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Research Policy 34 (2005) 1235–1249

research policy

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Constructing jurisdictional advantage

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Received 20 October 2004; received in revised form 18 January 2005; accepted 24 March 2005
Available online 2 August 2005

Abstract

This paper aims to advance economic development theory through the concept of jurisdictional advantage; demonstrating how places might strategically position themselves to gain economic advantage; then considering how this place-specific advantage might be constructed. We choose the term jurisdiction to define the set of actors that have a common interest in a spatially bound community. Jurisdictions are entities with a legitimate political ability to influence social and economic outcomes within their boundaries. Borrowing from the literature on corporate strategy, the uniqueness of local capabilities becomes a source of advantage for jurisdictions. We consider how to measure and construct jurisdictional advantage.
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Keywords: Innovation; Economic geography; Economic development policy

1. Introduction

In the face of increasingly convincing evidence about the returns to agglomeration economies, and the strategic importance of location, pragmatic questions remain about how places may use this information to create economic growth. How can a given place in a particular situation with a limited set of resources pursue a strategy that will provide sustained economic results? Addressing this question requires prescriptive theory and conceptual frameworks. Moreover, perspectives for improving a region's economic growth tend to focus on the role of government, under-emphasizing the role of other actors that have significant local interests and play momentous roles. Actors such as business firms, arts and civic organizations, professional associations, universities and individual citizens are concerned about quality of life and want to influence the economic prospects of the communities where they live and work (Becherer, 2000).

The relevant policy question is how to apply an appreciation of the benefits of location and cluster dynamics to implement strategies to promote economic growth. This question takes on greater urgency given structural changes in the world economy brought on by competitive pressures from newly emerging low cost counties. While corporate outsourcing allows firms to lower production costs technologically sophisticated firms compete on the basis of differentiated

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doi:10.1016/j.respol.2005.03.015

performance and innovation. And, it is in this case that certain locations confer an advantage that increases the productivity of investments made in innovative capacity by providing a platform to leverage key resources and relationships. Of course, this advantage is typically the result of specific unique characteristics that are built up over time to form a coherent place specific activity set that is not easily transferred or replicated and forms the basis for sustainable advantage for both firms and industries (Feldman and Martin, 2005).

This paper aims to advance economic development theory on three fronts: introducing the concept of jurisdiction to the literature on geography and clusters; demonstrating how places acting as jurisdictions might strategically position themselves to gain economic advantage; then considering how this place-specific jurisdictional advantage might be constructed. We choose the term jurisdiction to define the set of actors that have a common interest in a spatially bound community rather than using the more passive term of locational advantage. Jurisdictions, at a variety of spatial scales, are entities that have a legitimate political ability to influence outcomes within their borders. Section 3 of the paper further defines our concept of jurisdiction, and considers the economic development objective for which jurisdictions might realistically strive, with a discussion of measurable outcomes. Section 5 draws on corporate strategy literature to consider how communities may position themselves in order to create opportunities for economic growth. We argue that every jurisdiction has unique assets that may be built upon to construct a coherent activity set that would be difficult for others to copy. Considering examples of activity sets from Hollywood and the New York Fashion district we examine the elements of the industry's local advantage and how the industry became established. Section 6 considers how jurisdiction-specific advantage may be constructed and Section 7 concludes. The next section reviews the literature on the geography of innovation to provide a framework for considering jurisdictional advantage.

2. The endogenity of industry—place success

Economists, starting with Marshall in 1890, have long recognized the strategic importance of location to economic activity (Marshall, 1920). This is well-known rather than a historical artefact primarily because of the recent economic success of Silicon Valley and Route 128 (Saxenian, 1994; Kenney and von Burg, 1999). Even as the Internet provides real time connectivity, there is little dispute that global economic activity is agglomerating: industries are concentrating spatially in tightly defined geographic areas precisely because proximity and access matters. Empirical research increasingly provides evidence of the benefits that accrue to location (e.g. Aharonson et al., 2004; Almeida and Kogut, 1999; Baptista and Swann, 1998; Beaudry, 2001; Beaudry and Breschi, 2003; Glaeser et al., 1992; Henderson, 1994; Sorenson et al., 2004; Rosenthal and Strange, 2003; Swann and Prevezer, 1996). As a result, a consensus is developing that compact geographic areas, typically centered in cities, are more important than countries or sub-national regions when considering economic growth and prosperity (Krugman, 1998; Fujita and Thisse, 1996).

An important distinction is between the geographic concentrations of production and the location of innovation. Whereas the geographic concentrations of production is often due to the location of natural resources, ease of transportation or historical inertia, the location of innovation is due to knowledge externalities and subject to increasing returns (Audretsch and Feldman, 1996). While innovation yields greater productivity and the increases in wages that jurisdictions seek, jobs associated with routine production remain geographically in place as long as the physical investments are economically viable. Once physical assets are depreciated or obsolete, and if the market changes or costs become uncompetitive, these locations are easily abandoned.

Being at the locus of activity for an industry promotes innovation. Certain locations supply localized knowledge externalities or spillovers that provide positive economic value but are beyond the ability of market mechanisms to price and efficiently allocate. The significance of localized knowledge spillovers as inputs to firms' innovative activities suggest that their most creative and highest value-added activities do not proceed in isolation, but depend on access to new ideas. Location mitigates the inherent uncertainty of innovative activity: proximity enhances the ability of firms to exchange ideas and be cognizant of important incipient knowledge, hence reducing uncertainty for firms that work in new fields (Feldman, 1994). Innovation clusters spatially where knowledge externalities reduce the

costs of scientific discovery and commercialization. In addition, firms producing innovations tend to be located in areas where there are necessary resources: resources that have accumulated due to a region's past success with innovation. In this way, firm success and city economic growth are endogenous and mutually dependent. The cumulative nature of innovation manifests itself not just at firm and industry levels, but also at the geographic level, creating an advantage for firms locating in areas of concentrated innovative activity. These factors can generate positive feedback loops or virtuous cycles, as clusters attract additional specialized labor and other inputs, as well as the greater exchanges of ideas. What is critical is that these clustered industries tend to be more innovative and have greater productivity which is why we observe wage premium for such clusters (see for reviews Baptista, 1998; Audretsch and Feldman, 2005).

