry with programming received by satellite and subscribers hooked into the system by cable. The difference is that the cable distribution of the programming is limited to one apartment complex. As a consequence, SMATV is also known as private cable. Because the market for these systems has been small, the cable industry competes with this technology by building economies of scale and by offering special interactive services that these small SMATV systems may not offer.

STV--With the development of addressable converters, broadcasting companies have tried to develop STV technology to bypass the cable operator. The STV technology that they developed scrambles the broadcast signal upon transmission. This signal must then be unscrambled with an addressable converter which is given to the subscriber. The use of addressable converters allows STV to offer pay-per-view programming as well as continuous programming where the subscriber pays a monthly fee. As with most of the other cable

substitutes, STV offers a limited number of channels (usually one to three) and therefore has had little effect on the cable industry.

DBS--A more recent development allowed low cost reception of the signals from satellites by earth stations owned or rented by individuals instead of cable operators. This technology presently only offers 3 to 6 channels of programming, but in the future, technological improvements of this young technology are expected to increase the number of channels to be competitive with cable technologies.

This competition was not present years ago, since satellite transmission used the mu band (4-6 MHz) which could only be received by large earth stations costing a minimum of \$2000. However, many recently launched satellites have transponders that are substantially more powerful, and they operate off a higher frequency, the ku band (14-16 MHz). These two characteristics allow reception by earth stations that cost \$300 or less.⁸³ Besides the drop in price, individually owned earth stations are becoming more common due to the FCC's deregulation of receive-only earth stations.

Although capital costs can be forbidding--for example, the first DBS service (offered by USCI) has required more than a \$200 million investment over three years--dozens of companies have applied for DBS licenses from the FCC. Of the technologies that threaten cable, DBS may be the only one with a chance of having a major impact on the

cable industry. In the future, the interactive service capabilities of cable may be the only services available on cable but not available on DBS; however, the other communications companies may make these services available. This threat from DBS and the communications companies may stimulate the cable industry's use of laser technology in the near future.

CABLE JOINT VENTURES

The preceding chapters outlined the nature of the cable television industry in order to provide the reader with a basic understanding of the forces affecting the structure of the industry. This chapter presents a detailed accounting of the joint ventures that were studied. For each joint venture, the motivations, goals and structure are listed. Each section concludes with an evaluation which sums up how well the operation was running and offers reason for the specific results. The chapter concludes with a summary of the elements that all or most of these joint ventures share and compares these findings with the theory developed in chapter 3.

As was stated in the Introduction, material on each of the joint ventures was collected through phone and personal interviews as well as through the literature. Where background information has been provided by the person or persons listed in the acknowledgements no further reference has been provided. However, in every other instance, a source is cited in the usual way.

Table 8.1 CABLE JOINT VENTURES.

JOINT VENTURE	PARENTS	DESCRIPTION
Disney Channel	Disney Group W Satellite	Pay Channel
Satellite News Channel	ABC Video Group W Satellite	Ad Supported News
ARTS and Entertainment	Hearst ABC Video Rockefeller Center TV	Ad Supported Cultural Programming
Lifetime	Hearst ABC Video Viacom	Ad Supported Health and Women's Topics
SportsChannel	Cablevision Washington Post	Pay Channel--Sports
Playboy Channel	Playboy Cablevision	Pay Channel Adult Programming
Spotlight	Cablevision Storer Cox TCI Times-Mirror	Pay Channel
Showtime-The Movie Channel	Warner Communications Warner Amex Viacom	Pay Channel
Tri Star	HBO Columbia Pictures CBS	Film Studio
Warner Amex	Warner Communications American Express	MSO and Programmer
Theta Cable Manhattan CATV	Hughes Aircraft TelePrompTer	Franchises N.Y. and L.A.
Group W Cable Franchises	Group W Cable Local Investors	Franchises
Warner Amex Cable Franchises	WACC Local Investors	Franchises

Table 8.1 CABLE JOINT VENTURES (continued).

JOINT VENTURE	PARENTS	DESCRIPTION
Continental Cable- vision Franchises	Continental Cablevision Local Investors (Chicago) Competing System Operator (Springfield)	Franchises Chicago and Springfield
Cablevision Franchises	Cablevision Scripps-Howard	Franchises Connecticut and California

The joint ventures have been divided into two types: franchise related and programming related. Table 8.1 lists the joint ventures which will be discussed in this chapter. The programming joint ventures are listed first followed by the franchise joint ventures.

PROGRAMMING JOINT VENTURES

THE DISNEY CHANNEL

This was a joint venture between The Disney Corporation and Group W Satellite. It was formed in 1981 and was dissolved in the fall of 1982. Both companies were considering establishing a pay channel when the chairmen of the two parent corporations discussed it at a Professional Golfers' Association function. Soon after that discussion, formal negotiations were entered into and an agreement was reached.

CONTRIBUTIONS--Disney provided the largest film library for children in existence and also provided a name that is synonymous with quality children's entertainment. Under the terms of the agreement Group W Satellite was to provide the sales and marketing support, the satellite transponders and the uplinking.

MOTIVATIONS--Disney wanted to provide quality programming while at the same time using the channel as a promotional vehicle for Epcot. Group W Satellite wanted a channel that would be socially stimulating for children. Lloyd Werner of Group W termed it a "safe haven" where parents could be sure that their children were not being exposed to programming with questionable content.⁸⁴

STRUCTURE--Each partner had 50% equity participation in the Disney Channel. The Board of Directors had 2 Disney representatives and 2 Group W representatives so neither group had absolute control.

EVALUATION--The Disney Channel is now wholly owned by Disney. Jim Jimerro, president of the Walt Disney Telecommunications unit, blames the dissolution on Disney's lack of control. "We came to the conclusion that we had to have creative control. I think the creative control was the main [reason for the breakup] in both programming and marketing."⁸⁵

Lloyd Werner says that disagreements arose at first over marketing issues and then spilled over into issues concerning programming and pricing strategies. Many of these issues had been supposedly agreed to in the contract but one or the other of the parties would raise objections nonetheless. Since control was divided evenly there was no one party to decide matters. This lack of control was cited by Werner as a major factor in the failure of the joint

venture to endure.⁸⁶

Werner also blames the dissolution on differing corporate cultures and ways of doing business. He used Group W's partnership with ABC Video in the Satellite News Channel as an example of two firms in the same business (broadcasting) having similar methods of doing business. Disney, on the other hand, was a show business company and was used to handling business deals in a manner different than Group W was accustomed to.⁸⁷

The channel ultimately failed because there was no clear agreement on who controlled the venture and because Disney eventually felt that they could distribute the product effectively on their own.

SATELLITE NEWS CHANNEL

The Satellite News Channel (SNC) was a joint venture of Group W Satellite and ABC Video Services. It was announced in August, 1981, launched in June, 1982 and was bought out by Ted Turner in the fall of 1983. SNC offered 24 hour live news 365 days a year.

Group W Satellite first contacted ABC in order to negotiate a deal for use of ABC's international news footage. ABC Video Services then brought up the possibility of a joint venture and the deal evolved from that point.

CONTRIBUTIONS--Group W provided the news facility, local news-gathering expertise, sales and marketing expertise, the satellite transponders and the engineering skills. ABC Video contributed international footage and enough cash to equal the value of Group W's contributions.

MOTIVATIONS--Both partners wanted to produce a channel that would provide the best news coverage available to the consumer. The joint venture allowed Group W, which had been prepared to operate the service on its own to set aside only half of the capital for the project. It also provided Group W with the international footage it needed.

According to industry sources, ABC was considering starting an all-news channel before it learned of Group W's plans. ABC Video was motivated in part by the belief that advertising could not support more than two cable news channels. By forming a joint venture with Group W, ABC was not only able to gain abilities that it did not possess but was also able to avoid a potentially harmful competitive situation. Furthermore, Jack Healy of ABC Video states that his firm's motivations for entering any joint venture are to share risk and to enter the market sooner than it would on its own.⁸⁸

STRUCTURE--Each partner had 50% equity in the joint venture. However, Group W had 3 of 5 representatives on the Board so it had control of the operation. Lloyd Werner of Group W says that his company would not agree to the joint venture otherwise and ABC Video accepted the arrangement.⁸⁹

EVALUATION--The channel itself is no longer in existence but both partners insist that this is a result of several business factors that are totally unrelated to the ability of the partners to get along. The main reasons for the sellout to Turner were the increased number of competitors in the market segment and the failure to reach projected levels of advertising revenues.

Although both partners suffered minor losses on SNC it was not a failure as a joint venture since both partners feel that as a result of combining strengths superb news programming was made available to the public. The partners were able to work together effectively for several reasons. The roles of both partners were clearly delineated beforehand and it was obvious that Group W, with a majority control of the Board had the legal power to take charge. The result was that no important question was endlessly debated or left unresolved. It also helped that the two companies were both in the broadcasting business. They understood each other and were familiar with how each did business which meant that communication was relatively smooth.

ARTS AND ENTERTAINMENT CHANNEL

This is a programming channel that specializes in cultural, upbeat entertainment. The service was initially formed as a joint venture between Hearst and ABC Video Services. Rockefeller Center Television joined the partnership in 1983.

CONTRIBUTIONS--After a year of research ABC created ABC Video whose mission it was to create what became the ARTS Channel. ABC had concluded that a cable programming channel would fit in nicely with the strengths of the network. It was felt that a cultural channel would be a good start since that kind of programming would be least offensive to ABC's broadcast affiliates. ABC Video was involved with purchasing European footage to use on the channel when Hearst, which was already partners with ABC Video in the Daytime service, approached with the idea of making the project a joint venture. Hearst contributed its skills as a publisher of women's magazines. This is a valuable asset since the target audience for this type of programming is similar to the audience for a specialty magazine in that it is a segment of the total population. Rockefeller brought a low cost programming service, formerly The Entertainment Channel, and the rights to BBC programming.

MOTIVATIONS--ABC's feeling in entering the joint venture was that Hearst would complement its strengths and the time span between startup and profitability would be shortened.⁹⁰

Another reason for the initial ARTS partnership between ABC Video and Hearst Corporation was given by Tony Herrling of ABC Video. The two companies had agreed to produce Daytime as a joint venture and the feeling was that a large portion of the costs involved in running two different programming services could be cut if the services were combined. As a result, Hearst became a partner with ABC in ARTS as well as Daytime and both services had the same administrative and marketing staffs.⁹¹

STRUCTURE--The Arts and Entertainment Channel is run by a 9 man Board with each company having 3 representatives. ABC Video and Hearst vote in a block so they essentially run the show.

EVALUATION--Jack Healy of ABC Video likens a joint venture to being married to several wives in that no matter how hard you try there are going to be problems. The fact that Hearst is a private corporation and ABC is publicly traded causes some difficulty according to Healy. For example, Hearst measures its performance according to cash flow while ABC is more concerned about earnings per share. Another example is that people at ABC are used to paying bonuses whereas the management at Hearst is not accustomed to this. Since they vote in a

block there are times when compromises must be made.

