Chapter 2

E-business strategy

Learning Objectives

In this chapter, you will learn about:

- 1. Introduction to the strategy of E-business
- 2. Web server and E-mail technologies
- 3. Revenue models of E-business
- 4. Online shopping
- 5. Virtual communities
- 6. E-marketing strategy and planning

1. Introduction to the strategy of E-business

Management issues

- How does E-business strategy differ from traditional business strategy?
- How should we integrate E-business strategy with existing business and IS strategy?
- How should we evaluate our investment priorities and returns from E-business?

Michael Porter on the Internet

The key question is not whether to deploy
 Internet technology – companies have no choice
 if they want to stay competitive – but how to
 deploy it

Porter, M. (2001) Strategy and the Internet, *Harvard Business Review,* March 2001, 62–78.

Definitions of strategy

- What is strategy?
- A plan of action designed to achieve a particular goal.
 - > 'Defines how we will meet our objectives'
 - > 'Sets allocation of resources to meet goals'
 - 'Selects preferred strategic option to compete within a market'
 - 'Provides a long-term plan for the development of the organization'

Different forms of organizational strategy

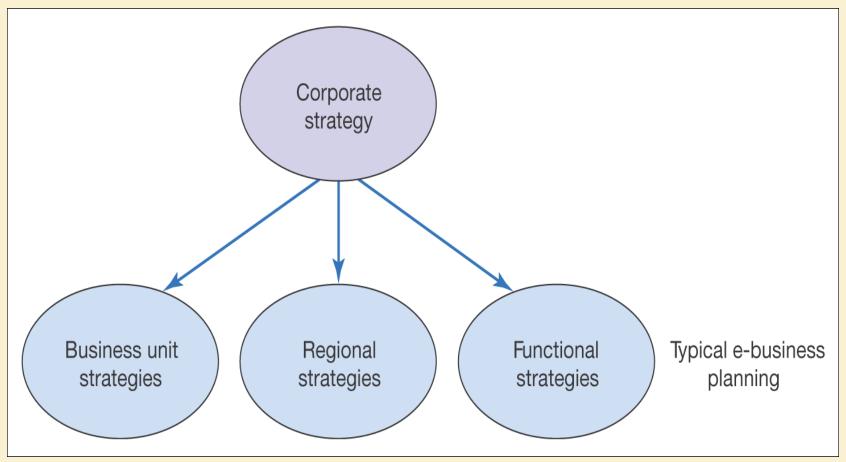


Figure 5.1 Different forms of organizational strategy

Relationship between e-business strategy and other strategies

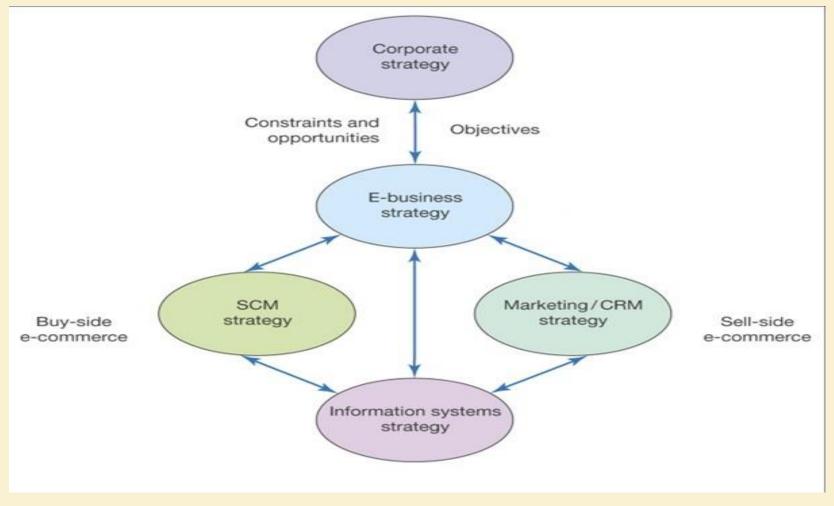


Figure 5.2 Relationship between e-business strategy and other strategies

Sell-side e-commerce strategy

- Sell-side e-commerce is a channel strategy
- Objectives for online contribution percentage should push our strategy
- Channel strategy expands on differentials
- BUT, need to manage channel integration

Sell-side e-commerce strategy (Cont.)

- E-commerce strategy defines how we should
 - Hit our channel leads and sales targets
 - Acquisition, Retention, Conversion, Service, Profitability
 - Communicate the benefits of using channel
 - Prioritize products available through channel
 - Prioritize audiences targeted through channel
 - Select partners for this channel

Buy-side e-commerce strategy or e-supply chain management strategy

- Buy-side e-commerce strategy is about maximizing operational efficiencies while improving customer service quality
- Operational efficiency KPIs should drive our strategy
- Involves selection of appropriate strategic partners

Buy-side e-commerce strategy or e-supply chain management strategy (Cont.)

- Buy-side e-commerce strategy defines how we should
 - > Automate internal processes
 - ➤ Link internal resource management systems with external purchasing systems
 - Prioritize suppliers / partners collaborating using this channel
 - Prioritize applications for eSCM create a roadmap

What happens where there is no e-business strategy?

- Missed opportunities for additional sales on the sell-side and for more efficient purchasing on the buy-side
- Fall-behind competitors in delivering online services – may become difficult to catch-up, for example, Tesco, Dell
- Poor customer experience from poorly integrated channels

A generic strategy process model

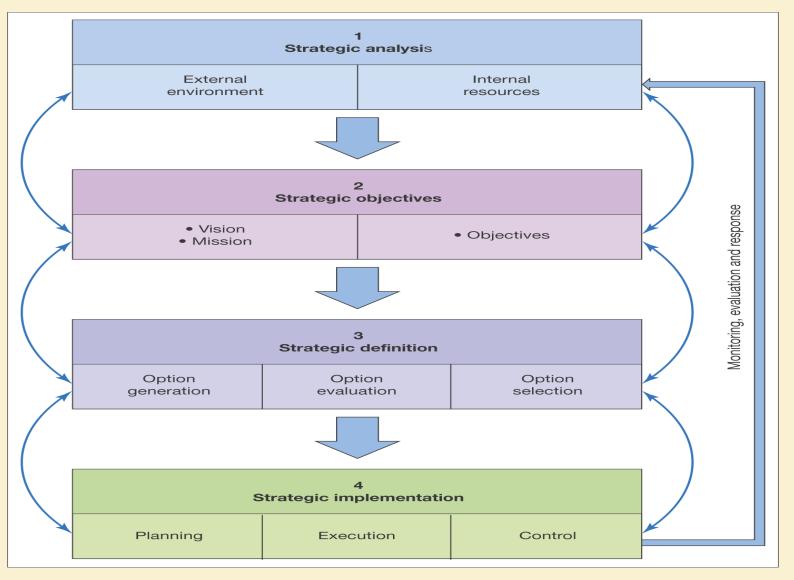


Figure 1: A generic strategy process model.

Dynamic e-business strategy model

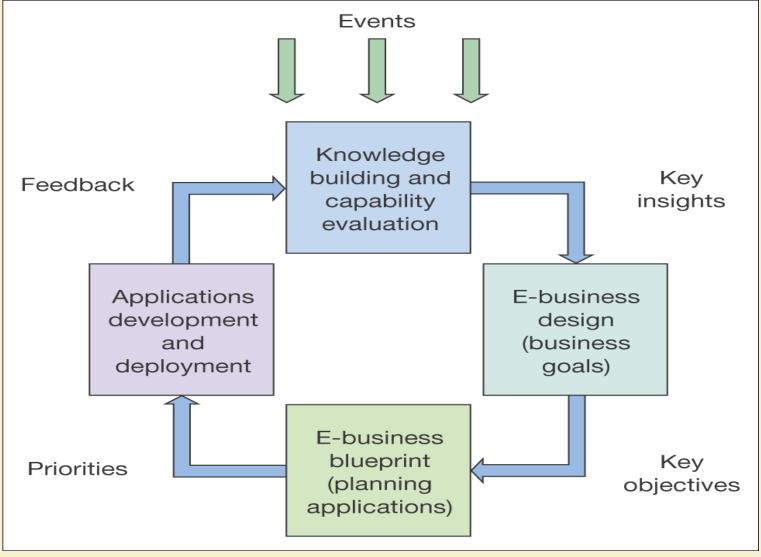


Figure 2: Dynamic e-business strategy model.

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Elements of strategic situation analysis for the e-business

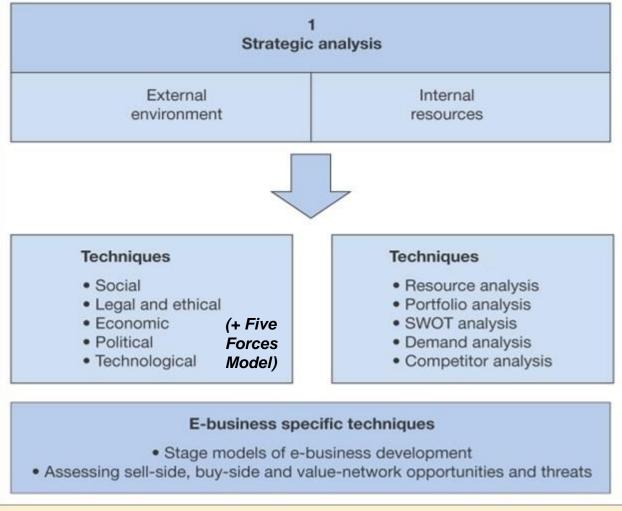
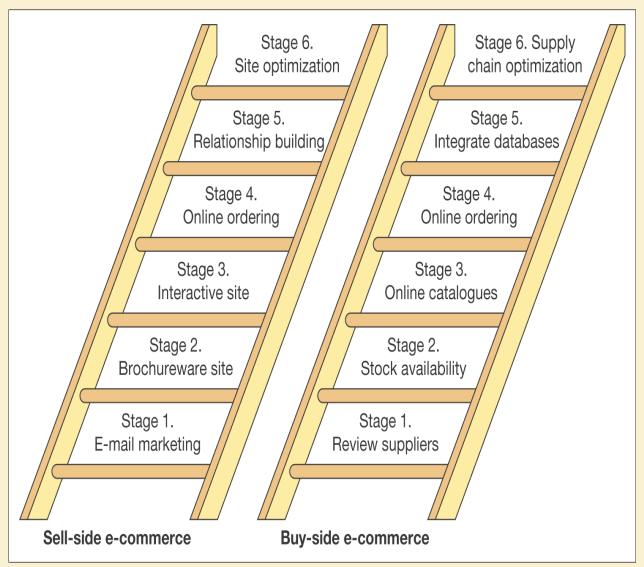


Figure 3: Elements of strategic situation analysis for the e-business.

