6th World Media Economics Conference

Centre d'études sur les médias and Journal of Media Economics

HEC Montréal, Montréal, Canada
May 12-15, 2004

Intensive competition and company failures in subscription pay television: Some European experiences

Dr Nikos Leadros, Panteion University of Social and Political Sciences, Greece
Dr George Tsourvakas, Aristotle University of Thessaloniki, Greece

There are different views when considering competitive strategies in the digital age. Some insist that fierce competition leads to price war strategy; others argue that moderate competition leads to cost leadership or diversification strategies in an optimum price level. Through cases studies of European subscription pay television this article aims to investigate the consequences of the competitive behavior of Greek companies and relevant companies in Europe. The evidence presented in this article suggests that under conditions of fierce competition in the digital TV market aggressive expansionist policies have failed to generate sufficient demand for the services offered by the companies while, at the same time, increased costs eventually leading to financial crisis.

Introduction

The last part of the 20th century is characterized by the development of new technologies in the area of communication and more specific in the area of television. Nowadays, sufficient alternative means of broadcasting have been developed. Cable and satellite television have constituted the new ways of providing programmin g The most important change, however, took place with the digital technology, a new way of transmission radio and television signals, in where the height of the magnetic wave changes into arithmetic-dual depiction. In this way, television and radio programs are distributed by coding signals and subscription pay viewers are receiving those signals having decoding equipment. Based on digital technology, multi channel television enterprises are improving the given quality of sound and image, are multiplying the capacity of frequencies, while they give the opportunity to an interactive relationship between the stations and the viewers.

This last opportunity changed the television broadcast and from a pure public good it became a commercial product. The viewer of an audiovisual program or channel constitutes the direct consumer of the digital service with the payment of subscription and the direct receipt of the basic multi channel package as well as the premium pay television services, what is called pay per view. Therefore, digital television has become synonymous, in many cases, with subscription pay television.

Despite the benefits that the new technology provides, the multi channel pay television in Europe has low number of subscribers. The investments in digital technology are considered highly risked. Whereas till today, most multi thematic channels have not been profitable, and even more, some of them, have been led to bankruptcy. It is characteristic that in Europe the revenues of the digital stations are lagging behind in comparison to the cable, satellite and terrestrial private televisions.

Due to the above reality, multi channel television enterprises have become the center of discussion, whereas a theoretical dialogue has started for the competitive structure of the digital television market as well as for the competitive strategies of those companies. This paper aims to analyze developments affecting the Greek digital TV market within the wider European framework. Moreover, this paper draws attention to the theoretical debate on competitive strategies and there is some evidence to suggest that cost leadership strategies and differentiation strategies are influenced by the specific conditions of the market and above all by the intensity of competition.

Different areas of research

Policy and research debates for subscription pay television were developed in different areas. Firstly, in the area of communication policy, if pay television should be regulated and which specific regulations are the most efficient, if it should be monopolistic or oligopolistic and in the case of oligopolistic how many companies should be. Another group of studies are concerned with microeconomic issues and in particular with pricing decisions. Finally, there are media economics researches that focus on management and marketing issues of subscription pay television as well as on the strategic responses of these companies in a highly competitive environment.

Several studies found that subscription pay television should be regulated especially when there are programs to provide which are important for the whole society, like sport events. (Boardman, & Hargreaves-Heap, 1999; Brown, 1996; Hoskins, McFadyen, & Finn, 1997). Boardman and Hargreaves-Heap (1999) came to the conclusion that pay television reduces the consumer surplus when it has the exclusive right of broadcasting games which are of great importance for the society; so, there should be state intervention for pay televisions to have limited exclusive rights of those programs. Other studies support the need for regulation based on interviews with Australian consumers (Papandrea, 1999)[1]. It is argued that some programs must be free to air and not only for those who can pay for them.

Some researches support the regulation of subscription pay television as a mechanism for the development of this new market with the argument of a better price for the consumers. Mayo and Otsuka (1991) found that the demand for cable television is inelastic in rural areas, while in large urban markets is elastic. The two theoreticians state that although the regulation does not lead to economic efficiency, nevertheless, it holds prices to a lower level than those of the non-regulated markets. Afterwards, Otsuka's (1997) study found out that not only the prices were maintained at a relatively low level but also that the quality of services had improved in comparison to non- regulated markets.

Many other studies though, have reached the opposite conclusion that there is no reason for regulation on the subscription television (Hazlett, 1995; 1996; 1997). More specifically, Hazlett came to the conclusion that the prices during periods of deregulation in the USA were lower than the prices during periods of regulation[2]. Empirical studies that have been combined with previous researches (Hazlett, 1986; Levin, & Meisel, 1990) found out that competition in subscription television market reduces the prices in favor of the consumer. (Beil, Dazzio, Ekelund, & Jackson, 1993; Jayarante, 1997; Merline, 1990). Crandall and Furchtgott-Roth (1996) found out that the consumers are willing to pay extra money to the subscription television stations in order to have more qualitative services and the regulation of these markets is causing losses to the social welfare. Thustrup and Kyhl's (2001) study found out that the regulated prices in pay-per-view television is very far from the desirable prices of the social optimal level, while the prices of the non regulated markets are more close to each other in the social optimal level. This is happening because in pay television, there will be someone who will be willing to pay for certain shows, whereas in private television which is based on advertising there might not be anyone at all. Moreover, other research revealed that there is a different elasticity of demand for subscription television among urban and rural areas, and the consumers evaluate certain shows like sports, news, and children's programs much higher than some others. The prices of digital service should fluctuate among these different evaluations (Anstine, 2001; Pacey, 1985).

Other researches for the subscription pay television services stemming from a media economics perspective have provided useful conclusions, not only in relation to the price consumers are willing to pay but also with respect to the programs they prefer and the demographic characteristics of the subscribers (Albarran, & Umphrey, 1994; Krugman, & Eckrich, 1982; LaRose, & Atkin, 1988; Reagan, Ducey, & Bernstein, 1985; Weimann, 1996)[3].

An important group of researches are related with questions in the field of strategic management of subscription pay television and how a multi channel company will compete in a given business, and will position itself among its competitors[4]. This wider view of subscription pay television competition has been researched more specifically by recent studies about multi channel companies' strategies to gain competitive advantage producing not only positive value but also even more than its competitors (Li-Chuan, 2002; Ting-Xi Wang, 2002).

However, it is important to specify the different strategies of the pay multi channel corporations to gain competitive advantage. There is corporate level strategy which has been researched by several studies about how digital platforms diversify their activities in order to become more endurable in an uncertain environment, spread risks, making vertical or horizontal integrations, mergers, acquisitions, alliances and global strategies (Albarran, & Porco, 1990; Chan-Olmsted, 1998; Chipty, 1995; DeJong, & Bates, 1991; Dimmick, Patterson, & Albarran, 1992). There are also functional strategies, which are related with product differentiation, cost leadership and price competition (Bae, 2000; van der Wurff, & van Guilenburg, 2001)[5].

Subscription pay television and competitive strategies

Using the wider framework developed by Porter (1985), it can be argued that subscription pay broadcasters can choose between two main strategies such as cost leadership strategy and differentiation strategy. These strategies are adopted by companies in their effort to achieve competitive advantage.

Cost leadership strategy

The first strategy concerns the case where a subscription pay television station offers services, which at least in the eyes of the consumers are similar to the services offered by rivals, with less cost. Subscription pay television companies when they produce a homogeneous product and do not compete in terms of price, with every company to take the prices of competitors for granted, will try to reduce the cost and make as many sales as they can for a mass audience (Bae, 2000). A typical pay television cost leader does not advertise the products but the low level of prices as it offers services to viewers at low cost without compromising the quality of these services (Barrett, 1996; Smiley, 1986).

The value chain of subscription pay television is the right cost driver for how costs are distributed among different functions. Subscription pay television entails high first copy costs and low reproduction costs; therefore, a way to gain cost advantages is by realizing economies of scale and learning. Moreover, for pay televisions very important are the agreements for exclusive rights of football matches or movies, therefore efficient relationships with suppliers can lead to the reduction of input cost. A subscription pay television which is cost leader provides more flexibility when the input cost increases. Similarly, a cost leader can anticipate the power of substitute products for instance an increasing demand for Internet services, the cost leader pay television can reduce the price because of the low cost production. Moreover, subscriptions pay television with low cost strategy raise barriers to the potential new entrants. There is no threat of buyers pressure for lower prices as the prices are already low comparing to the counterparts and enable the pay television to remain profitable when its rivals have eliminated their margins through price competition (van der Wurff, & van Guilenburg, 2001).

