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A Helical Model of Media Competition, Innovation and Performance

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This paper argues that Industrial Organization theory is essential but not sufficient to understand the individual and collective performance of modern media organizations. Institutional economics is an important source of theory, too. Whereas Industrial organization emphasizes market structural conditions that stimulate strategic variety and product differentiation, institutional economics emphasizes institutional conditions that require companies to be similar. A discussion of the basic assumptions of industrial organization and institutional economics, followed by an extensive review of media performance studies in these traditions, substantiates and illustrates this claim. The paper concludes with a number of hypotheses for future media market performance research.

Introduction

Media organizations aim to realize their own organizational objectives (e.g., making a profit; publishing the best magazine in the world; becoming the largest media company). At the same time, media organizations are expected, by themselves and society, to contribute to important and collectively defined public-interest objectives (e.g., maintaining freedom of expression; providing diverse and objective information; creating jobs). Since long, media scholars and policy makers have been engaged by the question whether and how these organizational and public-interest objectives can be realised together.

This paper reviews the contribution of industrial organization and institutional economics to this debate. It concludes that these approaches (should) complement each other. Industrial Organization (IO) identifies structural conditions and constraints that induce media organizations to differentiate their products. Institutional economics, in contrast, argues that time- and culture-specific institutions force media organizations to be similar. In between, at the crossroads of traditional IO and institutional economics, *new* IO theory and *new* institutional economics add an emphasis on the relative autonomy and strategic interdependence of media organizations.

Sections Two and Three of this paper introduce the main characteristics of industrial organization and institutional economic approaches. Section Four discusses their relevance to media performance analysis. Subsequently, sections Five to Seven review the contribution of the traditional IO, new IO and new institutional theory, and traditional institutional economics to media performance analysis. These sections pay special attention to programme choice theory (section Five), financial commitment theory (section Six), and studies on the corporatization of US newspapers (section Seven). Finally, section Eight presents hypotheses that together form the foundation for a helical model of media competition, innovation and performance.

Industrial Organization: Basic Assumptions

Industrial Organization (IO) studies the behaviour of companies under different market conditions. A basic understanding in IO is that perfect competition would result in an optimal allocation of resources. However, companies aim to acquire market power so that they can exert some control over market forces. Real-world markets therefore always occupy a position between the ideal types of perfect competition and monopoly. Industrial organization analyses the behaviour of companies on these markets, and subsequently assesses whether the prevalence of market power results in sub-optimal performance. This may result in recommendations for competition authorities to interfere in markets. But analyses may also show that market power increases social welfare (as in the case of a natural monopoly). In addition, some authors (like Michael E. Porter) use an IO framework to recommend companies ways to increase their market power.

The SCP Paradigm

The main approach in IO is known as the Structure-Conduct-Performance (SCP) paradigm. This approach dates back to the 1930s and dominated the IO field until the 1970s. It states that market performance results from the conduct of companies in a market, while conduct in turn depends on the structural characteristics of a market. In short: structure determines conduct determines performance (Shepherd, 1997).

The SCP paradigm offers an intuitively appealing but relatively loose theoretical framework to organize empirical research. Its central concepts can be elaborated and specified in different ways. Frequently mentioned performance criteria include efficiency, product variety, innovativeness, and macro-economic stability. Related dimensions of competitive conduct include pricing behaviour, R&D, advertising, and product design. Market structure, finally, encompasses elements such as concentration, product differentiation, market entry barriers, and vertical integration (Scherer, 1996; Tirole, 1988).

Structure, conduct and performance are all characteristics of markets. These markets exist not in isolation, but are affected by a range of external basic conditions and by public policies. Basic conditions, at the supply side, concern or influence prices and availability of resources. They include product and process technology, employee skills, unionisation, and location of raw resources. Basic conditions on the demand side influence effective demand. They include consumers' buying methods, availability of substitutes, price elasticities, and cyclical and seasonal patterns in buying. Public policies, finally, can both influence market structure (e.g., via market entry regulation or anti-trust policies) and market conduct (e.g., via subsidies and advertising rules) (Scherer & Ross, 1990). Compared with the rich variety of market dimensions and external factors that are potentially considered in SCP studies, the theoretical foundations of the SCP tradition are relatively modest and straightforward. Theoretical starting points are the familiar models of perfect competition and monopoly, which show that competition results in higher social welfare than monopoly (Scherer & Ross, 1990; Tirole, 1988). In between these ideal types, other market models are identified such as monopolistic competition, and homogeneous and heterogeneous oligopolies. These latter models are much closer to actual market situations, yet they are not well developed in theoretical terms. Especially oligopolies are resilient to modelling attempts. Since there are few competitors in an oligopoly, the behaviour of one oligopolist strongly depends on its predictions and evaluations of the behaviour of the other oligopolists. "Because of this strategic interdependence, it is difficult to predict the outcome of oligopolistic rivalries with any confidence (Scherer, 1996: 4)." This refers to an underlying, more general problem for the SCP approach, namely that structure not only determines conduct, but that the conduct of companies in turn also influences the structure of the market (Ferguson, 1988; Wirth & Bloch, 1995).

The Austrian Critique and New IO Theory

The SCP paradigm belongs to neoclassical economic tradition. Its theoretical foundation is based on the 'strong' neoclassical assumptions that individual actors behave rationally and in their own self-interest, on the basis of perfect knowledge. No one would argue that these are realist assumptions; neoclassical economists 'merely' claim that these assumptions lead to realist predictions of company behaviour and market performance (Dugger, 1979). Nevertheless, these assumptions result in a focus on static equilibriums and a disregard for the dynamics of competition (Ferguson, 1988; Tirole, 1988).

These limitations of the SCP approach have been criticised, amongst others, by economists from the Austrian school (Ferguson, 1988; Wirth & Bloch, 1995).

Austrian economists put the competitive process at the centre of attention. They assume that economic agents (entrepreneurs and consumers) are fundamentally faced with uncertainty and limited information. These agents make choices, acquire knowledge, buy or sell products and set prices, and respond to the choices and actions of other economic agents. These interactions may move the economy *towards* equilibrium or stability -- until new innovations or other changes destroy emerging stable patterns of interaction (Ferguson, 1988). On a macro-level, these ideas are reflected in theories of economic cycles and systemic theories of innovation, according to which each long-term cycle of economic growth is based upon the large-scale diffusion of a particular cluster of interdependent and compatible radical and incremental innovations (Freeman & Soete, 1997). At the market level, these ideas are elaborated in the product life cycle model (De Jong, 1993), which argues that the actual and optimal levels of concentration in a market vary with the life cycle of the product.

New IO theorists have acknowledged the criticisms of the Austrian school. Since the 1970s, they have been working on new models that accommodate situations of asymmetric information and that acknowledge the dynamic nature of competition. These new IO models build upon game theory. They focus on the conduct of oligopolists, and investigate how their conduct interacts with market structure and influences performance. An illustrative difference between mainstream SCP and new IO models is that concentration indices are important descriptors of market structure, as independent variable, in the former models, while they are indicators for competitive behaviour, as endogenous variable, in the latter models (Tirole, 1988).

