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Resource-Based Theory and a Structural Perspective of Strategy Applied to the Provision of Internet Services

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Abstract

Two different perspectives of strategy are used to analyze the industry of online information services in the Internet: resource-based theory and the structural perspective of strategy. The structural perspective of strategy provides a framework that helps us to identify which industry's factors influence the perspectives of success of companies that operate in the industry. Resource-based theory complements the structural perspective by providing an organizational level of focus to identify which characteristics of companies in the industry are fundamental for their performance.

Our purposes are to: 1. Explain the factors that affect competitiveness in an industry according to these perspectives and; 2. Provide several propositions based on these perspectives that can offer different avenues for future research.

Introduction

Online information services provide information, a good with special characteristics such as intangibility, compressibility, and ease of diffusion (Poirier, 1990), to their users in a non-organizational relationship. Users and providers are separate entities, with no hierarchical liaisons. The services, even when free of charge, are provided in a competitive environment. Despite the existence of free online information services, the focus of this study is the commercial online information services in the Internet, when there is a commercial relationship between users and providers.

We utilize two different approaches to analyze the industry of online information services: resource-based theory and the structural perspective of strategy. These approaches give us a complementary view of the forces that interact in the industry and the type of managerial action required to cope with these forces (Miller & Shamsie, 1996).

Structural Perspective of Strategy

According to the view of the structural perspective of strategy, the structural characteristics of the industry determine the levels of performance that a firm can achieve (Roquebert, Phillips & Westfall, 1996; Barney, 1986). This perspective strongly illuminates economic and technological forces within an Industry.

According to this perspective, there are several attributes that affect firms' returns. The set includes the existence and degree of product differentiation in the industry, the overall elasticity of demand for the industry (Barney, 1986), the existence and value of barriers to entry, and the number and relative size of the firms (Barney, 1986; McWilliams & Smart, 1993). The structural perspective of strategy has as its environment a set of competitive forces that establish both opportunities and threats (Lenz & Engledow, 1986). In his model, Porter (1980) defines five competitive forces that affect the degree of competition in a specific industry: suppliers, customers, current competitors, potential industry entrants, and substitute products. In Porter's view, a firm's marketing positioning is fundamental to its success (Carrol, 1993).

The popularization of the Internet diminished the technological barriers to entry associated with distribution, because the physical resources needed to create and maintain a site are not expensive. In this kind of environment, the number of competitors in the provision of online information services can be almost without practical limit. It is striking that we can find, competing side by side, paid and free services, each of them with variable levels of sophistication. Considering that information as a product does not observe laws of physics, it is difficult to apply traditional rules of economies of scale-information is infinitely replicable (Poirier, 1990). Furthermore, considering that the Internet is the channel of distribution used by many online information services, we cannot consider access to distribution channels as a barrier to entry.

This situation does not necessarily mean that barriers to entry are missing in this environment. They are essentially related to more intangible characteristics of the services such as product differentiation and access to information supply. In the large amount of the information services provided in the Internet, the capacity of a product to differentiate itself may represent its viability as a commercial service and this differentiation is fundamentally connected to its ability to provide unique sources of information. If the sources of information are expensive, the capital need may constitute a barrier to entry.

P1. The barriers of entry in the industry of online information services are more associated with intangible characteristics such as differentiation than with technological constraints.

Porter (1980) listed the group of factors that affect the position of the clients as a competitive force: concentration, importance of the product as an input in the client's processes, standardization of the products bought by the clients, costs of change, client's profitability, possibility of 'backward' integration by the clients, and availability of complete information about competitors in the industry. Because of the huge growth in Internet demand, clients still do not exert strong pressure on providers of online information. The possibility of reaching clients in all parts of the world through the Internet (even regarding idiom barriers), disperses the power of the clients as a group. Furthermore, the fact that clients sometimes need online information to make important decisions (as in an internal information system) increases the power of service providers. Favoring the clients, however, are the low costs of change.

P2. The closer the service is to an organizational information system in providing information to support decision-making, the lesser the power that clients have; on the *contrary, the closer the service is to an entertainment vehicle, the greater the power that clients have.*

Industry growth can restrain the competitiveness of the firms participating in the industry because demand is so high globally. Some factors, however, can increase the degree of competitiveness in the industry. The first factor is the diversity among competitors; Porter (1980) concluded that competitiveness is increased when there are several differences in firm backgrounds and perspectives. Online services and the Internet are viewed as strategic arenas that can change the way in which business is conducted.

P3. Competitiveness among on-line service providers is increased when firms have diverse origins.

The content of some services found in the Internet is similar to the content found in traditional media, such as newspapers, magazines, radio and television. Some striking characteristics of online services, however, differentiate the media. Online services offer superior capacity for interactivity, greater potential for using multimedia, and mechanisms for retrieving more up-to-date data.

P4. Services that utilize interactive multimedia capabilities have fewer substitute products outside the online services industry.

P5. Services that update their information more frequently will have fewer substitute products.

