

Assessing the Changing Network TV Market: A Resource-Based Analysis of Broadcast Television Networks

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ABSTRACT To assess the new landscape of the broadcast television network market amidst the growth of the Internet, the arrival of digital television, and many other technological and regulatory changes, we applied a resource-based framework of strategic management to review the characteristics of the television market as evidenced by the networks' property- and knowledge-based resources. We examined the resources that became more prevalent as the competitive dynamics increased the level of uncertainty in this market and investigated the types of resources that might lead to superior performance. We conducted a case study to assess the resources of NBC, CBS, ABC, Fox, UPN and WB in four different time periods.

KEY WORDS: television, networks, markets, resources

The network television market has undergone drastic changes in the past few decades. In the 1978-1979 season, the Big Three networks (ABC, CBS, and NBC) garnered 91% share of the prime-time television audience. Almost a decade later, their lead had declined to 75% share. An even further decline in the late 1990s resulted in a 45% share of the prime-time audience (Donald, 1999). "In June 2002, ... the seven broadcast networks [including Fox, WB, UPN, and Pax] had lost 2.5 share points since May 2001, sliding to 50.1% of prime-time viewership" (Choe, 2002b: 11).

Indeed, the five competitive forces made famous by strategist Michael Porter (1980) have exerted their influence on the network television market. *New entrants* have overcome entry barriers and have usurped market share from established firms. *Substitute products* – spurred by technological advancements – are serving the same functions that traditionally have been the domain of network television. Moreover, the bargaining power of *suppliers* has increased dramatically, in accordance with the rate of vertical integration among media conglomerates. *Buyers* (i.e., advertisers) are bargaining and “playing competitors against each other – all at the expense of industry profitability” (Porter, 1980: 24). Add *consumers’* changing lifestyle and media use habits to the dynamics, and the competitive rivalry among firms magnifies.

Researchers of industrial organizational (IO) economics maintain the industry environment determines firms’ performance levels (Hoskisson, et al., 1999). Such turbulence and uncertainty in the structure of the network television market may limit the potential success of network television. In fact, “The broadcasting industry experienced difficulty throughout the [2001] year, and broadcasters’ revenues for full-year 2001 declined for the first time since 1991 – by 8%” (Choe, 2002b: 1).

Nevertheless, research shows that changes in the environment may be only a few of numerous factors influencing performance. If performance were determined solely by industry structure (Hoskisson et al., 1999; Porter, 1996; Rumelt, Schendel & Teece, 1996), each firm in a particular industry would exhibit success on a par with every other competitor in the industry. Absent such homogeneity among competitors, researchers have maintained that some other factors must account for the performance differences among firms in a given industry. This resource-based view of the firm (RBV) suggests that firms differ and may obtain a sustainable competitive advantage based on the bundles of resources the firm owns or controls (Barney, 1991; Black & Boal, 1994; Hoskisson et al., 1999). As the firms’ environments become turbulent and uncertain, the relevance and flexibility of these resources (Chatterjee & Wernerfelt, 1988) become more significant to achieving success. If the firm cannot modify its resource base to reflect changes in the environment, those resources may become irrelevant and lead to poor performance in the new environment.

As the network television market undergoes drastic and swift changes, specific resources will be necessary to achieve competitive advantage and profitability. This research will examine the different types of resources that thus far have developed during various periods of uncertainty in the network television market. SubbaNarasimha (2001) maintains, “Given that organization and environment are two sides of the strategy coin, the resource-based perspective’s potential for helping understand sources of sustained competitive advantage in turbulent environments will be better realized if the environment is incorporated

into analyses of firm resources” (p. 202). Thus, this study addresses the following research questions:

1. What are the changing characteristics of the broadcast television network market as evidenced by their resources?
2. What types of resources are more prevalent in the stable versus turbulent network television market?
3. What types of resources lead to superior performance in this market?

LITERATURE REVIEW


Levy, Ford-Livene and Levine (2002) maintain that the network television market is a mere survivor in a sea of increasing competition. The networks’ share of the television viewing audience – and their share of the total advertising revenue – is on a steady decline. The increasing competition from nascent cable networks – and the introduction of newer broadcast networks – has attracted greater numbers of viewers away from traditional television, narrowing the gap between audience sizes for specific programming.

An industry analysis according to Michael Porter’s five forces framework (1980) reveals dramatic changes in the industry that have led to increased rivalry among broadcast networks (see Table 1). First, *new entrants* have threatened the traditional status quo of the Big Three. Specifically, the number of broadcast networks has more than doubled. Second, the attractiveness of *substitute products and services* has lured consumers away from traditional network television. Most notably, subscribership to cable and other satellite services has increased to 82% of television households. Third, while the networks have attempted to mitigate the *power of program suppliers* through vertical integration, programming costs nonetheless have skyrocketed. A half-hour situation comedy may cost \$1.2 million. Concurrently, the *power of buyers* has encouraged competitive battles. In particular, broadcast networks’ advertising volume has dropped, while consumers’ all-day viewing of cable television has increased to almost half of all viewing among television households. Moreover, the deregulatory paradigm and recent technological advances demonstrate that the “broadcast network business remains highly volatile” (Levy, Ford-Livene & Levine, 2002: 115). This increasingly turbulent environment forms the milieu in which specific resources may or may not lead to superior performance.

Strategic Management Research

The strategic management literature reveals two divergent views of the factors influencing the success of firms. The Industrial Organization (IO) economics perspective argues that performance is a function of the

Table 1: Increasing Uncertainty in the Broadcast Network Television Market According to Porter's Five-Force Competition Analysis

	1986	1991	1996	2001
Threat of New Entrants	<ul style="list-style-type: none"> ▪ No new entrants ▪ Big three nets (ABC, CBS, NBC) 	<ul style="list-style-type: none"> ▪ Fox entered (1987) 	<ul style="list-style-type: none"> ▪ WB and UPN entered (1995) 	<ul style="list-style-type: none"> ▪ Pax-net entered (1998)
Threat of Substitutes	<ul style="list-style-type: none"> ▪ Cable subscribers 42% of TVHHs* 	<ul style="list-style-type: none"> ▪ Cable subscribers 55% of TVHHs ▪ 70 national cable networks available 	<ul style="list-style-type: none"> ▪ Cable & satellite subscribers 69% of TVHHs 	<ul style="list-style-type: none"> ▪ Cable & satellite subscribers 82% of TVHHs ▪ 287 national cable networks available
Power of Suppliers	<ul style="list-style-type: none"> ▪ Programming costs are stable during financial interest and syndication rules (Fin-Syn) <ul style="list-style-type: none"> ▫ 1-Hour drama \$1.1 - \$1.5MM ▫ -hour sitcom \$400K-\$900K 		<ul style="list-style-type: none"> ▪ Programming costs increase after elimination of financial interest and syndication rules (Fin-Syn) <ul style="list-style-type: none"> ▫ 1-Hour drama \$1.4 - \$1.6 MM ▫ -hour sitcom \$550K-\$1.2MM 	
Power of Buyers	<ul style="list-style-type: none"> ▪ Advertising volume as percent of total video advertising volume 			
	<ul style="list-style-type: none"> ▫ Broadcast 37% ▫ Cable 3% 	<ul style="list-style-type: none"> ▫ Broadcast 33% ▫ Cable 6% 	<ul style="list-style-type: none"> ▫ Broadcast 9% ▫ Cable 13% 	<ul style="list-style-type: none"> ▫ Broadcast 26% ▫ Cable 21%
	<ul style="list-style-type: none"> ▪ All-day viewing shares 			
	<ul style="list-style-type: none"> ▫ Broadcast 63% ▫ Cable 13% 	<ul style="list-style-type: none"> ▫ Broadcast 52% ▫ Cable 25% 	<ul style="list-style-type: none"> ▫ Broadcast 53% ▫ Cable 33% 	<ul style="list-style-type: none"> ▫ Broadcast 37% ▫ Cable 49%
<p><i>Competitive Rivalry Increases</i></p> 				

* Television households

Sources: Brooks & Marsh, 1999; Levy, Ford-Livene & Levine, 2002

structure of an industry (Hoskisson et al., 1999; Porter, 1980). That is, the structural environment of an industry determines the competitive conduct and strategies of firms, thus influencing performance. The emphasis of IO literature is external to the firm.