On the contrary, cost reduction hides certain dangers. When subscription pay televisions are following a cost leadership strategy they will reduce prices at the level to become equal with the marginal cost. Then cost leaders will start to compete on price. Price competition will push prices below average costs. Afterwards, revenues will not be enough to recover the first copy costs. The cost leader with short-term price competitive strategies will also cause difficulties to the new entrants. In this way, it is obvious that the old digital company is willing to reduce prices having short-term losses, like the newcomer as well. If new entrant cannot survive then the sovereign company will again increase the price at the level of monopoly and will cover its short-term losses (van der Wurff and van Guilenburg, 2001). Moreover, in price competition, subscription pay platforms will offer either duplicate program like their competitors or will reduce services at a low quality level, resulting the danger the consumer to turn to other television channels (Owen, & Wildman, 1992). The cost leadership strategy leads digital televisions to an inapplicability to innovate new products for satisfaction of new customer needs. Finally, new technological innovations of follow mover can eliminate the cost advantages of the cost leader.

Differentiation strategy

The differentiation strategy has as target the subscription pay television to obtain competitive advantage offering different products or services like specific channels (weather channel, parliamentary channel) or specific programs, like t-banking, email, games, but also different activities concerning design or brand image, reputation, customer service, technology and so, on.

In digital pay television, the products are usually homogeneous in the eyes of the consumers, therefore in any small reduction of price the consumers will turn to the cheapest pay television service, as such a very powerful reputation of a subscription pay television, because of unique products, can discourage consumers to turning to the competitors even if the follower has lower price (Barrett, 1996 p.48). In the case of content diversity, it is not only that there is a different product from those of the competitive platform, for instance in terms of the type of channels or programs (Schever, & Ross, 1990) but there are also differences in terms of the company's image and in terms of the behavior in relation to the consumer (Bae, 2000). For instance, the direct responses of the digital television in any need of the consumer, with the existence of phone for complaints, facilitation of installation, direct solution of damages, e.t.c. Therefore, the differentiation of subscription pay television is not only a matter of objectivity, but also could be based and could be related with subjective aspects. Subscription pay television having achieved loyalty is better positioned than its competitors vis-à-vis substitutes.

Differentiation is not without threats, as many potential entrants try to imitate most of diversity leaders' products. Pay televisions will diversify products and activities, something that will increase the cost. This may lead to an increase in prices. This increase though, should have a tendency, which, from one side should be enough to cover the increasing cost of diversification, but on the other hand not so high that the consumer cannot afford. Moreover, the cost differential becomes too great for differentiation to hold loyal customers, which sometimes it is far away from the cost of cost leaders. Differentiation gives pay broadcasters market power to increase prices when many companies adopt a differentiation strategy; prices will increase too much with consequence to consumers. Consumers will reduce demand and turn to substitutes. Revenues will decline and companies will return to price competition strategies. Finally, the digital buyers are usually comparing the products only according to prices, as they believe that all of them are the same (Chae, & Flores, 1998; Picard, 1989)[6].

Research hypothesis

Following Porter (1980) which competition behavior will be adopted depends on the intensity of competition in the industry. Porter suggests several factors that make competition aggressive and competitive relations less stable. Some of them, adapted to the pay television industry, are the following: substitute products like Internet and competition from terrestrial television limits pay television for profit making. Suppliers' group is powerful, for instance in the case of the football rights which are important products for the digital customer. Market growth is slow and existing firms are mutually dependent. Buyers are concentrated and most of them are willing to become subscribers only for movies and sports. Finally, there are entrance barriers due to a high level of risky capital requirements and government regulations.

Relating structural pay television market analysis to competitive strategies, it can be argued that subscription pay televisions under moderate competition are following either cost leadership or differentiation strategies in an optimum level. Subscription pay televisions either offer relative quality products at lower prices, or they invest in product innovation at higher prices but in a reasonable level. On the other hand, violent competition strategies lead to price war with a low level of production innovations, prices next to marginal costs and duplicated program with consequences the bankruptcy for most of pay television companies (van der Wurff, & van Cuilenburg, 2001).

The intensity of competition can explain why certain subscription pay televisions in Europe survive and others do not. The main hypothesis is that; where there is moderate competition pay television companies survive because they are able to differentiate products and, at the same time, maintain costs as well as prices at a relatively low level. But where there is fierce competition there is a strong possibility of price war, costs tend to increase and it becomes even more difficult to maintain profitability. As a result, liabilities are very high, liquidity declines and the companies fail to reach break even point that is necessary for survival in the long run.

Subscription pay television in Greece

Until the late 1980s, the Greek media scene was dominated by ERT (Greek Radio and Television) the public service broadcaster that operated under conditions of state monopoly[7]. Local, private and municipal radio stations were allowed in 1988 and television stations in 1989[8], with licenses granted to them by the government on the advice of the National Radio and Television Council (ESR). However, the ESR failed to immediately establish strictly enforceable licensing and conduct rules[9]. As a result media owners grabbed transmission frequencies and commenced broadcasting in a legal void as regards licensing and company conduct. This arbitrarily acquired new mediatic power of certain media barons enabled them to demonstrate contempt and recurring signs of arrogance not only towards politicians but also towards society and the National Radio and Television Council. Even when legislation was existent, media entrepreneurs tended to ignore it leading to frequent violations of advertising and copyright rules and labour legislation. Therefore, it can be argued that the Greek electronic media industry was thrown into anomie right from its inception (Leandros, 2000; Papathanasopoulos, 1993).

By mid -1990s, some 800 local radio stations and 110 of, mostly local, private television stations were operating illegally, while awaiting the processing of their applications. A number of television channels had, in the meantime, extended beyond their Greater Athens "local" base to cover most of the country. Within this highly competitive framework, Mega channel and Antenna TV became the real champions of the Greek media scene leaving Alpha, Star, Alter and ERT behind[10]. Beneath these six major players a second layer of channels operated achieving a fringe viability. It consisted of tens of small channels with a variety of transmission ranges all competing for the same small population of viewers and a piece of advertising pie. Cut-throat competition threatened the commercial viability of the plethora of small channels as well as the market share of the dominant players destroying inevitably the possibility of a decent standard of programming content.

Moreover, a major problem of cross-ownership and media concentration emerged. Whereas in other countries efforts are made and legislation is passed to discourage or forbid the concentration of media, in Greece the laws gave preference to the media companies in granting the licenses for private radio and television stations. The result was the creation of a powerful oligopoly around the four shareholders of the most successful private television channel, Mega. The traditional publishers Lambrakis and Tegopoulos, and the new media barons Bobolas and Vardinoyannis, own four national dailies with more than 55% of total circulation, leading periodicals and radio stations but also extend their activities to the new media, telecommunications and culture. Furthermore, Bobolas and Vardinoyannis are among the most important industrialists of the country[11].

The analogue pay TV came in Greece through Netmed N.V., a Dutch multi- national company, which later introduced the Nova digital bouquet into the Greek market. In 2000, the viewers of the three pay TV channels (Filmnet, Supersport ?a?K-TV) were about 300,000, that is a number corresponding to 9.5% of the Greek TV households (AGB, 2000: 30). The said company is doing business in Greece through its subsidiaries, Netmed Hellas and Nethold Multichoice Hellas, employing about 550 persons. Netmed N.V. has three strategic partners in the Greek market: Teletypos, which controls Mega Channel, Global Finance and Antenna Television S.A[12]. Today Netmed Hellas is the provider of the pay TV channels Filmnet, Filmsat, SyperSport, SuperSport 2 and Fox Kids in the Greek market, offering the viewers movies, athletic events from all around the world and programs for children. In parallel, it provides content to Multichoice Hellas. Multichoice Hellas is the first company in Greece offering analogue and digital pay TV services, while it operates the digital platform of Nova.