The reliance on game theory has resulted in a range of formal models, usually on two-firm markets. The primary performance criterion in these models is the maximisation of social welfare. The theoretical rigour of this new IO theory is acknowledged by most scholars, but differently valued. Some authors find that these models "take a very narrow focus (Ferguson, 1988: 12)" and "have limited relevance for real competitive processes in real markets (Shepherd, 1997). Others are more favourably disposed, believing that new IO theory does "help the people involved in analysing actual markets" but also that it "should [...] feed back to empirical analysis (Tirole, 1988: 3)." That favourable approach is also adopted in this paper -- and media markets will be implicitly presented as a very interesting case to test some of the new IO models.

Institutional Economics: Basic Assumptions

The notion that economic actors do not have perfect knowledge but rather operate in a world of incomplete and unequally distributed information, is elaborated in institutional economics.

Institutional economists emphasize that not only markets but also institutions play an important role in coordinating economic activities. Institutions are defined as formal and informal rules and procedures, values and norms, and shared cognitions and habits that constrain and guide human behaviour (based on Scott, 1995). Institutions make human behaviour predictable, at least to some extent. Institutions, therefore, play a major role in reducing uncertainties, also in economic processes.

New Institutional Economics

New institutional economics is a relatively recent approach that shows close affinity with new IO theory. Whereas new IO theory studies the interactions between market conduct and market structure, new institutional economists investigate in a similar vein the relationships between conduct and the institutional conditions under which interest maximizing actors operate. New institutional economists identify two or three basic coordination mechanisms (horizontal coordination via the market, and vertical coordination in firms or by governments). They investigate why some economic activities are coordinated via the market and others inside the firm or by governments, and they discuss whether these institutional arrangements result in optimal performance.

Central to new institutional economics is the concept of transaction costs (Hazeu, 2000; Scott, 1995). Transaction costs are all costs that buyers and sellers have to make to enable market transactions. These include the costs of searching information on products or customers, the costs of negotiating the deal, and the costs that must be made to ensure that both parties honour the deal; in short, the cost of reducing uncertainty. The higher these transaction costs are -- for example because the exchanged product is complex, difficult to evaluate or very important for the buyer -- the more it makes sense

from an economic point of view to internalise these transaction costs and to coordinate (or control) the transactions vertically (inside a firm or by governments) rather than via the market. Frequently mentioned examples in this respects are R&D investments and the utilization of qualified labour -- transactions that are difficult to coordinate via mere buying and selling on the market (Hazeu, 2000). Vertical coordination within firms or by governments, however, has its own costs. The most important of these costs is that vertical coordination reduces competitive pressures on sellers (of R&D or qualified labour) to provide the best quality at the lowest possible price. Economic agents, therefore, have to make a trade-off between the costs and benefits of different institutional settings. Since these costs and benefits change with ongoing developments in (information) technology, at different times different institutional settings are to be preferred. This results in an ongoing process of economic reorganisation, in which at some times firms expand horizontally or vertically, and at other times governments outsource their activities to the market (Hazeu, 2000).

Institutional Economics

New institutional economics shares with new IO theory, the Austrian school and neoclassical economics its interpretation of economic processes as interactions between individual, purposeful agents. Traditional institutional economics, on the other hand, rejects this methodological individualism and argues that economic activities are essentially social practices that relate to and reflect a shared social culture (Hodgson, 1988; Van Dalen, 1992). Sharing with new institutional economics its interest for institutions, traditional institutional economics adopts a very different approach. Instead of modelling the stylised behaviour of economic actors under a few specific assumptions, institutional economists put the 'real flesh and blood' of time- and culture-specific rules, norms and habits -- that consciously or unconsciously guide economic behaviour -- at the centre of the stage. Even though traditional institutional economics has never made it into a proper economic school, its cognitive perspective on the role of information in economic processes makes this approach relevant to media economic and communication scholars (Babe, 1995).

The contribution of institutional economics can be illustrated by comparing institutionalist definitions of markets and prices with IO definitions. Industrial organization defines a market as "a collection of individuals (and associated geographical area) who face the same net price for any particular good or service" (Geroski, 1998: 679). This abstract definition reflects the formal nature of new IO theory, in which markets are postulated rather than empirically investigated. In empirical IO studies, real markets, also known as 'relevant markets', are in a similar vein defined as including all products and services that are substitutes for consumers, and all producers of those products and services that compete under the same conditions (European Commission, 1997). Prices, on those markets, are the outcome of the forces of supply and demand. Institutional economists, on the other hand, define a market as "a set of social institutions in which a large number of commodity exchanges of a specific type regularly take place, and to some extent are facilitated and structured by those institutions (Hodgson, 1988: 174)." Prices, in this institutional perspective, are not simply the outcome of the objective forces of supply and demand or negotiations between buyers and sellers with imperfect knowledge, but depend at least as much on social price expectations and norms.

The attention for rules and norms has stimulated strategic management scholars in the institutional tradition to propose the conformity principle. According to this principle, a firm loses legitimacy and has more difficulties to acquire necessary resources under favourable conditions, if that firm chooses strategies that are not 'normal' or 'acceptable' to organizations in its institutional environment (that is, to suppliers, buyers, rivals, and regulators) (Deephouse, 1999; also Scott, 1995). This institutionalist conformity principle contrasts sharply with the differentiation principle developed in IO-based management theories. Advocated by strategic management authors such as Porter, the differentiation principle recommends companies to be as different as possible, in order to acquire a sustainable competitive advantage (Deephouse, 1999; Porter, 1980).

The differentiation and conformity principles summarise succinctly the basic contributions of IO and institutional economics to media performance analysis. The next sections review these contributions in more detail. First, however, we need to address the question, raised by Fu (2003), to what extent economic approaches can contribute to the analysis of media performance in non-economic terms.

A Media Economic Approach to Media Performance

Industrial organisation aims to explain market performance as the outcome of the behaviour of companies within a particular market structure. As indicated above, traditional IO emphasizes the determination of conduct and subsequently performance by market structure, while new IO theory puts conduct at the centre of attention. Irrespective of this debate on the exact nature of the causal relationships between structure and conduct, it is important to recognize that the relationship between conduct and performance is not causal but evaluative. Conduct and performance are not two different entities that can be causally related. Performance refers instead to the normative evaluation of market conduct. It expresses to what extent market conduct (described in terms of investment decisions, average costs and prices, product variety, or yet other conduct dimension) meets one or more previously determined normative criteria (Is there sufficient innovation? Are products efficiently produced? Are prices 'right'? Is there sufficient innovation and diversity?)

