

Management Information Systems

Information Systems, Organizations, and Strategy

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- **www.vivaafrika.net**



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LEARNING OBJECTIVES

This session seeks to discuss how organizations use information systems to support strategy and achieve competitive advantage. Learning objectives include:

- **Identify and describe important features of organizations that managers need to know about in order to build and use information systems successfully.**
- **Demonstrate how Porter's competitive forces model helps companies develop competitive strategies using information systems.**
- **Explain how the value chain and value web models help businesses identify opportunities for strategic information system applications**

Business Model, Strategy and IS



- Business process
- business model
- business strategy

Business Process

Business process defines how work is to be done (organized, coordinated, and focused) to produce a particular product or service.

It is a workflow of material, information and knowledge.

Horizontal view of the business



What is **business model**?

Researchers approach this concept in *different* ways

- ◆ “Most often a business model refers to a loose conception of how a company does business and generates revenue” (Porter, 2001: 73)
- ◆ Magretta (2002): it should answer: Who is customer? What does the customer value? How do we make money? What is the economic logic that explains how we deliver value to customers at an appropriate cost?

- Business models are about value creation.
- Normally people emphasize different aspects of it!

• Mitchell, D. and C. Coles (2003). "The ultimate competitive advantage of continuing business model innovation." *Journal of Business Strategy*. 24(5), 15-21.

• Porter, M. E. (2001). "Strategy and the Internet." *Harvard Business Review*. March, 62-78

Key Points of Definition

Business Model is a *comprehensive* concept

- Afuah and Tucci (2001): a business model is *“the method by which a firm builds and uses its resources to offer customers better value than its competitors and to make money doing so”*

Key points:

a model or framework; value-focused; profit-oriented; resource-based

Business Model And Strategy

- A business model defines what an organization is all about, what it does, and how it makes money.
- **Strategy articulates how it will achieve goals and targets.**
- A business model must be complemented by strategy that takes into account competition, industry forces and the like.

These two concepts seemingly overlap but in fact differ

- 1. Business model emphasizes the target and the logic behind**
- 2. Strategy stresses action**



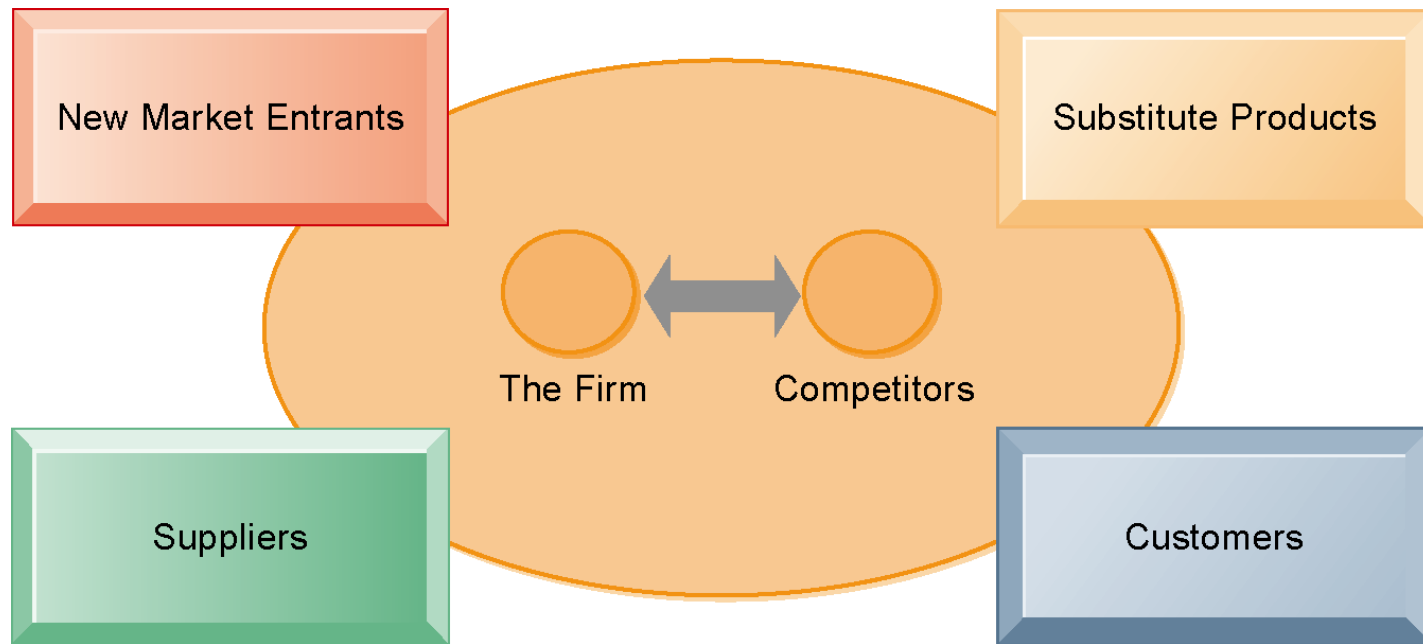
Examining Business Competitiveness By PORTER'S COMPETITIVE FORCES MODEL