The fact that clusters exist and provide economic benefit does not imply that they can be easily built—the costs associated with trying may outweigh realized benefits. The difficulty is trying to determine what activities may aid the formation and building of clusters and what activities waste or dissipate resources. While there is little disagreement over the proposition that clusters are economically advantageous, the notion that every place should attempt to build clusters is more controversial; proactive attempts to build clusters often fail or yield results that are different than anticipated (Feldman and Francis, 2004; Orsenigo, 2001). Typically, cluster building initiatives focus on emerging, high growth industry with great political flourish and the substantial commitment of public resources. These efforts are often mimicked by similar jurisdictions. For example, in the U.S. there are 40 states that have biotech initiatives and another nine states that list biotech as a target in their state technology plan. The only state missing of the 50 states in the U.S. is Indiana, but examination of the state budget reveals line items that focus on building biotech resources (Biotechnology Industry Organization, 2004, p. 28). However, the vast majority of cluster initiatives currently underway have little chance of achieving their articulated goals (Leslie and Kargon, 1994). In retrospect, the investment of time, energy and capital may not be justified. Of course, the threat of being left behind is great and localities have little choice but to participate in these races (MacRae, 2002).

Incentives that dissipate the natural advantages that accrue to agglomerations may not only waste resources but may act to the detriment of innovation and technological change nationally or globally, as resources are pulled to places where they will be less productive and the benefits of external scale economies are lessened. An examination of the ways in which technologies and industry evolves reveal the importance of prior actions and the cumulativeness of advance or path dependencies (Arthur, 1990). The history of regions and industries become intertwined and it is difficult to transplant industries. Moreover, the path of emerging industries is difficult to predict and is extremely fluid. Our current understanding of an industry may not be able to anticipate future scientific developments, the temperament of consumers and their acceptance of a product and the directions that technology may take.

When a technology reaches a stage when it can be easily understood and valued, the established centers may be described as first movers, already having an advantage over other locations. As a result, there is a tendency for activities which are ahead to get even further ahead. By the time an industry is well known enough to be targeted for economic development first-mover jurisdictions have probably already captured the lion's share of the benefits and are positioned for greater advantage, making it difficult to catch-up or overtake them following the same technology. Moreover, for clusters to be successful there is a need not to be captured by the prevailing logic of the industry but to adapt a new model that reflects a different vision for a technology or an industry.

3. Defining jurisdictions

When considering clusters, it is important to remember that the most cited example – Silicon Valley – is not a real place in any political, geological or administrative sense. Geographically, Silicon Valley defies standard classification—it is simply more that than the administrative units of Palo Alto or Menlo Park or even the larger unit of Santa Clara County. Silicon Valley, like other industry clusters, is a more amorphous concept that spans multiple administrative units.

When we talk about clusters we are really talking about spatially defined epistemic communities of common interest. Most generally, we are talking about the

construction of a common vision around an industry, technology or set of related interests. History is replete with examples of co-located firms defining technological frontiers (c.f. Allen, 1983; Maskell and Malmberg, 1999). The geographic concentrations of related entities create synergies that provide unique activity sets that promote the emergence of new industries: combining new knowledge with existing expertise is the essence of innovation. Sociologists such as Latour and Woolgar's (1986) discussion of scientific discoveries or Abbate's (1999) history of the Internet documents the cascading decisions that shape human creative work. This suggests that innovation is socially constructed and reflects a consensus vision of what is possible, a series of complementary activities and imitation and experimentation. Innovation is a creative activity influenced by the expectations, conversations and personalities of the individuals involved. Certainly, to the extent that social interactions are facilitated by co-location and frequent interaction, innovation becomes a local event. These epistemic communities self-organize and there are gains to frequent, face-to-face contact. While a specific address may connote prestige, it is proximity, access to concentrations of resources and venues for social relationships that matter most in promoting innovative activity, productivity growth, and higher wages.

Why then introduce the term jurisdiction? The term connotes a broader and more inclusive description of the economic assets and joint decision-making of a spatially defined system that contributes to economic prosperity. Most importantly, the concept of jurisdiction implies the development of laws, regulations, norms and conventions that provide systems of governance and innovation. A jurisdiction may be broad—for example, a country, in which case the vast majority of laws and regulations are the product of the jurisdiction. Or, a jurisdiction may also be narrow—for example, a city, in which case some of the laws and regulations are self-imposed while others are imposed by a super-ordinate body, such as the country. While the animate actors in the jurisdiction do not have complete freedom of action, they certainly have a great deal of scope for decision-making and implementation.

Jurisdictions include animate actors such as firms, governments/administrative institutions, educational institutions, cultural institutions, and citizens as well as inanimate features such as natural endowments and physical infrastructure. Each of these animate and inanimate actors has the potential to contribute to the development – or lack thereof – of economically beneficial clusters. A physical asset, such as a great port, can contribute to the growth of a logistics cluster. Universities or government labs may or may not spin-off ideas that create new products, new firms and new industries (Bania et al., 1993). Great arts and cultural organizations can attract highly qualified personnel who value amenities and are critical human capital for certain industries (Florida and Gates, 2002). Norms supporting entrepreneurship can increase the number of start-up firms. Conversely, non-compete employment clauses or punitive bankruptcy laws may lessen entrepreneurial activity (Gilson, 1999; Becker and Hellmann, 2003). All of these are features that should be considered when analysing a jurisdiction.

