

**LOCAL SEARCH, PATH DEPENDENCE AND ENTRY STRATEGIES:
THE EVOLUTION OF THE US TELEVISION
BROADCASTING INDUSTRY 1947-1975**

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1. INTRODUCTION

Entry processes characterize one of the central issues in the understanding of firm evolution, success and failure. Research in industrial organization, strategic management and organization theory has investigated entry processes unevenly, yet in recent times these different perspectives are converging into the analysis of relationships between capabilities and entry (Helfat and Lieberman 2002).

In the context of entry in new market segments or new industries, among the central questions that are raised is what contributes most to explain when and how many firms enter a market, how firms develop their initial market positioning, what defines the range of options to entrants at the time of entry, and what are the effects of these features on survival or failure of firms (Holbrook et al. 2000). Theory and empirical evidence coming from different streams of research is supporting the idea that very important factors in explaining the evolution of entry processes are historical antecedents: pre-entry assets of pre-existing and new firms can contribute to explain timing, mode and direction of entry

in new segments or industries over time. Historical antecedents define a broad range of facts, such as where entrants come from and what their assets are, but also how they develop and retain their decisions. History matters, and so does parentage (Philips 2003). Research in different fields theorizes and shows that where entrants come from matters (see for example Helfat and Lieberman 2002, Carroll et al. 1996, Klepper and Simons 2000, Holbrook et al. 2000, Klepper 2002a, 2002b), and particularly it does matter because entrants with different origins possess different resources and capabilities, on the other hand, entrants with similar origin may possess alike resources and capabilities. In either case, the control and use of assets differentiates firms' success, therefore industry evolution is affected by entrants' attributes tied to their background.

An extensive literature has pointed out that new product development is a process of linking technology and customers (Dougherty 1992), and that product innovation requires the firm to have competences relating to technology and relating to customers, and each of these competences is constituted by a set of resources (Danneels 2002). The path dependency literature, mainly focused on technological path dependencies, caused by technological choices that lock the firm in or out of certain technological trajectories (Arthur 1989, Dosi 1988, Martin and Mitchell 1998), has thus recently included customers path dependencies, where a firm's customer history constrains the firm's options for future product sequences (Helfat e Raubitschek 2000, Danneels 2002). By applying to this framework the concept of local search, developed under the evolutionary perspective (Nelson and Winter 1973, Dosi 1988, Cohen and Levinthal 1989, Stuart e Podolny 1996), it is possible to say that a new industry (a new landscape) is produced by the simultaneous search activities of a group of firms constrained by their position or niche in this landscape, i.e. by previous market-related resources (local market search) or by previous technological-related resources (local technological search).

This paper investigates the evolution of direction of entry associated with the evolution of a new industry. Entrants are usually defined as belonging to two broad categories, *de alio* and *de novo* firms, depending on the fact that they are either diversifying firms entering new or established markets, by internal growth, acquisition, by setting up separate companies, or starting activities from anew in the form of a founding, a merger, a spin-off. Our first preoccupation is to determine where *de alio* entrants come from. We are

particularly interested in identifying origin of entry, but also analyzing and explaining differences within de alio entrants' cohorts in the context of industry evolution. Our interest stems from the belief that there is a discernable pattern in the composition of diversifying entrants over the evolution of a new industry, and that such composition is associated with variation in proximity of resources and capabilities profiles.

The work is organized as follows. In the next sections we will address this specific issues by first reviewing literature on entry processes coming from different disciplines; in the following section we will develop a general scheme and hypotheses drawing from literature; in the final section we will present preliminary evidence for our hypotheses testing. The paper concludes by discussing results, study limitations, opportunities for obtaining more robust evidence on our hypotheses, and implications for further research on the topic.

2. LITERATURE REVIEW

Entry processes have been researched by different disciplines over time. We identify at least three literatures involved directly with this topic – strategic management, industrial organization, and organizational ecology. The first one we consider is strategic management.

Strategic management

Two approaches have been generally used to study entry, both normative in nature. The first one is the “positioning” approach (Caves and Porter 1977, Porter 1980) which rests upon the notion that some crucial economic principles identify businesses that are attractive targets for entry. No consideration is devoted here to help determine entrants types or different likelihood and timing of entry between them based on capabilities' profile. It is difficult to say when entry occurs when it does, where it comes from, how it changes over time, and more importantly, how the potential entrants' background can influence entry.