- Collection and review of information about the external environment and internal resources
 - Immediate competition
 - Wider environment
 - Internal resources

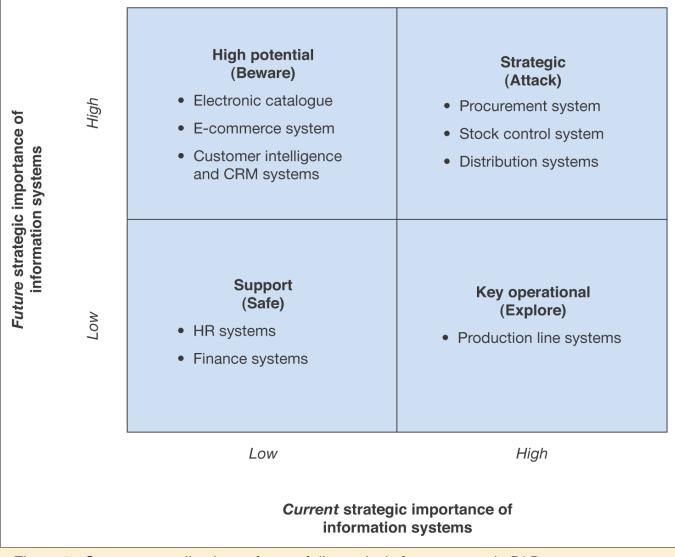
Stage models of E-business development



 A stage model was presented, which could be helpful in assessing the business's position and resources

Figure 4: A simple stage model for buy-side and sell-side e-commerce.

Portfolio analysis



 Portfolio analysis is helpful for assessing current ebusiness capability and future e-business strategies

Figure 5: Summary applications of a portfolio analysis for an example B2B company.

SWOT Analysis

| The organisation | Stengths – S 1. Existing brand 2. Existing customer base 3. Existing distribution | Weaknesses – W 1. Brand perception 2. Intermediary use 3. Technology/skills 4. Cross-channel support |
|---|--|--|
| Opportunities – O 1. Cross-selling 2. New markets 3. New services 4. Alliances/co-branding | SO strategies Leverage strengths to maximise opportunities = Attacking strategy | WO strategies Counter weaknesses through exploiting opportunities = Build strengths for attacking strategy |
| Threats – T 1. Customer choice 2. New entrants 3. New competitive product 4. Channel conflicts | ST strategies Leverage strengths to minimise threats = Defensive strategy | WT strategies Counter weaknesses and threats = Build strengths for defensive strategy |

Strengths, weaknesses, opportunities, and Threats analysis is a useful tool for analyzing the current situation and for formulating strategies

Figure 6: Example of E-business SWOT analysis.

Early

Balance Internal and External

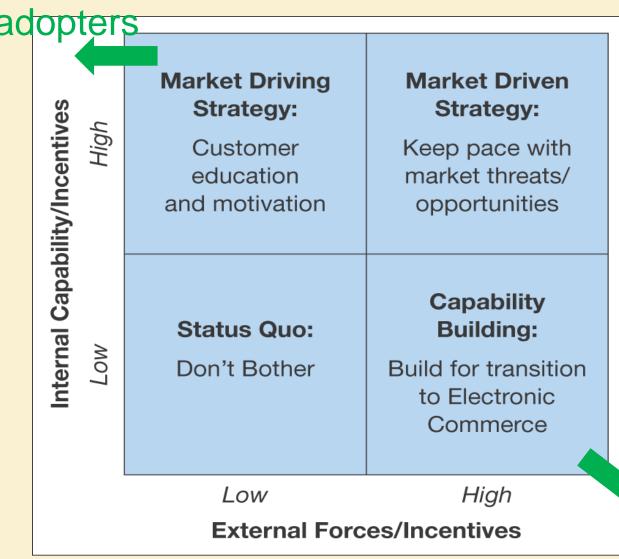


Figure 7: Matrix for evaluation of external capability against internal capability for different options based on such a balance.

• The adoption of an E-business strategy will be based on the balance between internal capability and external forces

A later adopter

Competitive Environment Analysis Porter's five forces

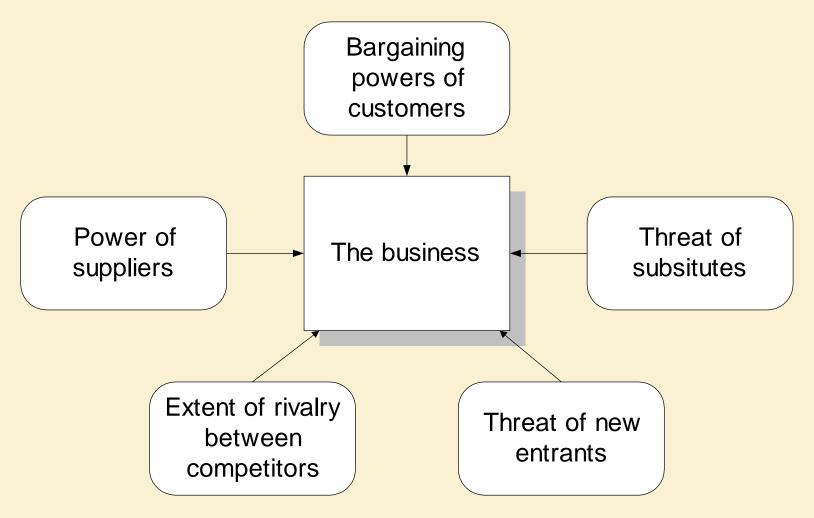


Figure 8: Competitive Environment Analysis Porter's five forces.

Elements of strategic objective setting for the E-business

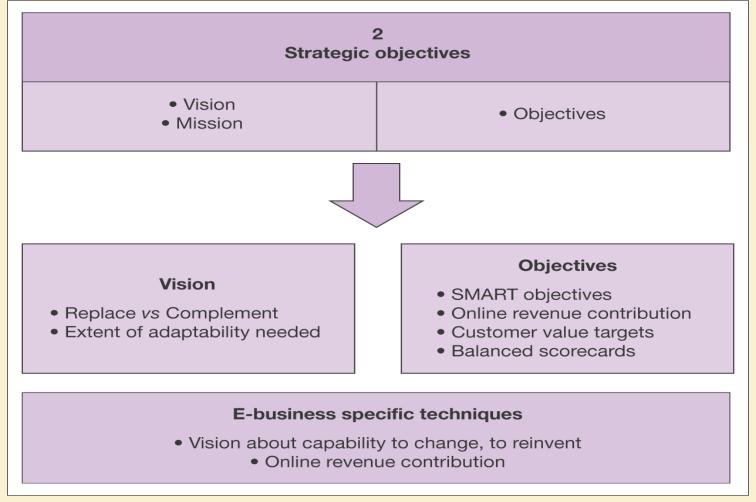


Figure 9: Elements of strategic objective setting for the E-business.

How can e-business create value

- Following methods would be proposed
 - Adding values—better quality products and services
 - Reducing cost—making the business process more efficient
 - Managing risks—improve information flow and availability
 - Creating new reality—create new way that products and or services
 - **>** ...

An evaluation tool relating information to business value

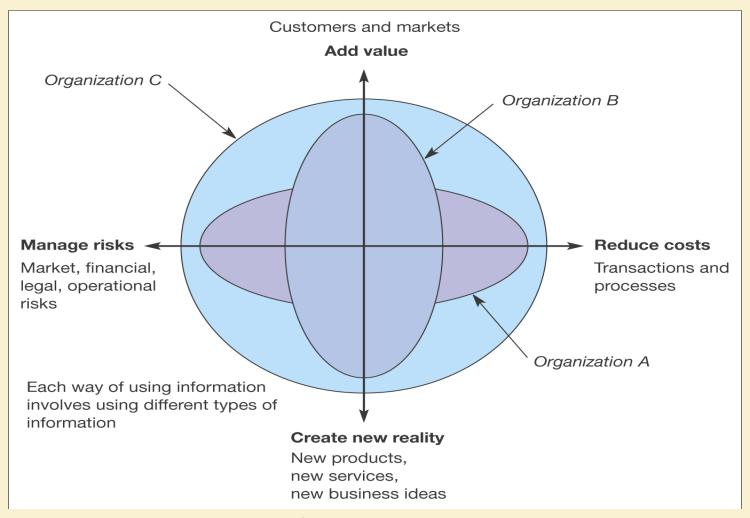


Figure 10: An evaluation tool relating information to business value.

SMART Objectives

- The 2nd phase of strategy development process will produce objectives.
- Online Revenue Contribution--% of company revenue directly generated through online transactions
- B2B should consider indirect revenue
- The objectives should be SMART
 - > Specific
 - Measurable
 - Actionable/Achievable
 - Relevant
 - Time-Related

SMART Objectives

- Specific: Is the objective sufficiently detailed to measure real-world problems and opportunities?
- Measurable: Can a quantitative or qualitative attribute be applied to create a metric?
- Actionable: Can the information be used to improve performance? If the objective doesn't change behavior in staff to help them improve performance, there is little point in it!
- Relevant: Can the information be applied to the specific problem faced by the manager?
- Time-related: Does the measure or goal relate to a defined timeframe?

Objectives, strategies and performance indicators for an example B2B company

| Objectives | Strategies of achieve goals | Key performance indicators (critical success factors) |
|--|--|---|
| Develop revenue from new geographical markets. | 1. Create an e-commerce facility for standard products and assign agents to these markets. | 1. Achieve combined revenue of £1m by year-end. Online revenue contribution of 70%. |
| 2. Increase revenue from smaller-scale purchases from retailers. | 2. Create e-commerce facility for standard products. | 2. Increase sales through retailers from 15% to 25% or total by year 2. Online revenue contribution of 30%. |
| 3. Improve efficiency of sourcing raw materials. | 3. Develop e-procurement system. | 3. Reduce cost of procurement by 5% by year-end, 10% by year 2. |
| 4. Reduce time to market and costs for new product development. | 4. Use collaboration and project management tools. | 4. Reduce cost and time to market by average of 10% by year 3. |
| 5. Protect and increase efficiency of distributor and partner network. | 5. Create partner extranet and aim for paperless support. | 5. Reduce cost of sales in each of five main geographical markets by 30%. |

Table 1: Objectives, strategies and performance indicators for an example B2B company.