Netmed N.V. is controlled by ? ?? Limited, while a percentage of 11% is owned by Global Capital Investors, venture capital fund of the Global Finance Group[13] and another 5% by ? ntenna Group[14]. Multichoice Hellas is controlled by Netmed N.V (51%) and a percentage of 7% is owned by Lumiere TV; the rest 42% belonged to Teletypos till recently. In the beginning of 2000, however, Teletypos expressed the intention to sell its interests in Multichoice Hellas (42%) and acquire interests of equivalent value in the mother company Netmed N.V. According to news reports of that period, this movement by Teletypos was directly connected with the fact that the relations between its shareholders were highly strained, since they wished the re-allocation of the pieces of the “pie” of the digital TV market so as to ensure the biggest possible share[15]. Besides, their opposing interests in the field of publishing business proved their differences even more distinct. The intention of Teletypos to transfer 42% of Multichoice Hellas to its mother company and its decision not to proceed with the sale gave rise to a severe litigation between the latter and MIH Limited with successive extra-judicial statements and recourse to the International Court of London by part of the Dutch company[16]. Finally both parties reached an agreement according to which Teletypos would transfer its interests in Multichioce Hellas against a valuable consideration plus a participation of 10% in Netmed N.V.

According to a report prepared by Merrill Lynch in October 2001, the value of Multichoice Hellas (equity value for the hundred per cent of the capital of the company) ranged at that time between 98 and 128 million dollars, on the condition of “perpetuity growth 5%”. Teletypos would proceed to the investment of 50% of the proceeds of the sale of 42% of Multichoice Hellas (approximately 25 million dollars) for the redemption of 10% of Netmed N.V., provided that the whole transaction would have been completed within a time period of nine months. Following a delay of months the agreement between the parties was finally implemented with a little different terms; specifically Teletypos sold its participation in Multichoice against 12.5% of Netmed N.V. plus an amount of 6.6 million euro. According to a statement made by Teletypos to the Athens Stock Exchange on 19 June 2003, Teletypos sold 11,900 shares of par value 67 euro each, corresponding to 7% of the share capital of Multichoice Hellas, against the price of 559 euro per share to a foreign company styled Dikomo Investments Sarl. Also on the same date (19/6/2003) Teletypos Cyprus, a subsidiary fully controlled by Teletypos, sold its participation of 59,500 shares in Multichoice Hellas (par value 67 euro each), against the price of 559 euro per share to the foreign company Tiledrasis S.A. The proceeds of the sale covered the participation of Teletypos Cyprus (12.5%) in the share capital of Netmed N.V (Tsaousis, 2003).

It must be noted that Netmed N.V. Group maintains a presence in Cyprus through Multichoice Cyprus Ltd., a company dealing with the provision of digital and analogue pay TV services in Cyprus. The company was established in Cyprus on 15th November 1993 and its main shareholder is Multichoice Holdings Cyprus Ltd since it controls 61.65% of its share capital. The shares of Multichoice Holdings Cyprus Ltd are owned by Netmed N.V. (57.11%) and Lumiere TV (42.89%)[17].

The creation of the first digital platform in Greece was a time-consuming procedure, since the Greek government delayed the grant of the relevant license, in order to control the participating shareholders. The ulterior purpose of the government was the creation of a "National Digital Platform" with many participants (IDATE, 2000). However, Nova was ready to broadcast its program from the 6th of March 1998. The intervention of the Greek government frustrated the plans of Multichoice Hellas on the grounds that its services could not be offered to the Greek market before the enactment of a legislation regulating the provision of subscription radio and television services. The relevant Bill (Law 2644/1998) finally passed in September 1998 in order to fill all the gaps in matters relating to the cable and satellite analogue or digital pay TV. The said Law set the requirements and criteria for the grant of licenses to the companies concerned and specified the manners of concession of the exclusive right of ERT for the use of codified signals to private companies against remuneration. According to government sources the target of the new Law was to favor the development of the digital pay TV without obstacles and avoid any monopolistic trends (Iosifidis, 2000; Kaitatzi-Whitlock, 1999).

Nova started its experimental broadcasting in July 1999 and obtained the relevant license to offer digital pay TV services in December of the same year. The time-consuming procedure till the enactment of the Bill cost it millions of euro, since it had signed contracts with a number of program providers as well as with Eutelsat. The cost of the delay was estimated to 30 million drachmas (88,000 euro) approximately per day for Multichoice Hellas (Papachristoudi, 1998). Nova's bouquet currently includes: 4 movie channels, 5 sport channels, 2 channels for children, 3 news channels, 4 internationally acclaimed documentary channels, Greek commercial TV and radio channels. Through NOVA equipment more than 100 free-to-air channels from all over the world (among them, the news program BLOOMBERG, to which NOVA ensures direct access) and more than 50 radio programs worldwide are also available. The Nova Basic Package, that contains the Nova Digital Satellite Decoder IRD Panasat, the satellite dish of 60cm diameter with a Universal LNB and the Nova Smart Card access Card, with free installation and demo by authorised technicians, costs 429 euro, while a 12 month prepaid subscription costs 620 euro (52 euro per month plus free TV viewing for the 13th month).

The advent of competition

The company styled Alpha Digital TV (ex SKY TV) was established in January 1996 and started doing business in June of the same year. In November 1997, after a problematic period exceeding 12 months, the ownership status changed and Prof.S.Tsotsoros obtained control of the company. The new orientation of Alpha Digital TV did not take long to become apparent and in the next year it launched an investment program for modernization and creation of the necessary infrastructure pursuing its organizational and financial reconstruction, technological modernization and transition to the digital technology. In the same year there was the first satellite broadcasting of the signal of Alpha TV station covering the whole European space. In the next year Alpha TV station expanded its satellite broadcasting to America, Australia and Europe, while in parallel it started the upgrading and modernization of information systems and the development of model applications. During the period 1998-2000 the company launched a long-term investment program involving both technological equipment and infrastructure, which for the conventional channel amounted to the sum of 4.4 billion drachmas (Ioannou, 2001).

In the summer of 2000, while Alpha Group was prepared to be listed on the Athens Stock Exchange (this was not finally done), it created its own company, Alpha Digital Synthesis, for the provision of digital pay TV services. By decision of the then Minister of Press and Mass Media, the company Alpha Digital Synthesis ensured the license to provide satellite subscription radio and television services and started broadcasting in October 2001[18]. The said license was granted for a period of 15 years that is the maximum one provided by law, thus putting an end to the monopolistic status enjoyed by Multichoice Hellas in the Greek digital TV market.

Till the end of 2001 the company had invested the amount of 31 billion drachmas contributed exclusively from Greek investors. According to the business plan, the investment would reach the amount of 60 billion drachmas in the next years. Proffessor S.Tsotsoros owned 45% of the share capital of the digital platform of Alpha Digital Synthesis (ADS), the businessman D.Kontominas owned 40%, and Onasis Foundation owned 15%. The share capital of ADS Company amounted to 16 billion drachmas (?oannou, 2001).

ADS's bouquet included the sport channels Alpha Sports 1, Alpha Sports 2 and PAOK TV, the movie channels Alpha Cinema 1 & 2, Home Cinema ?a?TCM, as well as the thematic channels Extreme Channel, National Geographic, Adventure One, Reality TV, Cartoon Network, Nickel Odeon, Club, Avante, Private, CNN, Alpha TV and Polis TV. The bouquet also included more than 100 free-to-air TV programs and 50 free-to-air radio programs[19].

The target of the management of the company was to achieve 100.000 subscriptions within the first year of operation and 350,000 subscriptions within the first three years of operation in order to reach break-even point. The cost of the equipment including installation expenses amounted to the sum of 155,000 drachmas (455 euro) while the cost of a 3 month prepaid subscription amounted to the sum of 14,850 drachmas (43.6 euro) for the full "bouquet" of the program[20].

The developments in the field of digital TV in Greece were closely observed by the Greek government, which had initially expressed the wish to create a National Digital Platform through the Telecommunications Organization of Greece (OTE) and ERT[21]. In the beginning ? ? ? was prepared to become actively involved in the field of digital pay TV services together with Alpha Satellite TV; this was not finally done, so the latter proceeded alone to establish a digital platform and threatened to institute legal proceedings against the Telecommunications Organization (Kaitatzi-Whitlock, 1999).