What should be the goals of a jurisdiction? A basic metric is the prevailing wealth in the geographic area. Wealth is a combination of wages and investments. The greater the positive variance in wage levels from the national or worldwide mean, the greater the jurisdictional advantage from which residents benefit, other things being equal.[1] Investment is an important measure of the wealth of the jurisdiction. For the majority of the population of the developed world, the single largest investment is home equity and the value of local amenities, quality of life and general economic outlook is capitalized in housing prices. Higher local wages and a growing local economy are expected to contribute to appreciation of real estate values and the wealth of property owners. Moreover, increases in property values yield higher tax revenues for the jurisdiction which, if used judiciously, increase amenities and public services. In this way, virtuous cycles of economic growth may be created.

The logical step is to recognize that strategies to increase economic potential should focus on broadly

[1] However, there are two adjustments that should be made to this measure. First, when comparing jurisdictions across countries, wages adjusted for purchasing power parity should be the measure, as is the case when comparing gross domestic product (GDP) per capita. Second, an additional refinement would be to adjust after-tax wages for major differences in government services and amenities provided. For example, if after-tax wages are used to compare jurisdictions of a U.S. city with a Canadian city, there should be an adjustment for the fact that Canadian residents receive greater health care benefits through government expenditure. For individuals living in the U.S., health care costs would be paid for from after-tax wages.

defined jurisdictions and the construction of what we term jurisdictional advantage as a means to promote economic growth and prosperity. This paper takes a next step toward a prescriptive theory of clustering and agglomeration by providing a theory of jurisdictional advantage. It takes these steps because the authors believe that the literature will not be able to create a useful prescriptive theory of jurisdictional advantage without these building blocks.

4. What is a jurisdictional strategy?

The collective choices that actors make over time that shape the activity in a place define a jurisdictional strategy. This is not meant to imply that there is always clear and conscious coordination of the choices to produce a strategy. Sometimes the choices will be made with no coordination, the logical outcome of market forces. Nevertheless, the sum of these choices forms the basis for what the jurisdiction actually does. And as with corporations, strategy is choice; strategy is not public proclamations or planning processes, it is what an entity actually does. In this respect, every corporation has a strategy, whether that strategy is articulated or not. Similarly, every jurisdiction has a strategy which is defined by what its actors choose to do, whether in coordination or not and whether articulated or not.

With this background, we define a successful jurisdictional strategy as one which produces relatively high and rising wages for the workers and real estate values for property owners within the boundaries of the jurisdiction. If wage levels are higher than other comparable jurisdictions, then the jurisdiction is translating its human, physical, and other capital into higher economic output per worker than its counterparts. And if wages are rising, then the jurisdiction is likely to be increasing its relative effectiveness rather than regressing toward the mean. Similarly, if real estate values are increasing, those already owning real estate in the jurisdiction are rewarded with appreciation of the value of their property. The longer a jurisdiction can maintain high and rising wages and values, the more valuable the jurisdictional strategy.

We are particularly interested in jurisdictional strategy at the level of the city-region because the literature on clustering and agglomeration increasingly points to the importance of small and compact geographic units as being a critical element in the performance of industries. Countries and states provide institutional framework within which cities work and help define the opportunity set. However, differences in jurisdictional performance appear to derive from the choices made by local actors.

5. What is jurisdictional advantage?

The subsequent question is, what is the nature of a set of jurisdictional strategy choices that produces advantage evidenced by relatively high and rising wage and property value levels? Here we borrow from corporate strategy.

Over the past 30 years, the concepts of corporate strategy and strategic thinking have become well accepted by firms. The literature on corporate strategy finds that observed differences in firm performance are due to organizations capabilities which are unique and not easily imitated (Barney, 1991; Dosi et al., 2000; Nelson, 1991; Rumelt, 1984; Wernerfelt, 1984). While similar resources may be available to all firms, the ability to deploy these resources productively is not uniformly distributed and depends on the firms' capabilities (Penrose, 1959). Moreover, these capabilities develop over time as the result of historically determined endogenous learning processes (Nelson and Winter, 1982). As a result of this path dependency, firm capabilities are unique and not easily replicated. The result is that specialized resources used by a firm are embedded in an organizational context and their effective use is contingent on other complementary assets (Rumelt, 1987). The mechanism through which a company produces advantage is an activity system which is unique, not easily replicated and sustainable.

5.1. Activity systems: borrowing from corporate strategy

One school of corporate strategy holds that advantage results either from lower cost relative to the firm's competition or the production of a set of attributes that are uniquely valued by the market (Porter, 1980, 1985). These advantages are based on the construction of unique activity systems, which are defined as a coherent web of activities. Taken together, these activity systems

provide an advantage because the individual activities and components fit well together and actually reinforce each other. The fit and reinforcement makes it difficult, if not impossible, for competitors to replicate a successful firm's strategy—a rival firm would have to replicate every single aspect of the activity system in order to match the advantaged firm's strategy. Thus, the essence of strategy is to construct an activity system that allows the firm to perform differently than the competition or to perform different activities than the competition.

Consider the example of Southwest Airlines, which has been the most successful airline in the U.S. market over the past 30 years, in terms of the level of profitability, stability of earnings and growth in market share (Porter, 1996). Southwest is noted for flying a completely standardized fleet of Boeing 737s, flying to and from secondary airports, having the most frequent number of daily departures from each of its locations, and utilizing the Internet rather than travel agents for booking. Importantly, its exemplary performance outcomes are not the result of any single thing that Southwest does. As demonstrated in Fig. 1, Southwest achieves advantage by performing a set of activities in a comprehensive manner that fit together and reinforce each other to produce a significant and sustainable cost advantage over its competitors. To challenge Southwest Airline's success, a potential competitor would have to match every single aspect of Southwest's activity system.

An activity system can provide a low cost advantage by enabling the firm to produce a product or service that is roughly equivalent to the competition but at a significantly lower cost. This results in higher profitability than the average competitor and has been the case for Southwest in the airline industry. Any firm with a cost advantage is able to set prices in the industry and ultimately force marginal firms who do not have a similar cost advantage out of the industry.