The most frequently adopted criterion, especially in new IO theory but also in the mainstream SCP paradigm, is the maximization of social welfare. This social welfare norm, however, is not the only 'economic' norm that can be applied, nor is it the only or most appropriate criterion for media performance analysis. Other 'economic' norms (that, e.g., focus on the distribution of welfare across people, nations and generations) or other media-specific norms (such as diversity, objectivity, and accessibility) are important, too (Hendriks, 1995; McQuail, 1992). Since (neo-classical) economics does not concern itself with aims, there is -- in contradiction to Fu's (2003) argument -- no a priori reason why we cannot use these other media-specific norms to evaluate market conduct in media economic performance analysis, too. After all, "[g]ood performance is what a nation's citizens ultimately seek from their industries (Scherer, 1996: 3)."

We therefore can use (new) IO theory to understand the conduct of media companies under different market conditions, while disregarding the normative conclusions of IO theory that -- from a media point of view -- are too narrowly stated in social welfare terms. Instead, we can evaluate market conduct in different ways, choosing or combining 'economic' and media-specific norms. For example, we can use IO theory to investigate how competition influences broadcasters' choices for specific programming strategies, and we can subsequently evaluate the resulting supply of television programmes against the 'economic' criterion of reflective diversity (which states, briefly put, that supply should match demand) or the 'communication' criterion of open diversity (which states that media should provide an unbiased, objective representation of views and ideas in society) (Van der Wurff & Van Cuilenburg, 2001). Of course, different economic and media-specific performance norms may conflict, in which case trade-offs are required. But that will not be different if we restrict ourselves to the standard norms of traditional IO analysis (Scherer, 1996: 3).

Performance Criteria

The following sections focus on four performance criteria that are frequently mentioned in IO *and* media performance analysis, namely diversity, quality, prices, and innovation. Diversity refers to the heterogeneity of media content on dimensions on which consumer tastes and preferences vary. In IO this type of product variation is referred to as *horizontal* product differentiation. The defining characteristic of horizontal product differentiation is that consumers do not agree on what is the most preferable product. In the case of *vertical* product differentiation, or variety in terms of quality, on the other hand, consumers do agree on what is the most preferable (i.e. high quality) product. Yet, differences in willingness to pay make that consumers nevertheless buy different product variants. Prices, thirdly, determine from a communication point of view the accessibility of media products, while from an economic point of view (differences between costs and) prices are indicators for the prevalence of market power and the realization of above-normal profits. When market power is absent and prices equal marginal cost, profits are 'normal' and available resources are efficiently used. Innovation, finally, makes it possible that resources are more efficiently used in the future, resulting in relatively higher quality or diversity of media products at relatively lower prices. Innovation, however, also requires investments and may create market power. A trade-off therefore has to be made between the (current) costs and (future) benefits of innovation. In the next sections, we investigate the drivers that influence those dimensions of media organizational conduct that bear upon one or more of these performance dimensions.

Mainstream IO Theory: Predicting Media Company Conduct

Diversity is arguably one of the most important performance criteria in media performance analysis (Hendriks, 1995; McQuail, 1992; Napoli, 1999). A brief glance at the media literature suggest that many media (economic) scholars fear that diversity and market forces are at odds; that markets provide too little diversity and too much excessive sameness (Brown, 1996). IO models, in contrast, suggest that there are strong forces that stimulate firms to differentiate products (Tirole, 1988). The main reason that competing providers attempt to provide as different products as possible, is that differentiation reduces the level of rivalry between those providers, and consequently gives them market power to raise prices.

There are only two situations in which rational firms would not aim for maximal product differentiation. One is that a large number of consumers has a strong preference for the same product. In that case, competing providers are torn between the drive to go where the customers are and the drive to avert competition. Providers can solve this dilemma by differentiating on other dimensions, including brand names. The second situation emerges when providers, for some reason, cannot compete on price. Then there is no incentive for providers to differentiate (Tirole, 1988).

Diversity in Broadcasting

Traditional programme choice theory argues that this second situation aptly describes advertised-supported broadcasting markets. Since viewers on advertiser-supported broadcasting markets do not pay for radio or television programmes, broadcasters have nothing to fear from price competition (on the viewer market). Hence, they are assumed to be completely driven by the desire to maximise audiences by providing mainstream programmes (Owen & Wildman, 1992). Only when the number of channels becomes large, and the mainstream audience is divided over many channels, do broadcasters find it attractive to serve minority audiences. Traditional programme choice theory, therefore, argues that competition in broadcasting results primarily in programme duplication and only secondary in more diversity (Steiner, 1952).

A comparison of traditional and more recent studies, however, suggests that the relationship between competition and diversity is strongly mediated by demand conditions (also Papandrea, 1997). For example, when the mainstream audience is relatively small and minority audiences are relatively large, fewer channels will provide mainstream programmes and competition will more rapidly result in diversity. Likewise, when the distribution of preferences is skewed, providers will not replicate each other programmes, but provide slightly differentiated programmes -- an argument that has been applied to the timing of news programmes by Cancian and colleagues (1995) and by Nilssen and Sorgard (2002). Also, when viewers are assumed to have a continuous range rather than discrete preferences, models show that competition results in diversity (Noam, 1987). Finally, models that assume an even distribution of viewer preferences show no programme duplication at all. Rather, these models suggest that when many players serve this market, each will target its own narrowly defined niche and the market will provide too much diversity (meaning that less diversity would satisfy needs at least as well at lower costs; Waterman, 1989).

Programme choice models also suggest that pay-TV provides more diversity than advertiser-supported TV. Since providers of pay-TV may compete on price, they do have incentives to differentiate. Besides, some viewers may have strong preferences (and hence a high willingness to pay) for specific minority programmes. Providers of pay-TV can capture this high willingness to pay by charging relatively high viewer prices; something that providers of advertiser-supported television cannot do. Combined, the drive to prevent price competition and the drive to capitalize upon viewers' willingness to pay make the provision of minority programmes more attractive on pay- than on advertiser-supported TV markets (Owen & Wildman, 1992).

Quality in Broadcasting

Chae and Flores (1998) elaborate upon the differences between pay- and advertising-supported TV by including quality as second dimension on which programmes can be differentiated. They argue that advertising is a more attractive source of revenues on 'extensive' markets (where the audience is large and viewers by definition have a low willingness to pay), while pay-TV is more attractive on 'intensive markets' (where audiences are small but viewers may have a higher willingness to pay). Since they

also assume that viewers' willingness to pay increases with the quality of a programme, Chae and Flores conclude that pay-TV provides more quality programmes than advertiser-supported TV. Again, however, these conclusions depend strongly on the demand conditions. Compare, for example, Waterman (1992), who assumes that mainstream programmes attract larger audiences (with higher willingness to pay) when their quality increases, while minority programmes are assumed to draw only minorities irrespective of their quality. Following these assumptions, pay-TV channels are confronted with the trade-off between investing more in high quality mainstream programmes -- and selling this program (in different windows for different prices) to larger viewer groups -- or investing less in lower quality minority programmes -- and selling that programme at lower prices to a smaller audience. Empirical evidence presented by Waterman indeed suggests that pay-TV channels do invest in quality of mainstream programmes.