Conversely, the resource-based view of the firm (RBV) attempts to identify the sources of the differential performance of firms (Hoskisson et al., 1999). Firms in specific industries perform at different levels. The RBV literature insists the firm's unique character, as defined by its heterogeneous resources, is the foremost factor influencing performance and sustainable competitive advantage.

According to RBV, four specific attributes – value, rareness, non-substitutability, and inimitability – must work in tandem to increase performance. Valuable resources “exploit opportunities and/or neutralize threats in a firm's environment” (Barney, 1991: 105). A rare resource is one that is not easily located and implemented, moving firms beyond the “competitive parity” that is associated with common resources. Similarly, a non-substitutable resource has no strategic equivalents that perform the same function. The final factor – imperfect imitability – virtually guarantees a firm's sustainable competitive advantage, but it must supplement the aforementioned characteristics. That is, although a resource may be valuable, rare, and not easily substituted, it must be inimitable to bestow the firm with a sustained competitive advantage. Imperfect imitability may be the result of three factors: unique historical conditions, causal ambiguity, and/or social complexity (Barney, 1991).

The concurrent interactions among these four resource attributes form the basis of a firm's superior performance.

Types of Resources

The aforementioned resource characteristics correspond with specific types of resources (Das & Teng, 2000). A particular resource may exhibit more value than rareness, for example. Researchers have proposed numerous resource types based on similarities of characteristics. Chatterjee and Wernerfelt (1988) classify resources into physical resources, intangible assets, and financial resources. Barney (1991) categorizes resources into physical capital resources, human capital resources, and organizational capital resources. Porter (1996) maintains that resources are of three types: activities; skills, routines, or interrelated activities; and external assets, such as reputations and relationships. Black and Boal (1994) further argue that resources are best classified as operating in bundles – or network configurations – of two types: contained resources and system resources, based on the complexity of the network to which the resource belongs.

Nonetheless, Miller and Shamsie (1996) and Das and Teng (2000) maintain the classification of resources is theoretically sound only when incorporated into the aforementioned characteristics. Specifically, because the basis of a sustainable competitive advantage lies mainly in the inimitability of a resource, categorization of resources must incorporate this notion of imperfect imitability. Resources thus may be classified into two broad categories: property-based resources and knowledge-based resources, each based on the inimitability of property rights or knowledge barriers, respectively. Miller and Shamsie (1996) further incorporate Black and Boal's (1994) concept of resource configurations, thus sub-classifying property- and knowledge-based resources into discrete or systemic resources. That is, both property- and knowledge-based resources may stand alone or compose part of a network of resources.

Property-Based Resources Property-based resources are inimitable due to the protection afforded by property rights. A firm may secure a competitive advantage based on the length of the protection, thus proscribing competitors from imitation and appropriation of the resource. "Typically, it is only the fortunate or insightful firms that are able to gain control over valuable property-based resources before their full value is publicly known" (Miller & Shamsie, 1996: 522). Property-based resources, then, are specific, fixed, and emphasize control and exclusivity of particular assets.

Contractual agreements form the foundation of the two types of property-based resources. Discrete property-based resources "take the form of ownership rights or legal agreements that give an organization control over scarce and valuable inputs, facilities, locations, or patents"

(Miller & Shamsie, 1996: 524). Disney, for example, has “international rights to about 853 feature films, 671 cartoon shorts and animated features, and tens of thousands of television production” (“Hollywood wired,” 2001). Systemic property-based resources include configurations of physical facilities and equipment whose inimitability lies in the complexity of the network configurations. Viacom’s television stations group, which consists of 34 owned and operated (O&O) stations – is an example of systemic property-based resources (Viacom, online). In the media environment, both types of property-based resources provide exclusive use – and re-use – of resources across multiple platforms, most notably via syndication of television programming and vertical integration of the production, distribution, and exhibition of media content (Albarran, 2002; Albarran & Moellinger, 2002).

Knowledge-Based Resources The basis of inimitability of knowledge-based resources is information asymmetry. That is, firms are unable to imitate the success of other firms because of knowledge barriers – or “uncertain imitability” (Miller & Shamsie, 1996) – that exist in the successful firm’s technical, creative, and collaborative skills. McEvily and Chakravarthy (2002) attribute uncertain imitability to complexity, tacitness, and specificity of knowledge. In their study of technical advancements in the adhesives industry, complexity and tacitness of technical knowledge “defended firm’s major product improvements from imitation” (p. 285). Further, product design specificity delayed competitors’ attempts at imitation.

Like property-based resources, knowledge-based resources are composed of discrete and systemic resources. Discrete knowledge-based resources, such as technical, creative, and functional skills, stand alone. The management experience of specific media subsidiaries is an example of discrete knowledge-based resources. Systemic knowledge-based resources, on the other hand, “may take the form of integrative or coordinative skills required for multidisciplinary teamwork.” (Miller & Shamsie, 1996: 527). Both varieties are flexible and capable of being utilized across multiple situations and conditions within a firm – a term otherwise referred to as “dynamic competence” (SubbaNarasimha, 2001). The coordination of such skills is increasingly important, given the convergence of new and traditional media (Liu & Chan-Olmsted, 2003), as in the case of America Online and Time Warner.

Turbulent and Uncertain Environments

Managers make decisions regarding these knowledge- and property-based resources amid uncertain, complex, and conflicting settings (Amit & Schoemaker, 1993). The unpredictability associated with change is the source of such uncertainty, or the “perceived inability to predict something accurately” (Milliken, 1987: 136). Researchers have documented the types of uncertainty, the managerial responses to

turbulence, and the interrelationship of resource types and performance in changing industry environments.

Sources of uncertainty and turbulence may reside in the supply – as well as the demand – side. SubbaNarasimha (2001) and Wernerfelt and Karnani (1987) reveal that unpredictable changes in the desires of customers and target markets may increase the turbulence associated with resource decisions. Moreover, supply-side turbulence associated with changes in technology, production, and operations may question the adequateness of specific resource configurations.

While the source of such uncertainty has been extensively documented, Milliken (1987) argues scholars and industry professionals should focus on the type – or nature – of the uncertainty. Doing so may reveal the “particular antecedents and implications for the behavior of organizations” (1987: 135-136). According to Milliken, three types of uncertainty exist. State uncertainty occurs when managers perceive the environment – or a subset of the environment – as unpredictable. Effect uncertainty includes “uncertainty about whether an event or change in the environment will have an impact on the focal organization at all, as well as uncertainty about the nature, severity, and timing of the impact” (Milliken, 1987: 137). Response uncertainty occurs when managers and administrators are unable to identify response options and their respective consequences.

The nature of the uncertainty may alter the structural foundations of an industry. These Schumpeterian shocks – or revolutions – may demand drastic changes in the resource bases of firms (Barney, 1986 and 1991).

[Schumpeterian shocks] redefine which of a firm’s attributes are resources and which are not. Some of these resources, in turn, may be sources of sustained competitive advantage in the newly defined industry structure...However, what were resources in a previous industry setting may be weaknesses, or simply irrelevant, in a new industry setting. A firm enjoying a sustained competitive advantage may experience these major shifts in the structure of competition, and may see its competitive advantage nullified by such changes (Barney, 1991: 103).

Hence, accurate firm response is essential for the survival and subsequent successful performance of firms in a Schumpeterian revolution.