Healy feels that the joint venture will succeed because of the fact that the differences are minor and because each partner contributes some skills that make the partnership stronger.⁹²

LIFETIME

This joint venture produces a channel specializing in entertainment for women and health fanatics. The founding partners were ABC Video and the Hearst Corporation. In the fall of 1983 Viacom Entertainment Services joined the partnership.

The channel started as Daytime in 1982 and became Lifetime in 1984 with the addition of Viacom's Cable Health Network. The channel has never broken even but costs have always been at or below budget and advertising revenue is increasing so the outlook is brightening.

CONTRIBUTIONS--ABC Video brought experience in producing programming for daytime audiences. The Hearst Corporation brought expertise in providing information targeted at women. Viacom brought the Cable Health Network and its associated programming, additional transponder time and subscribers. The additional subscribers are a key contribution since the more subscribers a service has, the more appealing it is to advertisers.

MOTIVATIONS--The overriding goal of the partners in Jack Healy's words, is "to make Lifetime a core service required to maintain a basic subscriber."⁹³ Another prime motive for ABC Video is the opportunity to spread the risk.

The motivation for becoming partners with Viacom was that the Cable Health Network was aimed at the same audience that Daytime was directed to. Combining the services meant an increase in viewers and a greater appeal for advertisers. Finally, the cost to operate a combined service is less than the cost of running two separate services.

STRUCTURE--As is the case in the Arts and Entertainment Channel, ABC Video and the Hearst Corporation each have 3 of 9 seats on the Board and vote as a block. Viacom, however insisted on a long list of exceptions which require an unanimous vote. These exceptions include budget approval, approval of any shift from the present programming format and pricing strategy approval.

EVALUATION--The joint venture appears to be running smoothly with no apparent rifts between partners. The fact that ABC and Hearst have been partners for a while helps as does the fact that Viacom and ABC Video both have roots in broadcasting (Viacom was spun off from CBS) and tend to have the same way of thinking.

SPORTSCHANNEL

In 1983 the Washington Post paid Cablevision \$20 million to get a 50% ownership of SportsChannel, a regional pay service featuring sports programming.

CONTRIBUTIONS--Before the Washington Post approached Cablevision, the MSO was operating the service on a low budget. The Washington Post brought \$20 million of much needed capital as well as expertise in the publishing and information business. Cablevision provided the established service as well as programming, marketing and management skills.

MOTIVATIONS--The Washington Post wanted a vehicle through which to enter the cable industry. It felt that a joint venture with a company with considerable cable expertise would provide the best return on investment.* Cablevision was happy to get both the cash and the skills.

STRUCTURE--Each partner has 50% of the equity in this joint venture.

EVALUATION--This joint venture is operating smoothly after a year. Both partners cite the importance of bringing complementary skills to the table. Alan Spoon, of the Washington Post feels that this increases the chances for success.⁹⁴

THE PLAYBOY CHANNEL

The Playboy Channel, an erotic pay channel was a joint venture between Cablevision, an MSO, and Playboy Inc. The association was started with a handshake and was after two years without a legal agreement being signed.

CONTRIBUTIONS--Playboy's main contribution to the arrangement was its name and its programming expertise. Cablevision provided the sales and marketing expertise.

MOTIVATIONS--Bob Sullivan, the chief financial officer for Cablevision, says that the goals of the two firms were "similar but not congruent."⁹⁵ By this he means that while both partners wanted to produce a service that was known for its quality programming, each partner had a slightly different definition of what quality meant.

Both firms sought to have considerable input in the programming decisions and a final agreement on this issue was never reached.

STRUCTURE--There was never any formal structure agreed to since an agreement establishing the joint venture was never signed.

EVALUATION--In Sullivan's words, "after two years of operation without a signed contract [the result] was a decision where Playboy said they'd produce it their way and they'd let Cablevision market it to affiliates...The decision was to go down the road side by side instead of together."⁹⁶

The central issue in this instance was one of programming control. The two firms had differing views on what constituted acceptable programming on an erotic channel and even though they spent years attempting to come to an agreement concerning this issue they found it to be an impossible task. This is an indicator that the companies' philosophies concerning programming were far apart and deeply rooted.

Their present agreement, where Cablevision has no responsibility for the editorial content, is going very well according to Sullivan.

SPOTLIGHT

Spotlight was a pay service designed to compete with Cinemax, The Movie Channel, HBO and Showtime. It was initiated by Times-Mirror and in December, 1981, a joint venture was formed involving Times-Mirror and four other MSOs: Cox, Cablevision, TCI and Storer.

CONTRIBUTIONS--Each partner contributed cash and subscribers (in many cases Spotlight replaced the pay cable service that was originally offered to subscribers of cable systems owned by one of Spotlight's partners) to the venture.

MOTIVATIONS--The purpose of this joint venture was to eliminate the middleman costs⁹⁷ and to combat some of the power held by HBO.⁹⁸ The partners felt that "Spotlight could start saving money by eliminating affiliate relations and marketing costs--no need to market to the owners or hold their hands. More importantly, there's the contribution the pay services make to their corporate parents' bottom line."⁹⁹ The partners hoped to keep that profit for themselves.

STRUCTURE--The equity contribution varied with the number of subscribers. Cablevision, for example, had a 10% share of the joint venture.

EVALUATION--Cablevision left the joint venture after less than a year and in early 1984 the rest of the partnership was dissolved with Showtime/The Movie Channel gaining the Spotlight subscribers.

Bob Sullivan of Cablevision points to lack of control as the main problem. "Everyone has to agree who's running the store [but] no one took the lead."¹⁰⁰ Sullivan pointed out that although all five partners had the same broad goals for the venture--taking some of the power from HBO--they had other firm-specific goals which conflicted. As a result, "getting all five MSOs to talk to each other intelligently [was] almost an impossibility."¹⁰¹

Jack Kent Cooke, the president of Spotlight, concurs with this assessment, in part, stating that the demise was due to an inability to "sustain acceptable profitability given its relatively low number of potential subscribers and the differing commercial objectives of the partners."¹⁰²

Sullivan is not surprised at the end result since he says that this is a typical pattern for joint ventures. "You start with what you think is a good idea and then you tend to break up into the constituent units. You get a lot of chiefs and a lot of different viewpoints."¹⁰³ Since Spotlight did not have a designated leader with the power to make decisions on conflicts the joint venture dissolved.

SHOWTIME-THE MOVIE CHANNEL

Showtime was a pay service formed in 1977 by Viacom in an effort to compete with HBO. For a number of years it was a joint venture with TelePrompTer and then Group W (after the acquisition of TelePrompTer). Group W sold its share of Showtime to Viacom in 1982 citing control issues. For a number of months Viacom was in the market for a partner or partners. A potential deal with a number of movie studios fell through in the summer of 1983 because the justice department disapproval of the venture on antitrust grounds. Finally, in the fall of 1983, Showtime, the second largest pay channel merged with The Movie Channel, the third largest pay service to make Warner Communication Inc., Warner Amex and Viacom joint venture partners.

CONTRIBUTIONS--In this joint venture the partners brought much more than cash to the table. Both Warner Amex and Viacom are MSOs so they both brought outlets for the pay service. Viacom brought a channel with approximately 4.7 million present subscribers and differentiated programming. Warner and Warner Amex brought an all-movie service and approximately 2 million subscribers. Warner Communications had strength in movie production as owners of Warner Bros. Studios. Viacom brought syndication expertise, rapidly becoming an important skill since shows produced for pay cable are now being syndicated for presentation on broadcast stations.

MOTIVATIONS--According to Dave Fluhrer of Viacom, his company wanted a partner for Showtime since it has "always been interested in joint ventures because you spread risk around and share resources."¹⁰⁴ Fluhrer states that the additional advantages to all three firms are:

- O Economies of scale--combining the staffs of the two services saved an estimated \$15-20 million, because now that one organization takes care of all the administration and marketing.
- O Resources of the new partners.
- O Larger subscriber base.
- O Partnership is now more attractive to the investment community--soon after the merger was announced it obtained a \$150 million line of credit which was not secured by the parent companies.

The goal of the new firm is simply to compete successfully with HBO.

STRUCTURE--The equity is divided up as follows: Viacom, 50%, Warner Communications, 31%, and Warner Amex, 19%. However, if Warner Communications and Warner Amex vote in a block, this joint venture would perform much like a 50/50 joint venture.

EVALUATION--The merger resulted in two services that can now be easily marketed as a package to produce formidable competition for the highly popular pay package of HBO and Cinemax, which are both owned by Time, Inc. As a business idea it appears to be a very viable competitive strategy. Whether or not the partners can work together remains to be seen.

TRI STAR

This joint venture between HBO, CBS and Columbia is a film production company. It was announced in 1982 and to date has distributed one movie and produced and distributed another.

CONTRIBUTIONS--Each partner contributed 1/3 of the capital. The specific strengths of the partners were HBO's pay television markets, CBS's television distribution capabilities and Columbia's production expertise and theater distribution experience.

MOTIVATIONS--Each firm wanted a guaranteed supply of product for its particular market. Laurie Goodman of HBO was very specific in explaining her firm's reasons for entering the joint venture. HBO went into the venture at a time when film costs were escalating and it was felt that it was better to take a long term, up-front risk with

Tri Star than to be entirely dependent on the vagaries of the market. The intent was to gain some control of the supply of product and be less subject to losses incurred when film prices shot up due to a dearth of quality product.¹⁰⁵

STRUCTURE--Each company has 1/3 representation on the Board.

EVALUATION--The firms had had experience dealing with each other before so the opportunity was there to sound each other out before the deal was agreed upon. To date, the joint venture appears to be working.

WARNER AMEX

This is arguably the best known cable joint venture in the country. It was formed in 1979 when American Express paid Warner Communications \$175 million for 50% ownership of Warner's cable operations. The company is composed of two subsidiaries: Warner Amex Cable, an MSO responsible for cable franchises and Warner Amex Satellite Entertainment Corporation which produces cable programming.

CONTRIBUTIONS--Warner provided its extensive cable network which in 1979 was the fifth largest in the country. Thus, they had considerable expertise in franchise operations. Although Warner had no direct cable programming expertise they had a number of people who had considerable experience in radio and television production.

American Express contributed cash--lots of it. While it is true that American Express certainly had marketing and credit expertise (the latter is useful for transactional services done through Qube) it does not seem that these attributes were called upon to a large extent. In fact, one Warner Amex employee, when asked what American Express brought to the joint venture besides cash, replied, "I don't know."¹⁰⁶

Cablevision's Bob Sullivan, who was with American Express when the joint venture was completed, claims that "American Express brought nothing to the party except money...they brought no management."¹⁰⁷

MOTIVATIONS--American Express wanted to enter the cable industry because it had a desire to enter a growth industry to counterbalance the mature insurance industry. Cable was appealing because it was involved with communications and had the potential to provide synergies with American Express' current businesses through interactive services. American Express sought a partner with experience in the business and felt that Warner provided the best fit. Warner's immediate goal at the time of the agreement was to acquire

capital so that it could compete for new franchises.

STRUCTURE--Each partner has a 50% equity position and 50% control of the joint venture. Each shareholder has first refusal rights in the event that the other shareholder desires to sell its stock.