If pay-TV channels can increase the quality of mainstream programmes to attract more viewers, advertiser-supported broadcasters can do the same. Bourreau (2003) even argues that advertiser-supported channels have higher incentives to invest in quality than pay-TV channels. Because pay-TV channels differentiate their programmes, they can charge relatively high prices anyway. Advertiser-supported channels, on the other hand, compete (more) strongly on quality when they provide (more) similar programmes. Hence, they have to make a trade-off between the costs of horizontal differentiation and the costs of quality competition. This causes that "program variety is always higher under pay-TV than under advertiser-supported TV". But, "program quality is higher under advertiser-support if the advertising revenue is sufficiently high [to enable quality competition; RvdW] (Bourreau, 2003: 46)".

Paying Attention to Television Commercials

Finally, modern broadcasting models take into account that viewers of advertiser-supported television pay attention to commercials. Masson, Mudambi and Reynolds (1990) expect that viewers dislike these commercials. If this is indeed the case, competition between broadcasters forces broadcasters to reduce 'attention prices' -- that is, the number of advertising minutes that they present to viewers (Masson et al., 1990). To prevent this type of 'attention price competition', broadcasters are once more stimulated to differentiate their programmes and to create market niches in which they can charge monopolistic attention prices: "Without advertising rate regulation, both channels would spontaneously select those program-mixes which entail maximal program's diversity, and spend half of their total broadcasting time to ads' interruptions (Gabszewicz, Laussel, & Sonnac, 1999: 16-17)." Mangani (2000) reminds us that this latter result only holds when broadcasters provide programmes of similar quality. When broadcasters differentiate in quality (and attention prices), too, outcomes other than maximum differentiation are more likely. For example, when one broadcaster increases the quality of its programmes strongly, this high-quality broadcaster can afford to provide mainstream programmes, serve all customers, and push competing low-quality provider(s) from the market (Mangani, 2000). In response, these low-quality providers may attempt to reduce costs (Bonanno & Haworth, 1998) or to increase quality -- which brings us back to Bourreau's (2003) conclusion that diversity and quality will be high in advertiser-supported markets, on the condition that advertiser revenues are sufficiently high.

Relevant Dimensions of Differentiation

This review of SCP-type models of broadcasting markets suggests that pay-TV and advertiser-supported broadcasters have incentives to differentiate products. Apart from that, these models seem to show that "anything can happen in oligopoly" (Scherer & Ross, 1990: 220); a position that can be relatively easily illustrated with studies that show mixed relationships between market structural characteristics, such as competition, and market performance, e.g., diversity (Bates & Chambers, 1999; Lacy & Vermeer, 1995; Li & Chiang, 2001).

A more positive conclusion is that market conduct of media organizations, in the above-reviewed market models and most likely also in real-world markets, depends to a large extent on (assumptions about) viewer and advertiser demand. The reviewed models clearly show that the extent of programme differentiation that can be expected in competing or monopolistic markets, varies strongly with (assumed) distributions of viewer preferences. Very few performance studies, however, aim to determine these preferences in practice.

The more sophisticated models suggest moreover that media organizations aim for product differentiation in a multidimensional product space. Studies that touch upon consumer (and advertiser) preferences, support this conclusion. Rogers and Woodbury (Rogers & Woodbury, 1996), for example, found that radio listeners have format and within-format preferences. Goettler and Shachar (2001) concluded on the basis of the analysis of viewer behaviour that the main television networks in the US differentiate their programmes *de facto* on four dimensions (the development of the plot, the realism of the programme, the age of the characters, and the attractiveness for young men respectively children and older women). These dimensions distinguish between programme types that are valued by distinct groups of viewers. SCP models and empirical media performance studies that include only one dimension of programme type diversity, cannot adequately capture these processes of actual differentiation in multi-dimensional product spaces -- although it must also be noted that actual differentiation, as described by Goettler and Shachar, might still be considered insufficient from an external, open diversity point of view.

We conclude that media organizations, like other business organizations, differentiate their products on several horizontal (diversity) and vertical (quality) dimensions at the same time. Since there are increasingly less technical constraints to increase the number of broadcasting channels, we hypothesize that the actual number of differentiated products and the resulting level of differentiation depends increasingly less on market structural conditions (that have been investigated extensively) and increasingly more on (media organizations' assessment of) the distribution of viewer and advertiser preferences and the costs of product development (which have been investigated less). We additionally hypothesize that an important element of these viewer and advertiser preferences is the extent to which similar media products are substitutes (as in the case of television channels) or complements (as in the case of scientific journals) (Sarvary & Parker, 1997; Van der Wurff, 2003; also Tirole, 1988). How viewer and advertiser preferences influence product and pricing strategies can be derived from SCP models, such as the ones discussed in this section. How costs and media organizations' knowledge influence product development will be discussed in the next section.

New IO and New Institutional Theory: Innovation and Market Structure

Differentiation of media products on horizontal and vertical dimensions only occurs if media organizations are willing to invest in media innovation. Since investments in media innovation go at the expense of current profits and since the success of innovative efforts is far from certain, media organizations need to make a trade-off between the costs of innovation and the likelihood that innovation produces benefits (in terms of an increase in market power and the ability to charge higher prices) in the future. The name of Schumpeter is irrevocably associated with the argument that under monopoly this trade-off results more frequently in innovation than under competition (Tirole, 1988). One reason is that monopolies (or large companies in general) are argued to be better positioned to take risks and invest in R&D (also because of economies of scale in modern R&D). The other reason is that successful innovators acquire a competitive advantage and tend to dominate if not monopolize markets -- which in turn enables them to appropriate the benefits of innovation and therefore provides the necessary incentive for companies to invest in R&D in the first place (Tirole, 1988; also Symeonidis, 1996).

Stimulated by Schumpeter's thesis, new IO theory has investigated the relationships between innovation and the structure of the market before and after innovation. Models show that a monopolist has strong incentives to invest in innovation, as long as introducing new product variants can prevent the entry of new companies. At the same time, a monopolist has weak incentives to introduce completely new products, because these new products would merely replace its own old products. Competitors, on the other hand, do have strong incentives to invest in the development of new products that can replace the products of competitors (Greenstein & Ramey, 1998; Scherer & Ross, 1990; Tirole, 1988).