Managerial responses to uncertainty, turbulence, and/or Schumpeterian shocks take many forms. Boyd and Fulk (1996) reveal a positive relationship between uncertainty and managerial scanning. That is, executives increase scanning when they perceive uncertainty is imminent and ominous. Managers may have to develop diverse sets of resources and capabilities that correspond with the changes in the firm’s environment (Amit & Schoemaker, 1993).

Managers also may revise strategy decisions in accordance with the uncertainties they face and in response to the information gained from environmental scanning and resource evaluations. Dickson and Weaver (1997) found that “how a firm’s key manager perceives the environment is a significant determinant of alliance use” (p. 420). In an uncertain environment, firms may find that “the trading and accumulation of resources becomes a strategic necessity” in which the “distinct advantage of strategic alliances is to have access to precisely those resources that are needed” to compete effectively in the new environment (Das & Teng, 2000: 36, 37). Wernerfelt and Karnani (1987) found that uncertainty yields a trade-off between focusing resources, increasing the flexibility of resources, and waiting. Firms may choose to focus, flex, or wait based on competition, their relative size, and the upside potential of the changing environment. NBC, for example, has remained the only broadcast television network not affiliated with a major Hollywood studio. Recently, however, it has entered into negotiations to merge with Vivendi Universal Entertainment (“It’s Official,” 2003), attempting to broaden its resource base to compete more effectively with its major rivals Disney, Viacom, Fox, and TimeWarner.

The consequences of managerial response to uncertainty and turbulence may not be immediately realized. Schumpeterian competition suggests that the effect of a technological innovation, in particular, often is elusive.

When major innovations do appear, their ultimate impact may not be known for some time, at which point it may be too late for older firms with older technologies and skills to compete in new markets requiring new skills. On the other hand, guessing too early that a given innovation will become dominant may jeopardize a firm’s long-term survival by betting on a technology or market that turns out not to be dominant (Barney, 1986: 795).

In an effort to ascertain which resources tend to increase performance in which settings, Miller and Shamsie (1996) studied the Hollywood film studios in two environments: a stable environment, from 1936 to 1950, and an uncertain and unpredictable environment, from 1951 to 1965. They found property-based resources – both discrete and systemic – led to superior performance in the stable environment; whereas, knowledge-based resources led to superior performance in the uncertain environment. They reasoned that the fixed and specific nature of property-based resources performed better in the stable environment because the high degree of control associated with such resources maintains their relevance in stable settings. Conversely, the flexibility of knowledge-based resources allowed the Hollywood studios to adjust to new challenges. Hence, “whether or not an asset can be considered a resource will depend as much on the context enveloping an organization as on the properties of the asset itself” (Miller & Shamsie, 1996: 539).

Investigating the development of resources in the network television market, therefore, will aid in ascertaining the manner in which network executives have responded to changes, uncertainty, and turbulence in their external environments. Further, it will facilitate identification of the types of resources that are more prevalent in today's network television market, while simultaneously uncovering which of those resources has led to superior performance and sustainable competitive advantage.

METHOD

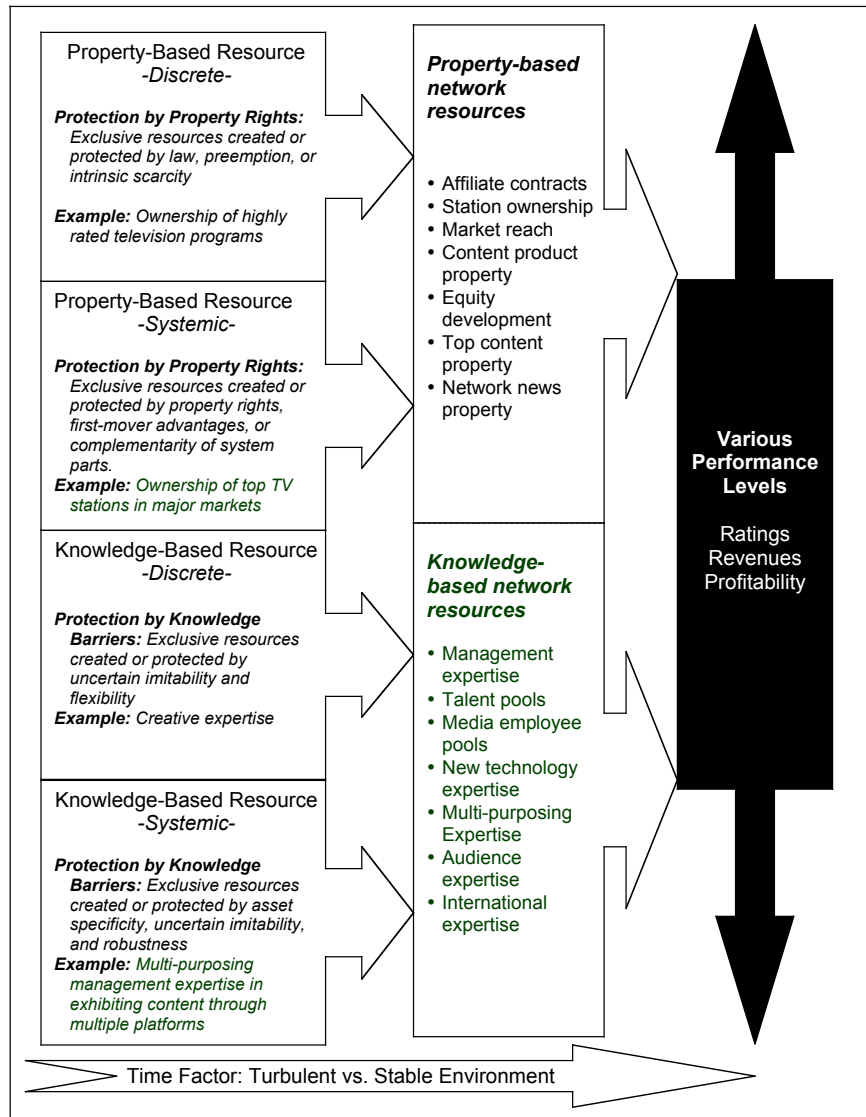
Accordingly, we proposed a resource-based view (RBV) framework for analyzing the network television market (see Figure 1). Network resources were categorized according to the aforementioned resource types, namely property-based network resources and knowledge-based network resources. The unique combinations of these resources may yield various performance levels for each network, which also may be influenced by the environment to which each resource is best suited. In other words, as previous research has found (Miller & Shamsie, 1996), property-based network resources may be more prevalent in stable environments; whereas, knowledge-based network resources may be more suitable in turbulent or uncertain environments.

Design

This research utilized a qualitative case study method. A qualitative method was employed, because, unlike quantitative methods that seek to predict behavior, qualitative methods are suited for understanding a particular topic from a specific perspective. "Here, an explanation of the constitutive meanings of a phenomenon is sought. How an event occurs, how it functions in social contexts, and what it means to participants are all issues addressed from a cultural-hermeneutical, or interpretive, perspective" (Lindlof, 1995: 9). Qualitative research seeks to explain and understand a particular phenomenon (Wimmer & Dominick, 1997). This approach is especially useful for studying the resource bases of the broadcast television networks because it seeks to understand their strategic decision-making in a real-life context.

Resource and Performance Variables Specifically, we included, under property-based network resources, affiliate contracts, station ownership, market reach, content product property, equity development, top content property, network news property, and corporate capital resources (see Table 2). These resources were chosen based on the aforementioned resource typology definitions and careful industry observations in which we identified the essential channel/access property resources for network television (i.e., affiliate contracts, market reach,

Figure 1: A Resource-Based View Framework for Analyzing the Network TV Market



and station ownership), content resources (i.e., programming and news products), and other relevant equity resources (M&A with relevant media properties and parent corporation's capital reserve).