Using Information Systems to Achieve Competitive Advantage

- **Why do some firms become leaders within their industry?**
- **Michael Porter's competitive forces model**
 - Provides general view of firm, its competitors, and environment
 - Five competitive forces shape fate of firm
 - Traditional competitors
 - New market entrants
 - Substitute products and services
 - Customers
 - Suppliers

Using Information Systems to Achieve Competitive Advantage

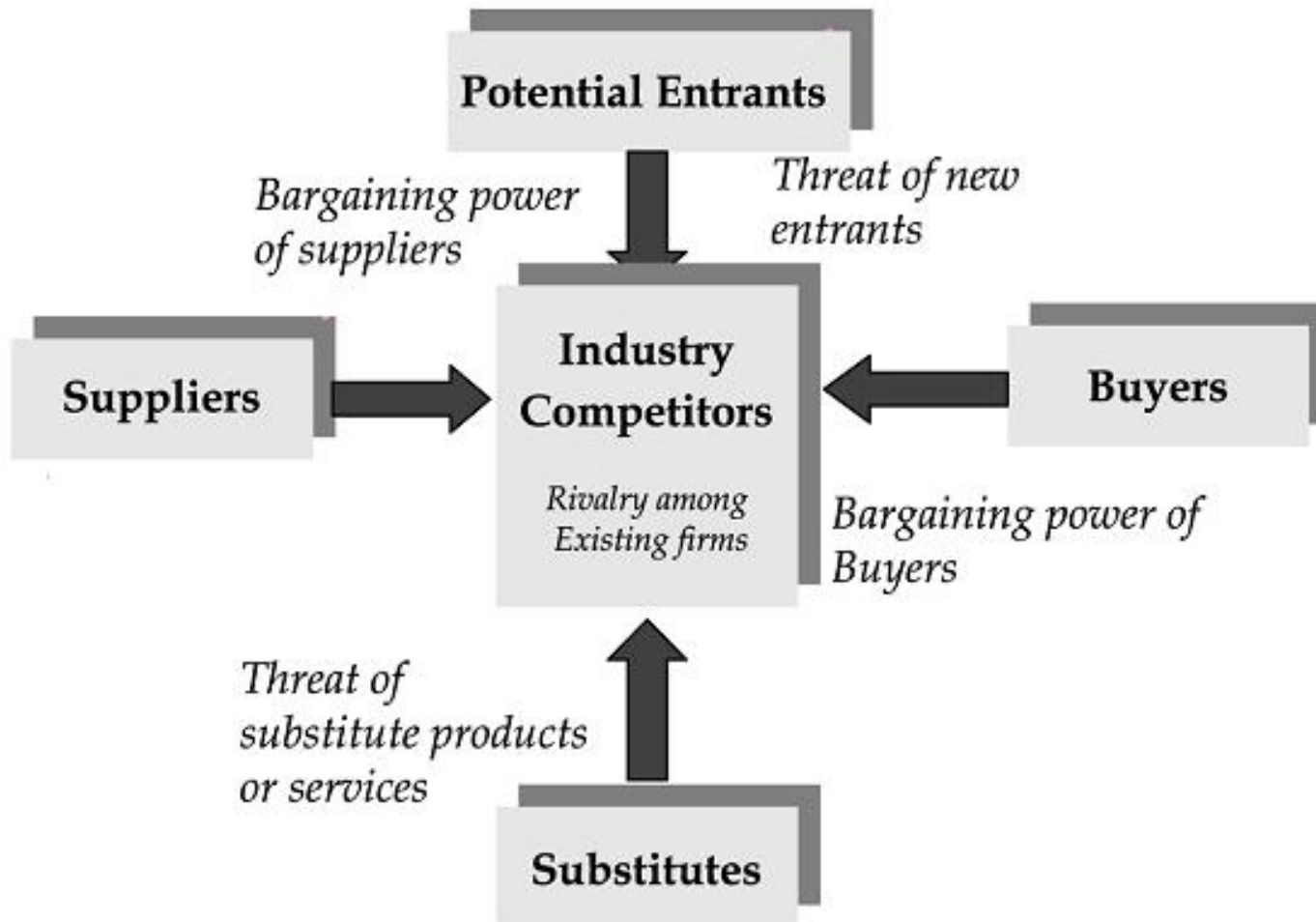
Porter's Competitive Forces Model



In Porter's competitive forces model, the strategic position of the firm and its strategies are determined not only by competition with its traditional direct competitors but also by four forces in the industry's environment: new market entrants, substitute products, customers, and suppliers.

Figure 3-10

Information Systems and Business Strategy



Using Information Systems to Achieve Competitive Advantage

- **Traditional competitors**
 - All firms share market space with competitors who are continuously devising new products, services, efficiencies, switching costs
- **New market entrants**
 - Some industries have high barriers to entry, e.g. mobile network operators – in telecom industry
 - New companies have new equipment, younger workers, but little brand recognition

Beware of fake herbal drinks – ADJEI

on JULY 28, 2011 · in HEALTH 12:00 am

Email 0 Recommend 75 Tweet 17 +1 0

Nigerian consumers have been warned to be mindful what they ingest so as to avoid the risk of taking in fake herbal products that could be harmful to their health.



Dr. Kwabena Adjei

Dr. Kwabena Adjei, who is Chairman and President of Kasapreko – a Ghana based manufacturers of alcoholic and non-alcoholic drinks, noted during a media chat organised by Courier Master International, that the spate of ill health arising from ingestion of spurious health preparations being sold on the open market.

Adjei, who was in Nigeria for the first time warned in Lagos that it was necessary to get the right herbs in order to protect the body. “I heard that here the problem of imitation and faking is high just as it is in Ghana where people who drink some imitated products, got crippled, one went blind while others died.”










- **Substitute products and services**
 - Substitutes customers might use if your prices become too high, e.g. KASAPREKO

Information Systems, Organizations, and Strategy