Financial Commitment of Newspapers

The notion that competition stimulates innovation and product development is elaborated in the financial commitment theory. Presented by Litman and Bridges in 1986 and further elaborated by Lacy (e.g., 1989; 1990; 1994; 1999), the financial commitment theory suggests that competition forces newspapers to invest more in editorial activities. Empirical studies have indeed found that competing

newspapers invest more in wire services, employ more reporters, use more graphics and colour on front pages, and provide more news (also Everett & Everett, 1989). On the other hand, competing newspapers do not differentiate the topics and geographical orientation of their stories. "The increase in money spent represents an effort to differentiate one newspaper from another, while still remaining a substitute with similar geographic emphasis among news categories (Lacy, 1989)." This effort to remain a substitutable newspaper reflects, justifiable or otherwise, a preoccupation of newspaper publishers with the newspaper market that also transpires from the finding that financial commitment is not stimulated by inter-media competition but only by (intra-city and inter-city) newspaper competition (Lacy, 1988; Lacy et al., 1999). At the same time, the reluctance of newspaper companies to differentiate on topic and geographical orientations, indicates that competing newspapers behave like monopolists in the above-discussed new IO models on market structure and innovation. Like the monopolists in these models, and unlike competitors, newspaper publishers do not really invest in new products that can replace the products of competitors.

Incidentally, it has not been resolved that increases in financial commitment indeed result in a better newspapers from a reader's point of view. Although early formulations of the financial commitment hypothesis stated that "[t]he product quality of a media news product is positively related to the financial expenditure on the product (Lacy, 1989)", research sheds doubt on this assumption. In particular, competition results not only in more news stories or pages, but also in less in-depth stories, more unimportant stories, and lesser sources per story (Fico, 1984 and 1985, cited in Lacy, 1989; Lacy et al., 1999). No relationship can be found between newspaper competition and the quality of *local* reporting in the US, if we compare the number of Pulitzer prizes (for local reporting) won by competing and monopolistic newspapers (White & Andsager, 1990).

Media Innovation and Competition

Research confirms Schumpeter's assertion that competition reduces the availability of resources that are necessary for innovation. Lacy, for example, found that "[...] financial commitment [...] is a function of the amount of profit a firm has as well as intensity of competition (Lacy & Riffe, 1994)." This finding, in combination with the above-presented results, implies that competition and innovation are related in two different ways. On the one hand, when competition reduces profits more, fewer resources can be invested in innovation. Although competition in local broadcasting markets may increase commitments to spend resources on local TV news programmes (as reported in Lacy & Riffe, 1994), it also forces TV stations to drop (unprofitable) news programmes (McKean & Stone, 1992). On the other hand, when competition is stronger and the stakes are higher, successful innovation efforts become more rewarding. Powers, for example, found that "in smaller markets only the most financially secure, number-one-rated stations would risk adding more news time than competitors to their programming. However, in top 10 markets, where financial stakes are higher, trailing stations compete by increasing their news presence throughout the day (2001: 84)."

This contradictory relationship between competition and innovation, that reflects the trade-off that companies must make between current profits and potential future higher benefits, is elaborated by Van der Wurff and Van Cuilenburg (2001) in the argument that moderate levels of competition stimulate innovation and product differentiation, while strong or 'ruinous' levels of competition reduce innovation and excessive sameness. They give evidence on the Dutch broadcasting market to support this argument. Likewise, Alexander (1996) found that both too low and too high levels of concentration did have a negative impact on innovation and diversity in the record industry, too.

Musical Innovations and Company Size

The argument that larger companies are better positioned to innovate, because they have more resources and better opportunities to appropriate any benefits of innovation, runs counter to the argument that smaller companies are more innovative because they are more flexible and creative and respond more quickly to changes in demand. This argument can especially be heard in studies on the music industry. "Various studies have shown that smaller record labels and independent entrepreneurs respond more quickly and are more encouraging of musical change than are larger companies. The major record companies have always been a step behind while looking for the 'lowest common denominator,' more interested in confirming tastes than disrupting them (Burnett, 1992: 759-760)." Similarly, radio stations in small and not heavily contested markets are important for music

innovation. These stations can continue to work according to a "craft model" (rather than the "bureaucratic" model adopted by larger stations), which allows them "a degree of creative autonomy necessary to experiment with untested products in search of what records will 'work' with listeners (Ahlkvist & Fisher, 2000: 320)."

This difference in innovative behaviour of small and large firms adds an extra dimension to the above-presented relationships between media innovation and competition. Not only does competition reduce the availability of resources for innovation and does concentration reduce incentives to develop new products; concentration additionally reduces the number of companies that are likely or more suitable to develop new products. Research on the record industry (reported in Burnett, 1992; Lopes, 1992) confirms these assertions. Until the 1980s, major record companies competed directly with smaller ones and drove them from the market. The resulting concentration was accompanied by a decline in innovation (measured in terms of new songs and performers that successfully entered the market). Since the 1990s, however, the majors cooperate with and co-opt small labels, while they maintain control over "large-scale manufacturing, distribution and access to the principle avenues of exposure (Lopes, 1992: 70)." The result is the so-called "open system" of music production, in which high levels of concentration are combined with high levels of diversity. The continued existence of semi-independent small labels guarantees "that there is a large number of individuals [...] who decide which artists and which musical styles eventually are recorded (Lopes, 1992: 62)." This ensures that the majors have access to a constant stream of innovative music genres and groups.

A similar combination of high concentration of ownership and editorial de-concentration has kept the Dutch newspaper market relatively diverse in the last 25 years, at least according to the newspaper publishers (Van Cuilenburg, Scholten, & Noomen, 1992). Studies indicate that similar market structures, in which a few major companies serve mainstream audiences and dominate the market, while an innovative, competitive fringe of smaller players serve particular niches, are also appearing in the radio industry (Ahlkvist & Fisher, 2000), in television production (Chan-Olmstead, 1996) and in trade journal publishing (Van der Wurff, 2002a).

Innovation and Vertical Integration

The observed changes in the record industry have a vertical dimension, too. Whereas the majors increasingly focus on large-scale manufacturing, distribution and marketing, the development of new musical content is outsourced to smaller labels. New institutional theory suggests that these changes follow changes in transaction costs that make complete vertical integration a less necessary or more costly option than other forms of vertical organization.

Vertical integration reduces transaction costs and increases opportunities for (integrated) product innovation. Vertically integrated companies have control over the quality and timing of the supply of intermediate components. Besides, they can integrate stages in the production process. An advantage of vertical disintegration, on the other hand, is that it increases the flexibility and specialisation of firms (De Jong, 1993: 25-28; Economides, 1998; Waterman, 1993). Recent developments in the telecommunications industry illustrate the advantages of both integration and disintegration. On the one hand, "vertical specialization of equipment suppliers [...] favored the refocusing of their capabilities and gave them the opportunity to become key actors in the industry." On the other hand, "vertical integration in downstream layers of the industry [...] seemed to strengthen coordination between firms in order to develop new applications related to high speed Internet and 3G mobile phones (Krafft, 2003: 647)."