Under knowledge-based network resources, management expertise, media employee pools, talent pools, audience expertise, new technology expertise, multi-purposing expertise, and international expertise are examined. Previous strategy literature has firmly established the importance of access to knowledgeable managers and

employees. The proxy measures of management team size, tenure, age, and compensation, which are often used as an indicator of management knowledge and expertise in empirical strategy studies (McEvily & Chakravarthy, 2002), were adopted to assess the expertise of the managers running the television networks. Similar to Miller and Shamsie's (1996) work in the RBV study of the Hollywood studios, we used Emmy awards and number of media employees to represent the knowledge resources of the employees. To assess the multi-purposing capability of each network, the network's presence in different media sectors (through its corporate owner) is used as a proxy because the business activities in a specific sector present the first step of acquiring multi-purposing experience. To avoid the imbalance of multiple properties in each media sector in making comparisons, we decided not to count the numbers of media units but to use the mere measure of equity presence in each sector.

As the revenues from foreign media markets are becoming increasingly important, the international expertise variable was selected as one of the knowledge resources. Because the complexity of international development and the lack of systematic information, qualitative descriptions are presented for the variable of international expertise. As advertisers tend to prefer certain demographic segments (e.g., women 18-49), the expertise of attracting desirable audience is also essential. To this end, audience expertise is measured by the age/income composition proxies. Finally, as digital television and Internet are directly shaping the direction of television, the number of O&Os transmitting digital signals and the Internet property popularity are used as proxies for assessing the technology expertise of the networks.

Performance of the networks is evaluated by the networks' ratings, audience market shares, and advertising revenues. Note that while profitability ratios such as EBITDA, ROA, and ROI might be important additional performance measures, we were not able to locate such numbers because of the lack of media property/segment specific ratios in corporate annual reports.

Sample & Time Periods Our sample consisted of the six broadcast networks – ABC, CBS, NBC, Fox, WB, and UPN. These networks were selected because they form the basis of the broadcast network television market. They are typical cases (Lindlof, 1995) that illustrate the essence of the network television market. They are the market leaders, and their strategic conduct often influences the conduct of other firms, while simultaneously setting strategic trends (Ferrier, Smith & Grimm, 1999).

To ascertain the impact of the environment on the resources of these networks, we focused on four different time periods – 1986, 1991, 1996, and 2001 – with each year representing a data collection point of increasing turbulence and uncertainty in the network television market.

Table 2: Operational Definitions of Resource and Performance Variables

Resources	Operational Definitions
Property-based resources	
Affiliate contracts	• Number of network affiliates (including full-time and secondary affiliates)
Station ownership	• Number of network O&O's
Market reach	• Network O&O's national audience reach in percentage
Content product property	<ul style="list-style-type: none"> • Number of primetime programming products owned by the network or its parent company (Excluding movies. In some cases, the programs may not air on their own affiliated network. Also, co-produced television series are listed under both networks) • Number of film releases produced by the network or its parent company
Equity development	<ul style="list-style-type: none"> • Total number of M&As with broadcast, cable, and content firms. • Number of M&As targeted at the firms in the broadcast television sector • Number of M&As targeted at the firms in the cable television sector • Number of M&As targeted at content-production firms • (In case of corporate M&As, only those that involved the identified network is included)
Top content property	• Number of top 30 network television programs owned by the network or its parent company
Network news property	• Seasonal ratings of network news
Corporate capital resources	• The overall corporate revenues generated by the parent corporation as an indicator of corporate financial resources and depth of corporate pocket
Knowledge-based resources	
Management Expertise	<ul style="list-style-type: none"> • Proxy: size of executive team as reported in the annual reports and the listed executives' average tenure at current positions • Proxy: average total compensation and age of the top five managers listed as the network's top officers
Talent pools	• Proxy: number of Emmy Awards garnered by the programs produced by each network
Media employee pools	• Proxy: number of employees in parent company's media-related divisions
Multi-purposing expertise	• Proxy: presence in different types of media outlets owned by the network's parent company
International expertise	• International development events
Audience expertise	• Proxy: audience composition in age and income
New technology expertise	• Proxy: number of O&O's transmitting digital signals and top (most-visited) Internet sites
Performance	<ul style="list-style-type: none"> • Seasonal overall ratings and shares for primetime programming • Seasonal shares for primetime programming among broadcast television networks (only network TV ratings are included in the calculations) • Annual advertising revenues for each network

These years correspond with the aforementioned five-force analysis of the network television marketplace (see Table 1). For example, 1986 was the last year of the Big Three, and 1996 presented the passage of the Telecom Act. These data points were chosen also because they provided a much more consistent availability of data sources, therefore yielding a better representation of the changes in the network television market.

Procedure & Data Analysis Data on the broadcast television networks' resources were gathered from various sources: the Securities and Exchange Commission (SEC) 10-K filings of each of the networks' parent companies, network websites, *Broadcasting & Cable* and other

industry trade journals, Jupiter Media Metrix (from CyberAtlas.com), Nielsen/NetRatings, Zap2it.com, the Internet Movie Database (IMDb.com), *Broadcast Television Fact Book* (published by Bear Stearns Equity Research), an integrated business information database—OneSource.com, and SDC Platinum Mergers and Acquisition Database published by Thompson Financial Securities Data. Programming information also was gathered from *The Complete Directory to Prime Time Network and Cable TV Shows* (Brooks & Marsh, 1999) and the FCC's Media Ownership Working Group (Einstein, 2002).

These documents were analyzed to ascertain the events and process surrounding the resources of broadcast television networks. Document analysis enabled us to investigate and reconstruct “ongoing processes that are not available for direct observation” (Lindlof, 1995: 208). This method, then, is ideal for studying the networks, as it captures, certifies, codifies, tracks, and explains their resource strategies. All information was analyzed according to Glaser and Strauss' analytic induction method, also known as negative case analysis. This procedure (cited in Lindlof, 1995) uncovers common themes within and across cases. “The researcher develops a hypothesis or explanation through an inductive process such as the constant comparative method, [by which] additional field data are generated and put to the test of the hypothesis” (Lindlof, 1995: 240). That is, data analysis is conducted for each network and subsequently compared to findings gleaned from other networks. This allows the researcher “to generalize to other cases of the same problem in the larger culture” (Lindlof, 1995: 57).

RESULTS

Resource Characteristics of the Broadcast Television Network Market

Property-based Resources The affiliate contract has remained relatively stable over the four time periods. There have been no noticeable changes among the Big Three networks. Beginning in 1996, however, the minor networks, namely, Fox, UPN, and to a lesser degree, WB, began developing such a property resource. In addition, while ABC has been the leading network in this aspect, NBC increased this contractual resource significantly in 2001 (see Table 3).

In the last fifteen years, the networks have generally increased their station ownership, especially in large, top 50 Designated Market Areas (DMAs). The year 1996 continues to be the turning point when most of these television networks geared up on acquiring such property resources. While ABC was the leader before 1996, CBS and Fox became the dominant networks for this type of resource after 1996. Market reach, as a resource reflecting both the degree of station ownership and total reach of these stations, shows a similar pattern with increasing overall reach, especially for CBS and Fox.