EVALUATION--Warner Amex is still in existence after five years amid severe franchise difficulties and rumors of a dissolution. A recent Business Week article reported that Warner Amex's 1982 net loss was \$47 million and that this figure increased to \$91 million in 1983.¹⁰⁸

Like a number of other companies, Warner Amex became embroiled in the recent franchise bidding wars and agreed to expensive provisions in order to secure the franchise. When interest rates shot up in 1980 and 1981, construction financing costs increased and Warner Amex found itself in difficulty.

Other companies were faced with the same problems and Warner Amex has fared more poorly than most. It happens that this is another case of uncertain control. In the early years of the joint venture, according to Sullivan "they were 50/50 partners which means that nobody did anything. They were so courteous to each other...that the inmates ran the asylum. No one exercised control. No one who was responsible financially."¹⁰⁹ The implication is that if Warner had taken the lead at the inception, then the joint venture quite possibly could have avoided some of its poor franchise decisions.

FRANCHISE JOINT VENTURES

TELEPROMPTER-HUGHES FRANCHISE JOINT VENTURES

In 1966, TelePrompter, a leading MSO, and Hughes Aircraft formed two joint ventures to capture cable franchises in Los Angeles and New York. Theta Cable was the L.A. joint venture and Hughes had a 51% equity position. TelePrompter had 51% of the equity in Manhattan CATV Corporation.

CONTRIBUTIONS--In each case TelePrompter brought management expertise to the deal. Hughes brought technical expertise as well as money. In fact, management at TelePrompter first met the Hughes team when they needed a microwave hookup to transmit programming from building to building in Manhattan, eliminating the need to go underground.¹¹⁰

In L.A. the Hughes reputation was very important in securing the franchise and in New York, Kahn believes that the TelePrompter reputation led to the winning of that franchise.

MOTIVATIONS--The immediate goal of the partners was to secure the two franchises. Hughes had a bigger stake in the projects than simply being a joint venture partner would indicate since it also owned 600,000 shares of TelePrompter.*

STRUCTURE--As was mentioned earlier, Hughes had 51% of the L.A. franchise and 49% of the New York franchise. In both cases, however, "TelePrompter managed and ran the systems."¹¹¹

Irving Kahn, the chairman of TelePrompter at the time, stated in a recent interview that there was not much of a formal structure. Management of both parents were comfortable with each other and it was agreed that TelePrompter would be in control of daily operations regardless of equity participation. They arranged the equity participation this way because the franchising authorities in each city wanted the company they were familiar with to have the majority interest.¹¹²

EVALUATION--These joint ventures lasted in one form or another, through several changes of TelePrompter's management until 1981 when TelePrompter bought Hughes out. For much of that time the franchises were operating at a loss as a result of high construction costs and lower than estimated subscriber revenues.

GROUP W CABLE FRANCHISE JOINT VENTURES

In 1981, Westinghouse Broadcasting and Cable Co., whose parent company is The Westinghouse Corporation, bought TelePrompTer whose holdings included the Los Angeles and New York franchises discussed above. This purchase made Group W Cable the third largest MSO in the country.

Group W Cable owns approximately 140 systems, less than 5% of which are joint ventures according to George O'Hanasian of Group W Cable.

CONTRIBUTIONS--In all of the franchise joint ventures that Group W makes, it supplies the management expertise and the bulk of the cash. The local investor or investors supplies the political clout that is sometimes necessary to win a franchise.

MOTIVATIONS--Group W Cable's goal is to win the franchise and as a result it will enter into a joint venture with a local investor if "that will increase the probability of winning."¹¹³ It was mentioned in an earlier chapter that competition for a franchise is usually fierce. The idea is to get local support so that the franchise committee looks most favorably on your application.

Local investors are motivated by the potential to make a nice profit for a minimal investment.

STRUCTURE--This varies but the predominating figure seems to be 80% equity for Group W Cable and 20% equity for the partner. This percentage allows maximum accounting benefits. Group W Cable, in all instances manages the system and is in complete control of daily operations.

EVALUATION--Group W enters a joint venture with local investors only as a last resort. The local partners' value lies mainly in the influence they have in getting the franchise for Group W Cable. Despite this, the joint ventures run smoothly. This is attributable to the fact that the partners do not have conflicting goals. Group W wants to win a franchise and then manage it so that long run profit is maximized. Group W has legal control of the venture and it is in the local investors' best interest to interfere as little as possible since Group W has the management expertise.

WARNER AMEX CABLE FRANCHISE JOINT VENTURES

Warner Amex Cable is the subsidiary of Warner Amex the multiple cable system operator. It controls approximately 125 systems, over 95% of which are wholly-owned.

CONTRIBUTIONS--Like Group W, Warner Amex Cable looks for the local investor to provide help in obtaining a franchise. Warner Amex Cable provides management expertise and a good investment.

MOTIVATIONS--The primary motivation is to win the franchise. Warner Amex entered joint ventures with local partners in Cincinnati and Pittsburgh because the message from the cities and the strategies of the competition dictated that this would be the best course to take.

STRUCTURE--Warner Amex Cable has an 80% equity share in the Pittsburgh system with the remaining 20% going to minority organizations. In Cincinnati, the minority partnerships went to civic groups. In both cases, Warner Amex Cable was in charge of managing the system.

EVALUATION--Warner Amex Cable has been in the headlines lately because it has had financial difficulties with new builds in their large city franchises. The difficulties do not appear to be a result in any way of squabbles with the minority partners.

Warner Amex Cable has never joint ventured with another MSO but it is considering doing just that with Viacom in Milwaukee. Viacom owns operating franchises in the suburbs and Warner Amex Cable has the right to wire the city of Milwaukee. However, due to its financial difficulties, Warner Amex Cable is seeking a partner to help defray the costs. Viacom would provide capital and management expertise specific to cable operations in Milwaukee. The joint venture, if agreed upon, would also provide considerable administrative and marketing cost savings since one staff would take the place of two.

CONTINENTAL CABLEVISION FRANCHISE JOINT VENTURES

Continental Cablevision is the country's tenth largest MSO with approximately 75 systems and 696,000 subscribers. Like the other MSOs that have been discussed, Continental Cablevision has entered very few joint ventures but in recent years it has entered into a few joint ventures in large franchises. Two of these joint ventures will be discussed here and will be treated separately since the partners for each venture are considerably different.

Springfield

In 1981, Continental Cablevision won the Springfield franchise of 60,000 homes as an equal partner with a group consisting of the Tribune, Scripps-Howard, and a private investor.

CONTRIBUTIONS--This joint venture came about after the Springfield franchise committee rejected all of the first round applications and invited rebids. Continental Cablevision and the other group both felt that they were the two leading contenders for the bid and that their chances of winning would be excellent if they submitted a combined bid. So, besides each group contributing half of the cash, they gave each other a sense that together they were stronger than they were apart as far as winning the franchise was concerned.

MOTIVATIONS--As in most of the franchise joint ventures the goal was to win the franchise. Each partner felt that part of the pie was better than no pie at all and that combining forces would enable them to win the pie.

STRUCTURE--Initially, equity was 50% each and the Board was divided evenly between the two groups. Currently, after the selling of stock, Continental Cablevision has 70% of the equity.

Continental Cablevision has always had the management contract to operate the system and the Board has been comfortable in letting it control the daily operations. Out of all the partners Continental Cablevision clearly had the most management expertise.

EVALUATION--No crisis has come up in the three years of operation. It is clear that Continental Cablevision has control of this joint venture.

Chicago

In early 1984, Continental Cablevision won one of Chicago's five franchise areas in a joint venture with a group of minority businessmen.

CONTRIBUTIONS--The franchise committee made it clear that they wanted minorities represented so the minority group satisfied that criterion. They also brought considerable business acumen and an excellent reputation to a cable venture whose franchise area is 63% black. Continental Cablevision brings its system expertise to the partnership.

MOTIVATIONS--Once again, the motivation for the joint venture on Continental Cablevision's part was to win the franchise.

STRUCTURE--Each group has a 50% share of the equity. Continental Cablevision will manage the system but some subcommittees are not always controlled by Continental Cablevision. This could lead to confusion in the future.

EVALUATION--Since this joint venture has just been consummated there is no past history to judge it on. It is likely to succeed since the two partners have separate and complementary strengths--Continental Cablevision has the management expertise and the local group has extensive knowledge of how business is conducted in the community.

CABLEVISION FRANCHISE JOINT VENTURES

Cablevision owns less than ten systems but one of them, on Long Island, is the second largest system in the country with over 200,000 subscribers. It has entered franchise joint ventures with Scripps-Howard in three locations: Fairfield and Bridgeport, Connecticut and Sacramento, California.

CONTRIBUTIONS--Scripps-Howard brings a journalistic background and publishing expertise as well as capital. Cablevision provides system expertise in both installation and management.

MOTIVATIONS--Unlike the previous franchise joint ventures that have been discussed, Cablevision's primary motivation for taking a partner is not to secure the franchise, although that is certainly a consideration, but to be able to have the finances to build it when it is won.

Scripps-Howard, like many publishers is interested in the cable business as an alternative way of delivering its information. These joint ventures provide Scripps-Howard with an entry into the industry without the responsibility of managing a business it knows nothing about.

STRUCTURE--The structure of the joint ventures are extremely complicated as far as equity is concerned. The plan allows for Scripps-Howard to receive virtually all of the tax benefits at first with the stipulation that these savings are to be reinvested in the joint ventures. Eventually, the two firms will be 50/50 equity partners.

As far as control of the operations of the franchises is concerned Bob Sullivan states that it is written into the contracts that Chuck Dolan (the president of Cablevision) is the general partner.¹¹⁴ In other words, both partners have agreed that Cablevision is running the show.

EVALUATION--Both partners appear to be happy with the relationship as is evidenced by the fact that they are now in three joint ventures together. Although Bob Sullivan states that Cablevision does not "want a partner with just deep pockets that brings nothing other than money to the party,"¹¹⁵ it appears that money is Scripps-Howard's largest contribution. It will be interesting to observe how Scripps-Howard's publishing expertise is put to use in the joint venture.

Regardless of whether or not cash was the primary motivation for making the deal, the key element to remember about this series of joint ventures is that Cablevision is in control.

CONCLUSION

Before summarizing the crucial elements and motivations that typify a successful cable joint venture, it is necessary to define what we mean by successful. Initially, we had planned to designate a joint venture as a success if it had achieved or was achieving its original goals. This definition does not, however, take into account the fact that in the dynamic business environments which are common for new products, a firm's goals often change as the competitive environment changes. Hence, it is unreasonable to term a joint venture a failure because it did not achieve goals that were established given assumptions that no longer were accurate.

Taking this into consideration, our definition of a successful joint venture is one in which the partners had a harmonious working relationship with their final goals being achieved or one the road to achievement. Put another way, a joint venture that did not meet its initial goals is still a success in a joint venture relationship if the failure to meet the goals was caused by incorrect planning and assumptions and not by any problems with the relationship itself.

Given this definition, Table 8.2 lists our evaluations of successful and unsuccessful joint ventures.

Table 8.2 CABLE JOINT VENTURE EVALUATION.