The memorandum of cooperation on the basis of which the three companies would implement their cooperation plan included the formation of OTE Media, which would offer the suitable infrastructure. Seventy per cent of the said company would be controlled by OTE together with the responsibility to provide interactive services. A commercial company intended for the provision of services to the public under the corporate name "Pay TV New Co." would be established with the participation of OTE (33%), Alpha (33%) and ERT (34%) (Iosifidis, 2000). After the failure of the said effort, OTE announced that it would establish a subsidiary seeking for a partner among the European enterprises, which would be interested to develop their activities in these fields[22]. Till the present day, however, there was no further development in the matter.

It is finally noted that Interactive company, a subsidiary of Intersat, being under the control of George Batatoudis, businessman and owner of PAOK Football Club, planned to become actively involved in the Greek digital TV market (IDATE, 2000; Iosifidis, 2000). The company broadcasted a pilot program for a long period of time, however it was never dealt with commercial operations. The company obtained the license to provide digital pays TV services in 2000. Interactive planned to start broadcasting its regular program in the summer of the year 2001, while later it negotiated with ADS for the integration of their digital platforms. The cooperation between the said two companies was never implemented and finally Interactive forfeited the license to offer digital pay TV services a few months after the dissolution and liquidation of ADS.

The strategy of the two rivals

The emergence of ADS as the main rival of Nova caused a "thunder of billions" in the Greek football, which has proven the most attractive product of the TV channels during the last years. Besides, the development policy of Multichoice was based on this product. From the commencement of its operations, ADS attempted to reach agreements with the most popular football clubs of the country, and finally it signed contracts against enormous compensations taking into consideration the Greek market conditions, amounting to the sum of 25 billion drachmas for the time period 2001-2002. It must be noted that Netmed N.V. who had ensured the exclusive right to broadcast football matches during the previous five year period spent a total amount of 15 billion drachmas (Papathanasopoulos, 2001).

Thus, many football clubs terminated their contracts with Netmed N.V. anticipating to gain additional benefits from ADS. The said Football Clubs and ADS were involved in long-lasting litigations with Netmed N.V. – some of them having remained unsettled till the present day – since the latter denounced the illegal termination of the said contracts. In addition to the football, ADS included volleyball matches, polo and swimming events in its program. In parallel, it obtained the exclusive rights of many basketball clubs, including ? ? ? games.

The year 2002 was characterized by rapid changes in the Greek field of digital TV. In the beginning of the year ADS had already broadcasted its program for three months and the forecasts of the management for the development of its activities were especially hopeful. Having ensured about 35,000 subscribers, in June 2002 ADS proceeded to the offer of attractive packages for the supply of the necessary equipment and registration of subscribers, emphasizing its exclusive right to broadcast football matches among the most popular clubs[23]. Anyway the effort of ADS to start a "prices war" found Multichoice Hellas indifferent. The executives of the latter at that time supported that such a commercial policy was unbearable and once more declared that the Greek market had no space but for only one digital platform.

A short time before the commencement of the new television period of 2002-2003, the problems arisen from the enormous cost of operation of the digital platform of ADS (mainly due to the enormous obligations which the company had undertaken against the football clubs) made impossible the continuation of its business. It must be noted that in 2001, on the basis of the cost of the contracts for broadcasting of football matches per TV household, Greece was classified in the 4th position immediately after England, Italy and Spain, therefore it was much more expensive in comparison with countries such as France, Germany and the Netherlands (Papathanasopoulos, 2001).

ADS failed to satisfy its obligations against the football clubs and this gave rise to rumors about its integration with Netmed. On many occasions in the past the two companies had discussed the possibility of integration but they failed to reach an agreement, mainly due to differences on matters relating to the shareholders' participations in the new business scheme. Nevertheless, at that time Alpha TV, was included on the digital bouquet of Nova[24].

Finally, on 11 September 2002, it was officially announced the termination of the operation of ADS and its agreement with Netmed N.V. which would offer the necessary assistance to the existing 40,000 subscribers of ADS, so as to transfer massively their connections to the digital bouquet of Nova[25]. However, the cooperation between the said two companies did not materialize. A short time later Netmed N.V. announced to the press that the agreement would not be implemented. Indeed, the agreement has not been implemented till the present day and the matter of restitution of the 40,000 subscribers of ADS has remained unsettled. It must be noted that Onasis Foundation in its capacity as shareholder of ADS has taken recourse to the British Courts and accused Netmed N.V. for breach of agreement[26].

Undoubtedly the Greek field of the digital TV suffered a blow as a result of the involvement of ADS taking into consideration the highly competitive market conditions and the expenses made by ADS in order to ensure the exclusive rights to broadcast football matches of the 1st, 2nd and 3rd national division.

Netmed N.V. did not adopt similar aggressive policies and preferred to maintain operating costs as low as possible, given that it is still far away from the achievement of the break-even point. So the strategy of the company is focused on the provision of the best possible services while at the same time keeps a stable pricing policy. It must be noted that Multichoice Hellas did not increase its prices even during the period of operation of ADS, while its offers are known to be rather moderate.

On the contrary, taking into consideration the course of Nova and the response of the public to its program, ADS included in its digital "bouquet" the kind of programs offered by the rival company. In order to fight the competition, ADS offered both the equipment and the monthly subscription at lower prices. In parallel, during the first months of its operation, the company offered significant discounts with regard to the monthly subscription and made some other offers (e.g. free access for the first three months etc.) The target was to attract prospective clients in the Greek market and wrest a significant portion of Nova's subscribers.

Trying to achieve its objectives, ADS focused its efforts on the most attractive product of the digital TV: the athletic events. It offered enormous compensations in order to sign contracts with the most popular clubs of the 1st, 2nd and 3rd national division. Thus the company ensured a basis of about 40,000 subscribers. Upon the commencement of the period 2002-2003 this strategy was proven fruitless for ADS, which announced that it was unable to honor its obligations and under the pressure of the expensive contracts it proceeded to the dissolution and liquidation.

An examination of the financial statements of the two rivals (Table 1) reveals the difficulty of both to survive in the Greek market. ADS failed to increase its subscribers above a specific limit, while Multichoice Hellas and Netmed Hellas, the subsidiaries of Netmed N.V., have not reached the break even point and the shareholders equity is negative; that means none of them has ensured a long-term viability and it is necessary for them to increase their share capital in order to reach a positive equity.

Specifically, in the business year ended on 31.3.2002, Netmed Hellas stated net losses of about 24.1 million euro against losses of about 7.8 million euro during the immediately preceding business year which ended on March 2001. This is due to the fall of net sales (71.8 million euro in the period 2001-2002, against 76.2 million euro in the previous year) while the cost of sales continued increasing. So the accumulated losses from the previous period plus the net losses from 2001-2002 amounted to 95.5 million euro, while the shareowners' equity was negative (-15.2 million euro).

Table 1:
Alpha Digital Synthesis, Netmed Hellas, Multichoice Hellas. Financial Statements (in million euro)

	A.D.S.		Netmed Hellas			Multichoice Hellas		
	1/1/02-11/9/02	2001	2001-2002	2000-2001	1999-2000	2001-2002	2000-2001	1999-2000
Net sales	14.9	9.6	71.8	76.2	70.8	115.2	129.1	107.2
Cost of sales	117.3	21.3	85.9	75.9	73.9	80.8	94.3	76.0
Operating profit/loss	-102.4	-11.7	-14.1	0.3	-2.7	34.4	34.8	31.2
Net income/loss	-114.4	-23.5	-24.1	-7.8	-20.4	-19.7	-25.2	-8.8
Accumulated losses from the previous period	-23.8	-0.3	-71.4	-63.6	-43.2	-35.2	-10.0	-1.2
Total shareowners' equity	-91.3	63.8	-15.3	-0.1	-1.1	-43.5	-24.0	-5.1
Total liabilities	113.3	86.4	82.4	51.6	35.5	109.6	73.9	47.7

Source: Balance sheets

In the business year ended on 31.3.2002, Multichoice Hellas stated net sales of 115.2 million euro against 129.1 million euro in the immediately preceding 12month period. The company was successful to keep the operating profits at the level of the previous year (34.4 million euro) but the net results were negative since the company stated net losses of about 19.7 million euro against losses of about 25.2 million euro in the immediately preceding 12month period ended in March 2001. Thus, in March 2002, the shareowners' equity was negative (-43,5 million euro) mainly due to the accumulated losses of 35.2 million euro.