Table 3: Network TV's Property-based Resources^a

	ABC	CBS	NBC	FOX	UPN	WB
Affiliate contracts						
1986	215 (1)	212 (2)	200 (3)	98 (4)	N/A	N/A
1991	230 (1)	207 (2)	205 (3)	138 (4)	N/A	N/A
1996	223 (1)	200 (3)	200 (3)	211 (2)	152 (5)	98 (6)
2001	226 (1)	200 (3)	220 (2)	197 (5)	200 (3)	98 (6)
Station ownership - O&Os						
1986	8 (1)	4 (4)	5 (3)	6 (2)	NA	N/A
1991	8 (1)	7 (2)	6 (4)	7 (2)	N/A	N/A
1996	10 (5)	14 (2)	11 (3)	22 ^b (1)	11 (3)	0 (6)
2001	10 (5)	20 (2)	13 (4)	33 ^c (1)	19 (3)	0 (6)
Market reach						
1986	24.3% (1)	19.0 (3)	21.0 (2)	18.0 (4)	N/A	N/A
1991	23.8 (1)	22.2 (4)	23.0 (2)	23.0 (2)	N/A	N/A
1996	24.0 (4)	33.0 (2)	25.0 (3)	34.8 (1)	19.0 (5)	N/A
2001	24.0 (5)	39.0 ^d (2)	30.0 (4)	41.0 (1)	39.0 (2)	N/A
Content product property – network-developed primetime programs						
1986	4 (2)	2 (4)	5 (1)	3 (3)	N/A	N/A
1991	8 (2)	5 (4)	6 (3)	10 (1)	N/A	N/A
1996	16 (2)	11 (4)	9 (5)	9 (5)	16 (2)	25 (1)
2001	19 (4)	32 ^e (1)	14 (6)	31 (3)	32 (1)	15 (5)
Content product property – film releases						
1986	1 (3)	2 (2)	0 (4)	11 (1)	N/A	N/A
1991	0 (2)	0 (2)	0 (2)	18 (1)	N/A	N/A
1996	65 (1)	0 (5)	0 (5)	15 (4)	17 (3)	42 (2)
2001	30 (2)	21 (3)	0 (6)	21 (3)	21 (3)	37 (1)
Overall equity development –M&As with broadcast, cable, and content Firms.						
1986	1 (2)	5 (1)	0 (3)	0 (3)	N/A	N/A
1991	3 (2)	4 (1)	1 (3)	0 (4)	N/A	N/A
1996	2 (4)	4 (1)	4 (1)	3 (3)	N/A	N/A
2001	1 (4)	2 (3)	13 (1)	12 (2)	N/A	N/A
Equity development – broadcast M&As						
1986	1 TV	1 TV; 2 radio	0	0	N/A	N/A
1991	0	2 TV; 2 radio	0	0	N/A	N/A
1996	0	1 TV; 2 radio	2 TV; 1 radio	3 TV	N/A	N/A
2001	0	1	13 TV	11 TV	N/A	N/A
Equity development – cable television M&As						
1986	0	1	0	0	N/A	N/A
1991	0	0	1	0	N/A	N/A
1996	0	1	1	0	N/A	N/A
2001	1	1	0	0	N/A	N/A
Equity development – content-related M&As						
1986	0	1	0	0	N/A	N/A
1991	3	0	0	0	N/A	N/A
1996	2	0	0	0	N/A	N/A
2001	0	0	0	1	N/A	N/A
Top content property – top 30 network television programs owned by the network or the network-affiliated studios						
1986	2 • Monday Night Football • Moonlighting	1 • 60 Minutes	2 • Highway to Heaven • The Cosby Show	1 • LA Law	N/A	N/A

	ABC	CBS	NBC	FOX	UPN	WB
1991	5 • America's Funniest Home Videos • America's Funniest People • Monday Night Football • Family Matters • 20/20	3 • 60 Minutes • Evening Shade • 48 Hours	3 • Fresh Prince of BelAir • The Cosby Show • A Different World	1 • LA Law	N/A	N/A
1996	5 • Monday Night Football • Home Improvement • Ellen • Primetime Live • 20/20	4 • 60 Minutes • Touched by an Angel • Caroline in the City • Walker, Texas Ranger	3 • Dateline NBC Tuesday • Dateline NBC Friday • Caroline in the City	3 • The X-Files • Chicago Hope • NYPD Blue	1 • Frasier	6 • Drew Carey Show • Friends • The Single Guy • Seinfeld • Suddenly Susan • ER
2001	2 • Monday Night Football • CSI	7 • 60 Minutes • King of Queens • Becker • JAG • Judging Amy • Frasier • CSI	4 • Inside Schwartz • JAG • Will & Grace • Crossing Jordan	6 • The Practice • The Simpsons • Malcolm in the Middle • Yes, Dear • Judging Amy • Inside Schwartz	7 • 60 Minutes • King of Queens • Becker • JAG • Judging Amy • Frasier • CSI	4 • Everybody loves Raymond • The West Wing • Friends • ER
Network news property – seasonal ratings^f						
1986-87	3 rd place	1 st	2 nd	N/A	N/A	N/A
1991-92	9.7 (1)	9.1 (2)	8.6 (3)	N/A	N/A	N/A
1996-97	7.8 (2)	7.0 (3)	8.1 (1)	N/A	N/A	N/A
2001-02	6.8 (2)	6.2 (3)	7.4 (1)	N/A	N/A	N/A
Corporate capital resources (in billions)						
1986	\$4.1 (3)	4.7 (2)	36.0 (1)	2.7 (4)	N/A	N/A
1991	5.4 (3)	3.0 (4)	60.0 (1)	8.6 (2)	N/A	N/A
1996	18.7 (2)	8.4 (6)	79.0 (1)	9.9 (5)	12.1 (3)	10.8* (4)
2001	25.2 (3)	23.2 (4)	126.0 (1)	13.8 (6)	23.2 (4)	38.2 (2)

Notes:

^a Rankings of the networks for each resource category in each year are in parentheses. Rankings are only provided for property-based resources as knowledge-based resources are more difficult to rank order.

^b Including pending acquisitions of 10 New World stations

^c Including 7 duopolies with UPN affiliates

^d The 39% market reach includes Viacom's CBS and UPN O&Os

^e Parent company Viacom and/or its subsidiaries (co)produced these primetime programs. The numbers are identical for UPN 2001 data because Viacom owned both CBS and UPN in 2001.

^f The seasonal ratings for network TV news in 1986 are unavailable.

^g Because of the nature of co-ownership between Tribune and Time Warner for WB network, WB figures refer to Time Warner Entertainment (TWE), a deconsolidated subsidiary of Time Warner Inc. Time Warner revenues for 1996 were \$10,064 million (excluding TWE). 2001 TWE results were consolidated with AOL Time Warner in 2001.

Property resources in both prime-time programs and film releases became significantly more important beginning in 1996. There were no noticeable differences between the major and minor networks regarding

development of network prime-time programming. However, CBS (along with UPN) and Fox began to dominate the market with such resources in 2001. Broadcast networks that were associated with film companies via their parent companies clearly (co)produced more films than broadcast networks with no ties to studios. ABC, CBS, Fox, UPN, and WB each (co)produced films with their respective motion picture sister companies. NBC, on the other hand, had no associations with Hollywood studios and lacked this profitable resource during each of the four time periods.

Equity development, in forms of mergers and acquisitions aimed at media firms (i.e., broadcast television and radio, cable television, and content production) showed no consistent patterns over the four time periods overall, except for the increased activity in broadcast M&As beginning in 1996. However, when analyzing equity development activity by target areas (broadcast, cable, and content), we revealed that the networks with fewer O&Os and less market reach than the leader ABC were the ones with equity development activity in the broadcast and cable sectors. That is, ABC was the leader in affiliation contracts, O&Os, and market reach because it was at its maximum according to the then-national ownership cap of 25% (FCC Biennial Review Report, 2000). This allowed ABC to focus on content-related M&As until 1996, when the ownership cap was increased to 35%, while the other networks continued their equity development in broadcast and cable sectors.

Concerning the ownership of top programming properties, most television networks have developed more valuable content resources over time. ABC, though actively acquiring content properties via M&As, lost ground in the amount of top content properties in 2001. The minor networks, through their corporate owners, have been competitive in owning such property-based resources. Overall, CBS and Fox were the leading networks in this area. As for network news resources, the rankings have been relatively stable since 1996. NBC has shown the most improvement over time. In terms of corporate capital resources, all of the broadcast networks have had access to deep corporate pockets, especially after 1996. NBC appears to have the best corporate resources as a member of the GE family.