SUCCESSFUL	TOO EARLY TO TELL	UNSUCCESSFUL
ARTS	ARTS and Entertainment	Disney Channel
Cablevision	Cont. Cablevision--Chicago	PlayboyChannel
Continental Cable- vision--Springfield	Lifetime	Spotlight
Daytime	Showtime-TMC	Warner Amex
Group W Cable Franchises	SportsChannel	
Satellite News Channel		
TelePrompTer-Hughes		
Tri Star		

MOTIVATIONS

Table 8.3 lists the various motivations for joint venture activity given by the joint venture partners covered in this chapter. Numerous reasons were given for entering programming joint ventures. Four motivating factors were cited most often:

- O To gain the skills needed to successfully compete
- O Allow quicker entry into the market
- O Spread risk
- O Gain market power

System operators, on the other hand, tended to form joint ventures for a much smaller variety of reasons. Joint ventures with other than local partners were made not only to improve the chances of winning the franchise but also for complementary skills and capital.

CRITICAL SUCCESS FACTORS

We have determined from studying these joint ventures and interviewing the individuals involved in putting them together and running them that four conditions are vital in order for joint venture partners to have an optimal chance of an effective working relationship. These are:

- O Complementary skills
- O Complementary company cultures
- O Non-conflicting goals
- O Clear control

Table 8.3 CABLE JOINT VENTURE MOTIVATIONS.

JOINT VENTURE	PARENTS	MOTIVATIONS
Disney Channel	Disney Group W Satellite	Marketing Expertise Access to Film Library
Satellite News Channel	ABC Video Group W Satellite	Complementary Skills Reduce Competition Increase Market Power Quicker Market Entry Reduce Capital Outlay Share Risk
ARTS and Entertainment	Hearst ABC Video Rockefeller Center TV	Economies of Scale Complementary Skills Quicker Market Entry Share Risk
Lifetime	Hearst Viacom ABC Video	Complementary Skills Economies of Scale Increase Market Power Share Risk
SportsChannel	Cablevision Washington Post	Complementary Skills Cash
Playboy Channel	Playboy Cablevision	Complementary Skills
Spotlight	Cablevision Storer Cox TCI Times-Mirror	Market Power Share Risk
Showtime-The Movie Channel	Warner Communications Warner Amex Viacom	Economies of Scale Market Power Subscribers Cash
Tri Star	HBO Columbia Pictures CBS	Complementary Skills Market Power
Warner Amex	Warner Communications American Express	Complementary Skills Cash

Table 8.3 CABLE JOINT VENTURE MOTIVATIONS (continued).

JOINT VENTURE	PARENTS	MOTIVATIONS
Theta Cable Manhattan CATV	Hughes Aircraft TelePrompTer	Cash Win Franchise
Group W Cable Franchises	Group W Cable Local Investors	Win Franchise
Warner Amex Cable Franchises	WACC Local Investors	Win Franchise
Continental Cable- vision Franchises	Continental Cablevision Local Investors (Chicago) Competing System Operator (Springfield)	Win Franchise Local Expertise Comp. Skills
Cablevision Franchises	Cablevision Scripps-Howard	Complementary Skills Cash

Complementary Skills--In all of the joint ventures that we termed successful each partner contributed at least one skill central to the business success of the joint venture that no other partner had. This served to make the partners dependent on one another, and fostered a spirit of teamwork, since the partners realized, quite well, that they could not achieve business success on their own. Also, in cases where one partner believed that it could do its partner's specialty better, it set the stage for conflict and an ineffective relationship.

Complementary Company Cultures--Anyone who has visited a foreign country has probably spent some time getting used to customs and beliefs that are different from those in America. Some people, especially those who have traveled before, adjust quicker than others while some never can accept the fact that there are suitable ways of doing things other than what they are used to.

Joint venture partners encounter much the same problem when they enter a partnership. It is crucial that joint venture partners be able to work together harmoniously. In order to do that, possibly conflicting corporate cultures must be reconciled. This is especially necessary in joint ventures where control is not clearly in the hands of one of the parents.

We concluded from our research that joint ventures were more likely to succeed the more that the parents had in common. For example, Group W and ABC are both broadcasting companies and talked the same language. The result was minimal communications problems between the parents.

On the other hand, the Group W, Disney partnership fell through due in large part to a failure to communicate effectively. The Disney people were movie producers, not broadcasters and the two groups did business in different ways that were never reconciled.

This is not to say that a joint venture between firms in different businesses will not be successful. Tri Star appears to be working well as did Daytime and ARTS. The key element is that the partners in all of these joint ventures had either dealt with each other before and thus were familiar with the habits of their prospective partners or had recognized this issue as a potential problem and have taken steps to adapt.

We have concluded that companies with different corporate cultures can work effectively as joint venture partners but that they have an uphill battle in front of them. The problem is eased somewhat when the firms have done business before and it causes the least trouble when the attitudes of the potential partners are similar.

Non-conflicting Goals--In all of the joint ventures that were successful, the partners had goals which, even if not identical, did not conflict. This is not surprising since it does not make much sense to enter an arrangement with a partner that wants to achieve a goal that is detrimental to your goals. A common occurrence was that the partners would agree to loosely worded objectives and then discover when the work started, either that the true objectives of the separate partners were not similar or that they disagreed on the best way to achieve the goals. These disagreements were more likely to be overcome when one of the partners had the power to make the final decision.

Clear Control--The ingredient that emerged time and again as being the most useful factor in determining the success of a joint venture involved the issue of control. In all of the successful cases except one (Tri Star) there is no doubt about which partner has control of the operation. In all of the joint ventures that we have termed failures there has been considerable doubt over which partner had the final say in certain decisions.

We therefore feel that it is paramount for the control issues to be decided entirely to the satisfaction of both parties before a joint venture agreement is signed. Whenever possible, one party should be given the right to have the final word in all decisions. We realize that many firms are reluctant to give away that power but in our sample the joint ventures that have lasted have been those where one partner was in control.

COMPARISON WITH THEORY

For the most part, our findings regarding cable joint venture motivations and success factors coincided with joint venture studies done concerning manufacturing firms. We have seen that the structure of the cable industry matches the profile given in the literature of an industry which is prone to forming joint ventures since it is a high growth industry with several high entry barriers. The four reasons mentioned the most frequently for entering joint

ventures--complementary skills, risk spreading, quicker market entry and attainment of market power--were all listed as reasons for forming joint ventures in the literature.

We have concluded that, just as the literature maintains, it is necessary to have complementary skills, and an "impedance match" between the cultures of the partners if a joint venture is to have a good chance of becoming a viable entity.

Our research on the cable industry has also led us to identify two success factors that get little emphasis in the joint venture literature--non-conflicting goals and the control issue. These are very closely related since we found that where goals conflicted and no one party had total control, the partnership was not long for this world. When it has been agreed that one partner is in charge that is a sign that the partner conceding the control feels that the first partner's goals are fairly well in line with its own. Our finding that most successful ventures are ones where one partner is clearly established as the controlling partner, coincides quite well with the finding cited in chapter 3 that chemical company joint ventures of two partners are more stable when the equity split is 51/49.

Finally, although joint venture types have not been emphasized in this thesis, it is interesting to note that the joint ventures formed by system operators to win franchises do not fit any of the four general types--market/distribution, R&D exploration, production/mining, and construction/land development--covered in the

literature. We have classified these franchise joint ventures as political joint ventures.

VIDEOTECH INDUSTRY INTRODUCTION

9.1 History and Definition of Videotex

In reality, no videotex system has "full service" capabilities. Only a system that provides text, graphics, video and audio two-way communication will truly be able to offer the complete range of the five general types of videotex services: information retrieval, transaction processing, messaging, computational and telemonitoring services (see Table 9.1). However, four quite different types of videotex systems have developed for particular industries that provide one or more of these services:

- The Cable Industry
- The Personal Computer Industry
- The Financial Industry
- The European, Japanese and Canadian Governments

The economics of videotex predicts that these systems will ultimately be compatible. Many signs of the emergence of this single standard have begun surfacing.

Table 9.1. VIDEOTEX SERVICES. ¹¹⁶

TYPE OF SERVICE	NAME OF SERVICE	DESCRIPTION
Information Retrieval	Electronic publishing	Electronic newspapers, newsletters, magazines encyclopedias, books, etc.
	Library/reference service	Specialty database access, electronic catalog.
	Community services	Community, transit/travel, government, housing, shopping information.
	Health services	Medical, first aid, poison control hotline information.
	Entertainment services	Electronic jukebox, On-demand TV, electronic entertainment hotlines.
	Foreign language services	Foreign language translations of information, captioning of TV programs.
	Directory services	Open or closed systems for providing listings of employees, buildings, stores, hours of service, telephone numbers.
	Education services	Course listings, computer assisted instruction, special services for home bound students, supplemental materials for education TV programs, do-it-yourself training, literacy training.
	Advertising services	Electronic yellow pages, Supplement to TV ad., classified advertising, display advertising

Table 9.1 VIDEOTEX SERVICES (continued)

TYPE OF SERVICE	NAME OF SERVICE	DESCRIPTION
TRANSACTIONAL	Financial services	Electronic checkbook, funds transfer, credit cards, stock and bond trading, etc.
	Sales transactions	Electronic catalogs that allow purchase of items.
	Entertainment transactions	On-line gambling, electronic box office.
MESSAGING	Electronic Mail	Point-to-point or point-to many messaging.
	Conferencing	Textual real-time communications.
	Referenda	Citizen input to gov't
	Closed user group services	Consumer action groups, special interest groups, business organizations, communicate in private part of system.
COMPUTING	Game services	Video games downloaded to home computers.
	Computing services	For additional computing power.
	Information storage	Private files.
	Telework	Text editing, file maintenance, data entry and analysis as extension to the office.
TELEMONITORING	Home security	Remote fire sensors and burglar alarms for police and fire protection.
	Health and safety monitors	Assist in at-home care with ECG, blood pressure remote readings.
	Energy management	Control and regulation of household and business energy use. Meter reading.

9.1.1 The Cable Industry

Two way communication of textual and graphics information also called videotex services, was mentioned back in the sixties by visionary cable equipment suppliers such as General Instrument, who speculated about the future uses of cable in their annual reports.¹¹⁷ In 1972, a Warner Communications Inc. subsidiary, Warner Cable may have performed the first experiment in videotex services in collaboration with Mitre Corp. This experiment involved linking up a community in Reston, Virginia to a computerized cable system through which home users could receive many forms of the typical five videotex services: information retrieval, transactional, messaging, computing and telemonitoring.¹¹⁸

The recession of 1974 - 1975 caused Warner Cable to abandon this project until 1977 when they established a complete, fully working model videotex system in Columbus, Ohio called QUBE. The development of this system was clearly a strategy to win the large urban cable franchises. In an attempt to add credibility to these franchise proposals that would cost hundreds of millions in capital investment, Warner joined forces with a financial power, American Express, to form Warner Amex Cable Communications (WACC) in 1979. As a result, WACC won such urban franchises as Manhattan, Dallas, Milwaukee and Pittsburgh.¹¹⁹ Furthermore, they forced the other major MSOs to develop competitive videotex systems. The competition for franchises

forced acknowledgement of a truly powerful technology, videotex.