The second approach is the prevalent resource-based view, according to which firms occupy their position because of their resource and capabilities profile and the way their assets are deployed, (Wernerfelt 1984, Dierickx and Cool 1989, Barney 1991, Conner 1991, Grant 1991, Amit and Schoemaker 1993, Peteraf 1993)¹. Research within the resource-based perspective has considered the issue of evolution of capabilities in the context of change (Collis 1994, Teece et al. 1997, Eisenhardt and Martin 2000, Winter 2000, Zollo and Winter 2002). The concept of dynamic capabilities is introduced to account for shifts in the competitive environment: these capabilities “integrate, build, and reconfigure internal and external competencies to address rapidly changing environments” (Teece et al. 1997: 516). This concept is based on that of routine (a learned, highly patterned behavior, repetitive and partly based on tacit knowledge), and more precisely defines “a high level routine (or collection of routines) that, together with its implementing input flows, confers upon an organization’s management a set of decision options for producing significant outputs of a particular type (Winter 2000, 2002)”. In other words, dynamic capabilities are patterns of action generating and modifying operating routines in pursuit of improved effectiveness.

Dynamic capabilities are related to change, and specifically the change of ordinary capabilities, although change is possible despite dynamic capabilities, for example external forces can force firms to cope with problems they are not prepared for (Winter 2000). Dynamic capabilities and external environment thus interact: the latter plays two roles, that of providing stimuli for application of dynamic capabilities, and that of selecting the viability of behaviors. From the viewpoint of our analysis, dynamic capabilities are relevant. Their importance is associated with how firms cope with change. If capabilities are linked to the historical antecedents of firms – Eisenhardt and Martin (2000) state that dynamic capabilities are “unique and idiosyncratic processes that emerge from path-dependent histories of individual firms, but at the same time common features associated with effective processes across firms” – the composition of de alio entrants is closely related to how routine-based patterns of actions lead to entry.

¹ See Godfrey and Hill (1995) and Priem and Butler (2001a, 2001b) for poignant criticisms of the approach on the basis of theoretical tautology and methodological dilemmas.

The logic of decision when routine-based patterns are at work is in fact based on local search (Nelson and Winter 1982). Local search techniques are used to find reasonable solutions to hard combinatorial optimization problems. Local search methods make a series of steps, at each stage improving the current solution by moving to a neighboring solution to which the previous step is based (Pirlot 1996).² Local search is based on the concept of a neighborhood. A neighborhood of a solution p is a set of solutions that are in some sense close to p , perhaps because they can be easily computed from p or because they share a significant amount of structure with p (Anderson 1996). Incorporating the local search logic in the evolution of firm capabilities, we can state that dynamic capabilities regulate entry for de alio firms in a neighborhood of solutions.

Other studies in strategic management address entry into new industries or market segments that arise as a result of discontinuous technological shifts, or into emerging industry segments that develop as a result of technological convergence (Tushman and Anderson 1986, Henderson and Clark 1990, Mitchell 1989). These studies do not analyze which product markets a firm should enter nor predict when firms with different backgrounds would enter.

Industrial organization

In addition to demography and timing, studies in industrial organization take into consideration also richer specifications of entry processes, be they associated with typology of entrants in terms of expertise (Jovanovic and McDonald 1994, Klepper 1996), origin (Audretsch 1995), and size (Mansfield 1962), or with post-entry events of growth (Dunne et al. 1989) and life duration (Mata and Portugal 1994).

Despite the importance played by entry in models of industrial competition, however, Klepper and Simons (2000) found surprising how little industry economists and strategists know about where entrants come from and how their backgrounds affect their fates. Above all, even the more detailed studies in the field do not fully address the

² Between the values of neighboring solutions there exists relations, and local search is not based on taking a random sample from all possible solutions to choose the best. Rather than calculating the solution value from scratch, it is possible to calculate the change in solution value obtained when moving to a neighbor. Moreover, neighboring solutions have similar values (Pirlot 1996).

analysis explaining the evolution of composition for de alio entrants. Empirical research by industrial economists shows indeed that recurring patterns can be observed. For example, entry is a common event in the evolution of industries, peaks early in the life of many markets, occurs more easily at a small scale and often is unsuccessful (Geroski 1995); industry specific factors like basic demand and cost conditions (Dunne et al. 1988), and the stage of development of the market (Agarwal and Gort 1996) play an important role in determining entry; differences in entry persists long within industries but not between industries (Geroski 1995); de novo entry is more common but less successful than de alio entry, that normally occurs at larger scale (Geroski 1995).