Of course the things are worse for ADS, which published the liquidation balance sheet a few months later. In the period 1 January – 11 September 2002 its accumulated losses from the previous period plus the net losses of 2002 amounted to the sum of 138.2 million euro and its total liabilities to 193.3 million euro, while net sales were only 14.9 million euro against 9.6 million euro during 2001. It must be noted that with net sales amounting to 14.9 million euro in the period 1 January – 1 September 2002, ADS stated cost of sales 117.3 million euro that is operating losses of about 102.4 million euro.

Discussion

Since the beginning of 1996, the EU digital TV market has a relatively high development both in the number of subscribers and in value terms. It is estimated that the number of digital households reached 10 million by the end of 1999, while in 1997 there were only 2 million subscribers. In June 1999, in value terms, the digital TV market in the European Union was estimated to be worth more than 2000 million Euros. Between December 1997 and June 1999, digital TV revenues more than doubled. In 1996, the digital TV subscription revenues were 101 million euro, in 1997 reached 666 million euro and in 1998 1609 million euro. The introduction of digital TV has led to changes in the TV market structure with the appearance of new pay-TV platforms and numerous new TV channel. In June 1999, there were 35 digital pay TV platforms in the European Union, compared with 20 at the end of 1998 (Development of digital television in the European Union, 1999 p.8)[27].

Whereas digital TV platforms have increased, they do not present clear benefits in the eyes of the general public compared with analogue TV. On the contrary, there are many cases of bankruptcy among companies offering digital pay television.

The most well known cases of market failure in subscription pay televisions in Europe are: the bankruptcy of Kirch corporations in Germany, the failure of the two pay television platforms Telepiu and Stream in Italy, the case of ITV digital in Britain and the Greek case with Alpha digital.

In Germany there are two separate public broadcasting corporations ARD and ZDF. Germany also has the widest range of commercial channels, which concentrate in two main groups RTL Group that belongs to Bertelsmann AG and Kirch Group. These Channels are frequently available to all platforms, including terrestrial (Development of digital TV in the European Union, Germany, 1999).

The beginning of digital pay television in Germany goes back to 1994, when the Deutsche Telecome AG, the Bertelsmann AG and Kirch Group established a digital pay tv company (*Media Service Gesellschaft, MSG).* Its aim was to supply technical and administrative services for digital pay television. Telecom AG was to develop a uniform set-top-box, with the Bertelsmann AG providing the subscriber management services and the Kirch group producing the majority of the programming content. But the European Commission restricted the foundation of the MSG for competitive reasons (Holznagel, & Grunwald, 2000).

After the failure of the co-operation the Kirch Group independently developed a digital television station called DF1. The first DF1 broadcasting took place in July 1996 via satellite. This channel (DF1) had economic difficulties as well as Kirch Group as a whole. Therefore in 1997, Kirch Group and Bertlsmann AG decided to merge DF1 with the second pay television channel, Premiere, which had been established in February 1997 and which was at that time dominated by the Bertelsmann AG. Finally, the merger rejected by the European commission in May 1998 (Holznagel, & Grunwald, 2000). However in the spring of 1999, the Bertelsmann AG announced the termination of all of its pay television activities. This affected the company's participation in Premiere, which was lowered to an interest of 5%. The remaining shares were entirely taken over by the Kirch Group including the premiere shares of the former French partner Canal+. As a result Kirch group in 1999 was a quasi-monopoly in pay television market, offering DF1 and Premiere as separate channels and by October 1999 DF1 and Premiere restructuring to a new brand “Premier world”, offering approximately 30 pay television channels, with near 300.000 subscribers (Holznagel, & Grunwald, 2000). In 2002, banks put Kirch group into receivership and bankruptcy came out.

With 36.5 million television households, Germany is the largest television market in Europe digital pay television, however, has slow development, and the market is still behind its counterparts in the U.K., France and Italy. A major reason for this situation is the violent competition of substitution products from analogue market. In Germany there is a large number of free-to-air television programs. About 84% of all television households receive more than 30 free-to-air programs, either via cable or satellite (Development of digital TV in the European Union, Germany, 1999). Therefore consumers are not interested to subscribe to premium digital pay television services.

Moreover consumers found pay television services very costly as they already have to pay a high licensee fee for public broadcasting and with the decoders to be overpriced with cost around €500 (Digital switchover in broadcasting, 2002). Furthermore the contracts for football rights and formula 1 were very costly and the competition with suppliers ruinous.

Finally, the antitrust decisions delayed the development of a moderate competition with two or more digital pay television platforms. It is characteristic that before launching Premiere world alone, Kirch group tried to build a corporation with Bertelsmann and Deutsche Telecom, but these projects were rejected by German and European competition authorities (Digital switchover in broadcasting, 2002).

In Italy, there are two major players on the television market, RAI and Mediaset. RAI controls three public terrestrial channels, public radio and the terrestrial broadcasting network. The Mediaset group, controlled by the Finnivest holding, is the main network of three commercial channels. Finally, Italy has the largest supply of local commercial channels in the world (Digital switchover in broadcasting, 2002). Pay multi channel television in Italy was introduced in March 1996 by the satellite offering Digital+ (D+) a Telepiu service, controlled by France group Canal Plus (98%) and RAI (2%). The pay television D+ offered 21 television channels and 3 premium channels. At the end of 1997 the subscribers were only 220.000. In June 1999 there were 772.000 subscribers of pay television services of whom 600.000 were customers of Telepiu’s digital bouquet D+ (Development of digital TV in the European Union, Italy, 1999).

The second digital pay-tv operator in Italy was Stream, which started to offer a digital purchase over cable in September 1996. The main shareholders in the beginning were Telecom Italia (35%), News Corporations Europe (35%), Cecchi Gori Group (18%) and SDS (12%). But after the privatization of Telecom Italia changed the ownership of Stream and in 1999 the 50% of shares acquired by News Corp. Europe. The pay television platform Stream broadcasted about 18 different channels of various types. At the end of 1998 Stream had only 110000 subscribers. In 1998, subscription pay television in Italy represented only 10% of the total television market revenues (Digital switchover in broadcasting, 2002). The two television channels were operated under aggressive competition, especially for having exclusive content rights in order to win as many customers as they can. They paid attention not to increase market but to gain consumers from the competitor share.

The movement of football matches from free-to-air to pay television was a key for subscriptions’ growth. Telepiu concentrated on premium content rights; succeeded is signing exclusive contracts with most of the Hollywood companies and for six years will be dealing with the 10 leading football clubs (till 2005). Competition for content rights between the two subscription platforms was the main aspect during 1998-1999 with Stream to suit Telepiu for antitrust behavior because of the deal for the sports and film rights. The situation changed again when Stream signed an agreement for 6 years with 4 first division football clubs for 308 million euro for the rights of the football matches. Moreover, Stream made an aggressive marketing campaign, offering the decoder free of monthly charge for the first year of subscription. Reduced the price (power monthly fees) and innovated new services like pay per view options and interactive services (Development of digital television in the Europe Union, 1999).

So far however, the two operators suffered considerable losses (200 million euro from Stream in 2000). Those heavy losses, plus the marketing necessity to offer a unique football proposition, led to the merger decision at the beginning of 2001. The first proposal was a unique platform that should keep the name Tele+. The plan for the new company was to be controlled by Canal plus (66%) and News Corporation (30%), while telecom Italia could sell its Stream shares to its British partner. Canal+ and Stream rejected this proposal. Finally, in 2003 there was a merger between the News Corporation's pay television Stream and Telepiu, the new company renamed Sky. Telepiu was sold for about 1 billion euro.

The main reasons for this situation were firstly the ruinous competition by the terrestrial channels RAI and Mediaset. They accounted together more than 80% of revenues and approximately the 90% of the audience share. Moreover, the local broadcasters offer a rich number of thematic free-to-air channels, as well as channels dedicated to home shopping, video music, CNN, MTV, Euro-news, without charges. This has put Italian consumer in a quasi multi channel environment (Digital switchover in broadcasting, 2002).