9.1.2 The Personal Computer Industry

Still another form of videotex is emerging as the number of microcomputer owners grows. These curious and industrious users log into the so called information utilities - like The Source, owned by Reader's Digest; Comuserve, owned by H & R Block; and the Dow Jones News/Retrieval Service - which provide many of the same services as other videotex systems. For example, a microcomputer user can log onto an information utility to get the news, a special food recipe or a stock quote; to manage an investment portfolio or the home budget; to pay debts through an on-line bank; or to send messages and converse with others using the system. However, since these services must be compatible with the various home computers, they only offer textual (ASCII) two-way services.¹²⁰ This has limited the acceptance of these services because the price is carried completely by the user.

9.1.3 The Financial Industry

Another approach to videotex has been taken by financial service companies as a way to reduce the costs of completing transactions and of providing information. Thus, retail companies such as Sears have participated in numerous videotex trials¹²¹ and the major banks have developed some 175 to 200 automated teller machine networks across the country or have offered home banking services through home computers.¹²² The home banking services often offer many more of the five general types of videotex services than just transaction processing services. However, once again these services allow two-way communication of only textual information.

9.1.4 The European, Japanese and Canadian Governments

Meanwhile, videotex in other developed nations has taken on a different look, since these services have been strongly government-supported. PRESTEL, the largest and oldest full graphics and text videotex system was offered by British Telecom in 1979.¹²³ Also, the government of France made a commitment to full graphics videotex in 1980 when they decided not only to develop a commercial videotex system, now known as the Antiope System, but also to use videotex terminals in public places to give the public access to a

complete electronic phone directory for France by 1990.¹²⁴ Japan's public telephone and telegraph company also introduced a graphics and textual graphic system in the early 80s that was similar to the PRESTEL system.¹²⁵ Canada has developed and begun marketing a higher resolution graphics and text videotex system known as Telidon.¹²⁶

The Canadians state-of-the-art in videotex services has been given broad approval by numerous vendors in the United States, which may result in the emergence of a videotex standard. The most important of these moves to approve a standard was the American National Standards Institute's acceptance of the North American Presentation Level Protocol Standard, a modification of the Telidon standard offered by AT & T and endorsed by companies like Digital Electronics Corporation and National Cash Register.¹²⁷ Furthermore, one of the top ten cable MSOs, Times Mirror has joined forces with Infomart, a major videotex software developer in Canada, to begin offering full graphics and textual two-way services in the Los Angeles area. At least three other services offering full NAPLPS videotex will be offered in particular American geographic markets by the end of 1984. To top this off, IBM, Sears and CBS recently announced a joint venture to develop and market a videotex system which will be fully compatible, and possibly more advanced than the NAPLPS systems now being offered; however, their system will not be available for several years.¹²⁸ Since three out of five of these videotex services will be provided by joint ventures, we will concentrate our

discussions around NAPLPS videotex services which offer full text and graphics.

9.2 The Components of the Videotex Industry

The videotex industry is usually described as having three components:

- O The Information Supplier
- O The System Operator
- O The Communications Network Supplier

These components are similar to the three components of the cable industry: the program supplier (the information provider), the MSO (the system operator), and the satellite company (the communications network supplier). Although we will be focusing our discussion on the videotex system operator, a thorough discussion of these components is necessary to understand the reason that most of the full text and graphics videotex system operators are joint ventures.

9.2.1 The Information Supplier

The information supplier collects and assembles data into a usable form (i.e. gathers and processes information) and then supplies this database to the videotex system operator for distribution. Information suppliers should be recognized as suppliers

to the videotex industry, composed of the system operator and the communications network supplier. Since every user of a videotex service uses upstream connections to distribute information (as defined by a two-way communication system), every user is an information provider; however, the first and most important suppliers for videotex systems are already information suppliers for other networks, like the cable or newspaper networks. To enter the videotex information supplier business these organizations have simply begun putting their information into an electronic database compatible with videotex systems. These include four types of organizations:

- O Publishing companies
- O Service organizations
- O Advertisers
- O Special-interest organizations

9.2.1.1 Publishing Companies

These companies provide newspapers, magazines, journals, books, videotapes, records, computer software and movies. They distribute their information either through direct channels such as newspaper stands, mailorder houses, and book, record and computer stores or through more indirect channels such as movie theaters, television, or radio. Videotex to these companies is simply another direct channel for distribution of their information.

9.2.1.2 Service Organizations

Service organizations provide financial, retail, wholesale and other transactional services, as well as consulting services. Each of these services require the distribution of information. For example, consider a financial service company that provides its customers or salesmen with company reports, stock quotes, investment advice and economic or market statistics. Each transaction that these companies make also involves supplying information to buyers and suppliers in a two-way communication setting. Therefore, service organizations see videotex as a means of reducing their information distribution costs to remain competitive.

9.2.1.3 Advertisers

Advertisers provide information about their products to potential customers. With the implementation of graphics into videotex systems and as the number of users of videotex systems increases, advertisers can directly benefit from distributing their product information on videotex systems. In fact, advertisers will be willing to pay for their use of the system to defray the cost of the videotex services while increasing the number of users.

9.2.1.4 Special-Interest Organizations

These organizations provide information to their members in the form of newsletters, journals, meetings, books, etc. As with the other information providers, special-interest organizations supply information to videotex systems to reduce the costs of distributing their information.

9.2.2 The System Operator

The system operator manages the videotex services as a two-way channel for information distribution. These system operators access and store the databases generated by the information suppliers and provide information buyers access to these databases. Thus, the system operator is interested in how the information is received from the information suppliers, how it is stored and accessed for transmission, and how information buyers are billed.

Because the system operator acts as a middleman between the information supplier and the information buyer, the relationship between information supplier and the system operator is quite complex. Expertise in the service and publishing industries may improve these close relationships with information suppliers. Furthermore, computer and communications orientation is essential for the videotex system

operator since these technologies pervade every strategy affecting the operations of the connection between information supplier and buyer.

9.2.3 The Communication Network Supplier

The communications network supplier transmits the electronic form of information from information supplier to system operator and from systems operator to information buyer. The network supplied can be a combination of seven different communications technologies: broadcast television, packet switched or switched telephone, cable television, FM radio, multipoint distribution systems, or direct broadcast satellite. The cost of two-way communication is lowest for cable television and telephone technologies; therefore, these two communication network technologies have received the widest acceptance for use in videotex systems.

At the moment, one of the major costs of videotex systems is the cost of sending information through communications networks. This means that the evolution of deregulation in the communications industry and its effect on communication cost structures will be immensely important to the growth of videotex systems operators. Thus, close relationships between the communications network provider and the system operator will increase the likelihood of a successful videotex system.

VIDEOTEX INDUSTRY STRUCTURE

Since we used Porter's competitive analysis technique¹²⁹ to describe the structure of the cable industry, we will compare the cable industry to the videotex industry using this same technique. While the cable industry is maturing, the videotex industry is in its infancy. This forces us to look at the videotex industry as a single industry rather than breaking it into information providers (analogous to programming services in the cable industry) and system operators (analogous to cable system operators in the cable industry). Although both segments of the videotex industry do exist, the prominent videotex companies are presently vying for positions in the system operator industry. Similarly, the cable industry in the 1950s, 60s and the early 70s was predominantly composed of system operators. The development of addressable converters and satellite communications in the late 70s made pay-cable services possible and created the programming services component of the cable industry. However, since the technology is already available to allow the growth of the videotex information provider industry, once systems become available

for the delivery of videotex information, this industry should begin growing quite rapidly in comparison to the cable industry.

10.1 Barriers to Entry

As would be expected from an emerging industry, the entry barriers to the videotex industry are generally quite small. However, as firms begin entering this industry by 1985, entry barriers will begin developing as economies of scale, brand identification and experience curve effects become important.

10.1.1 Economies of Scale

Although eventually the videotex industry will experience economies of scale, these economies are just beginning to be recognized. The costs of bringing information suppliers in touch with the right videotex users will decrease as the size of the videotex system grows. This effect comes from the fact that the computers at the heart of the videotex system become more efficient as they grow in size. For instance, a videotex system for sixteen users might require a \$4000 investment per user; however, by simply adding more multiplexers or controllers, 32 users may be supplied a videotex system for an investment of only \$2500 per user. We noted a very

similar situation for cable system operators who can add additional subscribers at a low variable cost compared to a high fixed cost of the initial investment.

10.1.2 Brand Identification

Early entrants to the videotex industry expect to get their greatest advantage from brand identification. In fact, presently four of the five videotex system operators are rushing to be the first to make major commercial introductions around the country. The other potential system operator, the IBM, CBS, Sears Roebuck joint venture can expect to benefit from the strong reputations of the partners; therefore, they can afford to be slow in introducing their videotex service.

10.1.3 Experience Curve Effects

Although experience curve effects will be important in the near future, presently very few organizations have had enough experience with videotex to build entry barriers. On the other hand, the ability to gain experience in managing relations with each of the components of the videotex industry may have stimulated the formation of joint

ventures in this industry. Such joint ventures have experience that might have taken decades to amass; thus, they are further along on the experience curve than if they had been started by only one of the partners. Furthermore, the first joint venture that appeared in the videotex industry probably motivated others to form joint ventures since they would otherwise be at a disadvantage with respect to their position on the learning curve.

10.1.4 Capital Requirements

Unlike the cable industry, only a small investment is required to become a videotex system operator. For instance, the hardware for a system that can handle up to 24 simultaneous users can be obtained for approximately \$50,000. With the personnel required to manage such a system, the annual cost of running this system costs only \$150,000 a year. Even large public systems can be established for less than \$1 million. These figures are well within the limitations of small startup companies. Thus, capital costs do not create entry barriers to the videotex industry.

10.2 Existing Rivalry

With only four companies offering full NAPLPS videotex services by the end of 1984 in four different geographic areas in the U.S., rivalry does not yet seem important. Present participants are keeping away from the competition by establishing operations in separate cities. This may be the result of the newspaper publishing character of these participants. Few major city newspapers have had to vigorously compete with other papers in the same city. The newspaper partner in each of the videotex joint ventures may be afraid to try a competitive move against other operators because they lack the competitive expertise.

This lack of competition may be beneficial to the videotex industry since it provides a consistent front to potential advertisers, government regulators and financiers. Eventually, however, four factors will contribute to an intense competition in the videotex market.

- O Numerous competitors
- O Lack of switching costs
- O Capacity augmented in large increments
- O Diverse competitors

10.2.1 Numerous Competitors

The low barriers to entry and the large numbers of interested companies in the associated computer, communications, publishing and service industries will create an industry with hundreds of geographically competitive companies and a least two or three competitors in one locality. The intensity of competition created by the numbers will force differentiation and eventually several companies will dominate the industry as multiple system operators or information providers.

10.2.2 Low Switching Costs

Switching costs will always be low in the videotex industry because a user only has to dial a different phone number - a process that will soon mean the depression of only one button - to receive the videotex services of another system operator. Two factors are suggested to be important switching costs: the cost of switching banks and the cost of subscribing to a service. However, both of these will diminish as the competition in the industry grows. The necessary acceptance of standards such as NAPLPS makes this low cost switching possible.

