6.3: One-Sided or Two-Sided Markets?

Learning Objectives

After studying this section you should be able to do the following:

1. Recognize and distinguish between one-sided and two-sided markets.
2. Understand same-side and cross-side exchange benefits.

Understanding Network Structure

To understand the key sources of network value, it’s important to recognize the structure of the network. Some networks derive most of their value from a single class of users. An example of this kind of network is instant messaging (IM). While there might be some add-ons for the most popular IM tools, they don’t influence most users’ choice of an IM system. You pretty much choose one IM tool over another based on how many of your contacts you can reach. Economists would call IM a one-sided market (a market that derives most of its value from a single class of users), and the network effects derived from IM users attracting more IM users as being same-side exchange benefits (benefits derived by interaction among members of a single class of participant).

But some markets are comprised of two distinct categories of network participant. Consider video games. People buy a video game console largely based on the number of really great games available for the system. Software developers write games based on their ability to reach the greatest number of paying customers, so they’re most likely to write for the most popular consoles first. Economists would call this kind of network a two-sided market (network markets comprised of two distinct categories of participant, both of which that are needed to deliver value for the network to work). When an increase in the number of users on one side of the market (console owners, for example) creates a rise
in the other side (software developers), that’s called a cross-side exchange benefit.

**The Positive Feedback Loop of Network Effects**

IM is considered a one-sided market, where the value-creating, positive-feedback loop of network effects comes mostly from same-side benefits from a single group (IM members who attract other IM members who want to communicate with them). Video game consoles, however, are considered a two-sided network, where significant benefits come from two distinct classes of users that add value from cross-side benefits by attracting their opposite group. In the game console market, more users of a console attract more developers who write more software for that console, and that attracts more users. Game availability is the main reason the Sony PlayStation 2 dominated over the original Xbox. And app availability is one of the most significant advantages the iPhone offers over competitive hardware.

It is possible that a network may have both same-side and cross-side benefits. Xbox 360 benefits from cross-side benefits in that more users of that console attract more developers writing more software titles and vice versa. However, the Xbox Live network that allows users to play against each other has same-side benefits. If your buddies use Xbox Live and you want to play against them, you’re more likely to buy an Xbox.

**Key Takeaways**

- In one-sided markets, users gain benefits from interacting with a similar category of users (think instant messaging, where everyone can send and receive messages to one another).
- In two-sided markets, users gain benefits from interacting with a separate, complementary class of users (e.g., in the video game industry console owners are attracted to platforms with the most games, while innovative developers are attracted to platforms that have the most users).

**Questions and Exercises**

1. What is the difference between same-side exchange benefits and cross-side exchange benefits?
2. What is the difference between a one-sided market and a two-sided market?
3. Give examples of one-sided and two-sided markets.
4. Identify examples of two-sided markets where both sides pay for a product or service. Identify examples where only one side pays. What factors determine who should pay? Does paying have implications for the establishment and growth of a network effect? What might a firm do to encourage early network growth?
5. The Apple iPhone Developer Program provides developers access to the App Store where they can distribute their free or commercial applications to millions of iPhone and iPod touch customers. Would the iPhone market be considered a one or two-sided market?