The pay television is dependent on consumers as the only resources are coming from subscription fees. The digital television stations cannot gain advertising revenues until they reach a sufficient size of audience in order to gain the interest of advertisers. Finally, in Italy broadcasting of football matches seems to be the main content of the digital supply. After an aggressive period of competition for football rights, regulation that forbids any operator to control more than 60% of football rights came very late. Football matches were spread equal between the two digital platforms very late.

In Britain the public broadcast corporation BBC operates two terrestrial channels BBC1 and BBC2 with no advertising. The ITV (channel 3) is the oldest private television in Europe, innovated in the 50s. It is a network of 15 regional franchises that belongs to Granada Media plc (50%) and Carlton Communications (50%) Channel 4 is a hybrid channel with state ownership and commercial funding. Channel 5 has been the latest European terrestrial networks in early 1997 with main shareholder the RTL Group's (Development of digital TV in the Europe, United Kingdom, 1999).

At mid 2001, 41% of British homes are pay television subscribers. Almost (80%) are digitally connected which means that Britain pay television identifies with digital television. In reality there are 4 subscription pay providers. Sky digital service which dominates in the UK digital market, launched on October 1998, offering more than 90 television channels, 21 exclusive channels, pay per view, multi scheduling, interactive functions on football matches, t-commerce and games. The shareholders of sky digital are Vivendi, News Corporation Europe, BskyB and Pathe. Sky digital reached 1.27 million subscribers one year after it was established. As a consequence it became the most successful subscription pay television in the world (Digital switchover in broadcasting, 2002).

The major competitors were the On digital, established in November 1998 and renamed as ITV digital in April 2000 and the digital televisions Telewest and NTL. But all of them failed commercially in 2003. The British case shows the effects of fierce competition when out of the 4 channels only one remains. Program concentration rules were introduced in Britain in order to prevent one company from dominating the premium channels and football rights. The BskyB was permitted to supply as much premium programs and this was a drawback for On digital as it must had duplicated its program. Eventually, in the autumn of 1999 the regulation permitted On digital to take Sky sports 2 and Sky sports 3. The ownership of sporting rights had significant influence on the development of the subscription pay television market. BskyB attempted to acquire Manchester United European champion matches and Premier's League matches for 1.6 billion euro. As a result, BskyB has taken 10% shares of the Manchester United as well as stakes in Leeds United and Manchester City. Moreover, Sky digital was leading a violent competition with the reception equipments and installation to be very cheap and the only decision that viewers faced was which package to select. Sky digital provides a more economic method of obtaining multi channel television than On-digital does. Sky digital kept technology to a minimum, and was focused on program acquisition and subscription management. It is obvious that in Britain, companies focused on fighting for market share rather than increasing the size of the market (Digital switchover in broadcasting, 2002).

As a consequence, On digital was driving to a costly marketing strategy well known as "me-too". But at the end of June 2001 the already renamed On digital to ITV digital had reported 1,135,000 subscribers. ITV digital withdrew its service and went into administration in early 2002. Following the expensive deal with the football teams it was placed into administration on March 27, 2002. Most subscription channels stopped broadcasting on ITV digital on May 1, 2002. The collapse caused severe financial difficulties for lower division football clubs, which stayed without budgets from television rights (Wikipedia, The free encyclopedia, 2003).

The same was happening with NTL a company that started to provide cable services in 1999. NTL was devalued and was struggled with debts of around $ 18 bn. NTL with important losses and with a huge debt was forced to declare bankruptcy in May 2002. Telewest faced many problems and accumulated huge debts (Wikipedia, The free encyclopedia, 2003)[28].

A similar situation developed in Greece. Figure 1 allows us to obtain better understanding of the relationship between company failures and competitive threats in the digital TV market under examination. One year after the commencement of the second digital platform developed by ADS, the Greek digital TV market became once again monopolistic, as in the first period of operation of Nova. The competition model was proven especially problematic since it burdened the operating cost of the enterprises involved, while it caused confusion to the public who see the whole venture with mistrust. In the first year of operation of its digital bouquet, ADS attracted only 40,000 subscribers, while Nova's penetration now has reached 140,000 TV households. The number is rather small and cannot ensure the viability of Multichoice in the long run.

The aggressive expansion policy of ADS led to the accumulation of enormous debts and the collapse of the company, while the conservative policy followed by Netmed N.V. to retain the cost seems to be more compatible with the Greek market conditions. However, both companies of the group, given the 10 year presence of Netmed N.V. in Greece, have not achieved profitability till the present day. Besides, according to the last balance sheets, their turnover decreased in 2001-2002.

Figure 1: The relationship between company failures and competitive threats

	Alpha Digital	Kirch	Stream	Telepiu	ITV
Consumers	Overestimation	Overestimation	Free riders	Free riders	Overestimation
New entrants	Disadvantage second mover	Advantage first mover	Disadvantage second mover	Advantage first mover	Disadvantage second mover
Competitors	Not achieved breakeven	Not achieved breakeven	Not achieved breakeven	Not achieved breakeven	Not achieved breakeven
Suppliers	Problems with high cost of football rights	Problems with high cost of football rights	Problems with high cost of football rights	Problems with high cost of football rights	Problems with high cost of football rights
Substitution	Many free to air terrestrial channels	Many free to air terrestrial channels	Many free to air terrestrial channels	Many free to air terrestrial channels	Many free to air terrestrial channels

The expansion policy of ADS was mainly based on the acquisition of exclusive rights to broadcast Greek championship matches. In order to attract football clubs which had already signed contracts with Netmed N.V., ADS paid enormous compensations thus causing an increase of the TV royalties (about 6 times above) and a litigation between some football clubs and Netmed N.V. Of course football is a very attractive product but its strength is not unlimited. This product now is rather overvalued and taking into consideration the economic depression, the fall of the advertising expenditure and the low rates of expansion of the digital TV, this may cause serious economic problems for the TV channels in Greece and worldwide. This results to their difficulty to pay the expensive royalties; in fact, we have entered a vicious circle. The channels convey the problem to the football federations and clubs and it is rather doubtful whether the latter will be able to obtain such enormous royalties in the future.

The course of developments was also affected by the peculiarities of the Greek TV market and a number of new phenomena such as the rapid expansion of the Internet. On the one hand, the Greek market is rather small for competitive ventures in the field of digital TV. This does not favor the creation of economies of scale and the cost is normally conveyed to the consumer.

On the other hand, the Greek TV market is characterized by the existence of a great number of free-to-air channels exclusively financed by advertising. Since the product is offered free of charge by a variety of channels, it is difficult for the Greek TV viewer to accept the idea that he/she must pay directly in order to enjoy TV services and not indirectly (through advertising). We could say that the Greek digital TV market has many similarities to the Italian one, where two digital bouquets (D+ ?a?Stream) are present for years. The penetration of the digital TV into the Italian households is a difficult proposition as well, given the number of free-to-air channels. Thus both bouquets (D+ ?a?Stream) have accumulated significant debts due to their expensive contracts with football clubs and face serious economic problems. It is very likely that the Italian digital TV market will enter a monopolistic status, given that News Corporation was given the permission by the European Authorities to redeem Telepiu(D+) and integrate it with Stream (in which it participates with 50%), thus creating a new platform under the name "Sky Italia".

The continuous strengthening of the Internet as a direct source of information, communication and recreation gives rise to thoughts as to the effects on the propagation of the digital TV, which plans to develop similar interactive services. However, Internet now is the quickest of the existing media with regard to the presentation of news, further analysis and supporting material thus contributing to the best possible understanding of the developments by the general public. Besides, in the developing Greek TV market, the comparatively low number of digital TV subscribers and the absence of contemporary interactive applications (it must be noted that such applications are normally included in the European digital bouquets) classify the existing digital platform amongst the passive media.

Under such conditions, the original estimation by the executives of Netmed N.V. that «the Greek market has no space but for only one digital bouquet» in fact came true, while the policy to retain the cost helped to the survival of the company. On the contrary, the aggressive expansion policy of ADS was proven over-optimistic and mistaken thus leading to the collapse of the company and the return to conditions of monopolistic control of the market.