Scorecard for Objective Setting

- Scorecard is a comprehensive framework for setting and monitoring business performance.
- Metrics includes
 - Customer issues
 - Internal efficiency
 - > Financial, and
 - > Innovation

Example of Balanced Scorecard for Objective Setting

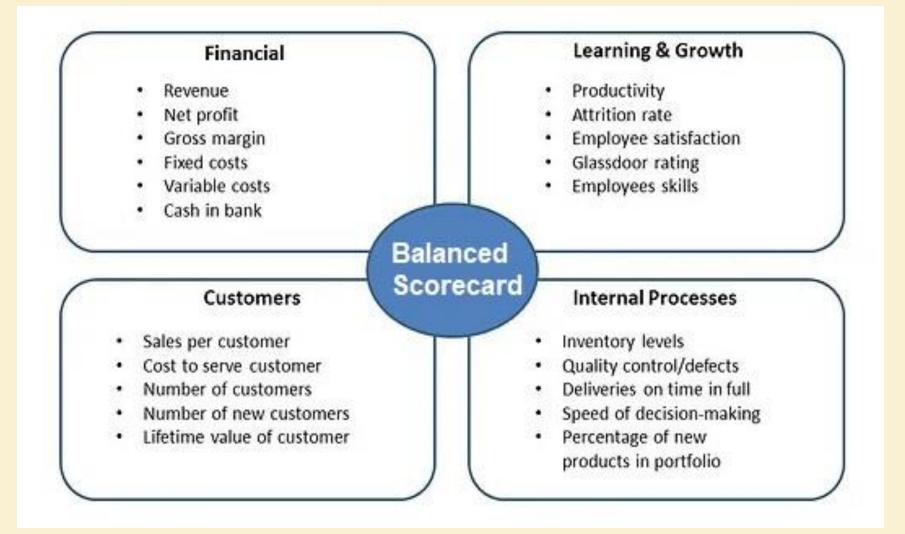


Figure 11: Example of Balanced Scorecard for Objective Setting. Source: https://www.b2bframeworks.com/balanced-scorecard.

Example of Balanced Scorecard for Objective Setting

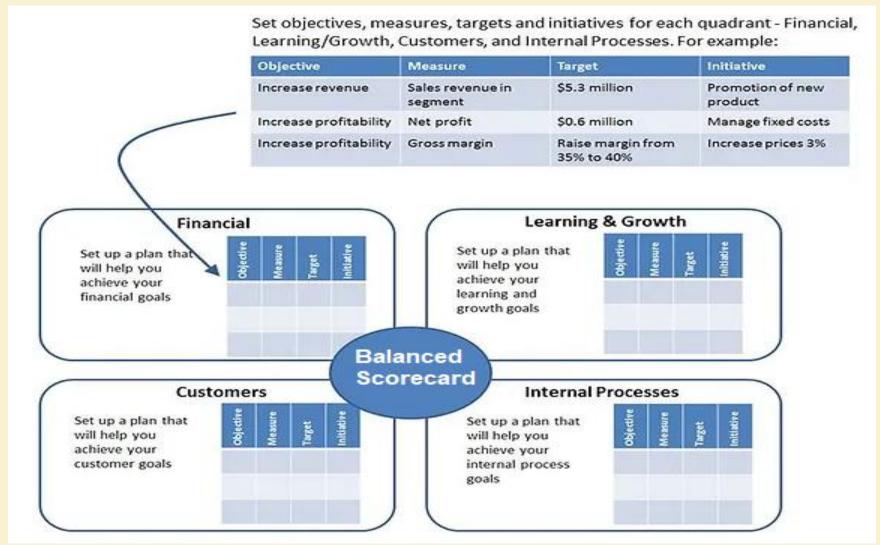


Figure 12: Example of Balanced Scorecard for Objective Setting. Source: https://www.b2bframeworks.com/balanced-scorecard.

Strategy definition

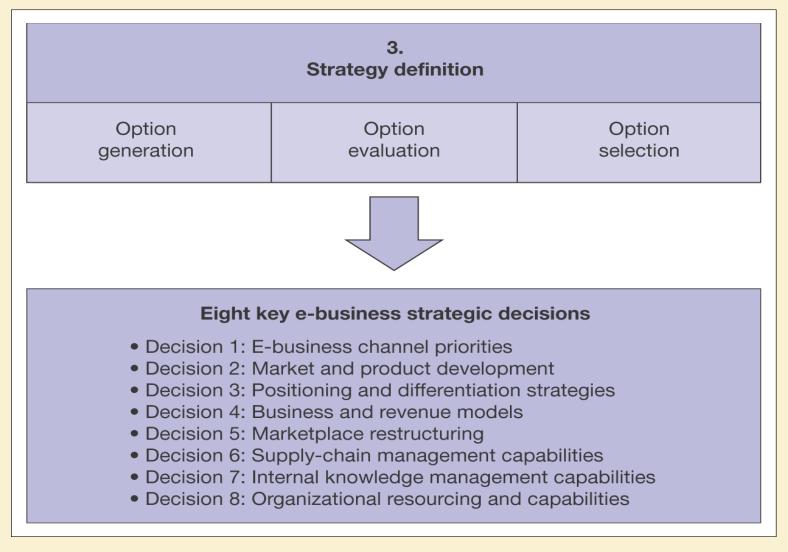


Figure 13: Elements of strategy definition for the e-business.

Decision 1: E-business channel priorities

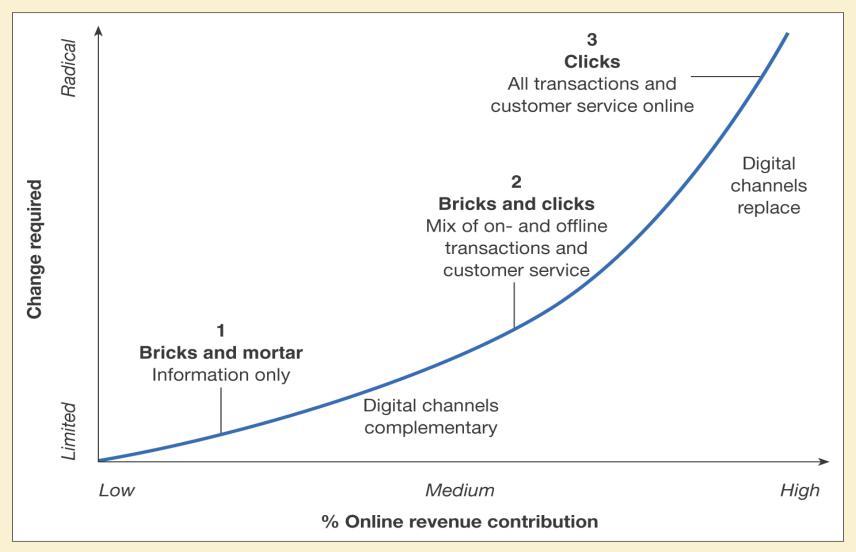


Figure 15: Strategic options for a company in relation to the importance of the Internet as a channel.

Decision 1: E-business channel priorities (Cont.)

Right-channeling

- ➤ It involves devising a contact strategy and tactics which integrate different channels, supported by technology to reach:
 - The right person
 - ❖ At the right time
 - Using the right communications channel
 - With a relevant offer, product or message

Decision 2: Market and Product Development

 A key strategic considering is which market to target and using what products

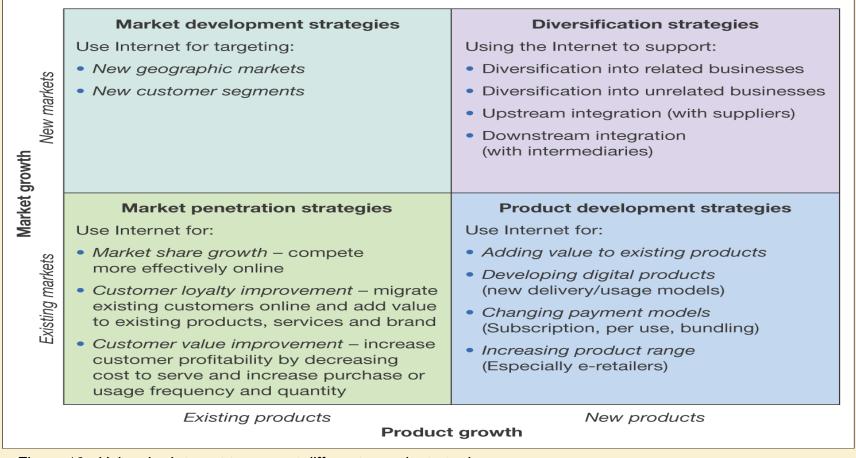


Figure 16: Using the Internet to support different growth strategies.

Decision 3: Positioning and Differentiation

- Once the market is identified, we need to define the best position of our e-commerce services relative to competitors.
- Research suggests that customer brand perception is determined by this formula
 - Customer Value = (product quality * service quality)/ (price * fulfillment time)
- Strategies should review the extent to which increases in product and service quality can be matched by decreases in price and time.

Decision 4: Business, Service and Revenue Model

Business model

➤ A summary of how a company will generate revenue, identifying its product offering, value added services, revenue sources and target customers.

Revenue models

Describe methods of generating income for an organization.

Decision 4: Business, Service and Revenue Model (Cont.)

- This decision is closely related or similar to decision 3.
- However, here it emphasizes new models, e.g., Amazon
 - > "Only the paranoid will survive" (Andy Grove)
- Also, need to notice that many companies are successful by sticking to a single business model not far from their original vision.

Decision 5: Marketplace Restructuring

- Companies should also look at the new opportunities created by the Internet within a marketplace in this regard
 - Disintermediation: The removal of intermediaries such as distributors or brokers that formerly linked a company to its customers.
 - Re-intermediation: The creation of new intermediaries between customers and suppliers providing services such as supplier search and product evaluation.
 - Counter-mediation: Creation of a new intermediary by an established company.

Decision 6: Supply Chain Management Capabilities

- This might be considered together with decision 5.
 The main e-business strategy decisions that need to be reviewed are:
 - How should we integrate more closely with our suppliers, for example through creating an extranet to reduce costs and decrease time to market?
 - Which types of materials and interactions with suppliers should we support through eprocurement?
 - Can we participate in online marketplaces to reduce costs?

Decision 7: Internal Knowledge Management Capabilities

- What is knowledge?
 - Patterns, rules, and contexts provide a framework for creating, evaluating, and using information.
 - It can be tacit (undocumented) or explicit (documented) knowledge
- What is knowledge management?
 - Set of processes to create, store, transfer, and apply knowledge.

Decision 8: Organizational Resources and Capabilities

- Once the e-business strategy decisions have been reviewed and selected, decisions are needed on how the organization needs to change to achieve the priorities set for e-business.
- Available options
 - In-house division (integration)
 - Joint venture (mixed)
 - Strategic partnership (mixed)
 - Spin-off (separation)

Decision 8: Organizational Resources and Capabilities (Cont.)