It is important to note however, that being a low cost firm is not the same as being the firm offering the lowest price. Having the same cost structure as competitors and deciding to sell at a lower profit margin is not a strategy for long-term advantage. Indeed, it is a recipe for transferring economic value from corporate shareholders to customers. This is simply not a sustainable long-term strategy. Any competitive firm in the same industry can simply cut its own prices and margins to

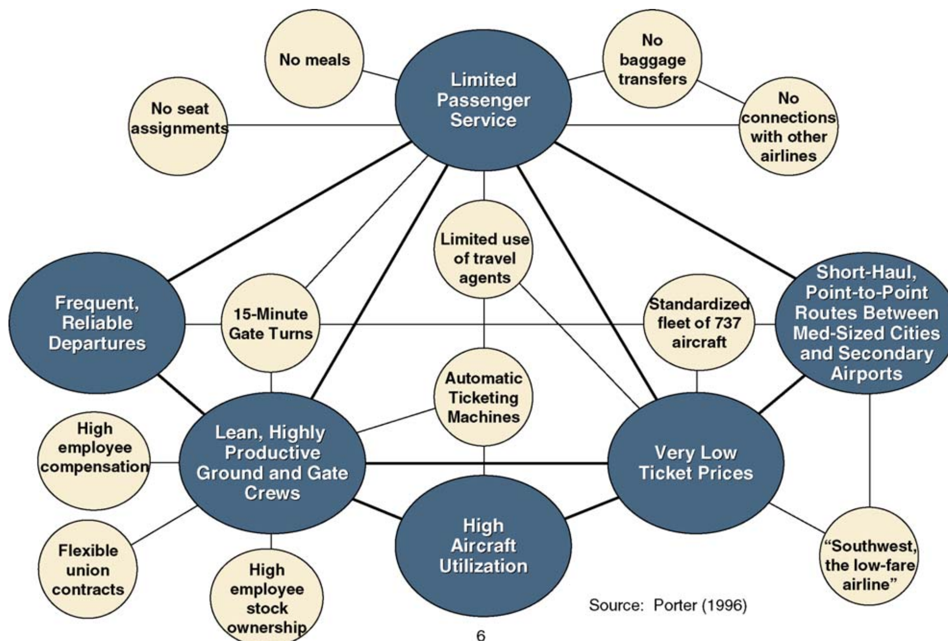

Fig. 1. Southwest Airlines: low cost advantage.

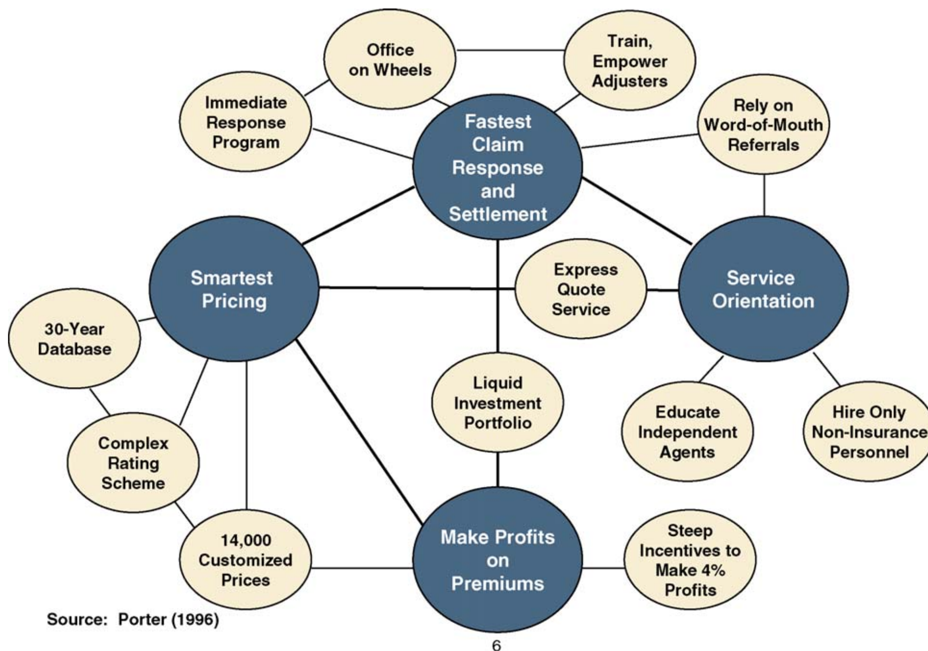

Fig. 2. Progressive insurance: differentiation advantage.

compete in the short run. This, ultimately, leads to a race to the bottom in terms of profitability as firms successively continue to lower prices and squeeze profit margins.

The second strategy for corporate advantage is product differentiation—producing a product or service that is considered to be uniquely valued by a segment of customers and for which those customers are willing to pay a premium price. For example, Progressive Insurance, as demonstrated in Fig. 2, offers a differentiated automobile insurance service to a non-standard segment of drivers (Porter, 1996). It offers quotes that are better-tailored to the true risks associated with different categories of drivers and provides quick and easy settlement of claims using an extensive fleet of van-based adjusters. Like Southwest Airlines, Progressive also has a distinctive activity system that features many reinforcing activities, such as its sophisticated pricing database, a fleet of claims-settling vans, and unique training and compensation structures, which fit together to produce a service that is highly valued by its customers and is produced at a competitive cost.

An effective differentiation strategy also requires operational efficiency and a competitive cost structure. Firms that charge a premium price but do not maintain an efficient cost structure end up with lower profit margins and do not have the resources to reinvest in sustaining long-term advantage. An effective differentiation strategy requires an activity system that is efficient in terms of cost structure while simultaneously producing a differentiated product or service.