Knowledge-based Resources Management expertise, as measured by the size and tenure of the management teams, does not seem to provide any consistency over the four time periods (see Table 4). Overall, while ABC tends to have executives with longer tenure, CBS seems to have higher turnover, comparatively. Both NBC and Fox have gradually lengthened their executives' tenure within the companies. Management expertise, as measured by compensation, shows that NBC, followed by CBS, has the highest level of executive knowledge resources. While CBS and WB had more experienced executives, Fox had the youngest management team. Fox also had access to the best talent pools, as reflected by its award-winning productions.

In terms of employee resources, NBC has the lowest number of media employee resources, in comparison to its counterparts. CBS and ABC, through their parent companies, Viacom and Disney, provided a relatively broader base of media knowledge as reflected by the size of their media human resources. Overall, all networks have increased the size of their employee pools, possibly due to the mergers in which they have been involved.

The focus of NBC continues to be evident in our observations of multi-purposing expertise, as measured by media sector presence. Over the years, NBC has concentrated on developing broadcast, cable, content, and then Internet resources. It strategically extended its presence from a broadcast TV-radio, to a broadcast TV-cable TV, to a broadcast TV-cable TV-Internet emphasis, while at the same time, maintaining its resource base in content production. ABC, on the other hand, through its parent company, Disney, was the leader of multi-purposing resources with a presence in all media sectors in 2001. Fox and WB were the two networks that have a somewhat similar profile to ABC regarding this type of resource. CBS, on the other hand, resembled more the path of NBC.

Fox, by nature of the relationship with its Australian corporate owner, exhibited consistent international assets and activities over the years. Other television networks seemed to build their international expertise with news-related activities initially. Beginning in 1996, most networks extended their international resources through the development of television programming for the cable platform in foreign markets. Comparatively, NBC seems to be the least experienced network regarding this type of resource.

The audience expertise measures show that WB, UPN, and Fox, in that order, were experienced in appealing to the youngest segment of the television audience. NBC, Fox, and ABC, in that order, had the expertise in attracting higher income households. The age composition profiles of the networks further demonstrate NBC's prominence in delivering desirable audience demographics. Nevertheless, note that Fox is positioned very well to potentially take the lead with its expertise in acquiring the young, well-to-do audience segment, as the audience for NBC and ABC age.

Finally, regarding technology expertise, CBS and Fox were ahead of their counterparts in digital conversion. Further, most networks have established their Internet foothold with popular web properties. Among all, ABC and CBS were the leading networks to generate Internet traffic with their own online resources (as opposed to corporate Internet resources).

Table 4: Network TV's Knowledge-based Resources

	ABC	CBS	NBC	FOX	UPN	WB
Management expertise – team/tenure						
1986	10-person/ 13.9 yrs	13-person/ 3.6 yrs	16-person/ 3.5 yrs	8-person/ 4.8 yrs	N/A	N/A
1991	9-person/ 13.4 yrs	14-person/ 2.2 yrs	10-person/ 5.5 yrs	16-person/ 5.3 yrs	N/A	N/A
1996	7-person/ 6.5 yrs	7-person/ 2.6 yrs	12-person/ 6.3 yrs	16-person/ 5.3 yrs	11-person/ 6.2 yrs	7-person/ 3.1 yrs
2001	6-person/ 8 yrs	10-person/ 5.2 yrs	13-person/ 7.1 yrs	16-person/ 8.5 yrs	10-person/ 5.2 yrs	15-person/ 4.5 yrs
Management Expertise – age/remuneration^a						
2001	51.6 yrs/ \$1,309,303	53.6/ 8,291,058	49.4/ 10,844,454	46.2/ 3,700,600	53.6/ 8,291,058	53.2/ 1,320,356
Talent pools						
1986	1	0	1	4	N/A	N/A
1991	0	1	0	2	N/A	N/A
1996	1	0	0	6	2	1
2001	0	0	1	5	0	7
Media employee pools						
1986	19,960	18,300	8,000	22,100	N/A	N/A
1991	19,650	6,160	5,000	27,250	N/A	N/A
1996	100,000	59,275	5,500	26,500	83,500	30,300 ^c
2001	114,000	122,770 ^b	7,000	89,300	122,770	35,300
Multi-purposing expertise						
1986	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/games	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/ games	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/ games	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/ games	N/A	N/A
1991	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/ games	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/ games	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/ games	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/ games	N/A	N/A

	ABC	CBS	NBC	FOX	UPN	WB
1996	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/video games	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/games	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/games	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/ games	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/ games	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/ games
2001	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/ games Internet	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/ games Internet	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/ games Internet	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/ games Internet	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/ games Internet	Broadcast TV Broadcast radio Cable TV Home video TV/film production Newspapers Magazines Music publishing Software/ games Internet
International expertise						
1986		CBS Evening News in France	NBC News in Western Europe	42 papers 4 magazines Satellite service Book publishing Records unit Computer software Fox Film Australia	N/A	N/A
1991	Worldwide Television News Service (London) Invested \$120 million in European and international ventures	CBS licenses programs in 77 countries	CNBC starts int'l distribution	Fox has 500 licensing agreements in 35 foreign territories 7 newspapers in UK 126 papers 19 magazines 1 book imprint Satellite service	N/A	N/A

	ABC	CBS	NBC	FOX	UPN	WB
1996	Licensing of TV series developed for US networks in Canada, France, Germany, Italy, Spain, and UK Disney Channel in Taiwan, UK, Australia	CBS Telenovelas, Spanish language news channel	NBC cable programs and distribution in Europe, Asia, and Latin America CNBC Asia	3 television networks cable / satellite services 1 film production unit 1 book imprint	MTV and Nickelodeon in Europe, Asia, Latin America All News Channel partner Movie theater operations 1 int'l production unit	Warner Bros. Licenses 35,000+ hours of programming worldwide CNN in 210+ countries 21 news bureaus around the world TNT and Cartoon Network HBO and Cinemax Music distribution in 70+ countries International theaters
2001	ABC Radio network in 100 countries Disney Channel in Europe, Latin America ESPN in 146 countries and territories Fox Kids Europe Fox Kids Channel Latin America	MTV in Europe, Asia, Latin America Nickelodeon in Asia, Latin America, Australia, Europe, UK 18 int'l news bureaus and offices	CNBC Europe and Asia 4 cable / satellite networks around the world	Fox Studios in Australia and Mexico Cable programs 110 papers 14 magazines 1 book imprint 21 TV operations Satellite programs	MTV in Europe, Asia, Latin America Nickelodeon in Asia, Latin America, Australia, Europe, UK 18 Int'l news bureaus and offices	CNN in 210+ countries; 32 news bureaus Turner Classic Movies in 120 countries Cartoon Network HBO and Cinemax Warner Bros. Distributes in more than 175 countries in 40+ languages
Audience expertise						
2001 (age/income)	47yrs/\$42,000	51/36,000	46/46,000	38/44,000	29/33,000	23/39,000
2001 (ages 12-17/18-24/34/35-9/50+)	5%/5%/12%/27%/45%	3/4/11/25/52	4/6/15/28/43	8/8/18/27/28	14/9/15/25/18	16/11/15/20/13
New technology expertise – O&Os transmitting digital signals (as of March 2001)						
2001	7	15	8	10	3	N/A
New technology expertise – top (most-visited) Internet sites^d						
2001	Walt Disney Internet Group Web sites scored in the top 15 every month.	Viacom Online Web sites scored in the top 20 every month.	NBC Internet Sites scored in the top 43 every month ^e	News Corp Online Web sites scored in the top 50 nine months.	Viacom Online Web sites scored in the top 20 every month.	WB has a limited web presence but AOL Time Warner sites were the #1 most visited Web sites.