- Other changes to be examined
 - Strategy process and performance improvement
 - E-commerce infrastructure
 - Senior management support
 - Market integration
 - Online market focus

Strategy Implementation

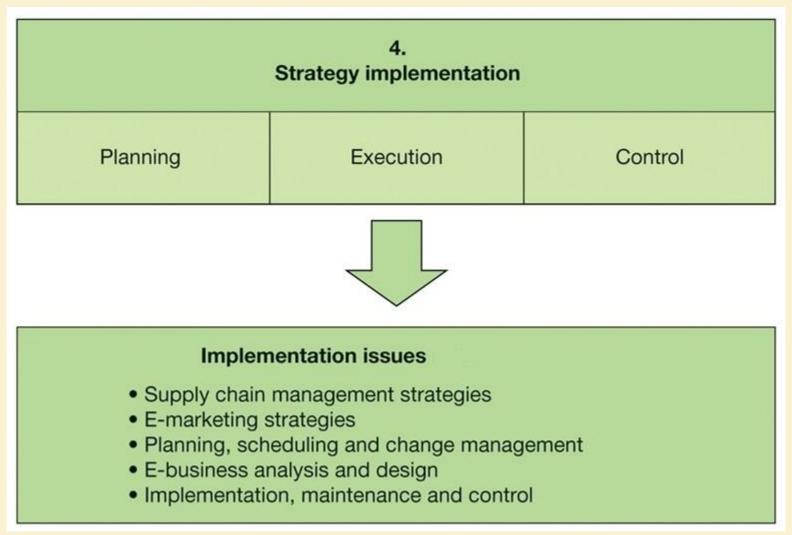


Figure 17: Elements of strategy implementation for the E-business.

Failed E-business Strategies

Reasons

- Overestimate the speed that the marketplace adopts the dot.com innovation
- > Timing errors
- Lack of creativity
- Free services
- Over ambition

Failed E-business Strategies (Cont.)

- Usually there are more fundamental problems than appeared
- Major problems occurred during the strategy development and implementation process
 - Situation Analysis: Insufficient research on demand
 - Object setting: No objectives or unrealistic
 - Strategy definition: Poor business models
 - Implementation: Problems with customer services and product quality, etc.

Implementation Success Factors for SMEs

- Effective
- Convenience
- Manageable and under control
- Brand image
- Commitment
- Partnership
- Process Improvement
- . . .

Information Systems Strategy and e-Business Strategy

- These two are closely related.
- Business-alignment approach—top down.
 - Start with business strategy and make IS strategy so that it aligns with business strategy.
- Business-impact approach—bottom up.
 - Examine new IS opportunities to see if they can bring a positive impact to business strategy.

The Productivity Paradox

- Research indicates that there is a weak or poor correlation between IS investment and business performance.
- It's agreed that IT investment has a strong positive relationship with sales, assets, and equity but not with net income.
- Investment in IT staff and user training does show a positive relationship with income.
- It's strongly recommended that more attention should be paid to business process change when implementing an e-business strategy.

In conclusion

Understand

- Definitions of strategy
- Different forms of organizational strategy
- Relationship between E-business strategy and other strategies
- · A generic strategy process model
- Dynamic E-business strategy model
- Strategic situation analysis for the E-business
- Strategic objective setting for the E-business
- Strategy definition for the E-business
- Strategy implementation for the E-business.

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2. Web server and E-mail technologies

Web Server Software

- A web server program is software that runs on the website hosting Server computer.
- When the user clicks a hyperlink on a Web page, a request is sent to the Web server for the page associated with the link.
- It is the HTTP protocol that responds to the request and sends the results to the client machine.
- Choosing Web server software is not an easy task due to having many products available, with many different features.

Web Servers for Windows and Linux

1. Apache

- ➤ It is the second most popular web server software used by 31.5% of all known websites.
- It's an open-source project that uses HTTP protocol and operates across various OSs, including Windows and Linux.
- Key Features for Apache
 - **❖** IPv6
 - Session tracking
 - ❖ FTP and HTTP/2
 - Customizable modules

Web Servers for Windows and Linux

1. Apache

- Apache is for you if...
 - You're a beginner.
 - You're looking for open-source and customizable server software.
 - You run a low to medium traffic WordPress site.

2. Microsoft IIS

- ➤ It is an excellent server software option that's specifically designed for Windows.
- It includes many native Windows security features, such as Azure Active Directory.
- Additionally, it has integrated website and server management tools.
- The software includes native support for dynamic ASP.NET applications, spanning CSS, JavaScript, and HTML.
- Microsoft IIS isn't compatible with Linux.

2. Microsoft IIS

- Key Features for Microsoft IIS
 - Integrations with many Microsoft products
 - Developer-friendly
 - Simple and user-friendly interface
 - Extensive built-in security features
- Microsoft IIS is for you if...
 - You use Windows.
 - You're a developer.
 - You want to run multiple sites on one server.

3. Tomcat

- It is one of the best web server software options for Java applications.
- It uses multiple Java specifications in an opensource environment that's optimized for speed and performance.
- Key Features for Tomcat
 - Customizable modules
 - Multiple Java technologies, including Jakata WebSocket
 - Performance-enhanced data processing
 - Open-source design

3. Tomcat

- Tomcat is for you if......
 - You work primarily with Java applications and dynamic content.
 - You're looking for lightweight server software.

4. NGINX

- It's recently overtaken Apache and is currently used by more than 33% of known websites.
- In addition, NGINX is compatible with both Linux and Windows.
- Key Features for NGINX
 - Compatibility with various web applications
 - Minimal resource consumption
 - Load balancing
 - Open-source design

4. NGINX

- NGINX is for you if...
 - You have a high-traffic website.
 - You're looking for performance-optimized web server software.
 - You'd like a cost-effective solution that uses minimal resources.

5. LiteSpeed

- It is lightweight and security-focused web server software.
- It's designed to provide top performance and scalability with minimal usage of your server resources.
- Plus, it has built-in protection against Distributed Denial of Service (DDoS) attacks.

5. LiteSpeed

- Key Features for LiteSpeed
 - Event-driven architecture
 - Compatibility with multiple hosting panels
 - Adjustable security features
 - PHP optimization
- LiteSpeed is for you if...
 - Speed and performance are high priorities.
 - You run a high-traffic or e-commerce website.
 - ❖ You use Linux.

6. CentOs Stream

- If you need an environment to test and develop applications, you might benefit from using CentOs Stream.
- ➤ It's a Linux distribution with a built-in development platform where you can trial your applications.
- CentOS is only usable with Linux.

Dr. Tran Van Hai Trieu

Web Servers for Windows and Linux (Cont.)

6. CentOs Stream

- Key Features for CentOs Stream
 - Open source and free
 - Preview of RHEL updates
 - Developer friendly
- CentOs Stream is for you if...
 - You're a developer and work with RHEL.
 - You work exclusively with Linux.
 - You're looking for free web server software.

7. Caddy

- It is a user-friendly and secure web server. This software uses HTTPS connections by default.
- It can be an excellent choice to encrypt your website's data and protect it against malicious interceptions..
- ➤ It is compatible with both Linux and Windows OS. It also supports macOS, Solaris, and BSD.
- It is a great choice for administrating multiple websites on one server, since it has a streamlined interface.

7. Caddy

- Key Features for Caddy Stream
 - Support for static and dynamic content
 - Load balancing features
 - Focus on security
- Caddy is for you if...
 - You're looking for a user-friendly solution.
 - Security is a top priority.
 - You run multiple sites.

8. Lighttpd

- ➤ It is one of the best web server software options for low-resource environments.
- It uses minimal memory and includes speed optimizations to take pressure off of the physical server.
- Furthermore, it is designed to run on Linux. You can also use it on Windows, although it lacks native support.
- In addition, It offers support for various programming languages, including PHP, Python, Lua, and Ruby..

8. Lighttpd

- Key Features for Lighttpd
 - Load balancing and HTTP proxy
 - Focus on efficiency and speed
 - Lightweight design
 - ♦ HTTP/2
- Lighttpd is for you if...
 - You consider speed and resource consumption.
 - You work with multiple programming languages.
 - You're looking for secure and flexible server software.

Web Server Hardware

- Web server hardware is a computer that is used to host a website.
- All html files, databases and image files that make up the entire content of the website are stored on the server.
- Web servers run on a Windows or Linux or other operating systems and use web server software to manage access requests to the website.
- Web server hardware is one of the major components of the E-commerce infrastructure on which the performance of the whole E-commerce application depends.

Web Server Hardware (Cont.)

- Managing and maintaining a web server is very important.
- Therefore, most of the small and medium sized business companies will pay for hosting instead of maintaining their own server.
- Factors determining web server hardware and software requirements.
 - Size of the web site
 - Purpose of the web site
 - > Traffic on the web site

Web Server Hardware (Cont.)

- Web Server Hardware Requirements of B2B and B2C commerce sites include:
 - They must be available 24 hours a day, 7 days a week
 - > Reliable servers
 - Backup servers for high availability
 - Efficient and easily upgraded software
 - Security software
 - Database connectivity

Web Server Hardware (Cont.)

- The following parts of the computer make bigger impact on the performance of the e-Commerce
 - Network card
 - Server Processor
 - Server Memory
 - Hard Drives
 - **>** ...

Basic Functionality Provided by Web Servers

| Functionality | Description |
|--|--|
| Processing of HTTP requests | Receive and respond to client requests for HTML pages |
| Security services (Secure Sockets Layer)/ Transport Layer Security | Verify username and password; process certificates and private/public key information required for credit card processing and other secure information |
| File Transfer Protocol | Permits transfer of very large files from server to server |

Basic Functionality Provided by Web Servers (Cont.)

| Functionality | Description |
|-----------------------|---|
| Search engine | Indexing of site content; keyword search capability |
| Data capture | Log file of all visits, time, duration, and referral source |
| E-mail | Ability to send, receive, and store e-mail messages |
| Site management tools | Calculate and display key site statistics, such as unique visitors, page requests, and origin of requests; check links on pages |

E-mail Server

- Electronic mail (E-mail) is a computer-based application for the exchange of messages between users.
- Email server is essentially a computer system that sends and receives emails.
- A worldwide e-mail network allows people to exchange e-mail messages very quickly.
- E-mail is the electronic equivalent of a letter but with advantages in timeliness and flexibility.
- Every email that is sent has to pass through a series of mail servers on the way to its intended recipient.

Source: https://jatheon.com/blog/email-server-software/

E-mail Server Software

- Standard E-mail protocols (SMTP, IMAP, & POP3).
 - Simple Mail Transfer Protocol (SMTP) is an application used to send, receive, and relay outgoing emails between senders and receivers.
 - Internet Message Access Protocol (IMAP) allows easy access to your email wherever you are from any device.
 - Post Office Protocol (POP3) works by contacting your email service and downloading all of your new messages from it.

Should You Host Your Own Email Server?

- Self-hosting or outsourcing hosting to a third-party provider.
 - Third-party hosting (hosting providers)
 - They are responsibility for managing and maintaining their servers and affordable.
 - Additional features of paid hosting services include spam filtering, online storage, email backup, etc.
 - > Self-hosting (operating own internal mail server)
 - To avoid many of the issues found in thirdparty hosting such as privacy, security, and control over the email servers.