Strategy allows firms to define their objectives and make decisions that focus their energies and investments. Most importantly, strategy allows firms to know what activities are not going to realistically advance their goals.

5.2. Jurisdictional activity sets

Following this logic, it seems that places might also have similar capabilities that develop over time, are unique and not easily replicated. Jurisdictions may benefit from adapting a similar strategic orientation and building an activity system that is unique and valuable in order to produce either a low cost or differentiation advantage over other jurisdictions. Next, we look at Hollywood and the New York garment industry as two examples of how jurisdictions have built such activity systems.

Hollywood is so well known that its name connotes both an industry and a geographic place. Hollywood has been the global center for film production since the 1920s and has maintained its dominance through changes in production technology and business models (Scott, 2005). In 2001, the southern California entertainment cluster, as defined by The Institute for Strategy and Competitiveness, employed 178,000 people, or 16% of national employment for this industry. The average wages in the entertainment industry are US $60,000 which was 50% higher than the national average wage for the industry and greater than three times the average wage for the region.

Scott (2004, 2005) rejects the conventional explanation that the industry located in southern California was due to favorable weather conditions and scenic vistas, but instead offers a view that suggests a coherent activity set created the industry's dominance. At the turn of the century, the then-dominant New York based Motion Picture Patent Trust priced its films by the foot, a policy that gave producers little incentive to raise quality or innovate (Scott, 2005, p. 17) In contrast, Hollywood independent producers concentrated on distinctive feature films and promoted individual stars and the development of methodological procedures to break down the shooting process into disconnected segments that were reassembled later. This lowered costs and gave rise to the studio system with its advanced division of labor and sophisticated managerial model of production. Hollywood was able to differentiate itself from New York with an activity set that included new business models, a cost advantage and the ability to experiment and innovate.

Fig. 3 diagrams the activity set that established Hollywood's advantage, ca. 1928, or about the time when Koszarski (1990) notes that the term Hollywood was used in a generic sense to refer to the motion picture industry. A supporting infrastructure developed that reinforced the activity set with skilled crafts such as film editing, file laboratories, agents, orchestras, costumes and props. In addition, the open shop labor market arrangements in Los Angeles, which were in place until 1935, provided flexibility. The Academy of Motion Pictures Arts and Science was created in 1927 as an overarching union with five branches representing producers, writers, directors, actors and technicians. The Academy, well known for the Oscar Awards, encourages artistic achievement and diffused best practices.

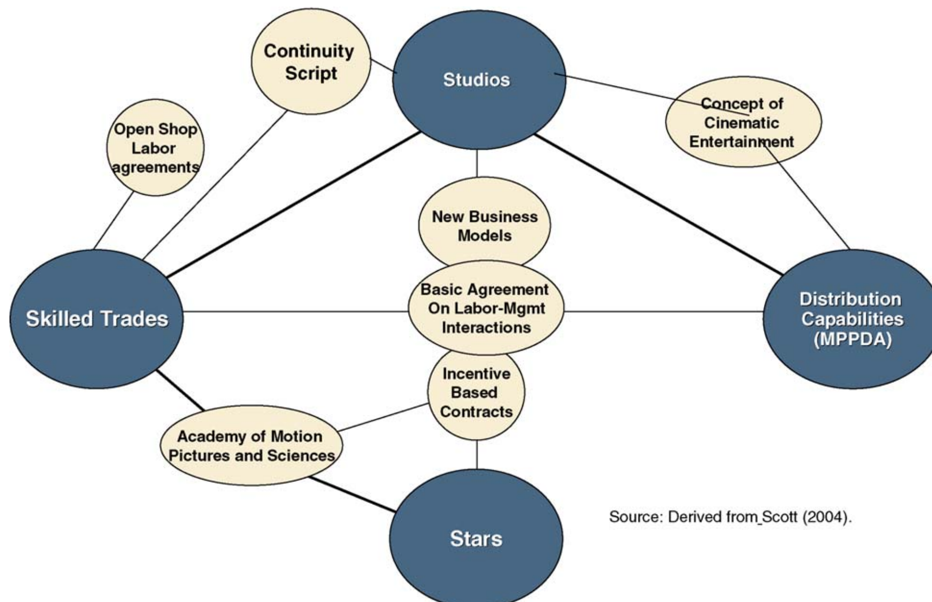

Fig. 3. Hollywood California (ca. 1928).

Another example is the New York City fashion industry, one that has become synonymous with style (Rantisi, 2002a, 2002b). The New York apparel industry had a modest beginning on the lower east side of Manhattan, the site of skilled immigrant communities in the 1880s. Most large cities had garment districts at the time and there was nothing particularly unique about New York. By 1920 the industry migrated to the Garment District in the western part of midtown where it is currently located. In these intervening years, the focus shifted to high value-added fashion (Rantisi, 2002b, p. 447–448). Currently, the New York cluster accounts for 40% of U.S. value added for the category of women and children's fashions (Rantisi, 2002b, p. 442). Although Los Angeles has greater employment in this industry category, wages in New York are more than double the national average for the industry.

Fig. 4 provides the activity set that reinforces the prominence of the fashion industry in New York. The development of a range of retailing formats in New York – from department stores like Macy's, Bloomingdales and Lord and Taylor's, as well as specialized boutiques such as Henri Bendel – helped to develop varied markets for the industry's output. Fashion magazines, notably *Women's Wear Daily* (now WWD), *Harpers Bazaar* and *Vogue* helped establish a fashion culture and disseminate industry trends to the national market. This was supported by the developing advertising industry and expertise in fashion photography. The international Ladies Garment Workers Union helped promote safe working conditions and standardized wages. This ensured high-quality goods, encouraged women to upgrade their skills and also enabled workers to become active consumers (Rantisi, 2002b, p. 448). Supporting educational institutions such as the Pratt Institute, the Parson School of Design and the Fashion Institute of Technology ensured a steady supply of skilled labor. In addition, the production system came to be characterized by a large number of specialized contractors, job shops and specialty fabric designers. These small, niche firms provide a flexibility and culture of experimentation.