Notes:

^a Only 2001 compensation data is available. For the WB network, the average compensation would increase to \$26,279,848 if a special bonus plan for Robert Pittman was included.

^b Viacom employees; the numbers are identical for CBS and UPN 2001.

^c Time Warner Entertainment, which is the immediate parent of Warner Brothers, employed 30,300 people in 1996.

^d Jupiter Media Metrix's "top 50 digital media and Web properties are based on unduplicated audience reach, also known as unique visitors. They include the largest single brands as well as consolidations of multiple domains that fall under one brand or common ownership" (CyberAtlas.com). Also, only 2001 data are included because the Internet and digital TV were not as developed or prominent during the previous three periods.

^e NBC Internet sites scored fourteenth in unique visitors in January and gradually went down to number forty-three by the end of the year.

Relationship between Resources and Market Stability

From 1986 to 2001, several changes occurred in the media environment that increased uncertainty and turbulence in the industry (see Table 1). Prior to 1986, the environment was relatively stable, given the lack of new entrants and the undeveloped state of substitute products. Since 1986, the Big Three have faced four new broadcast competitors. They have seen cable subscribership jump from 42% to 82% of television households, drawing advertising volume and viewership away from broadcast television. And their programming costs continue to escalate, despite vertical integration. Clearly, the changes in the industry have increased the competitive rivalry among the broadcast networks, leading to turbulence, in light of additional uncertainty brought on by digital television, convergence, the Internet, and future regulation.

During this time, specific property-based resources have become more prominent as the network television market has become more unstable. Specifically, network activity regarding station ownership, market reach, and overall/top content properties have increased for all networks. The minor networks have increased their affiliate contracts and top content property in their attempt to gain market shares. Network news, on the other hand, does not seem to reflect the fluidity in the market as a property resource.

As for knowledge-based resources, the “breadth” of human resources and multi-purposing expertise appears to grow in importance as the market becomes more volatile. International expertise, mostly in forms of cable programming expansion, is also becoming more vital. In summary, access to a diverse set of knowledge resources (in product and geography) seems to become more essential as the level of uncertainty in this media market increases. Finally, we were unable to observe a clear preference for knowledge over property resources among the networks as the television market became more unstable from 1986 to 2001, as suggested by previous literature.

Relationship between Resources and Performance

There seems to be a linkage between performance and property-based resources such as corporate capital resources and news property, as well as equity development after 1996. As for knowledge-based resources, management expertise, especially in forms of remuneration and increasing tenure; more focused employee, media sector, and international resources; and expertise in building attractive audience segments appear to contribute to a better overall performance, as in the case of NBC (see Table 5). However, the first runner-up, ABC, seems to have an opposite resource profile from that of the NBC in these same areas. Thus, we are unable to conclude any evident relationship between the networks’ specific resources and performance.

Table 5: Network TV's Performance

	ABC	CBS	NBC	FOX	UPN	WB
Seasonal primetime ratings and shares						
1986-87	14.1/22% (3)	15.8/25 (2)	17.8/28 (1)	N/A	N/A	N/A
1991-92	12.2/20 (3)	13.8/23 (1)	12.3/20 (2)	8.0/13 (4)	N/A	N/A
1996-97	9.2/15 (3)	9.6/16 (2)	10.5/18 (1)	7.7/13 (4)	3.2/5 (5)	2.6/4 (6)
2001-02	6.3/10 (3)	8.1/13 (2)	8.8/15 (1)	5.7/9 (4)	2.7/4 (5)	2.5/4 (6)
Shares of network TV's primetime market						
1986-87	29.6% (3)	33.1 (2)	37.3 (1)	N/A	N/A	N/A
1991-92	26.3 (3)	29.8 (1)	26.6 (2)	17.3 (4)	N/A	N/A
1996-97	21.5 (3)	22.4 (2)	24.5 (1)	18.0 (4)	7.5 (5)	6.1 (6)
2001-02	18.4 (3)	23.7 (2)	25.7 (1)	16.7 (4)	7.9 (5)	7.3 (6)
Advertising revenues (in millions)						
1986	\$8,342			N/A	NA	N/A
1991	8,933			N/A	N/A	N/A
1996	4,005 (2)	3,426 (3)	4,940 (1)	2,500 (4)	N/A	N/A
1997	4,122 (2)	3,652 (3)	4,803 (1)	2,730 (4)	N/A	N/A
1998	3,410 (2)	3,220 (3)	4,420 (1)	1,890 (4)	168.8 (6)	335.6 (5)
1999	3,780 (2)	3,230 (3)	4,660 (1)	2,270 (4)	241.7 (6)	523.7 (5)
2000	4,140 (2)	3,480 (3)	4,775 (1)	1,751 (4)	N/A	500 (5)
2001	12,795			1,505 (4)	N/A	N/A

Note: Because the parent corporations of these networks do not report revenues by media segments, most revenues here are estimates made by Wall Street analysts. Individual data are unavailable for the time periods of 1986, 1991, and 2001. Some data are missing for the minor networks such as UPN and WB.

DISCUSSION AND CONCLUSION

To assess the new landscape of the broadcast television network market amidst the growth of the Internet, the arrival of digital television, and many other technological and regulatory changes, we adopted a resource-based framework of strategic management to review the characteristics of the broadcast television network market as evidenced by the networks' property- and knowledge-based resources. Using the RBV approach, we examined the resources that became more prevalent as the competitive dynamics increased the level of uncertainty in this market and investigated the types of resources that might lead to superior performance. A case study was conducted to assess NBC, CBS, ABC, Fox, UPN, and WB's resources in four different time periods: 1986, 1991, 1996, and 2001.

While NBC, the network with the best overall performance, was aggressive in acquiring certain property-based resources such as broadcast media and affiliate contracts properties, developing some knowledge-based resources like management and audience expertise, and employing a "focus" strategy of building electronic media outlets and content, CBS and Fox have emphasized expanding property resources such as O&O stations and top content properties. Fox, though a latecomer to the Big Three, is poised to become one of the leading networks with its competitive audience expertise. Regarding resources and market uncertainty, it seems that property resources (i.e., access to exhibition outlets and valuable content products) and knowledge

resources (i.e., increasing breadth of human resources – in size and media sectors) are most pervasive as the network market becomes more uncertain. No clear relationship between resources and performance was observed.

It seems that both property and knowledge resources are critical for the television networks competing in an increasingly uncertain market. Over the years, the networks have developed different resource profiles in response to the changing market environment. There is no evident status quo concerning the networks' approaches to resource development, while the network performance ranking has been relatively consistent. It is clear that most broadcast television networks are expanding their reach into different media sectors and geographical markets as a part of a growing media conglomerate. In this context, the measure of performance by a network's direct audience share or advertising revenues might not be adequate. In a sense, as network television increasingly becomes a piece of a corporate strategy puzzle that contributes to the growth of the overall corporate revenues with its immeasurable qualities of brand recognition, mass appeal/reach, and content production capability, its role might have morphed from a tactical revenue-producing business unit to a strategic component that aims to propel the growth of other properties owned by the parent corporation.