The importance of vertical integration for innovation and product differentiation in media industries can be grasped from Dimmick and McDonald's (2001) comparative study of radio and television broadcasting. Comparing changes in both industries, these authors found that rivalry in oligopolistic television (and newspaper) markets resulted in imitation and lower diversity, while oligopolistic rivalry between radio networks rather resulted in differentiation and diversity. They argue that this is because of differences in cost structures and resulting differences in vertical integration. The relative low cost of radio programmes contributed to a situation in which radio networks broadcasted programmes that were developed and paid for by individual advertisers that wanted to reach specific audiences. This "separation of decision making power in the production and distribution sectors in network radio produced rather diverse programming (Dimmick & McDonald, 2001: 210)." The relative high costs of television programmes, on the other hand, necessitated that television networks

developed programmes for multiple advertisers that could not fund television programmes on their own. These programmes were designed to reach maximum audiences so that multiple advertisers could be served. Vertical integration in television broadcasting, consequently, enabled the production of more expensive programmes but also resulted in less diversity.

Comparing scientific and trade journal markets, Van der Wurff (2002a) suggests in a similar vein that vertical disintegration enables publishers to choose between a diverse range of content provided by independent content producers, and therefore contributes to diversity of information on end-user markets. The downside of vertical disintegration, on the other hand, is that end-user prices are higher than in vertically integrated markets. Research on vertical integration of broadcasters and cable companies, likewise, suggests that vertical integration reduces not only opportunities for cable companies to choose freely what channels to distribute, but also reduces end-user prices. These different effects of vertical integration on prices and diversity stimulated Ahn and Litman to propose a "diminishing effects model of vertical integration" (Ahn & Litman, 1997).

Competition, Innovation and Emerging Heterogeneous Market Structures

We conclude that vertical disintegration between content producers and media organizations (broadcasters, publishers) makes it more likely that a large variety of different types of content is produced and distributed, while vertical integration makes it more likely that more radical innovations are introduced that require changes in the entire value chain. We also conclude that competing media organizations that lack market power have incentives to invest in the development of new products, but may lack resources to do so. Media organizations with market power, on the other hand, have incentives to invest in product differentiation rather than new product development. In addition, these larger organizations lack the flexibility and creativity to respond quickly to changes in demand. We hypothesize that these different costs and benefits of market power, company size and vertical integration explain the emergence of heterogeneous market structures in various media sectors, in which major companies serve mainstream audiences while competitive small players serve niche markets and experiment with new products.

Institutional Economics: The Logic of Media Conduct

Above, we noted that small companies that follow a 'craft model' play a different role in media industries than large companies that adopt a 'bureaucratic model'. These differences refer to the influence of institutions on the strategic behaviour of media companies -- which is the subject of the third approach that we review. Institutions can be regulative (rules and procedures), normative (values and norms) and cognitive (shared cognitions and habits). They are carried by or embedded in cultural beliefs, role systems, routines and laws. They exist at different levels of analysis, ranging from the organizational subsystem to the world system. For this paper, that focuses on the competitive behaviour of media organizations, especially institutions at the level of organizational populations and organizational fields are important (Scott, 1995).

Organizational Legitimacy and Homogeneity

Organizational populations are collections of organizations that are similar in some respects, especially in terms of their relationships with external forces (Scott, 1995). This concept resembles the concept of strategic groups in the management literature. Organizational fields are wider than populations. They include all "organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services or products (DiMaggio & Powell, 1991:64-65)." The organizational field of newspapers, for example, includes paper and ink suppliers, press agencies, trade unions, professional organizations, regulators, and readers.

Institutional studies of organizations set out to answer the question "why there is such startling homogeneity of organizational forms and practices [...]" (DiMaggio & Powell, 1991: 64)". They find that organizations become more similar once they become more established. For example, US opera companies become "more 'institutionalised', [and] hence more conservative in their repertory choices" when they exist longer (Heilbrun, 2001: 69, referring to the work of DiMaggio & Stenberg, 1985)." The main reason is that organizational populations and organizational fields develop shared rules and procedures, norms and values, and cognitions and habits. Drivers behind the development of these

institutions are formal and informal pressures by 'authorities' in the organizational field, imitation in the light of uncertainties, and professionalisation (DiMaggio & Powell, 1991).

Once institutions are in place, they structure, define and enable 'normal' interactions between organizations. Organizations can only diverge from these rules at their own risk. They lose legitimacy in the eyes of peers, consumers, competitors, suppliers, professional organizations or governments. Consequently, they may find it more difficult to gain access to valuable resources and customers. Institutions therefore exert a strong influence on organizations to be similar (Deephouse, 1999; Scott, 1995).

Media Cultural Beliefs

There is a long tradition of research in media studies, and to some extent also in media economics, on the impact of institutions (as defined above) on media content (see for example the overview by Shoemaker & Reese, 1991). One category of studies investigates the influence of values and habits on decisions of 'gatekeepers'. We touched upon this area of research when we argued that an increase in the number of individual gatekeepers makes it more likely that different music productions are selected for production. At the same time, we must note that many studies that investigate potential differences in the norms and characteristics of media professionals actually show that there are strong similarities, too (e.g. Peiser, 2000; Rotfeld, Lacher, & LaTour, 1996; Schneider, Schönbach, & Stürzebecher, 1993; Wicks, 1994). Esser (1999), for example, found that there are major differences between Germany, the UK and the US, if we look into reporters' opinions and values on the invasion of the privacy of politicians. These results at the same time imply that there are strong similarities in opinions and values within countries, which -- as Esser shows -- are not only shared by reporters but to some extent also by audiences, policy makers and professional organizations.

The importance of shared cultural beliefs for the 'normal' operation of media organizations can best be grasped in situations where they are absent or challenged. An illustrative anecdote, in this respect, is that the "first known newspaper" failed because important players did not yet recognize newspapers: "*Publick Occurrences Both Foreign and Domestick* published only one issue in 1690 before its owner was jailed for printing 'the truth as he saw it' (Carroll & Hannan, 1989; quoting Emery & Emery, 1984)."

Newspaper Role Systems and Quality

When differences in values or characteristics between media professionals do exist, they are frequently overruled by organizational relationships. Shoemaker and Reese (1991) conclude that "[a] journalist's background and personal characteristics will affect media content in proportion to the amount of power the person holds within the media organization (264)"; that "[t]he more media workers follow the routines of their organizations, the more likely their content is to be used (265)"; and that "the more economic or political power a source has, the more likely he or she is to influence news reports (268)".

These organizational relationships, or role systems in the institutionalist vocabulary, are investigated in a range of media economic studies on the corporatization of US newspapers. Triggered by the separation of ownership and management and the ensuing concentration of ownership in the hands of a limited number of conglomerates, these studies investigate whether corporatization and chain-ownership would reduce newspaper quality and result in the homogenisation of news. However, they found little proof to substantiate these fears. Independent newspapers might be somewhat stronger in local news, group newspapers may show sometimes similar editorial positions, and out-of-state ownership may cause somewhat more editorial attention for non-local (business) stories. In general, however, few differences can be found between independent and chain-owned newspapers in terms of newspaper quality, the relative emphasis put on profits, the commitment to editorial pages, and (the lack of) vigorous editorials (Blankenburg, 1995; Coulson, 1994; Olien, Tichenor, & Donohue, 1988; see Ahlqvist & Fisher, 2000, for similar conclusions on the limited impact of group ownership of radio stations on programming).