In conclusion, these are two examples of jurisdictional advantage. Similarly, the Boston Biotech Cluster (Owen-Smith and Powell, 2004) or Silicon Valley (Kenney and Patton, 2005) also have a coherent activity set that connect biotech firms to venture capitalists, specialized business services (such as contract research

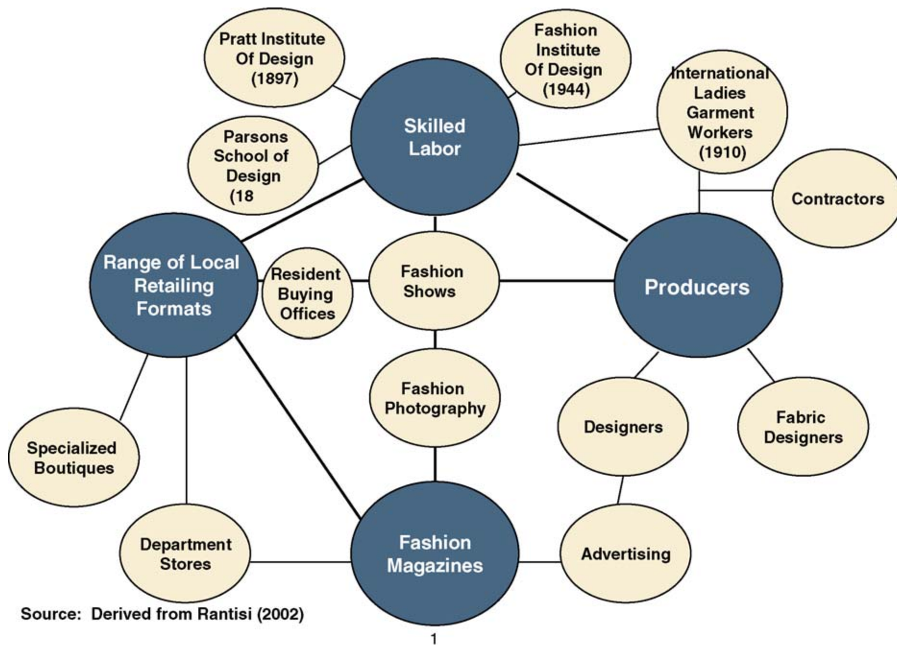

Fig. 4. New York City women's garment production.

organizations), legal services, and universities. However, these examples illustrate the importance of local labor agreements, experimentation with new business models, the development of a local division of innovative labor and other institutional linkages which are specific and idiosyncratic. Taken together, these activities comprise the local activity set that provides an economic advantage to companies, industries and jurisdictions. Moreover, these examples demonstrate the path dependencies and cumulativeness of the activity sets (Arthur, 1996). Innovation, the ability to introduce novel ideas and consistently improve performance, is a notable characteristic of these locations and a key to their economic performance.

In the examples examined above, jurisdictions were able to translate an initial cost advantage into a sustained competitive advantage through the construction of an activity set that yielded an advantage based on differentiation. This is to say, the interaction of the features of the activity set, make Hollywood (in film) and New York (in fashion) jurisdictions that provide unique value to a firm in the respective industry, such that locating in that jurisdiction is uniquely valuable vis-à-vis alternative jurisdictions. Moreover, the two industries examined here are illustrative as they are creative industries where human capital known as talent is important (Caves, 2002). In a global economy where unskilled labor is inexpensive, transportation and communication costs are negligible and raw material matter little, talent is becoming an important competitive asset (Florida and Gates, 2002).

The current obsession with outsourcing gives rise to the question of whether low wage regions enjoy jurisdictional advantage. We argue that they do not because the manifestation of jurisdictional advantage is high and rising wages. A jurisdictional strategy based on low wages would undermine itself on the way to jurisdictional advantage. That is, in order to move toward advantage, wages would have to rise, unraveling the low wage approach. A low wage policy in the realm of jurisdictional strategy is analogous to a low price approach in corporate strategy. The targeted beneficiaries of corporate strategy – the shareholders – do not benefit from a low price strategy; the customers do. The targeted beneficiaries of jurisdictional strategy – workers in the jurisdiction – do not benefit from a low wage strategy. In particular, decreasing wages is not a strategy for long-term competitive advantage in industries where talent and human capital are important. Producing talent requires investments in human capital and incentives that motivate individuals to create and engage their talents. Moreover, talented individuals do not work alone. Indeed, talent may only be recognized in a specialized setting where genius may be appreciated and appropriately rewarded.

Hollywood demonstrates that innovation in business models that accompanied technological breakthroughs in movie-making were critical—a vision of what the motion picture industry might be. While certain individuals stand out as influential, the activity set reflects the efforts of many people, acting individually and collectively. The New York fashion industry demonstrates the success of building on rather pedestrian activities. Interestingly, both industries made important transitions in the form of advantage they enjoyed. Each began with a low cost advantage—it was less expensive for firms to do business in those industries in those jurisdictions. This was not because of low wages, but rather because of other cost reducing activities. However, both industries eventually developed differentiation advantages—with activity systems that provided an environment that firms in the industry could not find elsewhere.

What allowed these jurisdictions to differentiate themselves is the construction of reinforcing activity sets that both promote and further define the industry. Of course, this advantage is typically the result of specific unique characteristics that are built up over time to form a coherent place specific activity set that is not easily transferred or replicated and forms the basis for sustainable advantage for both firms and industries (Feldman and Martin, 2005). Without engaging a variety of different agents and supporting institutions these jurisdictions may not have achieved primacy within their industries. The examples presented here are intended to be illustrative. The tendency might be to dismiss these examples as offering unrealistic aspirations for average locations. Yet the literature contains a large number of detailed and carefully constructed case studies about different industries and the genesis of the jurisdictions in which they reside.

