

M2L17. First Mover Advantage

Slide #1



The slide cover is divided into two main sections. The left section is a dark grey rectangle containing the Texas A&M University Engineering logo at the top, followed by the title 'First Mover Advantage' in white, the name 'Dr. Xiaomin Yang', and the course information 'TCMT 612 | Technical Management Decision Making' in yellow and white. A red banner at the bottom of this section reads 'MASTERS OF ENGINEERING TECHNICAL MANAGEMENT'. The right section is a light grey image showing a person from behind, looking at a large screen. The screen displays a complex network diagram with a central node and many connecting lines, along with several hexagonal icons containing various symbols like a bar chart, a line graph, and a network diagram.

ATM
TEXAS A&M UNIVERSITY
Engineering

First Mover Advantage

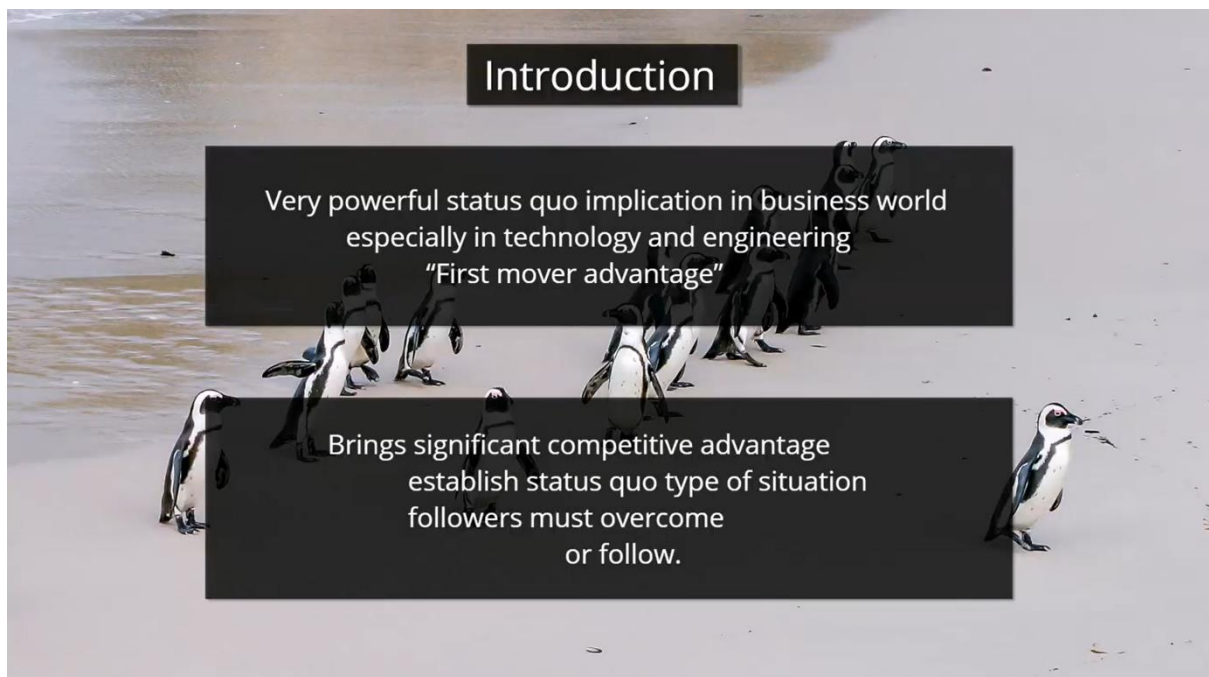
Dr. Xiaomin Yang

TCMT 612 | Technical Management
Decision Making

MASTERS OF ENGINEERING TECHNICAL MANAGEMENT

In this topic, we will discuss the first mover advantage.

Slide #2



One very powerful status quo implication in the business world, especially in the technology and engineering field, is the first mover advantage.

First mover position brings a significant competitive advantage to a company as the first movers establish a status quo type of situation that followers must overcome or followers tend to follow.