Chapters 3 (Laudon and Laudon, 2010)

- **Customers**

- Can customers easily switch to competitor's products? Can they force businesses to compete on price alone in transparent marketplace?

Retailer	Retailer message	Price
 Info on Electro Centre  	Samsung UE55ES8000 55" Series 8 SMART Full HD 3D LED TV est 1979. Huge Range of products at affordable prices with a rapid delivery. Best service. Full UK warranty.  	£ 1,829.00 + Delivery : £ 0.00 <hr/> £ 1,829.00
 Info on 1st Audio Visual  	SAMSUNG SERIES 8 UE55ES8000 FULL HD 55INCH LED 3D TV nine prices with high street care. free and next day delivery services 0% finance plus 14 day peace of mind money back guarantee.	£ 1,990.00 + Delivery : £ 0.00 <hr/> £ 1,990.00
 Info on Amazon Marketplace UK	SAMSUNG 55IN LED TV ES8000 ew, used, refurbished and collectable products at great prices, safely and securely from third parties, at Amazon.co.uk.	£ 2,210.00 + Delivery : £ 0.00 <hr/> £ 2,210.00

- **Suppliers**

- Market power of suppliers when firm cannot raise prices as fast as suppliers

Industries facing powerful suppliers:

The PC making industry faces the almost monopolistic power of operating system supplier. Microsoft has abused its power a number of times.



Industries facing weak suppliers:

Food processors can buy agricultural produce from many, weak small and medium farmers.

- **Suppliers**

- Market power of suppliers when firm cannot raise prices as fast as suppliers

From the article titled **Microsoft under fire on two fronts in Europe:**

“Microsoft is to be forced to fight its regulatory battles in Europe on two fronts after a powerful coalition of technology companies disclosed yesterday that it had lodged a fresh complaint against the software group with the European commission.

The move, which centres on the firm's XP version of its Windows operating system, comes at a sensitive time for Microsoft.

A separate investigation by the commission into the firm's alleged abuse of its dominant position involving an older version of Windows is expected to be completed in the first half of this year.



- **Suppliers**

- Market power of suppliers when firm cannot raise prices as fast as suppliers

In the car industry, suppliers refers to all the suppliers of parts, tires, components, electronics, and even the assembly line workers (auto unions!). Auto unions are tremendously powerful in USA.