E-mail Client

- Sent emails can be accessed using a mail server in two ways such as cloud-based email service or an on-premises email client.
 - Email service also known as webmail is a platform via which we send and receive emails using a web-based interface and a web browse, such as Gmail, Yahoo, etc.
 - Email client is a software that we install on our computer and we send or receive emails through an interface provided by that client's software such as Outlook, etc.

In conclusion

- Web Server Software
- Web Servers for Windows and Linux
- Web Server Hardware
- Basic Functionality Provided by Web Servers
- E-mail Server Software

Should You Host Your Own Email Server?

E-mail Client



3. Revenue models of E-business

What is a business model?

- A business model is a set of planned activities (sometimes referred to as business processes) designed to result in a profit in a marketplace.
- A business model is not always the same as a business strategy although in some cases they are very close as the business model explicitly takes into account the competitive environment.
- A business model is at the center of the business plan.
- A business plan is a document that describes a firm's business model.

Eight key elements of a business model

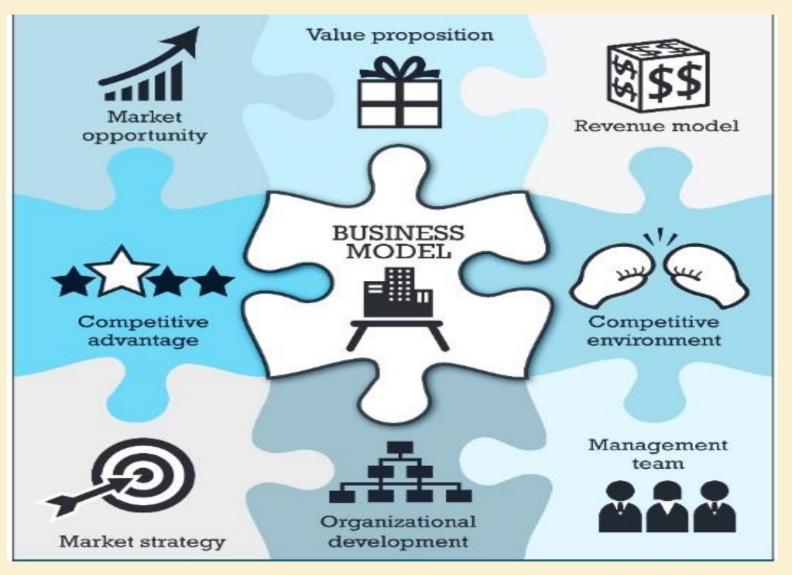


Figure 18: Eight key elements of a business model.

First element: Value Proposition

- "Why should the customer buy from you?"
- Successful e-commerce value propositions:
 - Personalization/customization
 - Reduction of product search and price discovery
 - Facilitation of transactions by managing product delivery

Second element: Revenue Model

- "How will you earn money?"
- Major types of revenue models:
 - Advertising revenue model
 - Subscription revenue model
 - Freemium strategy
 - Transaction fee revenue model
 - Sales revenue model
 - Affiliate revenue model
 - > Etc.

Third element: Market Opportunity

- "What marketspace do you intend to serve and what is its size?"
 - Marketspace: Area of actual or potential commercial value in which company intends to operate
 - Realistic market opportunity: Defined by revenue potential in each market niche in which company hopes to compete
- Market opportunity typically divided into smaller niches

Fourth element: Competitive Environment

- "Who else occupies your intended marketspace?"
 - Other companies selling similar products in the same marketspace
 - Includes both direct and indirect competitors
- Influenced by:
 - Number and size of active competitors
 - > Each competitor's market share
 - Competitors' profitability
 - Competitors' pricing

Fifth element: Competitive Advantage

- "What special advantages does your firm bring to the marketspace?"
 - Is your product superior to or cheaper to produce than your competitors'?
- Important concepts:
 - First-mover advantage
 - Complementary resources
 - Unfair competitive advantage
 - Leverage
 - Perfect markets

Sixth element: Market Strategy

- "How do you plan to promote your products or services to attract your target audience?"
 - Details how a company intends to enter market and attract customers
 - Best business concepts will fail if not properly marketed to potential customers

Seventh element: Organizational Development

- "What types of organizational structures within the firm are necessary to carry out the business plan?"
- Describes how firm will organize work
 - Typically, divided into functional departments
 - As company grows, hiring moves from generalists to specialists

Eighth element: Management Team

- "What kind of backgrounds should the company's leaders have?"
- A strong management team:
 - Can make the business model work
 - Can give credibility to outside investors
 - Has market-specific knowledge
 - Has experience in implementing business plans

B2C Business Models

- Electronic Retailer (E-tailer)
- Community provider (social network)
- Content provider
- Portal
- Transaction broker
- Market creator
- Service provider
- Etc.

B2C Models: E-Tailer

- Online version of traditional retailer
- Revenue model: Sales
- Variations:
 - Virtual merchant
 - Bricks-and-clicks
 - Catalog merchant
 - Manufacturer-direct
- Low barriers to entry

B2C Models: Community Provider

- Provide an online environment (social network)
 where people with similar interests can transact,
 share content, and communicate
 - Examples: Facebook, LinkedIn, Twitter, Pinterest, Tiktok, etc.
- Revenue models:
 - Typically hybrid, combining advertising, subscriptions, sales, transaction fees, and so on

B2C Models: Content Provider

- Digital content on the Web:
 - News, music, video, text, artwork
- Revenue models:
 - Use variety of models, including advertising, subscription; sales of digital goods
 - Key to success is typically owning the content
- Variations:
 - Syndication
 - Aggregators

B2C Models: Portal

- Search plus an integrated package of content and services
- Revenue models:
 - Advertising, referral fees, transaction fees, subscriptions for premium services
- Variations:
 - General (ie.: AOL, MSN)
 - Specialized (ie.: Sailnet Sailing Community)
 - Search (ie.: Google, Bing)

B2C Models: Transaction Broker

- Process online transactions for consumers
 - Primary value proposition-saving time and money
- Revenue model:
 - Transaction fees
- Industries using this model:
 - Financial services
 - Travel services
 - Job placement services

B2C Models: Market Creator

- Create digital environment where buyers and sellers can meet and transact
 - Examples: eBay, Amazon
 - Revenue model: Transaction fees, fees to merchants for access
- On-demand service companies (sharing economy): platforms that allow people to sell services
 - Examples: Uber, Airbnb, Grab, etc.

B2C Models: Service Provider

- Online services
 - Example: Google-Google Maps, Gmail,
 Office 365, and so on
- Value proposition
 - Valuable, convenient, time-saving, low-cost alternatives to traditional service providers
- Revenue models:
 - Sales of services, subscription fees, advertising, sales of marketing data

B2B Business Models

- Net marketplaces
 - > E-distributor
 - > E-procurement
 - Exchange
 - Industry consortium
- Private industrial network

B2B Models: E-Distributor

- A version of retail and wholesale store, MRO (maintenance-repair-operation) goods, and indirect goods
- Owned by one company seeking to serve many customers
- Revenue model: Sales of goods
- Example: Grainger

B2B Models: E-Procurement

- Creates digital markets where participants transact for indirect goods
 - B2B service providers, SaaS and PaaS providers
 - Scale economies
- Revenue model:
 - Service fees, supply-chain management, fulfillment services
- Example: Amazon (AWS), etc.

B2B Models: Exchanges

- Vertical digital marketplace for direct inputs
- Revenue model: Transaction, commission fees
- Create powerful competition between suppliers
- Tend to force suppliers into powerful price competition; a number of exchanges have dropped dramatically
- Example: Go2Paper

B2B Models: Industry Consortia

- Industry-owned vertical digital marketplace open to select suppliers
- More successful than exchanges
 - Sponsored by powerful industry players
 - Strengthen traditional purchasing behavior
- Revenue model: Transaction, commission fees
- Example: SupplyOn

Private Industrial Networks

- The digital network is used to coordinate among firms engaged in business together
- Typically expand out of a large company's internal enterprise system
 - Key, trusted, long-term suppliers invited to network
- Example: Walmart's network for suppliers

How E-commerce Changes Business

- E-commerce changes industry structure by changing:
 - Rivalry among existing competitors
 - Barriers to entry
 - > Threat of new substitute products
 - > Strength of suppliers
 - Bargaining power of buyers
- Industry structural analysis

Industry Value Chains

- Set of activities performed by suppliers, manufacturers, transporters, distributors, and retailers that transform raw inputs into final products and services
- Internet reduces cost of information and other transactional costs
- Leads to greater operational efficiencies, lowering cost, prices, adding value for customers

Example of E-commerce and Industry Value Chains

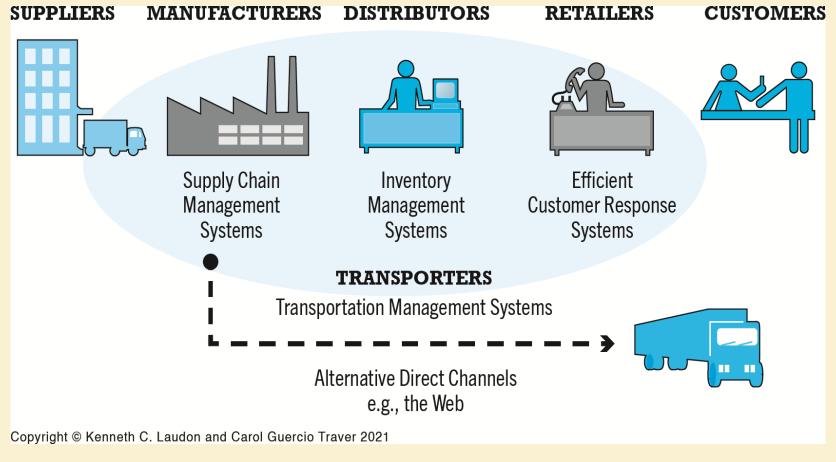


Figure 19: Example of E-commerce and Industry Value Chains.

Firm Value Chains

- Activities that a firm engages in to create final products from raw inputs
- Each step adds value
- Effect of Internet:
 - Increases operational efficiency
 - > Enables product differentiation
 - Enables precise coordination of steps in chain

Example of E-commerce and Firm Value Chains

Administration
Human Resources
Information Systems
Procurement
Finance/Accounting

SECONDARY ACTIVITIES

PRIMARY ACTIVITIES Inbound Operations Outbound Sales and Logistics Service Copyright © Kenneth C. Laudon and Carol Guercio Traver 2021

Figure 20: Example of E-commerce and Industry Value Chains.