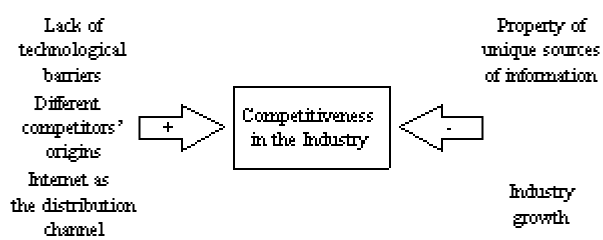

Figure 1: Summary of Factors that Affect Competitiveness in the Internet Services Industry

Resource-Based Theory

To obtain a clearer picture, we complement our analysis about the industry of online information services with a different perspective: resource-based theory. Resource-based theory emphasizes the resources that firms have developed to compete in the environment (Miller & Shamsie, 1996). Resources confer competitive advantage to a firm according to the extent they are rare or hard to imitate, have no direct substitutes, and enable companies to pursue opportunities while avoiding threats (Miller & Shamsie, 1996). In other words, the ability of a firm to create or acquire a unique resource increases the firm's competitiveness in a specific industry (Aharoni, 1993). According to this view, resources are finite and determine the optimal population of firms in a specific industry, where the environment is composed of a collection of resources. The correct management of resources ensures the survival of a company.

Miller and Shamsie (1996) classify resources in two categories: property-based and knowledge-based. Property-based resources are legally owned by a specific firm and its competitors are not allowed to imitate that resource. Thereby, the firm can obtain superior performance until the market changes and that resource becomes devalued. Knowledge-based resources are protected from imitation because they are subtle or hard to understand, involving talents that are elusive and whose connection with performance is hidden or indirect. Furthermore, Miller and Shamsie (1996) consider that each kind of resource is more appropriate for a certain type of environment: property-based resources fit better within a predictable environment and knowledge-based resources match an uncertain environment. From this perspective we derive an analysis of the online information services industry.

In the resource perspective, the origin of a company and its capability to implement synergy among activities are very important, since it represents the exploration of resources that a firm owns. According to Ansoff (1987), synergy is the capacity of utilizing and combining several resources of a company in order to produce an outcome that is greater than simply the sum of the activities. Synergy gives the company more flexibility towards the market (Ansoff, 1987), decreases the amount of capital necessary to enter an industry (Porter, 1980), and represents a highly persuasive opportunity (Hax & Majluf, 1996). We can find three possibilities for synergy: synergy of information generation activities, synergy of processing activities, and synergy of technological activities (especially those related with telecommunications). The first two can be considered examples of knowledge-based resources, while the last can be classified as a property-based resource.

P6. Knowledge-based resources are associated with generation and processing activities; Property-based resources are associated with storage and transmission activities.

A firm with the capability of generating information would have more capacity to build a product repository from where it could extract the information necessary to supply specific demands. Zack and Meyer (1995) view an information repository as the collection of information stored and possessed by the company.

Proprietary knowledge about processing information can also result in competitive advantage to a company. If a financial company developed a useful way to analyze financial data, for instance, it could more easily penetrate an Industry or expand its market share (Lopes & Reinhard, 1996).

The last (but least stable) synergy, involves technological activities. Because technology is changing at an astounding pace, previous advantage acquired with this kind of synergy may not be sustainable. Furthermore, the Internet provides a context where the technological factors are not completely controlled by the companies that provide online information.

The set of synergies available to a firm, as well as the profile of the company and its capacity to invest in an online information services market influences the strategy chosen. Some almost innate characteristics should be taken in account. For instance, the reputation of an organization that generates information, such as a newspaper or magazine, may be inherited by the online services provided by these organizations. This is not an advantage that can be neutralized easily by competitors.

P7. Considering the instability and newness of the industry, firms with more knowledge-based resources will be more likely to succeed

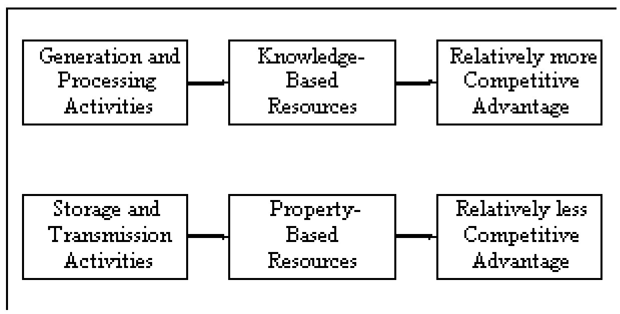

Figure 2: Relationships Between a Firm's Activities, Resources, and Competitive Advantage

Conclusion

Theoretical frameworks can be derived from the structural perspective and from resource-based theory, two very different and complementary views. In this paper, we analyzed the Internet Services industry and identified several factors that can influence the strategy of a company operating in this arena. In doing so, we also suggested several possible avenues for future research.

The propositions might be useful in future research in predicting success of an Internet Service provider, even considering that several other tactical factors can influence its success.

References available upon request from first author.