- **Rivalry between Competitors**

Jury Awards \$1 Billion to Apple in Samsung Patent Case

After just three days of deliberation, the jury in the Apple v. Samsung patent-infringement has handed Apple a big win, finding Samsung guilty of infringing on a number of Apple patents, and recommending that Apple be awarded \$1.05 billion in damages.



The jury found that the majority of Samsung smartphones and tablets violated patents held by Apple. It included features such as one that allows a user to tap their screen to zoom in and out of an image, and a scrolling "bounce back" feature.



Apple's competitors have already begun to change their new products to protect themselves.

By JOANNA STERN (@joannastern)

Aug. 24, 2012

Using Information Systems to Achieve Competitive Advantage

- **Four generic strategies for dealing with competitive forces, enabled by using IT**
 - Low-cost leadership
 - Product differentiation
 - Focus on market niche
 - Strengthen customer and supplier intimacy

Using Information Systems to Achieve Competitive Advantage

- **Low-cost leadership**

- produce products and services at a lower price than competitors while enhancing quality and level of service
- Examples: Wal-Mart, Dell

- **Product differentiation**

- Enable new products or services, greatly change customer convenience and experience
- Examples: Google, Land's End, Apple iPhone



Using Information Systems to Achieve Competitive Advantage

- **Focus on market niche**
 - Use information systems to enable a focused strategy on a single market niche; specialize
 - Example: Hilton Hotels, Funerals in Ghana
- **Strengthen customer and supplier intimacy**
 - Use information systems to develop strong ties and loyalty with customers and suppliers; increase switching costs
 - Example: Amazon, Apple

Information Systems and Business Strategy

Impact of Internet on Competitive Forces

1. Reduces barriers to entry
2. Enables new substitute products and services
3. Shifts bargaining power to customer
4. Raises firm's bargaining power over suppliers
5. Suppliers benefit from reduced barriers to entry and from elimination of intermediaries
6. Widens geographic market, increases number of competitors, reduces differentiation among competitors

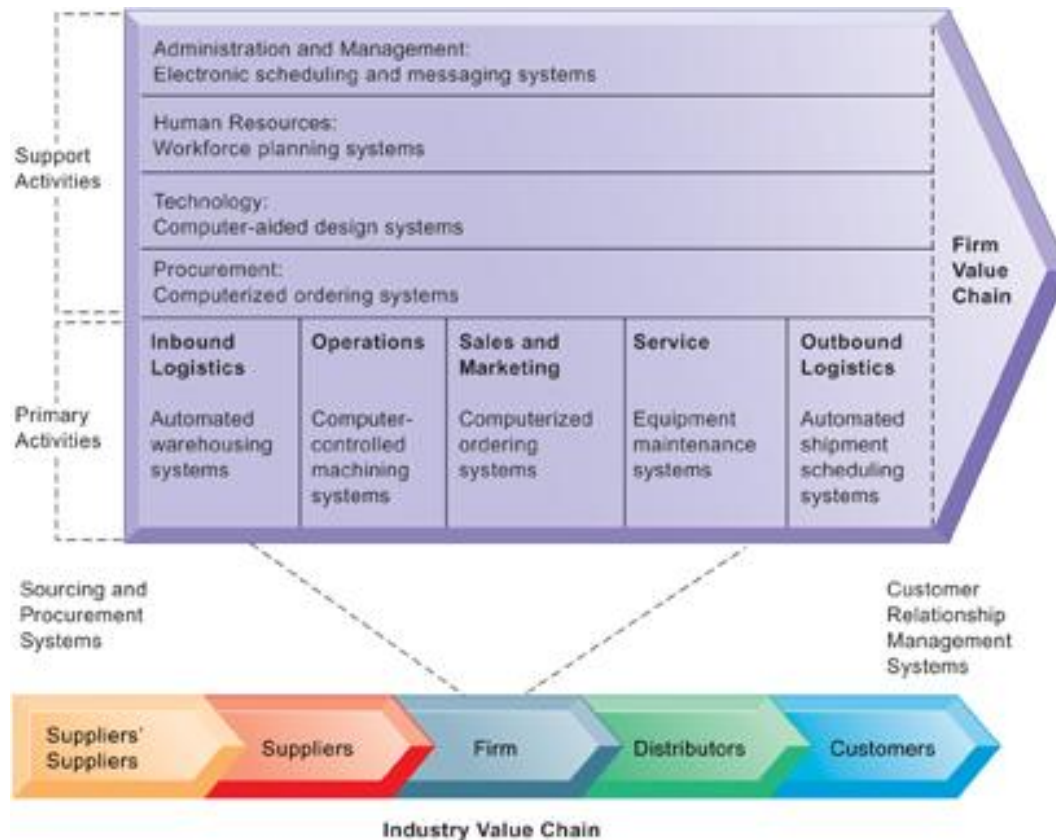
Examining Business Competitiveness By VALUE CHAIN MODEL