Firm Value Webs

- Networked business ecosystem
- Uses Internet technology to coordinate the value chains of business partners
- Coordinates a firm's suppliers with its own production needs using an Internet-based supply chain management system

Internet-Enabled Value Web

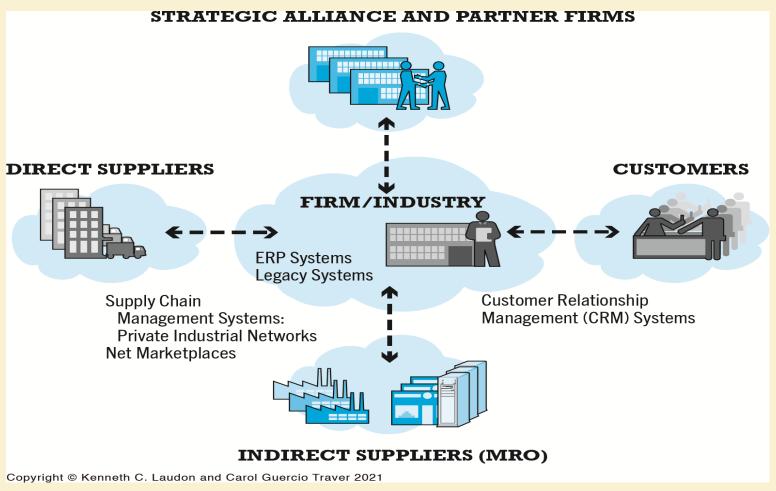


Figure 21: Internet-Enabled Value Web.

Business Strategy

- Plan for achieving superior long-term returns on capital invested: that is, profit
- Five generic strategies
 - Product/service differentiation
 - Cost competition
 - Scope
 - Focus/market niche
 - Customer intimacy/satisfaction.

E-commerce Technology and Business Model Disruption

- Disruptive technologies
- Digital disruption
- Sustaining technology
- Stages
 - Disruptors introduce new products of lower quality
 - Disruptors improve products
 - New products become superior to existing products
 - Incumbent companies lose market share

In conclusion

- What is a business model?
- Eight key elements of a business model
- B2C Business Models
- B2B Business Models
- How E-commerce Changes Business
- Example of E-commerce and Industry Value Chains
- Example of E-commerce and Firm Value Chains
- Internet-Enabled Value Web
- Firm Value Webs
- Business Strategy



4. Online Shopping

What is Online Shopping?

- Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser or a mobile app.
- Consumers find a product of interest by searching among alternative vendors using a shopping search engine, which displays the same product's availability and pricing at different e-retailers.
- Customers can shop online using a range of different computers and devices such as desktop computers, laptops, tablet and smartphones.

- Chatbots and Intelligent virtual assistants (IVAs)
 - Chatbots and IVAs are effective tools for engaging with customers and reducing engagement costs.
 - Sales chatbots and IVAs can carry out the same functions on websites, mobile applications, and messaging services like WhatsApp.

- Recommendation Systems
 - Approximately 30% of consumers, according to a PwC survey, are willing to pay more for things that are suggested to them.
 - Users are continually overloaded with suggestions. However, they are likely to appreciate personalized recommendations.
 - The overall benefit is higher rates of engagement and boosted sales.

- Al-driven pricing tools
 - With the use of pricing tools, you can instantly evaluate your prices by comparing them to those of your rivals, your stock levels, delivery policies.
 - In highly competitive marketplaces, immediately changing pricing to match those employed by rivals can also significantly impact conversion rates.

- Web scrapping
 - Web scraping is the process of extracting data from websites using a scraping bot or web scraping API.
 - The technique is advantageous for Ecommerce businesses because these companies produce:
 - Customer data
 - Product data
 - Financial data

- Web scrapping
 - Successful web scraping initiatives are beneficial for companies because they enable:
 - Price comparison with competitors to stay competitive,
 - Understanding customers' purchase behavior and finding demanded products,
 - Determining special users such as whales that bring significant income,
 - Executing targeted ads,
 - Conducting customer sentiment analysis.

- Mobile Apps
 - Customers can interact with companies' brand continuously through apps, and they can learn about fresh and useful purchasing opportunities.
 - Additionally, mobile apps provide customers with a simple check-out process.

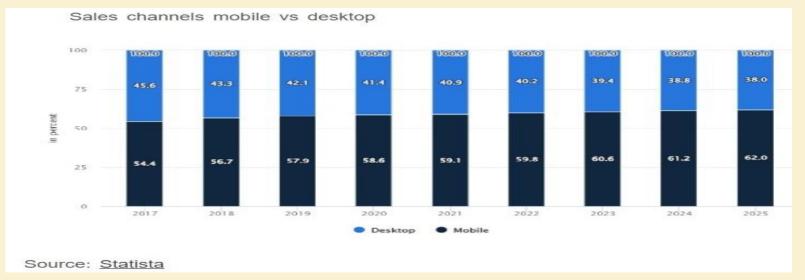


Figure 22: Sales channels mobile and desktop. Source: https://research.aimultiple.com/ecommerce-technology/

- Supply chain visibility software
 - The entire supply chain, from delivery to warehouses, may be managed using supply chain visibility tools.
 - These systems automate the issuance of invoices and track inventory.
 - Supply chain visibility software also helps to produce reports that can support the decisionmaking process.
 - They generate financial reports and some supply chain management systems have the ability to calculate product carbon footprint of companies.

- Warehouse automation technologies
 - > Warehouse automation provides benefits such as
 - Accurate scheduling of intermediate goods and final products
 - Optimal inventory management
 - Easier financial/environmental reporting
 - Carbon footprint reduction and more.

- Warehouse automation technologies
 - Ecommerce companies can automate their warehouses with the following technologies
 - IoT: Optimize the storage conditions of the products while minimizing energy cost.
 - Intelligent automation: Combine Natural Language Processing (NLP) and Robotic Process Automation (RPA) technologies. Order processing is automated by these technologies.
 - Cobots: Work around the clock and package and palletize products.

E-wallets

- An e-wallet, a kind of electronic card, is connected to a person's bank account.
- ➤ It is utilized for online purchases on a computer or a smartphone.
- Two major components of an e-wallet are software and data.
- > E-wallets have three main benefits:
 - They increase security.
 - They ease the payment process.
 - Ease of refund which takes a few seconds only.

- Check-out free systems
 - Check-out free systems help customers make instore purchases without queuing with technologies
 - Computer vision.
 - Machine learning algorithms.
 - Smart sensors.
 - ❖ E-wallets or custom mobile apps.

- Image Search Engine
 - Customers can use Google Images to search for products by capturing images of them and using reverse image search to find photos that are related to the product.
 - Businesses can take advantage of this by uploading a file for each item they sell on their internet store.
 - Using images effectively is a key potential for businesses to succeed in e-commerce since Google Images is one of the most popular internet search engines.

- Other technologies
 - Virtual reality (VR) technology solves that issue by creating 3D artificial environments that users can explore and interact with.
 - > For VR, customers can virtually try out products, arrange furniture in their homes, and more.
 - Using augmented reality (AR), customers can preview products and be more likely to pick the right product the first time.

> ...

Online Shopping Statistics

General

- In 2022, there were 268 million online shoppers in the United States. This number is projected to increase to almost 285 million online shoppers in 2025.
- According to recent estimates, global e-commerce sales will reach \$58.74 Trillion by 2028.
- Online retail sales are projected to grow at a compound annual growth rate (CAGR) of 14.6% from 2021 to 2028.

General



Figure 23: Shopping online. Source: https://optinmonster.com/online-shopping-statistics/

- E-commerce stores
 - The most popular online shopping platforms include Amazon, Walmart, and Alibaba.
 - ➤ In 2023, there were 12 million 24 million eCommerce stores globally.

Mobile

- Mobile e-commerce sales projected to reach \$728.28 billion in 2025.
- ➤ The average conversion rate for mobile ecommerce is around 0.55%.
- ➤ The average cart abandonment rate for mobile ecommerce is around 85.65%.

- Abandoned Cart
 - > The number one reason for shopping cart abandonment is unexpected extra costs.
 - Extra costs are responsible for 48% of all cart abandonment.
 - With an average abandonment rate of 69.99%, E-commerce businesses could lose 3 billion \$ per year or more.

Technology

- > 47% of consumers are open to using a chatbot to make a purchase.
- The study by Juniper estimated that chatbots would account for \$112 billion in retail sales by 2023.

Gen Z

- ➤ It's predicted that Gen Z, born after 1998, will have \$44 billion in buying power.
- As of now, 93% of parents say their Gen Z child influences household spending.
- > 95% of this generation have a smartphone, which they spend nearly 10 hours or more per day on.

In conclusion

What is Online Shopping?

Applied Technologies in Online Shopping

Online Shopping Statistics



5. Virtual communities

What is a virtual community?

- A virtual community is a community of people sharing common interests, ideas, and feelings over the internet or other collaborative networks.
- In a virtual community group of individuals interact through specific social media, potentially crossing geographical and political boundaries in order to pursue mutual interests or goals.

Types of virtual communities

- Internet message boards
 - An online message board is a forum where people can discuss thoughts or ideas on various topics.
 - Online message centers allow users to choose which topic or discussion, users would like to read or contribute to.
 - ➤ A user will start a discussion by making a post on a topic that other users who choose to respond follow the topic's discussions by adding their interaction to that thread.

Types of virtual communities (Cont.)

- Online chat rooms
 - ➤ With the rise of interest in message boards and forums, people need to have a way of communicating with communities in real time.
 - ➤ The disadvantage to message boards is that people must wait until another user replies to their posting.
 - ➤ The development of online chat rooms allows people to talk to whoever is online at the same time they are.
 - ➤ This way, messages are sent, and online users can immediately respond.

Dr. Tran Van Hai Trieu

Types of virtual communities (Cont.)

- Virtual worlds
 - Virtual worlds are the most interactive of all virtual community forms.
 - This members' group forms an online team and plays games against other online teams in certain games.
 - Characters within the world can talk to one another and have almost the same interactions people would have in reality.
 - For instance, GameTZ.com is an online game, music, movie, and book trading community.

Types of virtual communities (Cont.)

- Social network services
 - Social networking services are the most prominent type of virtual community.
 - They are a website or software platforms focused on creating and maintaining relationships.
 - Facebook, Twitter, and Instagram are all virtual communities. With these sites, one often creates a profile or account and adds friends or follows friends.

Benefits of virtual community

- More flexible or accessible 24/7 and anywhere as long as the internet connection.
- Easy relevance: It gives a place to exchange reallife examples and experiences.
- Choice: A quick question, comment, or a long reflective account is equally possible.

Benefits of virtual community (Cont.)

- Community building: Over time can develop into a supportive, stimulating community that participants consider the high point of their course.
- Limitless: It can never predict where the discussion will go. The unexpected often results in increased incidental learning.

Limitation of virtual community

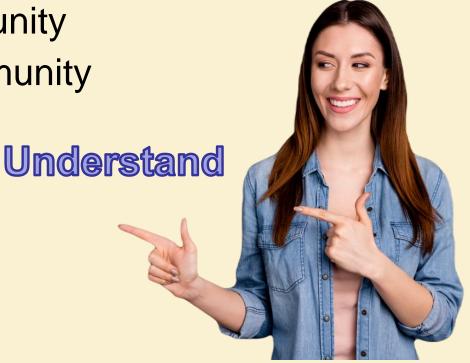
- Overloading information: A large volume of information and messages can be overloaded and hard to follow, even stress-inducing.
- No physical documents: Any physical documents to any conversation, without facial expressions and gestures or the ability to retract immediately there's a large risk of misunderstanding.