10.2.3 Capacity Augmented in Large Increments

Capacity additions will be disruptive as firms boost their marketing efforts to fill unused, added capacity. However, the marketability of computers, the major fixed asset directly involved in videotex, allows these firms to avoid chronic overcapacity by selling off unused machines.

10.2.4 Diverse Competitors

Since computer, publishing, communications and service industries are considering major investments in the videotex industry, the diversity of players in this industry will probably be large. As a result, no "rules of the game" will be agreed upon. Furthermore, the sophistication of foreign firms such as British Telecom, French PTT and Infomart make the strategic environment even more complex.

10.3 Substitutes

Videotex must overcome the commonly used services that substitute for videotex. A list of these substitutes is given in Table 10.1. Most believe that once consumers see how cheaply and efficiently they can get services through a videotex system, switching will occur readily. A Booz, Allen and Hamilton study reported that the most popular services were household budgeting, personal calendars, games, travel reservations, electronic messages, education, banking, shopping and monitoring of burglary and fire. These results suggest that customers will not use videotex for services that offer little advantage over presently used services such as newspapers.

10.4 Buyer Power

Buyers of videotex services will have strong bargaining powers. Two characteristics of videotex give the buyers this power: the high monthly cost relative to more familiar monthly communications services, like phone and cable TV services, and the commodity-like nature of videotex.

Table 10.1. SUBSTITUTES OF VIDEOTEX SERVICES. 130

VIDEOTEX SERVICE	SUBSTITUTES
Information Retrieval	Newspapers Magazines Television Broadcast Cable Subscription TV Audio cassettes Records VCR and videodisc Radio Telephone Yellow pages White pages Paper files
Transactional	Checks Credit cards Purchase orders Computerized billing and payments Catalog shopping Telephone bill paying Telephone shopping
Messaging	Telephone Mail and private carriers Telegraph Teleconferencing Facsimile Electronic mail Specialized common carriers
Computing	Calculators Video games Electronic games In-house data processing Personal and home computers Timesharing
Telemonitoring	Stand alone alarms Autodial alarm systems Security patrols

10.5 Supplier Power

The suppliers of this industry include each of the companies now considering entering the videotex industry as system operators: computer, communications, publishing and service companies. This means that the videotex industry has thousands of suppliers. However, the communications, service and computer industries are dominated by a few companies such as IBM, AT & T, and Sears. Thus, videotex competitors may find these supplier forces affecting their strategy. For instance, upon the announcement of the IBM, CBS, Sears joint venture, many firms were concerned about whether they would be locked out of the videotex markets. This concern probably caused increased interest in defensive investments in videotex. Recent approval of the NAPLPS standard has decreased the potential for supplier power.

10.6 The Future Structure of the Videotex Industry

The future structure of the videotex industry can best be pictured with a comparison to the radio broadcasting industry. Like the future videotex industry, the radio broadcasting industry is characterized by low barriers to entry and low switching costs. Thus, the radio dial has numerous channels, each with a quite differentiated strategy to attract and hold listeners. Likewise, the videotex industry will be made up of numerous companies which can be reached.

simply by pushing a different button on a phone or cable access machine. Each videotex company will provide differentiating services that attracts and holds a segment of the users of videotex services.

JOINT VENTURES IN THE VIDEOTEX INDUSTRY

The large number of skills needed to be a successful entrant of the videotex industry has forced the formation of many joint ventures. Table 11.1 lists some of these joint ventures associated with the videotex industry. Jay Borden, a communications consultant with The Yankee Group, said that videotex is more easily done by an organization with two or more of the following skills: communications architecture design and operation, computer design and operation, publishing or transaction processing.¹³¹ One other reason may explain the motivations for forming joint ventures in the videotex industry: videotex joint ventures are formed to obtain rapid national coverage.

We interviewed representatives from the main system operator joint ventures -- Viewdata Corporation of America, Videotex America, Keycom Electronic Publishing and IBM/CBS/Sears -- to determine each partner's motivations and the joint venture structure. Since all but one of these joint ventures is in an embryonic stage of development, we discuss only the partners contributions and motivations, and the structure of the joint ventures. Instead of an evaluation section, we

Table 11.1. VIDEOTEX JOINT VENTURES.

CHILD NAME	PRODUCT	PARENTS	CONTRIBUTION
???	Videotex System Operator	IBM CBS, Inc. Sears & Roebuck Co.	The System Info & Entertainment Transaction services
Infomart	Videotex System Operator, Videotex Software, GRASSROOTS, TELEGUIDE.	Torstar Corp. (??%) Southam Inc. (??%)	
Videotex America	GATEWAY, GRASSROOTS, National Advertising Agency, Videotex Consultants	Infomart (50%) Times Mirror (50%)	Software/Expertise Image/Content exp.
GATEWAY (Local Name)	Videotex System Operator	Videotex America (20%) Local Affiliate (80%)	Nat. ad. agency/Money Local content and advertising/Money
GRASSROOTS California	Videotex System Operator	Videotex America (33%) Bakersfield Californian (33%) & McClatchy Newspapers (33%)	Nat. ad. agency/Money Local content and advertising/Money/ Nat. farm ad. agency
GRASSROOTS America	Videotex System Operator	Videotex America (25%) Agway Inc. (25%), CENEX (25%), & S. States Coop (25%)	Nat. ad. agency/Money Local content and advertising/Money/ Nat. farm ad. agency
Viewdata Corporation of America	Videotex System Operator	Knight Ridder AT & T	Content/Money Technology
VIEWTRON (Local Name)	Videotex System Operator	Viewdata CA (??%) Local Newspaper Co. (??%)	Nat. Content/Videotex Experience/Money Local Content and advertising/Money
Keycom Electronic Publishing	Videotex System Operator	Centel Honeywell News America	Administration/Money Computer Technology Content

Table 11.1. VIDEOTEX JOINT VENTURES (continued).

CHILD NAME	PRODUCT	PARENTS	CONTRIBUTION
Warner Amex Cable Communications	Videotex System Operator (QUBE)	Warner Communications Inc. (50%) Shearson Lehman American Express (50%)	The System/Money Marketing expertise/ Money
??	Downloading Electronic Games and Two-way Game Service	Warner Communications Inc. Activision	Hardware expertise Software expertise
??	Full motion Videotex System Operator	Warner Communications & Four other partners	Only made it to negotiation stage

will use the conclusions from our cable industry study to make recommendations to each of these joint ventures in the next chapter.

AT & T and VIEWDATA CORPORATION OF AMERICA

Although VCA is not a true joint venture between two partners that share an equity share in VCA, it involves a cooperative marketing agreement between Knight Ridder Newspaper Co. and AT & T which may result in a joint venture in the future.¹³² The initial test was carried out by Knight Ridder and AT & T in 1980 in Coral Gables, Florida. This test determined the reactions of 700 households in phase I and 5000 households in phase II. Following the test, a full scale market test was rolled out on November 1, 1983.¹³³

CONTRIBUTIONS--AT & T has been providing the terminals, communication expertise and customer service center, while Knight Ridder has been providing all the capital for VCA, the videotex software and the content for the VIEWTRON service. Both companies are making a concerted effort to market the terminals and the service in a package.¹³⁴

MOTIVATIONS--Knight Ridder made the joint marketing agreement with AT & T because they "don't want to be in the terminal sales business," said Jay Borden.¹³⁵ AT & T uses this cooperative marketing agreement as a way to test the market for its videotex terminals.¹³⁶

STRUCTURE--As mentioned above, the relationship between AT & T and Knight Ridder does not involve the creation of a company in which both companies have equity. Instead, a wholly-owned subsidiary of Knight Ridder, Viewdata Corporation of America, has made a contractual arrangement with AT & T. This agreement describes the phases of the market testing to be completed in south Florida, the interests and roles of each partner in joint advertising, promoting and selling the videotex service and terminal package, and leaves open the future direction of the relationship after this initial testing phase. Thus, an equity relationship might be the outcome of this relationship. Knight Ridder could market any other terminals independent of AT & T.¹³⁷

COMMENTS--The head of AT & T's relationship with Knight Ridder, Sam Berkman said, "The greatest impediment to a successful joint venture is the changing of the individuals in each partner who are responsible for implementation of the joint venture. Each time an individual changes, issues must be rehashed that were once settled." Through major personnel changes throughout AT & T caused by the divestiture, and other personnel changes occurring at Knight Ridder, Sam Berkman and his contemporary with Knight Ridder kept the relationship going.¹³⁸

VIEWDATA CORPORATION OF AMERICA AND LOCAL PAPERS

VCA intends to form true joint ventures with local newspaper publishers such as Affiliated Publications, the publisher of the Boston Globe, to develop a national videotex service offering.¹³⁹

CONTRIBUTIONS--In the local joint ventures, VCA will provide the videotex software, system operating expertise and the national information database while the local company will provide the local information and capital.¹⁴⁰

MOTIVATIONS--They decided to go into joint ventures in the the local markets because they lack all the local information and they want someone who knows the local market and who has the local advertising experience.¹⁴¹

STRUCTURE--The local joint venture structure will involve the formation of a joint venture child in which both VCA and the local newspaper concern will have equity. Although the percentage split is uncertain at this time, the local partner will have control of the joint venture.¹⁴²

AT & T and CBS, INC.

After beginning the market test with Knight Ridder and being forced to stop an effort to develop an electronic yellow page directory with Southwestern Bell, AT & T developed a joint relationship with CBS, Inc. This strategic alliance has already been disbanded after the initial market test in Ridgewood, N.J.¹⁴³

CONTRIBUTIONS--In this arrangement, CBS provided only the content for the videotex services. AT & T provided everything else including hardware, software, and marketing.¹⁴⁴

MOTIVATIONS--AT & T used this joint relationship to develop the markets for videotex terminals. Furthermore, AT & T thought this would be a way to use the hardware and the software that they could no longer use in the development of an electronic yellow page directory with Southwestern Bell.¹⁴⁵ CBS probably thought this would be a way for them to learn about videotex and to make an investment in a videotex system operator.

STRUCTURE--Like AT & T's relationship with Knight Ridder, its relationship with CBS was purely a contractual arrangement. The agreement layed out the roles of each partner in performing the field test in N.J. and the future was left open. When time came to make a

commitment to further and market introduction, the relationship was terminated.¹⁴⁶

COMMENTS--The breakup of this strategic alliance probably stemmed from the differences in cultures between AT & T and CBS, Inc. As an entertainment company, CBS tends to do business in an aggressive manner while AT & T is more methodical. This assumption has been confirmed by press reports that CBS thought AT & T did not know anything about marketing.¹⁴⁷ An aggressive company like CBS would be expected to release such rumors after a relationship with the passive marketing style of AT & T.

Another problem experienced by this joint venture was that their goals were not congruent. AT & T simply wanted to stimulate the market for its videotex business by helping CBS become a videotex system operator. At this they were quite successful, CBS is in the videotex system operator business and they might not have been in that business if they had not had the chance to learn about the industry from AT & T.¹⁴⁸ However, CBS probably intended to use this joint venture as a way to build an investment in a videotex system operator. These incongruent motivations for entering a strategic alliance probably insured the failure of the relationship.