Using Information Systems to Achieve Competitive Advantage

- **Business value chain model**
 - Views firm as series of activities that add value to products or services
 - Highlights activities where competitive strategies can best be applied
 - Primary activities vs. support activities
 - At each stage, determine how information systems can improve operational efficiency and improve customer and supplier intimacy

Using Information Systems to Achieve Competitive Advantage

The Value Chain Model

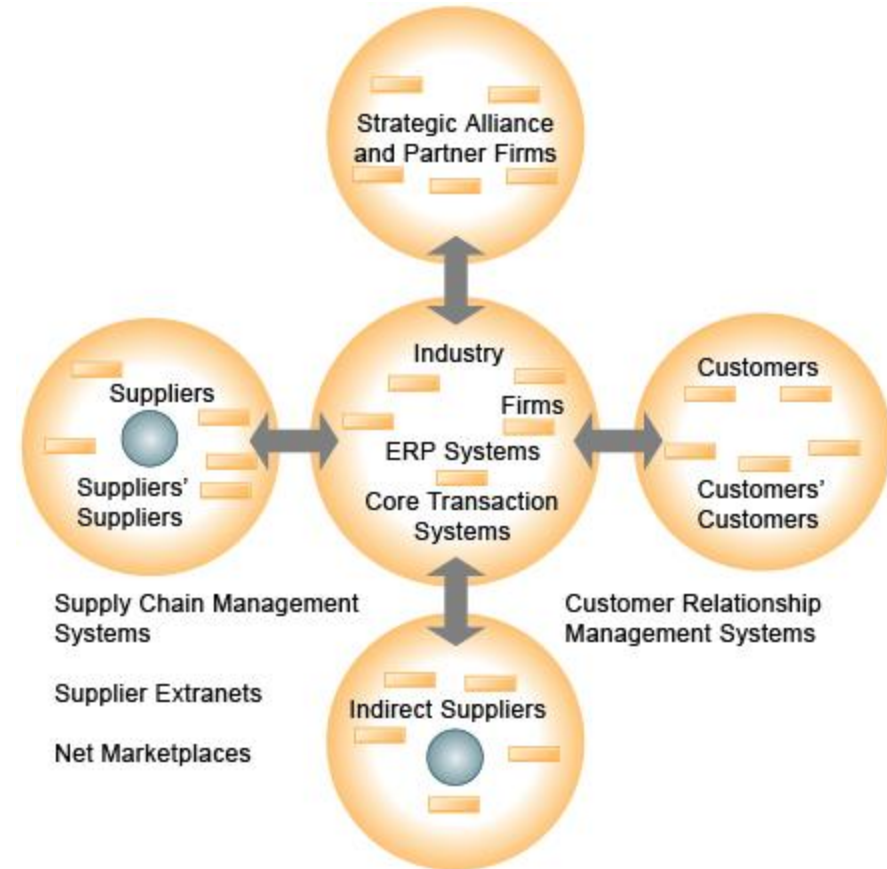


This figure provides examples of systems for both primary and support activities of a firm and of its value partners that can add a margin of value to a firm's products or services.

Using Information Systems to Achieve Competitive Advantage

- **Information Systems creates a Value web:**

- Collection of independent firms using highly synchronized IT to coordinate value chains to produce product or service collectively
- More customer driven, less linear operation than traditional value chain



Businesses Based on Networks

- Business models based on a network may help firms strategically by taking advantage of **network economics**.
- In network economics, the marginal costs of adding another participant or creating another product are negligible, whereas the marginal gain is much larger.
- For example, the more people offering products on eBay, the more valuable the eBay site is to everyone because more products are listed, and more competition among suppliers lowers prices.



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Chapters 3 (Laudon and Laudon, 2010)

Insights > PC Tech Magazine > Overview

Week Month 12/10/2011 - 01/08/2012

Users [See Details](#)

New Likes?

57 ↑ 1.8%

Lifetime Likes?

