

The Evolution of Intermediaries in E-Commerce

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INTRODUCTION

In the early days of e-commerce, some analysts predicted that a significant degree of disintermediation would occur, i.e., middlemen would be eliminated from the value chain through the use of the Internet. The reasoning was that, since the economic benefit of intermediaries is that they reduce transaction costs for functions that are outside the firm (Coase, 1937), and digital technology provides an alternative method for such reductions, the role of these middlemen would be threatened (Tapscott, 1996; Downes & Mui, 1998). Instead, intermediaries have turned out to be remarkably robust, even as they have evolved. The success of e-commerce firms like Amazon, eBay, Google and Facebook is a testament to the continued value of intermediation, in new ways as well as transformations of existing roles.

This article examines the evolution of intermediation in e-commerce, by examining the fundamental economics of intermediation in terms of economies of specialization, scale, and scope (Singh, 2000). It considers ownership, transformation, and agency as different dimensions of intermediaries. It examines various intermediary roles and how they are combined, driven by economies of scope and strategic attempts to capture value, as well as the changes in these roles through the impact of digital technology. Financial intermediaries, retailers, information intermediaries and social networks all provide examples of these changes. The conclusions are that intermediaries survive and thrive in the era of e-commerce, so that disintermediation is not a general outcome. However, traditional intermediaries that perform more routine manual tasks, or are part of slow or inefficient value chains are adversely affected, as one would expect.

INTERMEDIARY TYPES

The term ‘intermediary’ covers many different types of functions, making an ideal classification difficult. An intermediary as a literal ‘middleman’, coming between a buyer and a seller in a specific transaction, represents a narrow scope of the term. Examples of such intermediaries are specialists on the floor of the New York Stock Exchange (NYSE) and real estate brokers. However, within the entire value chain for a product or service, from raw inputs to final consumption, many organizations or individuals can be viewed as intermediaries. Distributors and wholesalers, and even retailers are intermediaries between producers and consumers. In this broadest sense, computer and equipment manufacturers like Dell are intermediaries, collecting hardware and software components from a variety of suppliers, and assembling them into computers for final use. Similarly, a logistics firm like UPS is an intermediary when it delivers the Dell computer to the household or firm that ordered it.

A crucial difference between Dell and UPS, providing a first basis for classifying intermediaries, is ownership (Besanko et al, 2008). When Dell obtains components and assembles them into a working

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computer, it takes ownership of those components, as well as ultimate responsibility for delivery: the buyer does not make a separate transaction for delivery. UPS is also an intermediary, but it does not take ownership of the computer. Hence we can divide intermediaries into those which take ownership, creating two separate market transactions, and those which do not. A specialist on the NYSE floor mostly plays the latter role, matching brokers representing buyers and sellers. Sometimes the specialist also buys or sells out of his or her inventory, thus taking ownership as well. Note that online retailing blurs these boundaries: a consumer may purchase on Amazon.com without being too aware of whether Amazon is the direct retailer, or merely providing a platform for another retailer.

When the intermediary does not take ownership, there is another dimension of difference. In the NYSE example, brokers who bring buy or sell orders to a specialist are acting on behalf of those who have placed the orders. We say that the brokers are acting as agents, for the buyer or the seller. The term “agent” means anyone who is assigned a task on behalf of another (Casadesus-Masanell & Spulber, 2007), either through a specific contract, or a general rule. Other examples of agent-brokers are real estate brokers. There are typically two brokers in a real estate transaction, representing the interests of the buyer and the seller respectively – though legally they are both the seller’s agent, since the seller pays both commissions (Wiley & Zambano, 2008). Real estate brokers do not take ownership, but only facilitate market transactions. Ownership and agency are mostly mutually exclusive characteristics of intermediaries, but they may not be totally so. Car dealers, for example, can be agents (franchisees) of the manufacturers, but take ownership of the cars they sell. In reality, a great variety of arrangements are possible.

A third dimension of classification is that of transformation of a product, interpreting that concept broadly. As illustrated by the UPS example, transformation (at least of location) may take place without ownership. Outsourcing may also involve transformation without ownership. In a digital example, an advertising agency can change the image of a product with a successful advertising campaign, but does not buy or resell the product. Other intermediaries do not make any transformation. An intermediary that collects and disseminates information does not change the product, but creates value by improving the quality of the transactions that take place. Matching buyers with sellers, or informing buyers about the quality of products sold and mitigating problems of asymmetric information, are examples where information adds value to market transactions. Unsurprisingly, the Internet has become a fertile field for ‘information intermediaries’ (Bhargava & Choudhary, 2004).

An intermediary is a kind of specialist, so economies of specialization are a key explanation for intermediation. As with any other occupation, a broker, agent or middleman has fixed costs of getting started, and also learns by doing. It pays to specialize to become more efficient. Intermediation activities may also be a byproduct of broader specialization. For example, a lawyer masters a general set of knowledge and skills, which may be used for agency tasks that do not involve third parties explicitly, but which are also used in the context of intermediation (e.g., drawing up contracts for corporate transactions). Specialization is also supported by standard economies of scale (Chandler, 1990). A real estate broker who knows the neighborhood can use this knowledge to serve multiple prospective house buyers. The same knowledge acquired by a single buyer will provide benefits only to herself.

While economies of specialization and scale provide fundamental economic reasons for intermediation, economies of scope define the particular character of what intermediaries do. A real estate broker uses specialized information to reduce search costs for buyers and sellers, but also to reduce the transaction costs of negotiating a price for the deal and of completing it successfully. This specialized information involves coordinating the activities of other specialized intermediaries or agents: the house inspector, the escrow agency, and sometimes the mortgage lender or mortgage broker. The real estate broker special-

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