Limitation of virtual community (Cont.)

- Directionless: Participants used to have a teacher or instructor telling them what to do can find it a leaderless environment.
- Inefficient: It takes longer than verbal conversation and so it's hard to reply to all the points in a message, easily leaving questions unanswered.
- Threads: Logical sequence of discussion is often broken by users not sticking to the topic.

In conclusion

- What is virtual community?
- Types of virtual communities
- Benefits of virtual community
- Limitation of virtual community



6. E-marketing strategy and planning

Management issues

- How do we integrate traditional marketing approaches with e-marketing?
- How can we use electronic communications to differentiate our products and services?
- How do we redefine our marketing and communications mixes to incorporate new media?

E-marketing defined

- Achieving marketing objectives through use of electronic communications technology
- Another similar term is digital marketing

E-marketing planning

 An e-marketing plan is needed to detail the specific objectives of the e-business strategy through marketing activities.

The e-marketing plan in the context of other plans

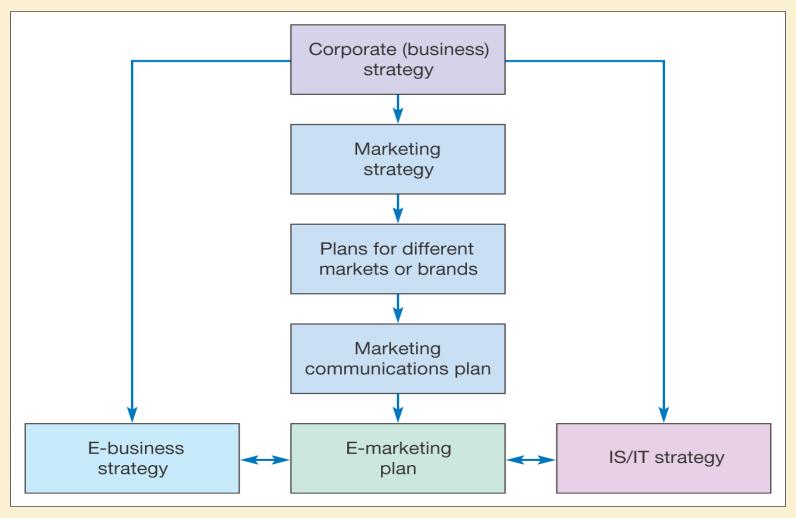
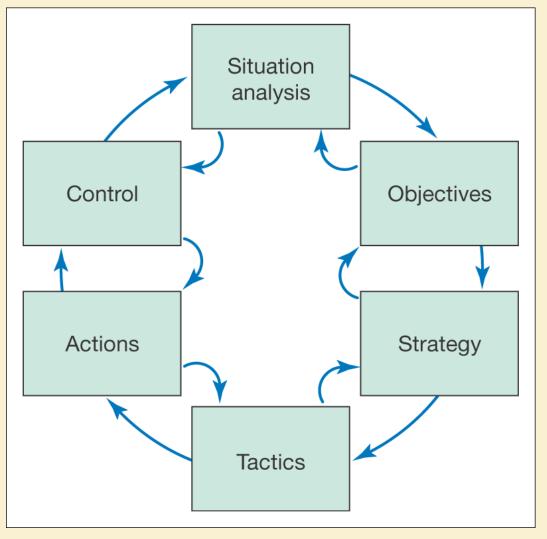


Figure 24: The e-marketing plan in the context of other plans

A generic framework for e-marketing planning



- Developed by Paul Smith (1999)
- Summarizes the different stages that should be involved in a marketing strategy from strategy development to implementation

Figure 25.: SOSTAC™ – a generic framework for e-marketing planning

Is a separate e-marketing plan required?

- Customer demand will be underestimated
- Existing and start-up competitors will gain market share
- Duplication of resources
- Insufficient resources will be devoted to planning
- Insufficient customer data are collected
- Efficiencies available through online marketing will be missed

Inputs to the e-marketing plan from situation analysis



Figure 26: Inputs to the e-marketing plan from situation analysis

Situation Analysis

- To understand the current and future environment in which the company operates
- Involves consideration of all of these factors and will form the basis for defining objectives, strategies and tactics

Demand analysis

- What percentage of customer businesses have access to the Internet?
- What percentage of members of the buying unit in these businesses have access to the Internet?
- What percentage of customers are prepared to purchase your particular product online?
- What percentage of customers with access to the Internet are not prepared to purchase online, but are influenced by web-based information to buy products offline?
- What are the barriers to adoption amongst customers and how can we encourage adoption?

Competitor Analysis

- The monitoring of competitor uses of ecommerce to acquire and retain customer
- Companies should review:
 - Well-known competitors
 - Well-known international competitors
 - New Internet companies locally and worldwide

Benchmarking solutions

- Financial performance
- Marketplace performance market share and sales trends and significantly the proportion of sales achieved through the Internet.
- Business and revenue models do these differ from other marketplace players?
- Services offered what is offered beyond brochureware? Is online purchase possible, what is the level of online customer support and how much technical information is available?
- Implementation of services these are the practical features of site design such as aesthetics, ease of use, personalization, navigation, and speed.

Benchmarking solutions (Cont.)

- Marketing communications techniques
 - ➤ Is the customer value proposition of the site clear?
 - Does the site support all stages of the buying decision from customers who are unfamiliar with the company through to existing customers, are special promotions used on a monthly or periodic basic?
 - Beyond the competitor's site, how do they make use of intermediary sites to promote and deliver services?
- The 7Ps.

Intermediary analysis

- Identifying relevant intermediaries for a particular marketplace
- Identify strategic partners when executing an online advertising campaigns
- To consider the way the marketplace is operating

Internal marketing audit

- Business effectiveness:
 - ➤ Contribution of site to revenue (see objective setting), profitability and any indications of the corporate mission for the site.
 - ➤ The costs of producing and updating the site will also be reviewed, i.e. cost-benefit analysis.
- Customer service:
 - These measures will be assessed for each of the different product lines delivered through the web site.
 - The way in which the elements of the marketing mix are utilized will also be reviewed.

Internal marketing audit (Cont.)

- Marketing effectiveness.
 - > These measures may include:
 - Leads; sales; retention; market share; brand enhancement and loyalty;
- Internet effectiveness:
 - These are specific measures that are used to assess the way in which the web site is used, and the characteristics of the audience.
 - From a marketing point of view, how clear the value proposition of the site for the customer, is should be noted.

E-Marketing Objectives

Acquisition Objective:

 Attract visitors to the company's website or promote a certain brand by reaching visitors through search engines or advertisements on other sites.

Conversion Objective

 Influence site visitors to achieve the goals of the company's website, for example sales leads, sales or browsing certain content.

Retention & Growth Objective

Invite customers to make repeat purchases.

SMART E-marketing Objectives

- Specific
- Measurable
- Achievable
- Realistic
- Time-constrained

Examples of SMART e-marketing objectives

- Start-ups
 - Acquiring a specific number of new customers or to sell advertising space to generate a specified revenue that will hopefully exceed investment in site creation and promotion!
- Established mobile-phone operator
 - Increase customer retention by reducing churn from 25 percent to 20 percent.
- Established media company
 - ➤ Increase online revenue, target of 20 per cent online contribution to revenue by offering new online services and media sales.

Stages in target marketing strategy development

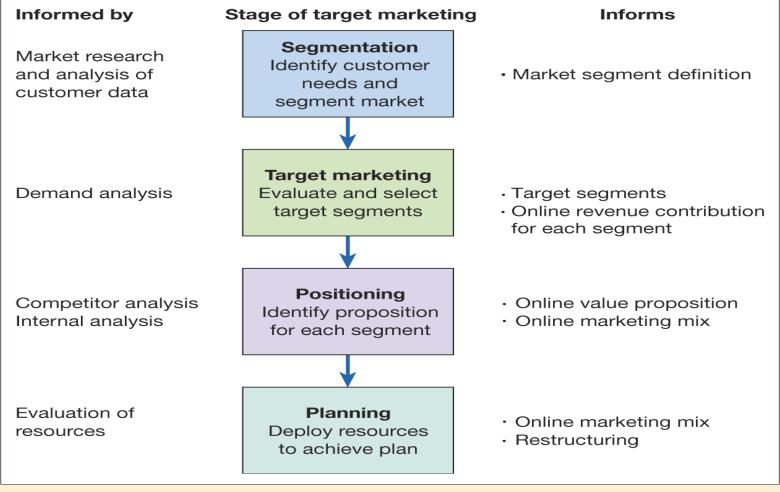


Figure 27: Stages in target marketing strategy development.

Target market strategies

- Evaluation and selection of appropriate segments and the development of appropriate offers
- 5 questions when developing strategy
 - Who are our customers?
 - How are their needs changing?
 - Which do we target?
 - How can we add value?
 - How do we become the first choice?

Characteristics of new-media marketing communications

- Interactivity
- Intelligence
- Individualization
- Integration
- Industry restructuring
- Independence of location

Summary of communication models for (a) traditional media, (b) new media

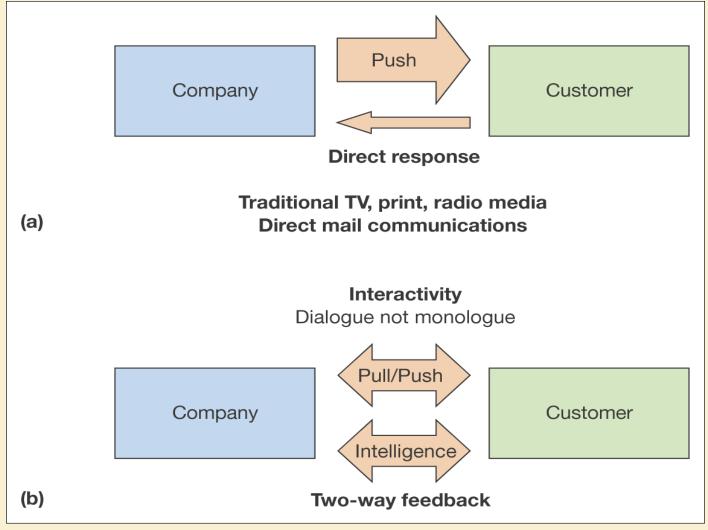


Figure 28: Summary of communication models for (a) traditional media, (b) new media