Concluding this discussion it must be pointe4d out that in all digital TV markets under examination there are many possibilities of substitution given that pay television channels have to face many free-to-air channels and /or free riders. Under these conditions it is difficult to attract new consumers and efforts to achieve product differentiation lead to intensive competition between "old" established companies and newcomers. As the Greek case clearly indicates, this resulted in very substantial increases of the expenses made in order to ensure the exclusive rights to broadcast football matches and other athletic events. Intensive competition led to cost increases and made it even more difficult to maintain profitability and reach break even point. Thus, it can be argued that our research suggests that policy makers and companies should try to create conditions of moderate competition. Pay television firms could limit competition by focusing on different segments of the market and by co-operating vis-à-vis suppliers of content. Moreover, cost containment policies can be more successful than under conditions of intensive competition.

References

AGB (2000). *TV Yearbook 1999-2000*. Athens: AGB Hellas S.A.

AGB (2002). *TV Yearbook 2001-2002*. Athens: AGB Hellas S.A.

Albarran, A., & Umphrey, D. (1994). Marketing cable and pay cable services: Impact of ethnicity, viewing motivations, and program types. *The Journal of Media Economics,7*(3),47-58.

Albarran, A., & Porco, J. (1990). Measuring and analyzing diversification of corporation involved in pay cable. *The Journal of Media Economics, 9*(2), 43-62.

Anstine, D. (2001). How much will consumer pay? A hedonic analysis of the cable television industry. *Review of Industrial Organization, 19,* 129-147.

Bae, H-S. (2000). Product differentiation in national TV newscasts: A comparison of the cable all-news networks and the broadcast networks. *Journal of Broadcasting & Electronic Media, 44*(1), 62-77.

Barrett, M. (1995). Direct competition in cable television: A case study of Paragould Arkansas. *The Journal of Media Economics, 9*(2), 43-62.

Beil, R., Dazzio. Th., Ekelund. R., & Jackson, J. (1993). Competition and the price of municipal cable television services: An empirical study. *Journal of Regulatory Economics, 5,* 401-425.

Besanko, D., Dranove, D., & Shanley, M. (1998). *Economics of strategy.* New York: John Wiley & Sons, Inc.

Boardman, A., & Hargreaves-Heap, S. (1999). Network externalities and government restrictions on satellite broadcasting of key sporting events. *Journal of Cultural Economics, 23,* 167-181.

Brown, A. (1996). Economics, public service broadcasting and social values. *The Journal of Media Economics, 9*(1), 3-15.

Chae, S., & Flores, D. (1998). Broadcasting versus narrowcasting. *Information Economics and Policy, 10,* 41-57.

Chan-Olmsted, S. (1998). Mergers, acquisitions, and convergence: The strategic alliances of broadcasting, cable television, and telephone services. *The Journal of Media Economics, 11*(3), 35-46.

Chipty, T. (1995). Horizontal integration for bargaining power: Evidence from the cable television industry. *Journal of Economics and Management Strategy, 4*(2), 375-397.

Crandall, R., & Furchtgott-Roth, H. (1996). *Cable television: Regulation or competition?* Washington DC: The Brookings Institution.

DeJong, A., & Bates, B. (1991). Channel diversity in cable television. *Journal of Broadcasting & Electronic Media, 35*(2), 159-166.

Development of digital television in the European Union. (1999). Retrieved from the World Wide Web, August 16, 2003: http://europa.eu.int/comm/information_society/policy/telecom/digtv/study1999_en.htm.

Development of digital television in the European Union, Germany. (1999). Retrieved from the World Wide Web, August 16, 2003: http://europa.eu.int/comm/information_society/policy/telecom/digtv/pdf/europ99de.pdf.

Development of digital television in the European Union, Italy. (1999). Retrieved from the World Wide Web, August 16, 2003: http://europa.eu.int/comm/information_society/policy/telecom/digtv/pdf/europ99it.pdf.

Dimmick, J., Patterson, S., & Albarran, A. (1992). Competition between the cable and broadcast industries: A niche analysis. *The Journal of Media Economics, 5*(1), 13-30.

Digital switchover in broadcasting. A study by BIPE consulting for the European Commission. (2002). Retrieved from the World Wide Web, August 1, 2003: http://europa.eu.int/information_society/topics/telecoms/regulatory/studies/documents/final_report_120402.pdf.

Grant, R. (1995). *Contemporary strategy analysis* (2nd ed.). Boston: Blackwell Business.

Hazlett, Th. (1986). Competition vs. franchise monopoly in cable television. *Contemporary Policy Issues*, 80-97.

Hazlett, Th. (1995). Predation in local cable TV markets. *The Antitrust Bulletin, Vol. XL*, No3, 609-644.

Hazlett, Th. (1996). Cable television rates deregulation. *International Journal of the Economic Business, 3*(2),145-163.

Hazlett, Th. (1997). Prices and outputs under cable TV regulation. *Journal of Regulatory Economics, 12,* 173-195.

Hill, C., & Jones, G. (1995). *Strategic management theory: An integrated approach* (3rd ed.). Boston: Houghton Mifflin Company.

Holznagel, B., & Grunwald, A. (2000). The introduction digital television in Germany. *International Journal Law and Policy, 4,* 1-10. Retrieved from the World Wide Web, July 15, 2003: http://www.ijclp.org/4_2000/pdf/ijclp_webdoc_10_4_2000_pdf.

Hoskins, C., McFadyen, S., & Finn, A. (1997). *Global television and Film: An introduction to the economics of the business.* Oxford: Clarendon Press.

IDATE (2000). *Development of digital TV in Greece.*

Ioannou, S. (2001). Investments of 120 billion drachmas by Alpha Digital. *Newspaper Naftemporiki,* special supplement “digital business”, 14/12/2001. (in Greek)

Iosifidis, P. (2000). Digital television in Greece. *INTERmedia,* 28(5), 12-16.

Jayarantne, J. (1997). A note on the implementation of cable TV rate caps. *Review of Industrial Organization, 11,* 823-840.

Kaitatzi-Whitlock, S. (1999). Implementing strategies for digital pay television in Europe: The case of Greece. *Telematics and Informatics*, *16,* 151-176.

Krugman, D., & Eckrich, D. (1982). Differences in cable and pay-cable audiences. *Journal of Advertising Research, 22,* 23-29.

LaRose, R., & Atkin, D. (1988). Satisfaction, demographic, and media environment predictors of cable subscription. *Journal of Broadcasting and Electronic Media, 32,* 403-414.

Leandros, N. (1992). *Print Media in Greece. Economic and technological perspectives.* Athens: Delphini Publications. (in Greek)

Leandros, N. (2000). *The Political Economy of Media. Industry restructuring in the era of information technology revolution.* Athens : Kastaniotis. (in Greek)

Levin, S., & Meisel, J. (1990). Cable television and telecommunications: Theory, evidence, and policy. *Telecommunications Policy, December,* 519-528.

Li-Chuan, M. (2002). Company size, operational type, ownership structure and business strategy. An analysis of Taiwanese satellite channel companies. In Picard, R (Ed.) *Media firms structures, operations, and performance.* New Jersey: Lawrence Erlbaum Associates, Inc., Publishers.

Mayo, J., & Otsuka, Y. (1991). Demand, pricing, and regulation: Evidence from the cable TV industry. *RAND Journal of Economics*, *22*(3), 396-414.

Merline, J. (1990). How to get better TV at lower prices. *Consumer Research,* 10-17.

Otsuka, Y. (1997). Welfare analysis of local franchise and other types of regulation: Evidence from the cable television industry. *Journal of Regulatory Economics*, *11*, 157-180.

Owen, B., & Wildman, S. (1992). *Video economics.* Cambridge: Harvard University Press.

Pacey, P. (1985). Cable television in a less regulated market. *The Journal of Industrial Economics, Vol XXXIV* No1, 81-91.

Papachristoudi, M. (1998). Nova starts broadcasting with twenty foreign channels. *Newspaper Eleftheros Typos*, 7/3/1998. (in Greek)

Papandrea, Franco. (1999). Willingness to pay for domestic Television Programming. *The Journal of Cultural Economics, 23,* 149-166.