Larger differences are found between public and privately owned newspapers. Newspapers under public ownership, which are controlled to a larger extent by outside shareholders and financiers, maintain high and predictable levels of financial performance, to prevent a drop in stock prices and hostile take-overs (Lacy, Shaver, & StCyr, 1996; also Demers, 1998a). Consequently, top managers of

publicly owned newspapers put more pressure on publishers to generate revenues, and give their publishers less autonomy to commit additional resources (e.g., employees, wire services) to editorial pages (Matthews, 1996). At the other side of the organizational spectrum, Levi (2002) and Emmons and Prager (1997) found that non-profit classical radio stations and municipal-owned cable stations, respectively, are less driven by profit objectives than commercial competitors and hence provide more 20th century classical music, respectively charge less for cable subscriptions.

Significant differences in profitability and newspaper quality are also found between smaller newspapers and larger, corporate-owned newspapers. As has been argued in several papers by Demers, corporate-owned newspapers make larger profits while at the same time they put more emphasis on newspaper quality and provide more critical accounts of local affairs (Demers, 1996; Demers, 1998a; Demers, 1998b; also Akhavan-Majid & Boudreau, 1995). The main reason for this seeming paradox is that corporate-owned newspapers are larger. Because of their size, "they benefit from economies of scale and superior management and human resources (Demers & Merskin, 2000)." Also, because they are larger, corporate-owned newspapers have "a greater division of labor and role specialization (Demers, 1998a; also Beam, 1993)." This makes that editors-in-chief of corporate newspapers can be exclusively concerned with editorial matters and have the structural autonomy to follow professional rather than financial norms in editorial activities (Demers & Merskin, 2000). Similar developments occur in the radio industry, where Ahlkvist and Fisher (2000) found that larger radio stations adopt more 'rational' strategies and rely to a larger extent on audience research, but also give less autonomy to disk jockeys and broadcast more standardized music. Role specialisation and rationalization, therefore, not only increase quality, but also reduce diversity. Finally, research on different types of newspapers showed that editorial quality and vigour depends positively on the size, complexity and other characteristics of the communities that are served by newspapers (Demers, 1998b). This is because in larger and complex communities, newspapers play a more important role in communication and decision making processes in which different interest groups are involved (Demers, 1996), while competition between elites better protects publishers and editors against one-sided political and economic pressures (also Griffin & Dunwoody, 1995).

Media-Specific Routines and Logics

Routines are "structured activities [...] [or] patterned actions that reflect [and reproduce; RvdW] the tacit knowledge of actors -- deeply ingrained habits and procedures based on inarticulated knowledge and beliefs (Scott, 1995: 54)." At the level of organizations or organizational subsystems, routines are "patterned, routinized, repeated practices and forms that media workers use to do their jobs (Shoemaker & Reese, 1991: 105)." At the level of organizational populations and fields, routines exist as media logics: "implicit rules and norms which govern how content should be processes and presented to take most advantage of the characteristics of a given medium [...] (including the media's perception of the needs of the audience) (McQuail, 1994: 265)."

Routines and media logics exert a homogenizing influence on media organizations and products. They structure and constrain the behaviour of media professionals and organizations, and set limits to the kinds of innovations and differentiated products that media organizations can bring to the market. We already discussed Lacy's findings that competing newspapers spend additional resources on colour and graphics to differentiate themselves, while at the same time they continue to offer similar news as their competitors. McCombs argues that this is because editors and reporters are driven by similar news values (McCombs, 1987). We may add that this is also because readers have learned to expect that newspapers provide these types of news. The shared knowledge and beliefs that are reflected and reproduced in routines also constrain newspapers because other actors in the organizational field (including suppliers and consumers) expect newspapers to keep these routines. Successful regional newspapers in Germany, for example, are those that improve their design, while keeping a clear distance from television news and magazine articles in terms of the content they provide (Schoenbach, 1997).

The increasing rationalisation of media production makes that professional norms and consequently also media products become more similar. "The increasing professionalization and bureaucratization of daily journalism exerts a centripetal force on news gathering and editing that works against diversity (McCombs, 1987: 744)." Radio stations that aim for 'rationalization' and increasingly rely on audience research, provide more similar music programmes, too (Ahlkvist & Fisher, 2000).

Media Regulation

Media laws and rules are a fourth type of institution that structure the behaviour of media organizations. The reasons why media industries tend to be relatively strongly regulated need not to be elaborated here. Suffice it to quote Coase (1974: 389) who stated that "if we [...] use for the market for ideas the same approach which has commended itself to economists for the market for goods, it is apparent that the case for government intervention in the market for ideas is much stronger than it is, in general, in the market for goods." Specific reasons mentioned by Coase include the prevalence of externalities, consumer ignorance, and the prevention of fraud (i.e., misleading statements and advertising).

What is more important in the current context is that media regulations reflect, embed (and sometimes also influence) prevailing media cultural beliefs, role systems, routines and logics. Cross-ownership restrictions, for example, are built upon notions that different media are different entities that serve different needs. Competition regulation in the media sector similarly reflects and reinforces norms of what are substitutable and what are non-substitutable products (Roth & Van der Wurff, 2003). Industrial policies and subsidies tend to reflect, but also may change, the way in which media organizations are structured and operate. The Dutch Press Fund, for example, only subsidizes newspapers that accept a formal declaration of editorial independence, thereby underpinning a widely shared belief that editorial and commercial departments in newspaper companies should be separated by Chinese walls. Content regulations for public broadcasters express values of what are 'merit' and what are 'demerit' goods in broadcasting. Finally, copyright regulation expresses values and cognitions on how content production should be stimulated and freedom of information guaranteed.

This relationship between regulations and other institutions has been made more explicit in the last ten to fifteen years, because hitherto inarticulated assumptions were challenged by new players and technological changes. Convergence exposed the extent to which media regulations reflected historically developed media logics and boundaries. Individualization, and to some extent also internationalisation, made clear to what extent communications policies were based on paternalist and elitist values, and established the norm that individual, independent, mature and responsible citizens should make their own media choices. These changes initiated and reflect the decline of old institutions and signal the development of new ones. In policy terms this process of re-institutionalisation is embedded in the shift from national and media-specific policies to international and medium-neutral arrangements that rely to a larger extent on market mechanisms and self-regulation.

Towards New Media Institutions

We conclude that institutions play a major role in the media industry. The intangible and experience good character of media content, the important role and privileged position of media professionals, and the central position of media in societal developments, make that media products, media markets and media strategies depend to a large extent on shared rules, values and expectations; that is, on institutions.

We found additional support for our previous conclusion that the conduct of media organizations depends strongly on the distribution of consumer (and advertiser) preferences. Specifically, the more diverse audience preferences are, the more it is likely that media organizations provide diverse content. Also, the better balanced power relations between political and economic elites are, the more it is likely that media organizations can occupy an independent position and report objectively (also Van der Wurff, 2002b).