More recently single-industry studies of structural evolution from birth to maturity reconciled in a finer scale most of detailed facts associated with the evolution of entry processes (Klepper et al. 2000, Klepper 2002a, 2002b). Demography, direction, timing, mode of entry and post-entry performance are considered and linked to the role played by resources and capabilities through innovation and technical change. Of particular interest is a paper by Klepper (2002a) which is the only study, conducted on the US automobile industry, we are aware of that considers almost all of the issues we are concerned in our analysis. Klepper argues that diversifying firms in the production of cars come with various types of organizational assets that may be valuable in related industries. De alio entrants tend to enter early and this improves chances of long term survival - price-cost margins are higher and expand faster, while giving incentive to invest in R&D, finally leading to lower average costs and greater profit margins. The main reason however a number of new firms can become new leaders of the industry seems to be tied to pre-entry capabilities acquired through the experience of their founders (the quality of the technical and organizational environment in which they worked, rather than the positions they held). Also in this case, however, minor attention is devoted to the evolutionary dynamics of entry from related industries, and the connection between capabilities other than the strictly technological ones and de alio entry is not developed.

Organizational ecology

Entry processes are systematically considered by at least another perspective, organizational ecology, whose pivotal research question revolves around the explanation of diversity of organizational forms (Hannan and Freeman 1977, 1989). Organizational ecologists share an interest in measuring the rate of events within populations of firms - members of a population were said to share a similar organizational form or were affected by the environment in similar ways. Important organizational events include births, deaths, and transformations. Early work in organizational ecology studied the demographics of populations of organizations, that is how differentiation within populations and variation in their environment affect their vital processes (e.g., Carroll and Delacroix 1982, Delacroix and Carroll 1983).

Research within organizational ecology can be grouped around two major themes, founding and failures, and organizational change (Baum 1996). A first class of important of vital processes are demographic - founding and failures, which this literatures claim generally depending on age and size (Amburgey and Rao 1996, Baum and Amburgey 2002). Other relevant processes are ecological, associated with explanations of differential survival capabilities of members of the population, and with population dynamics associated with density (number of firms in the population). This approach can effectively address timing of entry. For example, Brittain and Freeman (1980, 1994) argued that an organization is quick to expand when there is a significant overlap between its core capabilities and those needed to survive in a new market. Mitchell (1989) shows that the more industry-specialized assets or capabilities a firm possesses, the more likely it is to enter an emerging technical subfield in its industry, following a technological discontinuity. Finally, environmental processes analyze how environmental variables influence population dynamics.

Organizational ecology has investigated industry diversity arising from differential firm experiences in related industries, examining the relationship between the pre-entry background of entrants to the automobile industry and the length of their survival (Carroll et al. 1996). Elaborating on the assumptions underlying the processes defined above, Carroll et al. (1996) found that: both de novo and de alio entrants showed negative age dependence in mortality, but de alio have a lower initial death rate; de alio producers from origin industries with relevant specialized transferable skills have lower death rates

than those from other industries. Concerning this last point, entrants that produced technologically related products prior to automobiles, especially bicycles, engines, and carriages, had a lower hazard of exit for many years after entry.³

A second theme organizational ecology is concerned about is change. A structural inertia theory (Hannan and Freeman 1984) has been developed, according to which organizations have serious difficulties in responding adaptively to the environment. In particular, change is difficult because organizations need stability and standardization of their routines to survive. Moreover, initial conditions at founding imprint the subsequent development of the organization and its fate (Stinchcombe 1965, Kimberly 1979, Boeker 1989, Aldrich 1990, Swaminathan 1996), exhibiting path dependent evolutionary patterns at the industry level. If an industry of origin before entering a new market may confer an advantage to de alio firms as an imprinting force associated with accumulated capabilities, the advantage may turn into a liability because of inertia (Carroll et al. 1996). Incorporating ideas from the organizational ecology perspective, some of the constitutive elements of entry processes that were un consequential from a capability approach can be encompassed: for example, firms diversifying from different industries of origin can be expected to enter new industries at different rates. On the other hand, the organizational ecology alone finds it difficult to systematically account for differences within de alio firms sharing similar sets of capabilities or for the effects of structural features of (specific) industries.