Summary of degree of individualization for (a) traditional media, (b) new media

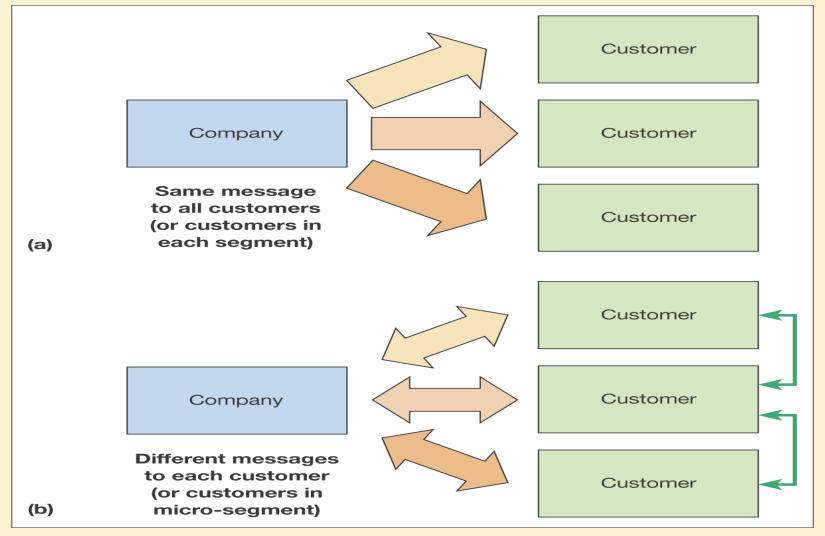


Figure 29: Summary of degree of individualization for (a) traditional media, (b) new media

Channels requiring integration as part of integrated e-marketing strategy

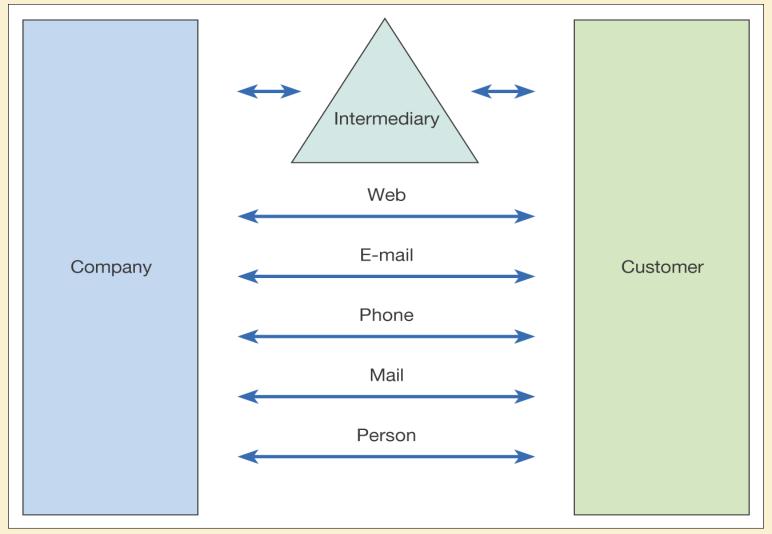


Figure 30: Channels requiring integration as part of integrated e-marketing strategy

Examples of integrated communication tools

- The internet can be used as a direct-response tool enabling customers to respond to offers and promotions publicized in other media
- The web site can have a direct response or callback facility built into it.
- The Internet can be used to support the buying decision even if the purchase does not occur via web site.

Channel integration required for e-marketing and mixed-mode buying

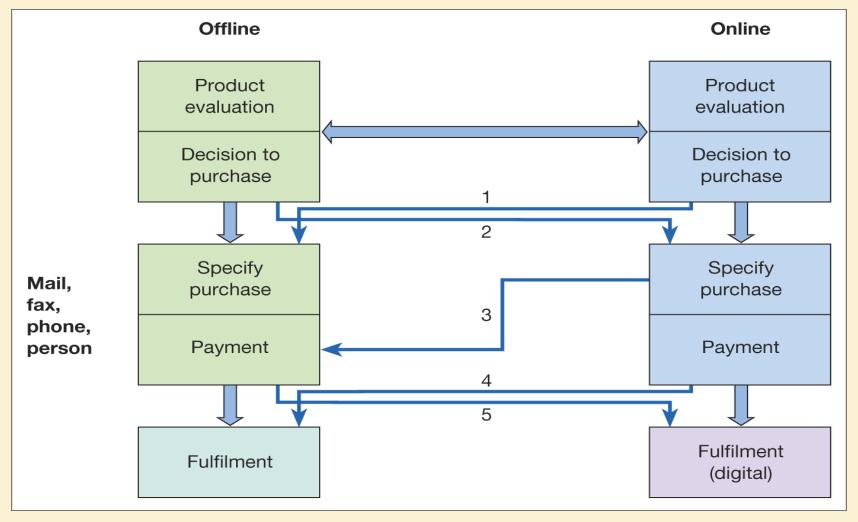


Figure 31: Channel integration required for e-marketing and mixed-mode buying

Online value proposition

- A clear differentiation of the proposition from competitors based on product features or service quality.
- Target market segment(s) that the proposition will appeal to.
- How the proposition will be communicated to site visitors and in all marketing communications.
- How the proposition is delivered across different parts of the buying process.
- How the proposition will be delivered and supported by resources? Will resources be internal or external?

Example OVPs

- 'Compare. Buy. Save'. Kelkoo (<u>www.kelkoo.com</u>)
- 'Earth's biggest selection'. Amazon (www.amazon.com)
- 'Search the largest inventory of cars and trucks on the Internet. More than 1.5 million listings, updated daily' (www.autotrader.com)
- The Citibank site design (<u>www.citibank.com</u>) uses a range of techniques to illustrate its core proposition and OVP. The main messages are:
 - ➤ Welcome to Citibank: The one-stop solution for all your financial needs.
 - ➤ Look for a product or service; Learn about a financial product; Find a location.

Indonesian OVP

- Bhinneka.com: "Indonesia's No 1 Webstore"
- Tokobagus.com: "Jual Beli Bagus"
- Tokopedia.com: "Jual Beli Online Aman dan Nyaman"
- Lakupon.com: "Jagonya Kupon"
- Alfa online: "Smart & Easy Shopping"

Issues with varying the mix online

- Do we vary the mix online or replicate offline?
- Is the offer clear brand proposition, online offer
- Is online differentiation defined?
- Is online differentiation communicated?
- Key online mix variables
 - > Product
 - > Price
 - > Place
 - > Promotion
 - > Service: People, Process, Physical evidence

The Marketing Mix

Using the Internet to vary the marketing mix Promotion **Process** Physical evidence **Product Price Place** People Quality Marketing Positioning Trade Individuals Customer Sales/staff Image communications List channels on marketing focus contact Branding Personal Discounts Sales activities Business-led experience Features Credit Individuals IT-supported of brand promotion support Variants Sales Payment Channel Design Product on customer number Mix promotion methods contact features packaging • PR Segmented Research Online Support Free or Recruitment Customer Branding valuechannels Culture/ experience and Direct service added development image Use marketing elements Training and skills occasion Availability Remuneration Warranties

Figure 32: The elements of the marketing mix.

Product

- Extend range (Tesco)
- Narrow range (WH Smith iDTV)
- Online-only products (banks)
- Develop new brand (Egg)
- Migrate existing brand (HSBC)
- Partner with online brand (Waterstones and Amazon).

Price

- Differential pricing:
 - Reduce online prices due to price transparency and competition (easyJet)
 - Maintain price to avoid cannibalization of offline sales (Dixon)
- New pricing options (software, music):
 - Rental
 - Pay per use
 - Reverse auctions (B2B)
 - Dynamic pricing (Concert tickets).

Place

- Place = avoiding channel conflicts
 - ➤ Disintermediation sell direct
 - Reintermediation partner with new intermediaries
 - Countermediation
- Form new intermediaries
 - > Partner with existing intermediaries
 - Distance from intermediaries. (Abbey National)

Promotion

- Selective use of new online tools for different stages of the buying process and customer lifecycle
- Online only campaigns
- Integrated campaigns incorporating online tools into communications mix.

Service

- People
 - Automate use web self-service, offer customer choice
 - Autoresponder
 - E-mail notification
 - Callback Facility
 - FAQ
 - Onsite search engines
 - Virtual Assistance

Service (Cont.)

- Process
 - Change process for service contact strategies
- Physical evidence
 - Site design differentiate or support a brand
 - Fulfillment quality.

Branding

Malcolm McDonald in their classic 1992 book,

- Creating Powerful Brands as an identifiable product or service augmented in such a way that the buyer or user perceives relevant unique added values which match their needs most closely.
- Furthermore, its success results from being able to sustain these added values in the face of competition.

Options for changing brand identity online

- Transfer traditional brand online
- Extend traditional brand
- Partner with existing digital brand
- Create a new digital brand

Actions

- What level of investment in the Internet channel is sufficient to deliver services?
- What training of staff is required?
- What new responsibilities are required for effective Internet marketing?
- Are changes in organizational restructuring required?
- What activities are involved in creating and maintaining the web site?

Control

- Conduct marketing research
- Analysis of web-server log files
- Intranets can be used to share information

Summary

- 1. E-marketing is the application of technology to achieve marketing objectives, defined by the Chartered Institute of Marketing as: 'The management process is responsible for identifying, anticipating and satisfying customer requirements profitably'.
- E-marketing can be considered a subset of ebusiness and is equivalent to sell-side ecommerce.
- 3. An e-marketing plan is often developed separately from an e-business strategy. The SOSTAC[™] framework is used to introduce the elements of an e-marketing plan.

Summary (Cont.)

- 4. Situation analysis involves a consideration of the external environment with the emphasis on levels of customer access to the Internet, benchmarking of competitors and new entrants.
- 5. Objective setting a key objective is setting the online revenue contribution or the percentage of sales that will be achieved online.
 - ➤ For companies where direct sales are not practical because of the nature of the product, companies may set objectives for how the web will affect marketing communications, customer service, and cost reductions.

Summary (Cont.)

- 6. Strategies through evaluating the suitability of product for direct sale a company may define a replacement (product suitable for direct sale, e.g. airline tickets) or complementary strategy (product unsuitable for direct sale, e.g. FMCG or consultancy services).
 - ➤ Replacement strategies may involve changing distribution networks. Complementary strategies will involve using the Internet as an additional marketing communications channel.

Summary (Cont.)

- 7. Tactics- e-marketing tactics can be reviewed through varying the elements of the marketing mix: Price, Place, Product, Promotion, People, Processes and Physical evidence.
- 8. Actions the planning of e-marketing strategy by identifying resources and timescales.
- Control control can be achieved through monitoring customer satisfaction and channel performance via the web site and traditional channels.

In conclusion

- E-marketing defined
- E-marketing planning
- The e-marketing plan in the context of other plans
- A generic framework for e-marketing planning
- Inputs to the e-marketing plan from situation analysis
- Stages in target marketing strategy development

Understand

- E-Marketing Objectives
- Summary of communication models for (a) traditional media, (b) new media
- The Marketing Mix
- etc.

THANK YOU FOR YOUR ATTENTION

Q&A