Slide #3



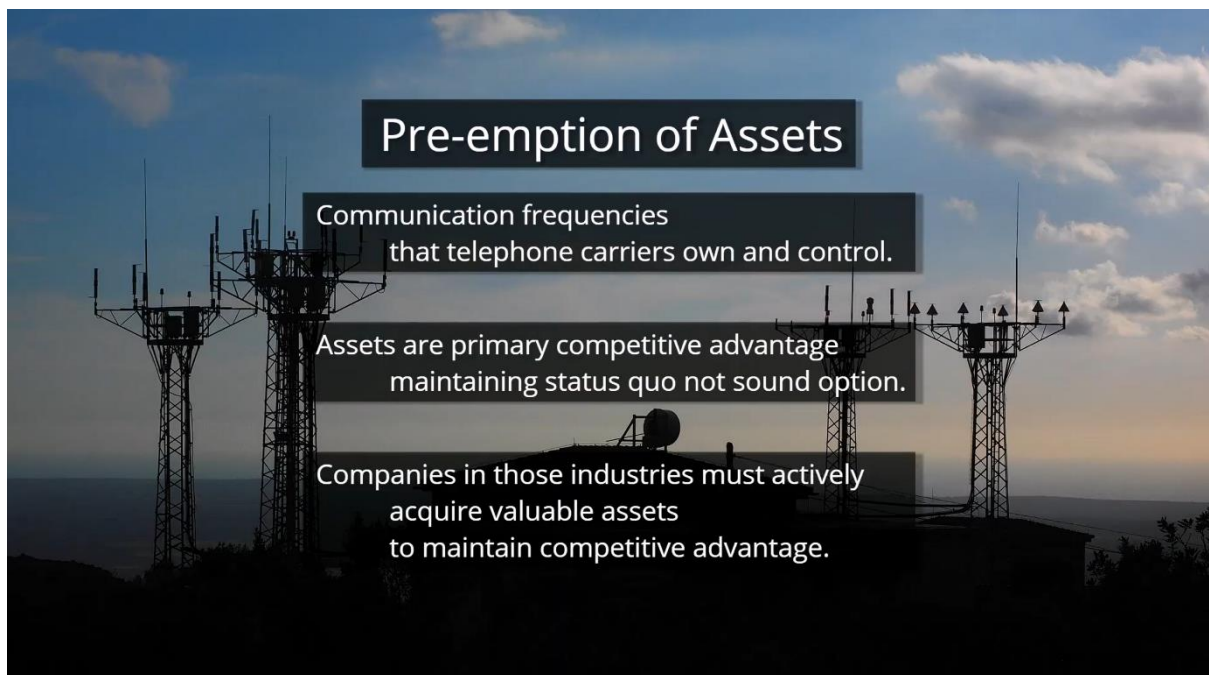
The primary source of first mover advantage is technological leadership.

First movers develop the practical applications of technology.

They also define the functionality of a new product, technology, and engineering standards for a new industry and product category.

For example, in the energy industry, the industry leaders sponsor a consortium to develop and define technical and engineering standards for the oil and gas segment.