3. HYPOTHESES

Building on the concept of local search (Nelson and Winter 1973), de alio entry in an industry could be considered as the search for solutions of any firm or organization in the neighbour industries or segments. Empirical evidence suggests that firms focus their exploration on closely related technological domains (Stuart and Podolny 1996), as well as organizational (Rosenkopf and Nerkar 2001) and customer domains (Danneels 2002). By extending this framework, we define neighbourhood in terms of four types of

³ Engine producers showed higher death rates than bicycle and carriage, a result for which the authors provide post-hoc rationalization.

capabilities, linked respectively to product competences, organization competences regarding the production process, technological competences of the means employed to produce and deliver the output, customer competences. In this paper our focus is on capabilities that are common to all the firms operating in a specific industry (“industry-level capabilities”), and not only to individual firms (“firm-level capabilities”). Industries that share one or more of the four capabilities above mentioned are considered neighbour industries. Industry-level capabilities are responsible for the entry of simultaneous de alio firms in/from a neighbour industry. The more specialized this profile, the closer the entry in terms of relatedness (Helfat and Lieberman 2002). Entry could thus be considered a population outcome that characterizes a collective entity, not its individual members (Haveman 1993a).

Hypothesis 1a: initial de alio entry in an industry comes at a larger rate from firms in a neighbourhood of capability profile than in distant profiles.

Hypothesis 1b: initial de alio entry from the neighbourhood will be concentrated in those industries closer to the focal industry.

However, given the fact that de alio entrants in the neighbourhood share similar capability profile and expansion trajectories, their entry tends to concentrate in earlier stages of the evolution of an industry. Capabilities are not the only element affecting entry and its evolution. Industry-specific factors are considered to play an important role in determining entry (and exit) patterns (Dunne et al. 1988). Such factors, including basic demand and cost conditions, affect the logic of competition within the industry constraining the viability of strategic moves and their outcomes (McGahan and Porter 1997). Industry factors matter not only at the emergence of an industry, but also at later stages. When structural factors change, however, this is supposed to influence variation in entry patterns because the change might alter the boundary of the neighborhood. Moreover, entry (and exit) depends systematically on the stage of development of the market in the cycle from birth to maturity (Agarwal and Gort 1996). The evolution of both structural factors and the new industry will trigger selective processes upon entrants

when fitness requirements have changed (Durand 2001). Therefore de alio entry changes its relative composition in input rates after the change in industry-specific factors.

Hypothesis 2: de alio entry from the initial neighbourhood declines over time

Studies that addressed the differential fates of de novo and de alio entrants (Carroll et al. 1996, Klepper and Simons 2000, Klepper 2002a, 2002b) argue that both categories of entrants arrive with their histories. De alio often possess larger and older resources and capabilities they can leverage. On the contrary, new firms can be endowed more or less richly. Resources and capabilities of de alio firms depend on the transfer of personnel, money, processes, etc. made by the parent, and access to resources of the parent. De novo are usually thought to have fewer resources (this is not the case for entrepreneurial spin offs). In general, however, capabilities and routines in de novo firms are at least initially less developed.

In principle, it is not easy to univocally predict what pre-entry resources will lead to more success, for example some complementary resources can prove more critical than those initially thought to be core (Helfat and Lieberman 2002). Path dependence models of industry evolution and technical change (Jovanovic and MacDonald 1994, Klepper 1996, Barnett 1997) expect early de alio entrants to perform better than early de novo, while some late de novo entrants (spinoffs) can perform better than early de alio thanks to capabilities accumulated with prior experience in leading firms of the focal industry. Entrants' chances of success decrease with the increasing size of the minimum resource commitment required to enter, and decrease with the size of the irreversible outlay needed to move from minimal entry to optimal scale operation (Caves 1998). If the industry however is not technologically progressive and R&D intensive as services generally are, the predictions of these models are not successful (McGahan and Silverman 2001). Shifts in structural characteristics of the industry for example can prevail over innovation-related adaptive factors in affecting the success of firms, so that diversifiers in a new neighbourhood with capabilities better aligned with new competitive requirements end up performing better than earlier de alio entrants. Capabilities

organized after entry has occurred are dependent on the history of the firms that possess them, and when structural changes occur affecting the logic of competition, later entrants are can offset pre-existing disadvantage. The clock of industry competition is reset, and although capabilities continue to matter, we likely assist to a reversal of fortune between de alio entrants. As the industry evolves we observe a shift in the proximity of industries. New industries once distant become closer, and initial neighbour industries become increasingly distant.

Hypothesis 3a: initially neighbour de alio entrants have lower death rates than other entrants.

Hypothesis 3b: if structural elements exhibit radical change, later de alio entrants in service industries show lower death rates than earlier de alio entrants and de novo entrants.