Papathanasopoulos, S. (1993). *Liberating Television*. Athens : Kastaniotis. (in Greek)

Papathanasopoulos, S. (2001). Digital television and broadcasting rights. *Newspaper Kathimerini*, 9/12/2001. (in Greek)

Picard, R. (1989). *Media Economics.* Newbury Park, CA: Sage.

Porter, M. (1985). *Competitive advantage: Creating and sustaining superior performance.* New York, NY: The Free Press.

Porter, M. (1980). *Competitive strategy: Techniques for analyzing industries and competitors.* New York, NY: The Free Press.

Reagan, J., Ducey, R., & Bernstein, J. (1985). Local predictors of basic and pay cable subscribership. *Journalism Quarterly, 59,* 397-400.

Reiss, P. (1999). What prevents cable TV from taking off in Brazil? *Journal of Broadcasting and Electronic Media, 43*(3), 399-415.

Schever, F., & Ross, D. (1990). *Industrial market structure and economic performance (3rd ed.)* Boston, MA: Houghton Mifflin Company.

Smiley, A. (1986). *Direct competition among cable television systems* (EAG Discussion Paper No. 86-89). Washington, DC: U.S. Government Printing Office.

Thustrup, C., & Kyhl, S. (2001). Pay-per-view television: Consequences of a ban. *Industrial Journal of Industrial Organization, 13*(3-4), 589-609.

Ting-Yu Wang, T. (2002). The competitive advantages of online newspapers from strategic positioning and alliances. *Paper presented at the 5th World Media Economics Conference Turku, Finland May 2002.*

Tsaousis, K. (2003). Rush of business interests in the digital platform. *Newspaper Kathimerini*, 6/7/2003. (in Greek)

Van der Wurff, R., & Van Cuilenburg, J. (2001). Impact of moderate and ruinous competition on diversity: The Dutch television market. *The Journal of Media Economics, 5*(1), 13-30.

Weimann, G. (1996). Cable comes to the holy land: The impact of cable TV on Israeli viewers. *Journal of Broadcasting and Electronic Media, 40,* 243-257.

Wikipedia, The free encyclopedia. (2003). Retrieved from the World Wide Web, August 1, 2003: http://www.wikipedia.org/wiki/British-television.

Notes

[1] The study of Papandrea found that a majority of Australians support regulation of the domestic television programs and considers the value of these programs.
[2] In the U.S., there was deregulation of cable television in 1984, reregulation in 1992 and deregulation again in 1996.
[3] The results from one of these researches found that African American and Hispanics were most likely to subscribe to pay channels, they have higher income and watch TV more for entertainment and diversionary reasons (Albarran & Umphrey, 1994).
[4] The competition between two cable television services is called "overbuild" and it is established to the direct competition of the two subscription services in terms of the price and the diversification of the product (Barrett, 1996; Levin, & Meisel, 1990).
[5] Business strategy has been frequently studied since 1960s and there are several models that have been proposed (Besanko, Dranove, & Shanley, 1998; Grand, 1995; Hill, & Jones, 1995). But some of them are appropriate to the research of media companies.
[6] It has to be mentioned that the differentiation strategy does not obligatory means and more profits comparing the focus on a niche market, but this is far away from the present analysis.
[7] ERT is a public company organized as a joint stock company (S.A.) and its only stockholder is the Greek state. ERT has two national television channels based in Athens (ET1 and NET) and a third one based in Thessaloniki (ET3) with limited broadcasting range, four national radio stations and twenty one regional stations whose programming partly coincides with that of the national stations. There is also one local radio station in Thessaloniki and a short- wave Voice of Greece servicing most parts of the globe.
[8] The government accepted the principal of non state owned local radio stations with Law 1730/1987 and implemented it with a 1988 Presidential Decree. A year later, the government gave in to the intense lobbying of press barons and allowed private television, including cable, pay-TV and satellite re-transmission stations (Law 1866/1989).
[9] According to Law 1866/89, ESR's main responsibilities are: to advise the government on granting licenses to private and municipally owned radio and television stations, to issue codes of ethnics for journalists, programmes, and advertisements on broadcast media, to oversee the coverage of the activities of parliament and of electoral campaigns by ERT and to rule on violations of these codes or of other laws by the stations.
[10] According to AGB – the audience share ratings company – market shares for the period September 2001-August 2002 were: 22.5% for Antenna, 22% for Mega, 13.4% for Alpha, 11% for Star, 7.4% for Alter, 5.6% for ET1 and 4.5% for NET (AGB, 2002: 36). Moreover, on average, Greeks watch 223 minutes of television per day, a figure that ranks them very high among Europeans in terms of the amount of hours spent in front of the TV screen (AGB, 2002: 27).
[11] Until 1981 the proprietors of even the largest publishing firms were persons who had emerged from the ranks of the industry, and their business activities were limited to newspaper and periodical printing and publishing. This changed after that year as big industrial and merchant capital generated from outside printing and publishing entered this sensitive arena of the economy for the first time. This had far-reaching effects for the industry and, given the political role of the press, for socio-cultural life in general. In some cases, the proprietors of older and well-established newspapers faced serious economic difficulties and were forced to sell up, while, in other instances, new titles were launched by entrepreneurs with much wider activities than the press. The political power and prestige that accompanies the possession of a political daily is certainly a strong influence behind the decision to acquire a newspaper, although this is scarcely something which is admitted publicly. However, the new opportunities opening up for capital in mass-media and the information sector in general, must also be considered as a basic factor that prompted the entry of big merchant and industrial capital in the publishing industry after 1981 (Leandros, 1992).
[12] In addition to the TV Channel, Antenna Group includes the Radio Station Antenna FM, and the Publishing Company Dafni Communications with 11 technical and commercial magazines. Antenna also acquired interests in 3 Bulgarian media enterprises, including the acquisition of 100% of Nova Television which is the dominant t private TV channel in Bulgaria. Since March 1999 the shares of Antenna have been listed on the New York Stock Exchange (Nasdaq) with the symbol ANTV as well as on the London Stock Exchange with the symbol AEVD.
[13] Netmed, Press Bulletin, 29/11/2000.
[14] Netmed, Press Bulletin, 10/8/2001.
[15] Kathimerini, daily newspaper, 20/7/2000.
[16] MIH Group, Press Bulletin, 15/6/2000.

[17] The penetration of the pay TV in the Cypriot households, according to information furnished by Netmed during a press conference on 13 May 2003, reached 25%. During the time period from 1/4/2001 till 31/3/2002 the profits of the company before taxes amounted to the sum of 4 million Euro (increase 14.1%), while the profits after taxes amounted to the sum of 3.2 million Euro (increase 31.2%). See Multichoice Cyprus Ltd, Annual Report, 2002.
[18] Alpha Digital, Press Bulletin, 25/10/2001.
[19] Ibid.
[20] Alpha Digital, Press Bulletin, 31/10/2001.
[21] It must be noted that the state radio TV has a big advantage by operation of law. It may broadcast its own bouquet without being involved in the bureaucratic procedures of ESR Council and of the Ministry of Press. Article 13 of Law 2644/1998 provides for the formation of a daughter company of ERT for the provision of pay radio-TV services to the public.
[22] OTE, Press Bulletin, 20/9/2000.
[23] Naftemporiki, daily newspaper, 7/6/2002.
[24] Netmed, Press Bulletin, 1/10/2002.
[25] Alpha Digital, Press Bulletin, 11/9/2002.
[26] To Paron, weekly newspaper, 15/6/2003.
[27] Digital television was introduced in the United States in June 1994 with the launch of the two satellite services Direct TV and USSB. In June 1999 there were 9.6 million subscribers to a satellite digital service. It has been forecasted that this number would exceed 10 million in December 1999, therefore reaching a similar number as in Europe. After years discussion, DTTV was launched in the USA during November 1998, and according to the National Association of Broadcasters estimated that 53 TV stations are currently broadcasting in DTTV standards. These stations cover 39% of the United States (Development of digital television in the European Union, 1999 p.13)
[28] According to Communications White Paper, Britain's Government target of communication policy is to ensure that everyone has access to television, radio, telephone and Internet services, either free at the point of delivery (public broadcasting) or at an affordable price (digital pay television). In this way the television can become the information and entertainment center of the home with two way communication.