The heuristic of activity systems presented here and the study of coherent activity systems may be used to consider elements that are missing in certain locations that are less successful. Moreover, rather than simply replicating existing successful clusters when we

consider these activity systems, it becomes apparent that activities are reinforcing and that the success of the industry and jurisdiction co-evolve. This paper will now sketch out some ideas on how the animate actors in a jurisdiction can use the theory of jurisdictional advantage to construct jurisdictional advantage.

6. Constructing jurisdictional advantage

Constructing jurisdictional advantage is not easy, just as it is not simple for companies to craft strategies that yield long run growth and profitability. However, there are a few things that can be noted. The evidence that firm location decisions are not responsive to jurisdictional tax differentials except at the intra-metropolitan area (Bartik, 1991; Papke, 1991) suggests that individual municipalities may gain if they drop their tax rates or offer special incentives. Of course, this creates artificial competition between administrative units that may be part of the same industry cluster and may be viewed as a unified jurisdiction in terms of common economic objectives. These actions, while yielding short-term benefits, may result in a race to the bottom. Individual municipalities may achieve long-term benefit if they view themselves as subsidiaries or divisions of a larger geography and cooperate to their mutual advantage.

Jurisdictional activity system is not the product of any one class of actors—not firms, not individuals, not governments, not universities. Highly competitive clusters and therefore highly advantaged jurisdictions have activity systems in which multiple actors play interacting and reinforcing roles to produce and reinforce its uniqueness.

Each of the actors pursues their own self-interests. People choose to work where they can maximize their own wealth and happiness. Firms invest in things that have the prospect of increasing their returns. Arts and cultural organizations pursue self-expression. Universities follow the desires of their scholars. Governments do the things they need to do to get re-elected. However, each of these self-interested needs is furthered by a jurisdictional activity system that produces high and rising wages and real estate values, so each actor is working toward their self-interest when it contributes to jurisdictional advantage. However, it has to be recognized that the actions of any one actor will only go so far. Individual firms, for example, will not invest meaningfully in things that payoff primarily for other firms or actors in the system. Governments need to fund those items for which there are high externalities from the perspective of any individual firm.

Because no one actor can do everything and each actor has an interest in experiencing jurisdictional advantage, constructing jurisdictional advantage takes the will of all the actors—a consensus vision and vision of uniqueness. Each party needs to ask what unique contribution it can make to the unique activity system. Governments are in the best position to play a coordinating role.

Two extreme philosophies anchor the ends of the jurisdictional policy spectrum. At one end of the spectrum lies aggressive centralized planning that targets an industry or industries and puts in place a strategy to attract that industry or industries to the jurisdiction, often with tax incentives. There are myriad examples where politicians and civic leaders focus on some emerging, high-growth industry with greater fanfare. This is certainly the case with current example of the 49 states with biotech industry initiatives. Even when efforts are successful at generating start-up companies it is difficult for a jurisdiction to garner long-term benefits if complementary assets are lacking (Connecticut Center for a New Economy, 2004).

The opposite extreme is to let market forces determine the allocation of resources, a straight-forward *laissez faire* philosophy. The underlying rationale of this philosophy is that industrial clusters that are part of successful cities arise for a variety of historically contingent or serendipitous factors that are not easily replicated. Firms locate and invest in particular cities for reasons that are not well understood, much less predictable and controllable. This view suggests that the most constructive thing a jurisdiction can do is let market forces determine its future.

However, just as there are logical problems with the centralized, command and control end of the spectrum, there are weaknesses to the laissez faire argument. First, it is difficult to find examples of highly successful jurisdictions or even individual clusters in such jurisdictions where there was little evidence of involvement by actors other than firms—in particular involvement by governments acting in coordination with the provision of externality-laden investments. Even Silicon Valley, often used as the paragon of a jurisdiction

driven by free market forces, would not have developed as a highly advantaged jurisdiction with among the highest wage levels and real estate values in the world without massive investment by governments in higher-education and research focused on the industries that have made Silicon Valley the envy of virtually all jurisdictions. Indeed Silicon Valley exemplifies the challenges in the increasingly knowledge-based economy where market failures lead to under-allocation of the very goods that provide advantage without coordinative activities. After all, this is one of the classic reasons for government provision of infrastructure, funding of basic research and promotion of public goods such as education. These resources which are associated with market failure take on new importance in the emerging knowledge-based economy and suggest that there is a role for collective action and government participation.

The idea that firms act alone as solo players is a romantic image that has no good exemplars. Laissez faire proponents tend to point to high tech industries like software because they feature cut-throat competition and rapid entry and exit. However, it is one of the industries most dependent on and linked into the U.S. higher education system. This holds true for pharmaceuticals, medical devices, aerospace and virtually all high-wage industries.

Strategy is choice and closer inspection reveals that each of these industries has benefited from a jurisdictional activity set that coordinates the choices of various categories of actors. Given that this is the case, having a goal – high and rising wages – and a structure for thinking about achieving that goal – differentiation or low cost – and a tool for guiding the strategy – a distinctive activity system – can be useful. Strategy has utility in suggesting that a route between the two ends of the spectrum is likely to be most effective. It suggests that a strict laissez faire approach is unlikely to provide the externality-laden assets necessary for the jurisdiction to succeed. However, it also restricts the overly expansive government coordinators. Government intervention can only be justified if it contributes to the development of a jurisdictional activity system that provides differentiation or low cost advantage to the jurisdiction in attracting, retaining and growing firms. Rigorous analysis of the government activities in cluster initiatives would undoubtedly indicate that the vast majority of them do not even have as a realistic goal, let alone a stated goal, of creating such an outcome.