4. EMPIRICAL RESEARCH

Research setting

The television broadcasting industry,⁴ as it existed from 1947 to 1975, provides a highly appropriate setting for our study. In 1979 researchers at Harvard University first published an information business map depicting graphically the interrelationships among various industries and technologies for which “information” was a common denominator (McLaughlin 1979). Some companies exist to acquire information, other to package, store, process, transmit, or distribute it. Some information companies produce and market products to allow companies – or individuals – to collect, process, or distribute their own information. Many companies are involved in a wide mix of these functions. The information business map suggests a degree of proximity between different industries, based on two dimensions: the conduit/content dimension and the product/service one. In the specific case, the television broadcasting industry is close to other industries which deliver the same content to mass consumers with different

⁴ The historical account provided in this section is mainly based on Barnouw (1966-70).

products and services - such as radio broadcasting, newspapers, publishing, motion pictures - or share the same technologies/conduit, such as electronic manufacturers.

The first experiments with television technology were made by the end of the 1920s. Radio broadcasting was already firmly established on a commercial basis marked by the continuous development of new types of equipment, the development of basic types of programs, and as a source of revenues from sale of time, rather than the sale of receiving sets. As of September 1930 approximately 600 radio stations were on the air under licenses issued by the Federal Radio Commission.

Stations throughout the 1920's fell into three classes; some 15 to 20 owned by major electronics manufacturers (General Electric, Westinghouse, Stromberg, etc.); another 12 or 15 owned by large newspapers, department stores, insurance companies; the remains owned by churches, schools, radio repairs concerns, and amateurs. The first permanent radio network (RCA's NBC-Red) started operations in December 1926; while the second one (RCA's NBC-Blue) started in January 1927. The third network (CBS) inaugurated service in September 1927. At the start, NBC-Red had 20 stations; NBC-Blue had only 5 stations; CBS had 16 stations.

TV stations came into existence more slowly. Commercial TV was first authorized in the summer of 1941, after the adoption of television standards by the National Television System Committee, created by the Federal Communications Commission (FCC). World War II delayed the commercial development of the television. All commercial production of radio and television equipment was banned, although research and development targeted for the war effort resulted in the possibility of better products for consumers. At the close of World War II, when electronics companies were able to shift from war to peacetime production, there were less than 7,000 working television sets, and only nine stations had been licensed for commercial television, in the entire country.

Although the construction of a television station involved a lot of money to risk (from \$750,000 to \$1,500,000), and the number of TV homes increased more slowly as few families were willing to spend the \$500 or more necessary to buy a television set until one or more TV stations were in operation in their home community, the Commission

had already granted over 100 licenses and was inundated with hundreds of additional applications.

Because of the interference and allocation problems caused by this rush, on 30 September 1948 the Federal Communications Commission (FCC) of the United States announced a "freeze" on the granting of new television licenses (those already authorized were allowed to begin or continue operations).. This "time out" was originally intended to last only six months, but the outbreak of the Korean War as well as the difficult nature of some of the issues under study, such as the designation of a standard for color television, the FCC extended the freeze to four years. During this time, there were 108 VHF television stations on the air and over 700 new applications on hold. Only 24 cities had two or more stations; many had only one. Most smaller and even some major cities, Denver, Colorado and Austin, Texas, for example, had none at all.

On 14 April 1952 the freeze was finally lifted. As of 1952, practically all TV stations had network affiliation contracts with three of the existing radio network companies -CBS, NBC, and ABC - and one new organization, DuMont (a TV set manufacturer); many stations, especially in markets with fewer than three stations, had affiliation with two or more of the networks. While radio was facing difficulties in the 1950's, television was experiencing a period of rapid development in the number of stations, in size of audience, and in annual network and station revenues. In 1952, with a penetration in more than 50 percent of American households, television became a mass medium. The number of television homes had increased, from 64.5 percent in 1955 to 94 percent by 1965. Color TV, turned the corner in the 1965-66 season with all-color network programming by NBC to push the RCA color sets. In 1965 some 3 million color TV sets were in-use.

In the 1960s and 1970s television revenues increased steadily, but since national advertisers shifted their advertising budgets to television, other media such as radio and newspapers were hurt by television's growth. In 1975 there were approximately 1,700 daily newspapers, 7,500 radio stations, fewer than 700 tv stations, and three national commercial broadcast networks with a combined prime time audience share of 95%. The increasing power of television induced the FCC to adopt different rules in order to ensure viewpoints and economic competition. In 1975 the FCC adopted the newspaper/broadcast

cross-ownership rule, prohibiting the two most important sources of information in a community from being owned by the same company. Later were introduced the local tv multiple ownership rule, the radio/tv cross-ownership rule, the national tv ownership rule (limiting the number of tv stations a single company can own).