VIDEOTEX AMERICA CORPORATION

Videotex America is a joint venture between Times Mirror Co, a multimedia company located in southern California, and Infomart, itself a joint venture of two publishing companies in Canada. The joint venture was formed in 1982 after Times Mirror had purchased videotex software and services from Infomart for its initial videotex trials.¹⁴⁹

CONTRIBUTIONS--Infomart brought its expertise in NAPLPS videotex software development and in videotex system operation. Times Mirror brought to the table its presence in the U.S., an initial investment in testing the GATEWAY system in the Los Angeles area, and marketing skills.^{150.151}

MOTIVATIONS--Both Infomart and Times Mirror will use Videotex America as a means of investing in videotex system operators in the U.S. Infomart apparently sees the joint venture as a means of obtaining sales of its software. Infomart also formed the joint venture with Times Mirror to build a reputation in the U.S. that a name like Times Mirror brought to the joint venture. Like other citizens of other nations, Americans prefer to buy products and services from a national company such as Times Mirror rather than a foreign company like Infomart. Times Mirror has gained a partner who has developed the

most profitable videotex system today - Teleguide, a public videotex system. This relationship has increased Times Mirror's chances of being successful in the videotex markets and, therefore, increased their expected returns from videotex investments.^{152.153}

STRUCTURE--Videotex America is a 50/50 partnership. The company is headed by James Holly, President and CEO who reports to a Board of Directors made up of ten people, five from Times Mirror and five from Infomart. Penny Jo Welsch of Videotex America, said that under the terms of the partnership agreement, "certain decisions are decided by a toss of a coin when there is a tie vote."¹⁵⁴ Under the president is the Vice President of Technology who manages Videotex America's interests with hardware suppliers and standards decisions; Vice President of Marketing who markets videotex to national advertisers; Vice President of Business Development who manages the affiliate program and oversees the involvement with Grassroots.¹⁵⁵

VIDEOTEX AMERICA AND LOCAL SYSTEM OPERATOR

Like VCA, Videotex America has developed affiliates who will become joint venture partners when they decide to establish GATEWAY videotex system operators in their localities. For example, the Washington Post Company will form a joint venture with Videotex America when it decides to begin operating a videotex system in the Washington, D.C. area. Similarly, Videotex America is also forming joint ventures with farm cooperatives in the U.S. to establish GRASSROOTS videotex system operators which will market videotex services to farmers across the country. Grassroots California is a joint venture of Videotex America, Information Sources, Inc., a subsidiary of McClatchy Newspapers, and Viewcom, Inc., a subsidiary of The Bakersfield Californian. Grassroots America is a joint venture of Videotex America and three farm cooperatives in the northeast farming area: Agway, Inc., CENEX, and Southern States Cooperative, Inc.^{156, 157}

CONTRIBUTIONS--Both the GATEWAY local partner and Videotex America will contribute a portion of the capital in proportion to the equity that they receive. However, the local system operator must license the software from Infomart and purchase the national database, consulting, management and national advertising agency services from

Videotex America. The local affiliate partner will provide all local information content, consumer visibility and credibility, and established advertising contacts.¹⁵⁸

Videotex America will make similar contributions to the joint ventures developing the GRASSROOTS service. The farm cooperatives will market the service to their farmer members as well as represent GRASSROOTS to the national companies interested in advertising to farmers.¹⁵⁹

MOTIVATIONS--The local GATEWAY affiliates look at the joint venture as a way to gain the experience of a company that has already established videotex systems in the U.S. Videotex America looks at these local joint ventures as a way to gain an investment in system operators across the country and to sell their software and services.^{160, 161}

The cooperatives investing in GRASSROOTS look at their investment as a way to offer an additional service to their members. This service is important to members because it offers unique, constantly-updated information that is essential to staying competitive in the agricultural markets.

STRUCTURE--The GATEWAY affiliates will closely observe the Times Mirror Videotex Service commercial introduction of the second consumer-oriented NAPLPS service. When they decide to enter the market, they will invest 80% of the capital and Videotex America will

invest 20%. The equity will be divided similarly. However, if some independent approaches Videotex America about establishing a videotex system operator in one of the cities of an affiliate, the affiliate will have first refusal rights.¹⁶² If the affiliate decides not to invest at that point, Videotex America will be free to form a system operator with the independent.¹⁶³

The GRASSROOTS joint ventures have been divided equally among the partners, but in both cases the farm cooperatives control the major share of the joint venture. Grassroots California is divided into three 33% parts and Grassroots America is divided into four 25% parts.¹⁶⁴

Both GATEWAY and GRASSROOTS systems are managed by a group that runs the programs computers, builds the database and sells advertising to local advertisers. The Board of Directors of these system operators will reflect the equity percentages of each partner.¹⁶⁵

KEYCOM ELECTRONIC PUBLISHING]

Keycom was originally established when Centel, a phone and cable company in the midwest, initiated a task force composed of representation from several companies for the purpose of deciding whether videotex provided a lucrative business opportunity. After an affirmative decision, Centel joined forces with Honeywell, another

task force member, to begin a business in videotex. After deciding that they would also need a partner with experience in publishing, they sought Field Communications, because their subsidiary, Field Electronic Publishing, had been developing a teletext service (a one-way relative to NAPLPS videotex). Centel and Honeywell bought into this subsidiary and then the name was changed to Keycom Electronic Publishing. More recently, News America Publishing, a Rupert Murdoch umbrella organization that owns the Chicago Sun-Times, purchased the remaining share of Field Communications.¹⁶⁶

CONTRIBUTIONS--Centel provides the communications and administration experience. According to this plan, they have filled the primary staff positions, for instance. Honeywell has provided the computer hardware and software support, but Keycom claims that they developed the decoder terminal through a contract with Honeywell. The venture uses Honeywell computers and Honeywell will manufacture the decoder terminal. News America Publishing will provide the content for many of Keycom's services.¹⁶⁷

MOTIVATIONS--Vernon Cain, the VP of Operations for Keycom and a previous employee of Centel who was involved in the establishment of Keycom, said that Centel decided to use the joint venture strategy for two reasons. First, Centel felt that they did not have all the needed resources themselves to start up a videotex business. Second, the

joint venture strategy insured that "all three [companies] would be trying to make sure their investment does not fly away," said Cain.¹⁶⁸ Centel thought that a joint venture arrangement creates more commitment to success than a contractual arrangement. Honeywell clearly thought the joint venture would be a good way to try to maintain a position in the computer market. Field Communications originally entered the Teletext business by publishing an electronic magazine which is now transmitted to 30 million cable subscribers in the vertical blanking interval of superstation WTBS. Replacing Field Communications, News America considers Keycom a defensive strategy to protect their interests in publishing.¹⁶⁹

STRUCTURE--The percentage each company owns changes with each additional investment, but now it stands at 54% for Centel, 30% for Honeywell and 16% for News America Publishing. The joint venture has a Board of Partners that "meet more often than called for in the Bylaws," said Jeffrey Ballowe, a public relations person with Keycom. The Board is chaired by an executive from Centel and has representation from each company. Many of the staff came from either Centel or Field Electronic Publishing, but the majority have come from outside the parents. The investment up to March 1984 was approximately \$25 million.¹⁷⁰

IBM - CBS, Inc - Sears and Roebuck Co.

With the breakup of the CBS/AT & T cooperative arrangement to test videotex in Ridgewood, N.J., CBS, Inc. went looking for some partners and found them. On 14 February, all participants in the videotex industry were temporarily stunned to hear that three super powers in computers, publishing and services had joined forces to begin joint venture discussions. Although it would be two years before this joint venture would offer any services, its presence as a participant in the industry has changed the industry.¹⁷¹

CONTRIBUTIONS--Sears and Roebuck Co will bring the experience it has gained as an information provider in several videotex experiments, as well as its experience gained through majority ownership of The Hudson Bay Co., which has a successful electronic catalog on GRASSROOTS. Presumably, IBM will be responsible for supplying the videotex hardware and software expertise gained from their experience establishing the West German national videotex system. CBS will probably be responsible for providing the commercially-sponsored content of the various entertainment and information retrieval services. CBS has had experience providing similar services in the videotex test it performed in cooperation with AT & T.¹⁷²

MOTIVATIONS--These have not been made clear in any of the press releases about the joint venture, although it seems clear that each partner sees synergies between videotex and their businesses. IBM is participating to increase its share of the hardware market for videotex systems of which Digital Equipment Corporation currently has more than 50%.¹⁷³

STRUCTURE--The only structure decided thus far is that the equity will be split 33/33/33 and that the company will be staffed by employees from each company. Theodore C. Papes, Jr., an IBM vice president was named president and chief executive officer of the joint venture. Also a committee with nine members, three from each partner, has been formed to oversee operations of the new venture. Representing CBS will be the chairman and CEO, Thomas Wyman; President of CBS/Publishing group, Peter A. Derow; and senior vice president and general counsel, James K. Parker. Representing IBM are John F. Akers, president; Dean P. Phypers, senior vice president; and Richard T. Liebhaber, IBM director of business development and practices. Sears will be represented by their senior vice president of corporate administration, Charles F. Moran; vice president of corporate planning, Dean P. Phypers; and executive vice president and treasurer of Allstate Insurance Corp., Wayne E. Hedien.¹⁷⁴

CONCLUSION

With this overview of the videotex system operator joint ventures, we now make recommendations to these and future videotex joint ventures that might improve their chances of success. This analysis will apply the knowledge we gained from studying joint ventures in the cable industry and will be broken down into three parts: justifications for comparing joint ventures in the cable and videotex industries; recommendations for operating videotex joint ventures; and a description of the characteristics of the perfect joint venture.

12.1 Justifications for Cable and Videotex Industry Comparison

The best way to explain the appropriateness of a comparison of the joint ventures in the cable and videotex industry is to show that the similarities between these two industries outweigh the differences.

12.1.1 Differences

In making these comparisons between the cable and videotex industries, one should be aware of three important differences between these two industries:

- O Different causes for high competition.
- O Different skills required by each industry.
- O Different competitive elements effect each industry.

Clearly, the major reason for the formations of joint ventures in the cable industry has been to combat the high competition in the industry; whereas, the major reason for the formation of joint ventures in the videotex industry is to acquire numerous skills necessary to run a videotex system operator. These differences also dictate how each industry will evolve in the future.

Different causes for high competition - Although both industries experience high competition, different mechanisms cause the competition, and, therefore, it occurs in different phases of the life cycle for each industry. Cable industry participants compete for the distribution channels. These channels are controlled by the franchising authorities and satellite companies. Once the rights to the satellite transponders and franchises have been determined,

competition among industry participants focuses on the forces that determine choice among the cable substitutes like traditional broadcast television and among the different cable programming services that already have access to the cable distribution channels. This competitive drive for distribution channels has motivated the formation of joint ventures in the cable industry.