This study is limited to the context of the U.S. network television market and thus cannot be generalized. Indeed, our intent was not to predict, but rather to understand how the resource profiles of the broadcast networks have changed over time amidst increasing uncertainty. We investigated and reconstructed ongoing processes that were not available for direct observation (Lindlof, 1995), attempting to capture, track, and explain networks' strategies as evidenced by their resource profiles. The biggest challenge of this type of research is the difficulty of acquiring consistent, network-specific financial data or business activity information in a media market full of conglomerates, as most corporations do not structure their reports by individual segments. Because of the aforementioned strategic role of the networks, a more proper performance measurement would be various profitability ratios, which again are unavailable by media segments. Future research in this area might examine the resources of television networks over time, taking into consideration the depth and breadth of other affiliated media properties of their parent corporations. It would also be interesting to investigate the relationship between the changing resource profiles of the television networks and their parent companies' strategic behavior over time or the linkage between the networks' strategies toward new media and resource profiles. Indeed the RBV framework would be especially useful for managers to gather and analyze their own resource profiles (Picard, 2002), relative to their performance in the market. This type of internal analysis also may be extended to competitive intelligence practices, where firms examine the resource profiles and performance

levels of competitors to gain insight into competitors' strategies and capabilities. Presumably, managerial access to more complete financial data may give a clearer indication of the implications of specific resources on strategic direction and performance amidst technological and regulatory changes.

REFERENCES

- Albarran, A.B. (2002). *Management of Electronic Media*. Second ed. Belmont, California: Wadsworth/Thomson.
- Albarran, A.B. & T. Moellinger (2002). "The top six communication industry firms: Structure, performance, and strategy," pp. 103-122 in R.G. Picard (ed.). *Media Firms: Structures, Operations and Performance*. New Jersey: Lawrence Erlbaum.
- Amit, R. & P.J.H. Schoemaker (1993). "Strategic assets and organizational rent." *Strategic Management Journal* 14(1): 33-46.
- Barney, J. (1986). "Types of competition and the theory of strategy: Toward an integrative framework." *The Academy of Management Review* 11(4): 791-800.
- Barney, J. (1991). "Firm resources and sustained competitive advantage." *Journal of Management* 17(1): 99-120.
- Black, J.A. & K.B. Boal (1994, Summer). "Strategic resources: Traits, configurations and paths to sustainable competitive advantage." *Strategic Management Journal* 15 (Special Issue Strategy: Search for New Paradigms): 131-148.
- Boyd, B.K. & J. Fulk (1996). "Executive scanning and perceived uncertainty: A multidimensional model." *Journal of Management* 22(1): 1-21. Retrieved July 15, 2002, from Gale Group Database (A18345342).
- Brooks, T. & E. Marsh (1999). *The Complete Directory to Prime Time Network and Cable TV Shows*. New York: Ballantine Books.
- Chatterjee, S. & B. Wernerfelt (1988). "Related or unrelated diversification: A resource-based approach." *Academy of Management Proceedings*: 7-11.
- Choe, H. (2001, January 25). "Industry Surveys: Broadcasting & Cable." *Standard & Poor's*. Retrieved March 1, 2003 from Standard & Poor's NetAdvantage database.
- Choe, H. (2002a, January 24). "Industry Surveys: Broadcasting & Cable." *Standard & Poor's*. Retrieved June 5, 2002 from Standard & Poor's NetAdvantage database.
- Choe, H. (2002b, July 25). "Industry Surveys: Broadcasting & Cable." *Standard & Poor's*. Retrieved July 27, 2002 from Standard & Poor's NetAdvantage database.
- Das, T.K. & B. Teng (2000). "A resource-based theory of strategic alliances." *Journal of Management* 26(1): 31-61.
- Davidson, P. (2002, February). "FCC must justify limits on media holdings." USA Today [Online]. Available: <http://www.lexisnexis.com/universe>.
- Dickson, P.H. & K.M. Weaver (1997). "Environmental determinants and individual-level moderators of alliance use." *Academy of Management Journal* 40(2): 404-425.

- Donald, W.H. (1999, January). "Industry Surveys: Broadcasting & Cable." *Standard & Poor's*. Retrieved July 27, 2002 from Standard & Poor's NetAdvantage database.
- Einstein, M. (2002, September). "Program diversity and the program selection process on broadcast network television." Media Ownership Working Group: Federal Communications Commission. [Online]. Available: http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-226838A10.pdf.
- FCC Biennial Review Report, Section 202 of Telecommunications Act of 1996, FCC00-191 (2000) [Online]. Available: http://ftp.fcc.gov/Bureaus/Mass_Media/Orders/2000fcc00191.doc.
- Ferrier, W.J., Smith, K.G. & C.M. Grimm (1999). "The Role of competitive action in market share erosion and industry dethronement: A Study of industry leaders and challengers." *Academy of Management Journal* 42(4): 372-388.
- Forrester, C. (2000). *The Business of Digital Television*. Oxford: Focal Press.
- "Hollywood wired." (2001, January). *Multichannel News International*. Retrieved June 21, 2002 from OneSource database.
- Hoskisson, R.E., Hitt, M.A., Wan, W.P. & D. Yiu (1999). "Theory and research in strategic management: Swings of a pendulum." *Journal of Management* 25(3): 417-456.
- "It's Official: Vivendi, GE Make Deal." (2003). General Electric. [Online]. Available: http://www.ge.com/en/company/news/vivendi_wsj.htm.
- Levy, J., Ford-Livene, M. & A. Levine (2002, September). "Broadcast Television: Survivor in a sea of competition." Office of Plans & Policy Working Paper No. 37. Federal Communications Commission.
- Lindlof, T.R. (1995). *Qualitative Communication Research Methods*. Volume 3. Thousand Oaks: Sage Publications.
- Littleton, C. (2001, July 18). "Fox clocks in with '24' plan." [Online]. Retrieved June 21, 2002 from OneSource database.
- Liu, F. & S. Chan-Olmsted (2003). "Partnerships between the old and the new: Examining the strategic alliances between broadcast television networks and Internet firms in the context of convergence." *The International Journal on Media Management* 5(1). [Online]. Available: <http://www.mediajournal.org/modules/pub/view.php/mediajournal-122>.
- McEvily, S.K. & B. Chakravarthy (2002). "The persistence of knowledge-based advantage: An empirical test for product performance and technological knowledge." *Strategic Management Journal* 23: 285-305.
- Miller, D. & J. Shamsie (1996). "The resource-based view of the firm in two environments: The Hollywood film studios from 1936 to 1965." *Academy of Management Journal* 39(3): 519-543.
- Miller, V.B., Ensley, C.H., Young, T.B. & R.L. Katz (2002). *Broadcast Television Fact Book*. New York: Bear Sterns Equity Research.
- Milliken, F.J. (1987). "Three types of perceived uncertainty about the environment: State, effect, and response uncertainty." *Academy of Management Review* 12(1): 133-143.

- Picard, R.G. (2002). "The centrality of media firms," pp. 1-7 in R.G. Picard (ed.), *Media Firms: Structures, Operations and Performance*. New Jersey: Lawrence Erlbaum.
- Porter, M. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: The Free Press.
- Porter, M. (1996). "Toward a dynamic theory of strategy," pp. 423-461 in R.P. Rumelt, D.E. Schendel, & D.J. Teece (eds.), *Fundamental Issues in Strategy: A Research Agenda*. Harvard: Harvard Business School Press.
- Rumelt, R.P., Schendel, D.E. & D.J. Teece (eds.) (1996). "Fundamental issues in strategy," pp. 9-47 in *Fundamental Issues in Strategy: A Research Agenda*. Harvard: Harvard Business School Press.
- SubbaNarasimha, P.N. (2001). "Strategy in turbulent environments: The role of dynamic competence." *Managerial and Decision Economics* 22: 201-212.
- "TV needs 'new paradigm' of change to survive, Iger tells NAB." (1998, April 7). *Communications Daily*. [Online]. Available: <http://www.lexisnexis.com/universe>.
- Viacom Television Stations Group. [Online]. Available: <http://www.viacom.com/prodbyunit1.tin?ixBusUnit=10000019>.
- Wernerfelt, B. & A. Karnani (1987). "Competitive strategy under uncertainty." *Strategic Management Journal* 8(2): 187-194.
- Wimmer, R.D. & J.R. Dominick (1997). *Mass Media Research: An Introduction*. Fifth ed. Belmont, California: Wadsworth.