Slide #4



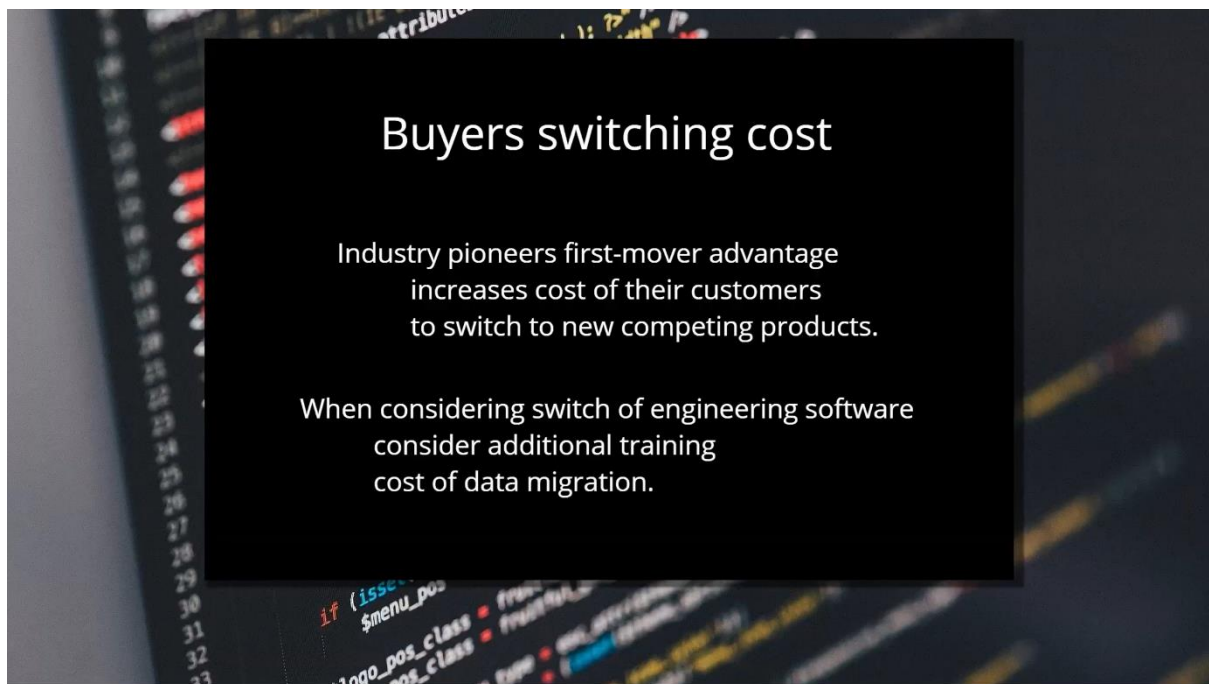
The second major source of first mover advantage is the preemption of assets.

A good example is the communication frequency that phone carriers own and control.

In those kinds of industries where the asset is the primary competitive advantage, maintaining status quo or doing nothing is probably not a sound option.

Companies in those industries must actively acquire valuable assets to maintain their competitive advantage.

Slide #5

The slide features a dark, semi-transparent rectangular box in the center. The background of the slide is a blurred image of a circuit board on the left and lines of code on the right. The text inside the box is white and centered.

Buyers switching cost

Industry pioneers first-mover advantage
increases cost of their customers
to switch to new competing products.

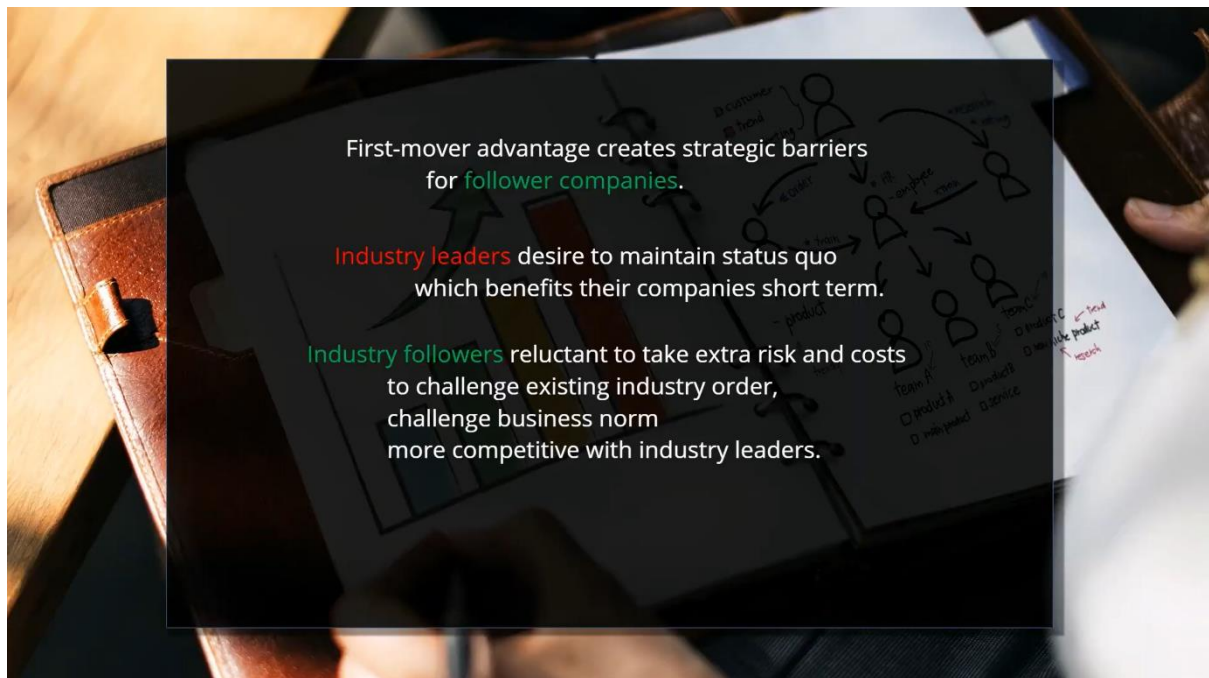
When considering switch of engineering software
consider additional training
cost of data migration.