As we know from corporate strategy, investments made by businesses to simply replicate what other firms have already done or improve a firm's competitive position from significantly behind to merely lagging are typically investments that do not earn an acceptable return on capital. Similarly, we would not expect government investments that are not made to support an advantaged jurisdictional strategy to have a positive net present value. As such the framework of jurisdictional advantage provide guidance for the difficult challenge of choosing coordinative and costly interventions that have a sufficiently high probability of paying off.

What is the role of firms in jurisdictional advantage? A firm can act simply as a taker and exploiter of a jurisdiction. However, a firm is better served by being an active partner in jurisdictional advantage rather than a passive taker. The existence of externalities critical to firm success suggests that firms can receive benefits from the jurisdictional activity system that are outside of the market mechanism to price. As soon as it has made investments in a jurisdiction, a firm has an incentive to encourage other actors in the jurisdiction to build externality-laden investments so that the jurisdiction provides more advantages for itself in the future.

While it may be argued that firms pay more taxes as a result of the higher profits they earn as a result of externalities, a higher level (not rate) of taxes is a small price to pay for increased competitive success and sustainability. In fact, it may be argued that firms may actively cultivate the sources of the agglomerative benefit by investing in local universities and cultural organizations, building infrastructure, and so on. Moreover, these investments are typically tax deductible and provide a means to make targeted investments in jurisdictions rather than relying on the process of government budgeting. That is to say, those firms may actively build the external resources and infrastructure that benefit their bottom line, but all in the context of strengthening the jurisdictional activity system.

Industrial recruitment incentives with special tax breaks and various other inducements that lower the costs of doing business are not low cost strategies. The evidence is that this type of strategy is a race to the bottom in a zero-sum game (Bartik, 1991). There is no evidence that it eventually leads to higher wages, which is the measure of a successful low cost jurisdictional

strategy. In many respects, governments that use tax breaks or other monetary inducements are identical to firms that use sales as central tenants of their strategies. Sales are nothing but periodic low price strategies and low price without low cost is not a sustainable strategy. This is a difficult lesson that Sears and Kmart, who have now merged in an attempt to survive Walmart's relentless market penetration, have learned. Sears and Kmart have historically followed what are called "hi-lo" merchandising approaches. That is, they have a normal price for their products, which is set at a sufficiently high level to earn a reasonable profit if they sell a targeted amount of products at that price. However, to drive volume in the stores, they hold sales by which they discount some or all merchandise for periods of time. Unfortunately for them, customers figure out this approach and disproportionately wait for goods to go on sale which simply reduces the overall margin on the portfolio of goods to a level that does not allow sufficient investment in upgrading by Sears and Kmart.

Walmart entered the fray against Sears and Kmart with a different merchandizing strategy, which focused on cost structure, through leaner overheads, better distribution systems, and narrower product selection. This was known as EDLP – or every day low pricing – merchandising strategy by which its everyday low price met or beat Sears' and Kmart's sale prices. As a result consumers could shop at Walmart every day and be confident they were buying the goods in their basket at a price that was below Sears and Kmart, even if Sears or Kmart had the product on sale. With their higher cost structures, Sears and Kmart could not compete and were battered in the process: Kmart declared Chapter 11.

Jurisdictions that offer tax incentives or cash subsidies to attract new firms to the jurisdiction are following what may be called a modified hi-lo strategy. It is modified in that rather than offering alternative "hi" and "low" pricing to all customers at rotating times, the jurisdiction offers at the same time a higher price scenario to some "customers" – i.e. firms that are already in the jurisdiction – and a lower price scenario to other "customers"—i.e. firms that it is trying to attract to the jurisdiction. As with Sears and Kmart, for the gambit to work, the jurisdiction desperately needs a large volume of high price sales in order to fund the discounts or tax breaks. This means that existing firms must to be taxed at a higher rate to fund the "low" pricing—in effect a subsidy from the current firms in the jurisdiction. As with Sears and Kmart, the "hi" sales are extremely vulnerable when they realize that they are paying higher prices. This both hurts the competitiveness of the existing firms and tends to drive them away, perhaps to another jurisdiction that will offer them lower prices. As with Sears and Kmart, "hi-lo" is not a robust strategy but a dangerous act of desperation that begs for a crushing competitive response.

7. Reflective conclusions

The pursuit of jurisdictional advantage is not without its challenges because there are so many factors that influence the outcomes. Given that future prosperity and quality of life in local communities are at stake, the questions of how this might be done are of more than academic interest. Previous work on clusters has emphasized the random nature of geographical location (Krugman, 1991; Klepper, 2004) suggesting that clusters arise from serendipitous events. In contrast, we argue that clusters may be constructed, but not in the way that policy typically proceeds by targeting an industry that is poised to take off in another location. Instead we argue that policy may be fruitfully employed by building upon unique place-specific assets.

To develop the concept and practice of jurisdictional advantage, more work needs to be done on the success models of building jurisdictional advantage through this middle path between laissez faire and command-and-control. In particular, work needs to be done on the way in which governments can constrain themselves to activities that focus on providing the externality-laden investments without discouraging firms from investing where they are most capable of investing. Also, future work needs to determine how governments, businesses and other actors may work together to coordinate jurisdictional strategy. These are the next pieces of work to be done and we hope that this effort will motivate others to join in this pursuit.

Acknowledgements

This paper benefited from comments from discussants at the German Institute for Economic Research (DIW Berlin) *Regionalization of Innovation Policy*

Conference held in June 2004 and from participants in the Athena Alliance at the Woodrow Wilson International Centers for Scholars. This paper has benefited from comments and suggestions by Ajay Agrawal, Pontus Braunerhjelm, Wendy Dobson, Michael Fritsch, Ken Jarboe, Norma Rantisi, Allen Scott, Scott Stern, Will Strange and David Wolf. Rich Bryden at the Institute for Strategy and Competitiveness provided assistance with data. The comments and suggestions of the anonymous referees are acknowledged and appreciated.

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