Our period of analysis extended from 1947 to 1975. Before 1947 number of entries was limited. Commercial licenses were granted since 1941 only, but World War II halted the process. After 1975 the Government - through FCC – started lifting many barriers of entry by adopting different ownership rules and restrictions. Our sample includes the entire population of commercial tv stations in operation in the U.S. between 1947 and 1975. Satellite stations, i.e. stations that simply re-broadcast other stations’ signal, were not included. For each station we collected information about starting operation date, interruptions, affiliation, ownership, sales and transfers.

Preliminary findings

According to Hypothesis 1a we expect initial de alio entry in the television broadcasting industry coming from firms in neighbor industries that we identify – according to the information business map - in radio broadcasting, newspapers and publishing, motion pictures, and electronic manufacturers. Hypothesis 1a was supported by the relationship between new television stations (BORN) and de alio stations from local industries (DAL). Entry and exit in the television broadcasting industry are showed in Table 1. Figure 1 provides the patterns for the above variables.

	ENTRY	EXIT
Total	847	200
De Alio Local	473	80
Radio	262	40
Newspaper	139	27
Motion Pictures	52	10
Electronic Manuf	18	3
Publishing	2	0

Table 1. Entry and exit (1947-1975 cumulative)

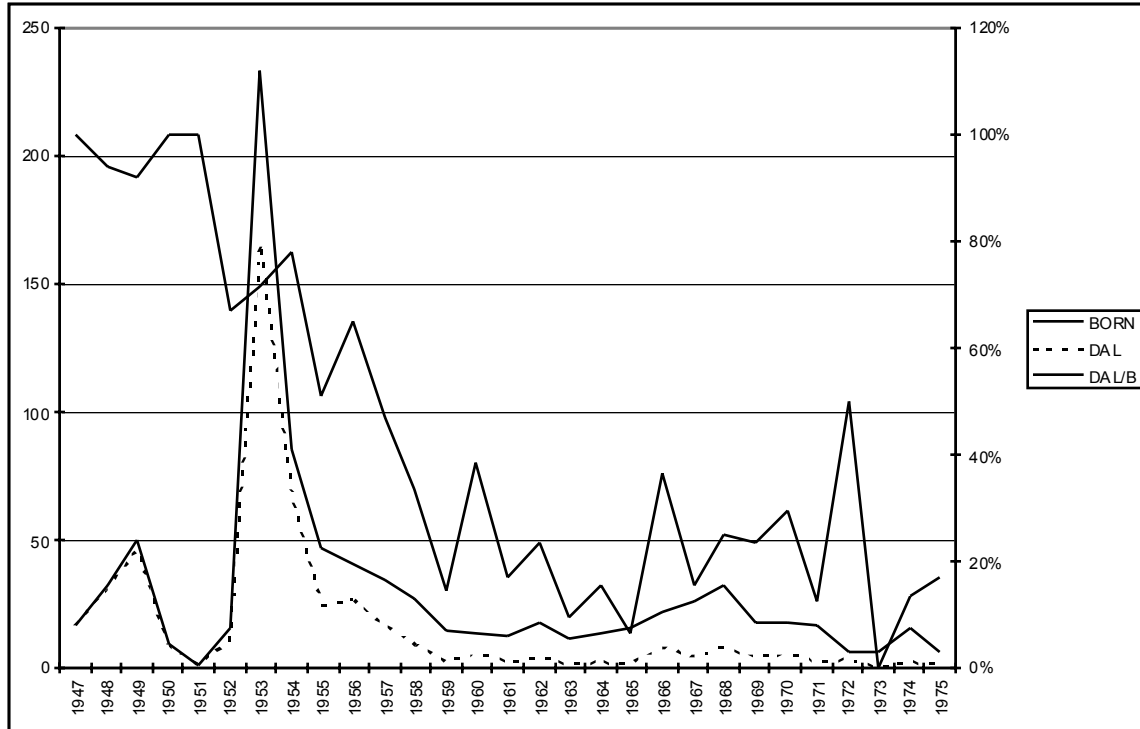


Figure 1. The evolution of local de alio entrants.