Another major source of first mover advantage is the buyer's switching cost.

The industry pioneers first mover advantage increases the cost of their customers to switch to new competing products.

When you are considering a switch from a current engineering software to a new one, you must consider the additional training you need to provide to your engineers and the cost of data migration.

Slide #6



The first mover advantage is a valid source of status quo bias when executives make new product decisions.

The first mover advantage creates strategic barriers for the follower companies to challenge the established competitive landscape of an industry.

The industry leaders desire to maintain the business status quo which benefits their companies in the short term.

Industry followers are also reluctant to take the extra risk and the cost to challenge the existing order of the industry, even though they had to challenge the business norm to be more competitive with the industry leaders.

Slide #7

Market/technology scenarios	Durable competitive advantage	Key resources required
Stable market (Hoover vacuum cleaners)	Very likely Moving first will certainly pay off	Build up brand awareness
Fast growing market demand low pace of technology evolution (on shore oil and gas)	Likely Make sure you have the resources to address new market segments as they emerge	Large-scale marketing, distribution and production capacity
Stable market High pace of technology evolution (Deep water drilling, shale oil and gas, digital cameras)	Unlikely Fast technological changes will give later entrants lots of weapons for attacking you.	Strong R&D and new product development, deep pockets to go through the long market lifecycle.
Fast growing market demand High pace of technology evolution (Computers, smartphones)	Very unlikely There is little chance of long-term success, even if you are good product developer. These conditions are the worst.	Large-scale marketing, distribution, production and strong R&D (all at once)

This table summarizes under what conditions first mover advantage is valuable to a company and for what type of industry first mover does not provide a durable competitive advantage.

The business insights summarized in this table will help you to decide when to challenge status quo and when to maintain and follow the status quo when making strategic product and capability decisions for your company.

In a stable market, first mover will certainly pay off.

The industry pioneers can use the first mover advantage to build up their brand awareness to establish a stronghold in the stable market.

In other types of markets, where there is a fast growing market demand and a low pace of technology evolution, such as the onshore oil and gas industry, first mover is likely to provide a durable, competitive advantage.

In this kind of industry, large scale production capability provides a significant advantage for a company over its competitors.

However, for the industry in the environment of a fast-growing market demand and the high pace of technology evolution, such as the smartphone industry, first mover is unlikely to provide a durable competitive advantage.

Both industry pioneers and their followers must keep innovating, frequently launch new products, and grow their production and distribution network in order to differentiate themselves from other competitors and expand their market shares.

Deep water drilling and shale oil and gas industries are relatively stable, but with a high pace of technology evolution.

They are quite similar to the digital camera industry, where incremental technologies continuously improve product functions and increase production efficiency.

For companies in this kind of environment, first mover provides some level of protection, but the competitive barriers are breakable and therefore companies with strong R& D capability and a strong balance sheet should not be afraid of challenging the status quo.

They should actively seek new technologies, new ways of doing business, and new market opportunities to grow their business.