Thirdly, we conclude that larger media organizations rationalize their activities. The resulting higher levels of role specialization and division of labour ensure that professional norms can play a more important role in content production, organization and distribution. Institutional theory and empirical evidence suggests that this will increase quality but also similarity between media organizations. Finally, we observe a regulatory shift towards medium-neutral policies that build to a large extent on market mechanisms and self-regulation. These regulatory changes reflect and embed an institutional shift from widely accepted but nevertheless elitist values to more diverse, consumer-oriented and negotiable values and expectations. Following institutional theory, we expect that this process of re-institutionalisation of the media organizational field implies that, at this moment, processes of

invention and negotiation -- and the related mechanisms of interpretation, innovation and trial-and-error -- are more important at different institutional levels than processes of diffusion and imposition -- and the related mechanisms of socialization, identity formation and sanctioning (Scott, 1995). We hypothesize that an important role in this process is reserved for the organization of the provision of meta-media-information; that is, of information that helps consumers (and regulators) to evaluate the quality and properties of media products and services. Both transaction cost theory and institutional theory suggest that the ongoing institutional changes makes it increasingly important that consumers and regulators have access to this meta-media-information. After all, when values and cognitions become less widely shared and self-evident, uncertainty increases and more information is needed to facilitate market transactions (that in themselves are growing in number, too). We put forward that this growing need for meta-media-information underlies the growing attention for the provision of monitoring information (cf. Hamilton, 1996) and other self-regulatory and accountability mechanisms that we can observe.

Hypotheses: A Helical Model of Competition, Media Innovation and Performance

This paper reviewed the contribution of traditional and new approaches in Industrial Organization and institutional economics to the explanation of media market performance in terms of diversity, quality, prices and innovation. It shows that traditional Industrial Organization emphasizes market structural conditions and competitive forces that drive media organizations to differentiate products, while institutional approaches emphasize regulative, normative and cognitive forces that drive media organizations to be similar. New IO and new institutional theory, thirdly, emphasize the strategic interdependence and relative autonomy of media organizational behaviour within these constraints. Remarkably, in spite of these diverging approaches, results from these studies confirm and complement rather than contradict each other. On the basis of these results, we formulate a number of hypotheses that together form the foundation for a helical model of media competition, innovation and performance.

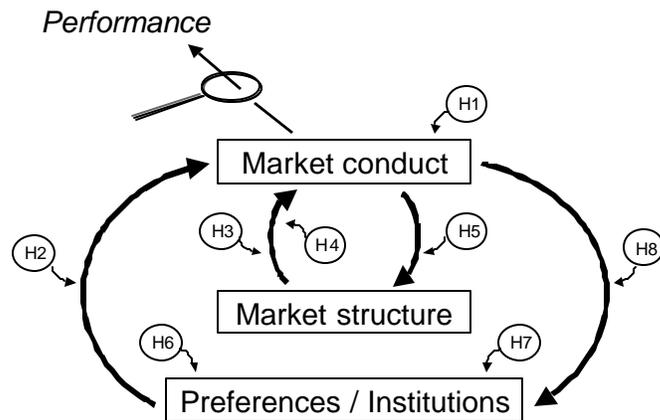
To start with, the review of traditional IO-based studies has shown that media organizations differentiate their products in a *multidimensional* product space. We hypothesize (H1) that media organizations aim to provide as different products as possible within this multidimensional product space, making trade-offs between the costs and benefits of differentiating on different dimensions. Media performance studies that focus on one dimension only, cannot come to grips with this multidimensional differentiation process. They neglect, for example, that more diversity will reduce pressures to compete on quality and vice versa.

Partly because there are fewer technical constraints to increase the number of distinct media products and services, we hypothesize secondly (H2) that the actual level of media product differentiation depends increasingly on (media organizations' assessments of) the distribution of viewer and advertiser preferences and their willingness to pay, rather than on market structural characteristics. Institutional studies support this hypothesis. They show that differentiation increases when media serve more complex communities, and that quality of information (primarily objectivity of news and vigour of editorials) increases when media can take a more independent position in these complex communities.

Thirdly, the review of new institutional studies adds that vertical integration increases opportunities to introduce completely new products and to improve quality, while vertical disintegration not only increases opportunities for product differentiation and diversity but also leads to higher prices.

Concurring with Ahn and Litman (1997), we therefore hypothesize (H3) that vertical integration has contradictory and diminishing effects on performance. New IO studies, in a similar vein, show that competition increases incentives but reduces opportunities to introduce new products, while concentration has the opposite effect. Institutional studies indicate that larger companies adopt more bureaucratic/rational procedures and strategies, which contribute to quality but makes companies and products also more similar, while smaller companies adopt a craft model that enables them to experiment and contribute to diversity. We hypothesize therefore (H4) that concentration has contradictory and diminishing effects on performance, too. We furthermore hypothesize (H5) that these contradictory and diminishing advantages and disadvantages of concentration/competition and vertical integration/disintegration have stimulated (or forced) media organizations to create

heterogeneous market structures in which a few large and relatively similar organizations serve mainstream audiences and compete with a competitive fringe of small organizations. Fourthly, the review of institutional studies suggests that consumer expectations and preferences are not independent from other rules, values, norms and cognitions in the media organizational field. Rather, we hypothesize (H6) that consumer, advertiser and professional media values, media organizational role systems and routines, and media regulations are interdependent. Together, they reflect and reproduce the prevailing institutional framework in the media organizational field. However, we also note that convergence, individualization and internationalisation initiated the re-institutionalisation of the media organizational field. This process of re-institutionalisation involves a shift from national and medium-specific institutions that embedded and reflected elitist media values and supported government intervention, to international and medium-neutral institutions that embed and reflect more diverse and consumer-oriented values and support self-regulation and market mechanisms. We predict (H7) that the provision of meta-media-information will become a cornerstone



of this newly emerging institutional framework. Finally, we follow institutional theory in expecting (H8) that at this moment the ongoing re-institutionalisation of the media organizational field makes processes of invention and negotiation more important at different institutional levels than processes of diffusion and imposition.

Figure 1: A helical model of media competition, innovation and diversity

Figure 1 shows how the hypotheses express relationships between market conduct, market structure and institutions (including preferences). Market performance always follows from the normative interpretation of market conduct, but depending on the stability of the media sector, some influences on market conduct will be more important than others. When the media sector is relatively stable, the inner influences and the upward influences will be stronger, and changes in market conduct will most likely follow from changes in market structure (within a stable institutional field). When the media sector on the other hand is relatively unstable or 'under development', the outer and the downward influences are stronger. This implies that changes in conduct will interact with changes in institutions, while the impact of conduct on institutions will be the most important factor. As stated in hypothesis H8, we believe that this latter interpretation of the model best fits the media sector at its current stage.

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