According to Hypothesis 1b we expect initial de alio entry concentrated in those neighbor industries closer to the television broadcasting industry. By considering the four types of capabilities that are linked to the degree of proximity, we can argue that radio broadcasting is closer to television broadcasting (similar product: sound-based; same production process: continuous on daily basis; same technology: over-the-air transmission of electronic signals; same customer competences: dual market represented by non-paying viewers and advertisers), than newspapers (different product: text-based; same production process: continuous on a daily basis; different technology: printing; same customer competences: dual markets represented by paying readers and advertisers), motion pictures (same product: image and sound-based; different production process: non continuous on a seasonal base; different technology: photography; different customer competences: paying moviegoers), publishing (different product: text-based; different production process: non continuous on a seasonal base; different technology: printing; different customer competences: paying readers) and electronic manufacturers.

As shown by Figure 2, which presents the pattern for the entry from each of the local industries, Hypothesis 1b is supported. The entry from neighbor de alio industries follows the relation described above.

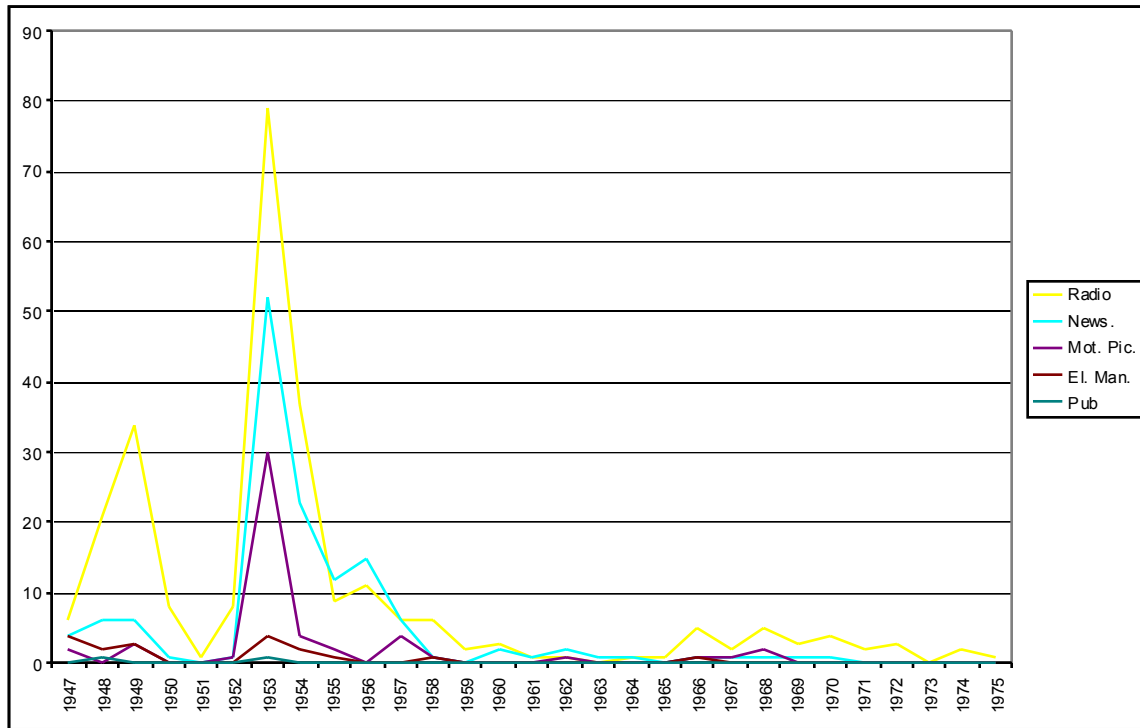


Figure 2. The composition of local de alio entry.

In support of Hypothesis 2 the percentage of entry of neighbor de alio tv stations declines over time: higher than 50 per cent before 1957, below 40 percent during the following years (Figure 1).

Hypotheses 3a and 3b suggest a change in the composition of entry along the evolution of the television broadcasting industry, and a loss of competitive advantage of initial de alio in favor of new entrants. Figure 3 shows that the growth of the television broadcasting industry and local de alio industry initially coupled, became increasingly separate since 1950s.