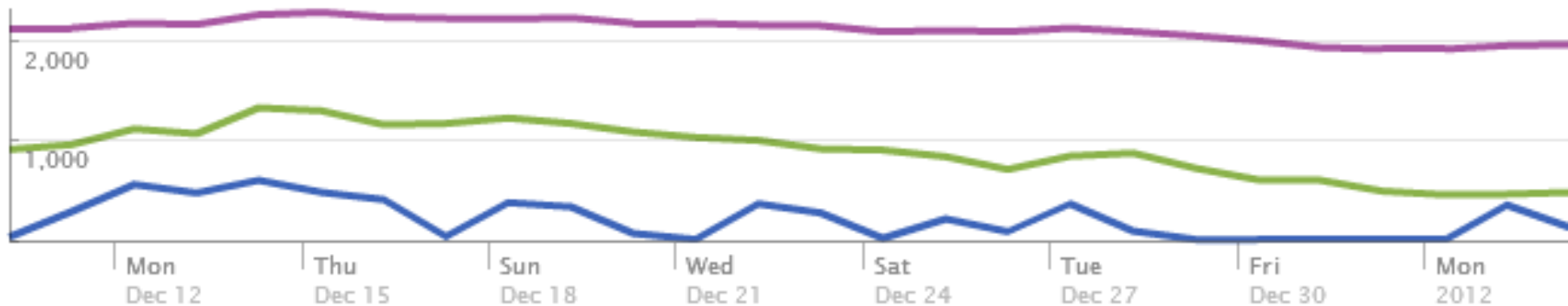
7,316

Monthly Active Users?

1,910 ↓ 14%

Active Users?

Daily Active Users Weekly Active Users Monthly Active Users



- Danger: INACTIVITY in the network

Insights > VIVA Africa Multimedia > Overview

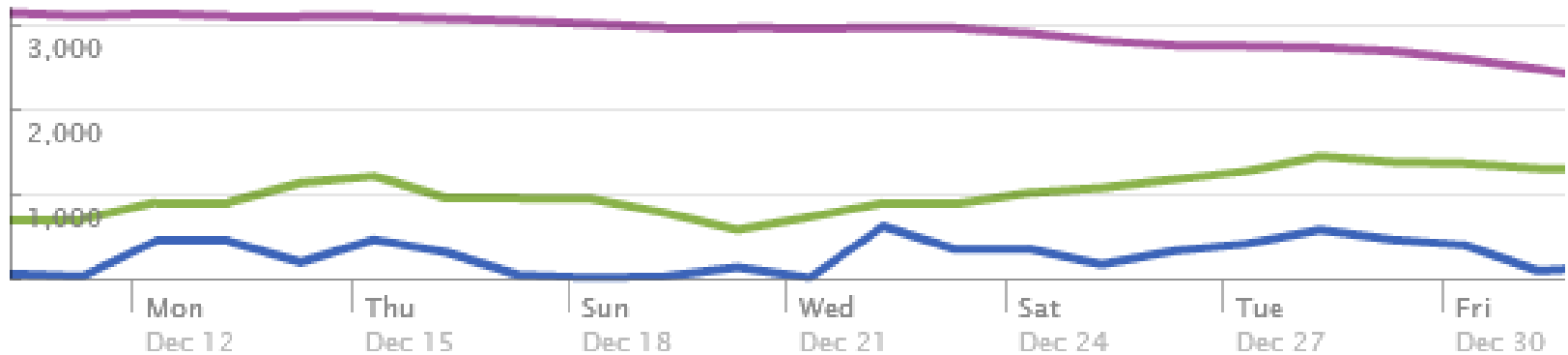
Week Month 12/10/201

Users [See Details](#)

New Likes? **22** ↓ 68% Lifetime Likes? **5,591** Monthly Active Users? **2,464** ↓ 23%

Active Users?

Daily Active Users Weekly Active Users Monthly Active Users



Using Systems for Competitive Advantage: Management Issues

- **Sustaining competitive advantage**
 - Because competitors can retaliate and copy strategic systems, competitive advantage is not always sustainable; information systems may become tools for survival
- **Performing strategic systems analysis**
 - What is structure of industry?
 - What are value chains for this firm?
- **Managing strategic transitions**
 - Adopting strategic systems requires changes in business goals, relationships with customers and suppliers, and business processes

Information Technology Investment

Considering the context of a developing country like Ghana, is the internet a strategic choice for every firm or otherwise, **should every firm do business online?**



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