Because videotex companies can choose among one or a combination of broadcast, switched and unswitched phone, satellite or cable communication channels, and because the non-cable communication channels are regulated as common carriers, videotex companies can survive without competing for distribution channels. Videotex companies will compete, not in the early stages of industry development when videotex companies will segregate themselves geographically by choice to minimize competition, but rather in later stages when numerous companies will compete in one geographic area. Where competition in the cable industry has shrunk as the industry matures and develops its local monopolies, competition in the videotex industry will grow as it matures and videotex firms will differentiate to fight the competition. Eventually, the competition in the videotex industry will also taper off as differentiation and high entry barriers cause the formation of an oligopoly. Because the character of the high degree of competition will be differentiation, joint ventures will not form as a result of the high competition in the videotex industry.

Different skills required by each industry - Both industries require different types of skills. The cable industry required professionals skilled in bidding for franchises, in cable construction and operation, and in video programming. The videotex industry will initially require expertise in communications, computers, advertising sales, transaction processing, and information providing. Since videotex is a broader approach to providing state-of-the-art cable services, it is forced to find broader expertise in these skills than required by the cable industry. These needs of videotex system operators probably have driven the search for joint venture partners in the videotex industry.

Different competitive elements effect each industry - Unlike firms in the videotex industry, firms in the cable industry must compete with the common carrier communications industries such as the satellite communications, broadcast and phone communications industries. As this competition between these communications industries intensifies, either cable companies will be forced to sell their cable and other plant facilities to a communications company and concentrate on competing in the videotex system operator business; or, more likely, they will relinquish their control of information content to videotex system operators and concentrate on competing as a common carrier in the communications business. Presently, cable companies are the only

owners of a communications conduit that are not legally separated from the information providing industry. However, as phone companies lay fiber optic cable with ultra-wide bandwidth and direct broadcast satellite companies begin offering more services at the same cost, the legal difference between cable and other communications channels will become unimportant as cable companies open their channels to more and more services to remain competitive.

Meanwhile, other cable companies may choose to sell off their communications assets to become videotex system operators. This seems less likely since the majority of the assets of a cable company are in the communications plant and not in information providing. They have more or less maintained a role as an information distributor and they will probably choose to continue to be an information distributor with less control over the content that they distribute. Returning to the comparison of the cable industry to the videotex industry, the cable industry distributes information mainly to support a distribution channel, whereas the videotex industry's only role is the distribution of information.

12.1.2 Similarities

However, we think that these industries can be compared because both types of companies are in the business of distributing information. The cable companies must concern themselves with reception of information from programmers just as videotex companies must consider how they can retrieve information from the information providers. Both types of companies must find the lowest cost technologies for distributing information to their customers. Furthermore, videotex and cable companies are concerned with the content of information provided to their customers.

These similarities were examined closely in the discussion of the structure of the videotex industry. Both industries have information providers (called programming service providers in the cable industry), communications network providers (specifically satellite and coaxial cable in the cable industry) and system operators. Videotex system operators provide two-way services from various information providers via numerous types of technologies; whereas, cable system operators provide one and two-way services from mainly video programming services via satellite and coaxial cable technologies. Both types of companies provide information to the consumer in an interactive, two-way environment. This industrial economic perspective shows that the videotex industry actually includes the cable industry. These similarities result in a

competitive relationship between the cable and videotex industries.

Other factors make these two industries behave similarly. Although both industries have high barriers to entry, only high economies of scale is common to both. Nonetheless, this similarity is important because it causes high industry concentration and stimulates joint venture formation.

Both industries have a local nature and focus, i.e. they both have local system operators with a national multiple system operators that own percentages of the local operators. This similar industry structure has evolved because both industries are concerned with the distribution of information and a decentralized structure, such as the multiple system operator structure seems the most efficient means of distributing information.

Also, both industries seem to be in different phases of high growth. The cable industry may be at the end of its high growth phase; whereas, the videotex industry is at an early stage of its high growth phase. This life cycle comparison, as well as the information distribution character, high entry barriers, and the local nature of both industries, make a comparison of cable and videotex joint ventures possible. What was learned in the early and high growth phase of the cable industry, should be applicable to the similar, but younger videotex industry.

12.2 Recommendations for operating videotex joint ventures.

With this knowledge of the similarities and differences between the cable industries, we will take each of the videotex joint ventures described in the previous chapter and make recommendations based on how well they meet the four criteria we found for successful joint ventures in the cable industry:

- O Similar corporate cultures or an awareness of their dissimilarities.
- O Complementary skills.
- O Similar goals.
- O An agreement on where the ultimate control lies.

12.2.1 AT & T and Viewdata Corporation of America

We recommend that this cooperative relationship remain as such and not develop as a joint venture, unless AT & T decides to relinquish its desire to be a major supplier of videotex system hardware and software for an opportunity to invest in a major multiple videotex system operator. Only with this change in corporate goals would both partners have an agreement on the joint ventures goals. We can not accurately assess their present relationship since we studied

joint ventures in this thesis, not cooperative agreements. This strategic alliance, mistakingly called a joint venture and frequently formed between communications network providers and system operators or between information providers and system operators (called "gateway joint ventures"), would be an excellent topic for future research.

12.2.2 Viewdata Corporation of America and a Local Newspaper Company

Given an appropriate business climate, we suspect these local system operator joint ventures will be a successful approach to introducing videotex services to national markets. Both partners have similar corporate cultures because they are both newspaper companies. Also, the partners bring complementary skills to the joint venture - the local company brings local advertising and content and the national company brings videotex system operating experience and national content. The goals will match since both partners have an interest in building a successful videotex system operator. Furthermore, each joint venture gives the local partner control. All the components are present for a successful joint venture.

12.2.3 Videotex America

We recommend that the two partners of Videotex America be aware of two potential problems. First, the conservative culture of Times Mirror does not fit with the aggressive Infomart which aspires to become the leading videotex system developer and operator. Second, neither Times Mirror nor Infomart seem to have management control of the joint venture.

Times Mirror may already have taken the proper precautions concerning the differences in corporate cultures by allowing Infomart to separately market the TELEGUIDE public videotex system. Times Mirror put Infomart in touch with The Chronicle Publishing Company which now offers the first public-access videotex system in the U.S., Bay Area TELEGUIDE. Times Mirror got only a finders fee for making that connection. This strategy also complements the Videotex America strategy, because the public videotex system will familiarize the San Francisco consumer to videotex. As Penny Welsch said, "It's real hard to explain to people what videotex is real hard. That's the biggest hurdle is to explain what it is. Then you can sell it." TELEGUIDE serves this educational purpose; then Videotex America comes in to sign a joint venture with The Chronicle Publishing Company to market the home videotex system. Once again, management ingenuity may have solved the conflict between a conservative Times Mirror and an aggressive Infomart as well as improved the chances of success for the

joint venture.

Concerning the control issue, the Board of Directors is split 50/50, but Times Mirror has put James Holly, President of Times Mirror Videotex Services, at the helm of Videotex America. Still, potential control problems might arise as the partner organizations change and issues have to be rehashed in costly Board meetings.

However, we think that this joint venture may actually succeed because both partners clearly have complementary skills and planning is an important part of the venture. Concerning complementary skills, Infomart, a successful videotex company which has established the profitable or nearly profitable GRASSROOTS and TELEGUIDE services in Canada, as well as the excellent reputation of Times Mirror, gives this joint venture credibility. Penny Welsch of Videotex America said that things have probably gone smoothly because "Times Mirror is a planning-oriented organization. Everything is written out and agreed upon before they implement it."¹⁷⁵

12.2.4 Videotex America and Local System Operators

Given that the Videotex America joint venture succeeds, these local system operator joint ventures will probably also be successful. However, the partners in the GRASSROOTS system operator joint ventures should take precautions to avoid problems that might arise from

differences in corporate cultures between the newspaper cultures of Videotex America and the farm cooperative cultures. Different corporate cultures is not a problem in the GATEWAY system operator joint ventures because, both partners have newspaper corporate cultures.

Clearly, the partners bring complementary skills to the joint venture. In the GATEWAY system operator joint ventures the local company brings local advertising and content and the national company brings videotex system operating experience and national content; and in the GRASSROOTS system operator joint ventures, the farm cooperatives bring a unique distribution channel for marketing videotex services and numerous contacts with national farm advertisers. The goals will match since partners in both the GATEWAY and GRASSROOTS joint ventures have an interest in building a successful videotex system operator. Although each GATEWAY system operator joint venture gives the local partner control, the GRASSROOTS system operator joint ventures give the farm cooperatives control, but no single partner has control. All the components are present for a successful joint venture.

12.2.5 Keycom Electronic Publishing

Since Centel controls this joint venture with 54% of the equity and most of the executive level management positions, the major cultural differences among the partners probably will have little effect on the success of this joint venture. However, Centel better insure itself that an investment in a videotex system operator fits with Honeywell's long term strategies. If the motivation of Honeywell was solely to develop markets for its knowledge of computer hardware and software, then Centel may find that this partner is less committed to building a videotex system operator when changes occur in the management of Honeywell or when Keycom requires a major investment to introduce its service to the national markets.

12.2.6 IBM, CBS, Inc., and Sears and Roebuck Co.

This joint venture should be careful to insure that problems arising from large diversity in culture are considered before an agreement is completed. Each company should consider whether their actual goals match the goals of the other partners. Finally, the joint venture should more precisely outline which partner will have control of the joint venture.

We make these recommendations because the differences in corporate cultures between these three companies must be great. IBM is a giant, a slow mover and lacks experience in consumer marketing. CBS, Inc. is in the highly competitive entertainment business characterized by aggressive and cut-throat behavior.¹⁷⁶ Sears and Roebuck Co. is in the retail sales business. Without careful planning and a clear awareness of the potential problems these differences might cause, this joint venture will have only a short life.

Also, we wonder about whether the actual goals of these companies are congruent. Is IBM really interested in an investment in a videotex system operator, or is it trying to develop its markets for videotex system software and hardware as well as for the IBM Personal Computer and its offspring? If IBM wants the latter, then we suspect that as soon as the joint venture establishes a market position for IBM videotex system hardware and software, IBM will divest. Although this may mean a successful joint venture to IBM, the other two partners might fail to obtain their goal of investing in a videotex system operator.

Control also seems an important issue since according to the information that the companies have released, no one company has control of the joint venture.^{177, 178} If the joint venture remains with this structure, nothing will get done as the structures within the partners and the companies fail to maintain agreement about management

issues.

12.3 Summary

Using the four factors of successful joint ventures that we outlined from our studies of the cable industry, we have identified potential problems in each of the national system operator joint ventures. We also conclude that the relationships with a local newspaper company should succeed at giving Viewdata Corporation of America and Videotex America a major investment in videotex system operators around the country. However, this prediction relies on the assumption that videotex system operation will be a viable business in the future.

More generally, we have found that of each of the four factors of success -- one partner controls the joint venture, each partner contributes complementary skills, the partners have congruent goals, and the partners have similar cultures -- control stands out as the most important. Without insuring that one partner has control of the joint venture, partners will spend large amounts of time reworking decisions that have been made in previous meetings. As the partnership ages the frequency of this problem increases as the personnel and corporate strategies associated with each partner change. Definite control by one partner insures that once decisions are made, they must only be reworked if the partner in control decides

to make a strategic change.

Clearly, these problems should be considered in any attempt to form a joint venture. Many of the partners involved in videotex joint ventures have apparently considered their impact on the joint venture and, therefore, have increased their likelihood of success.

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