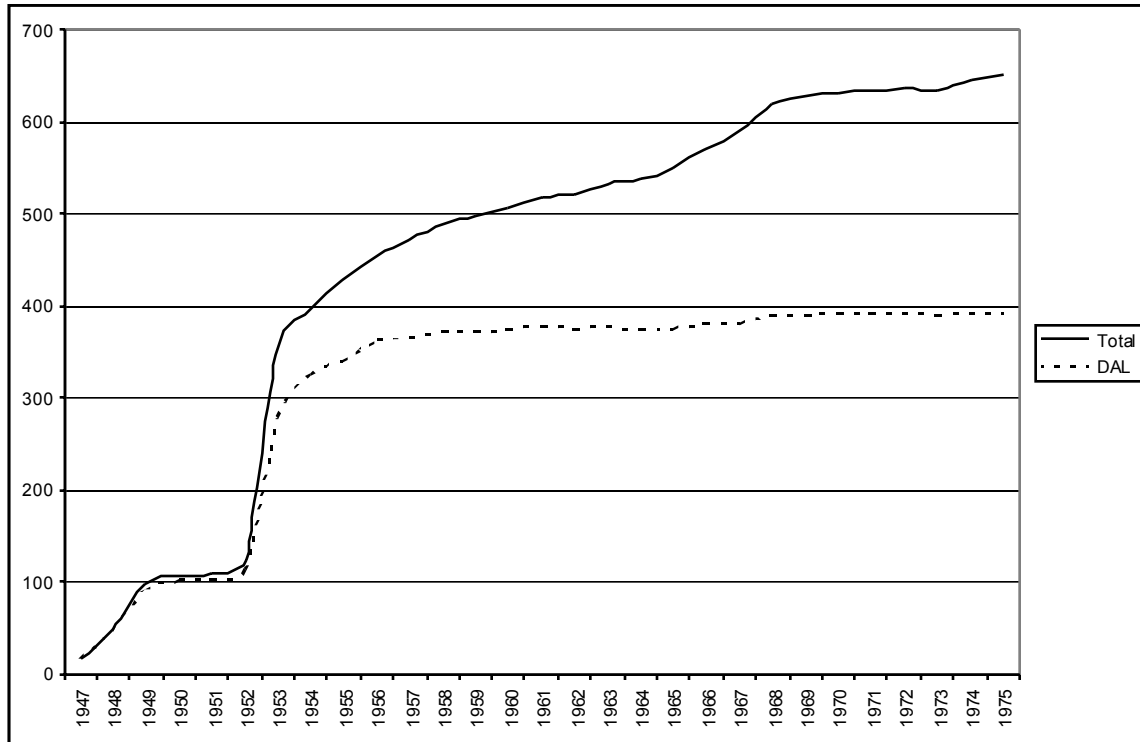


Figure 3. Local de alio survival.

6. CONCLUSION

By extending to entry the concepts of local search and firm capability, we posited the existence a neighborhood of industries that surround the formation and development of a new industry. We argued that initial entry is expected in larger amount within this neighborhood than without. At the same time, we argued that changes in industry-specific characteristics, the evolution of capabilities and competitive logic in the focal industry may alter the initial flow of entry from this neighborhood. In addition, we argued that the initial neighborhood tends to be replaced in later stages by a new neighborhood in the evolution of an industry.

Entrants coming from these different neighborhood will show differential advantages in time and tend to be selected accordingly. The hint is that adaptation and selection forces appear to be complementary and interacting processes, at multiple evolutionary level of analysis. With respect to this point, however we think that strategy analysis must be

situational and justify the dynamics of the processes analyzed in the particular context (Teece et al. 1997).

The entry strategies in the broadcasting industry were the result of local search activities, not only limited to technological or customer-related capabilities, but also including content/mode-related capabilities. The entry of the recording companies in the radio industry or of the motion picture companies in the television industry was the effort of exploiting existing capabilities in the production and distribution of sounds and images. But the broadcasting landscape was shaped by those firms that had closer technological experience (electronic producers which became radio broadcasters) and both technological and customer experience (radio broadcasters which became television broadcasters). These firms were able to draw resources from the content/mode-related industries (motion picture, recording, newspapers, theater,...), and not vice-versa.

Given the preliminary nature of methods employed and results obtained in this paper, we strongly believe that further research is needed to provide our hypotheses with a more robust evidence. First, we would like to estimate a logit model of the probability of entry from neighbourhood industries, and also estimate the hazard of entry and mortality (Carroll et al. 1996, Klepper and Simons 2000). In addition, we have presented data from the period 1947-1975 which seems to be a significant period encompassing the emergence and development of the commercial television industry to the date when initial ownership rules were maintained. We propose to extend the analysis back to 1941 and forward to present date in order to provide a more complete account and explanation of the dynamics of entry processes. Despite these limitations we believe that analyzing differences within de alio entrants over time, and especially in contexts others than manufacturing where the patterns seem to be better deciphered, offers important insights in the understanding of industry evolution and the relationships between capabilities and success.

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