

# Marketing Information Systems: part 5

Course code: PV250

Dalia Kriksciuniene, PhD

Faculty of Informatics, Lasaris lab.,  
ERCIM research program

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# Timetable

**Part 1: Oct.22 Mon 14:00–17:50 C525**

**Part 2: Oct.23 Tue 8:00–11:50 G101**

**Part 3: Nov. 05 Mon 14:00–17:50 C525**

**Part 4: Nov. 05 Tue 8:00–11:50 G101**

**Part 5: Dec.10 Mon 14:00–17:50 C525**

**Part 6: Dec.11 Tue 8:00–11:50 G101**

**Assessment session: 1-2nd week of January**

# Syllabus 4

- Marketing planning, process modelling and decision making by using MKIS.  
**Tools & software, lab work:** *Marketing plan Pro*

# Assignment 3

*3rd team assignment and lab work training -*  
Marketing planning and its linking to the  
design of MkIS structure and processes of  
the enterprise

**Tools & software:** *Marketing plan Pro*

# Interrelationship of MIS, MkIS and IT concepts

Marketing IS concepts	Management IS creation concepts (O'Brien, 1990)	IT concepts (O'Brien, 1990), Zikmund et al 2003)
1 Integration of functional modules	<b>Management operations processing</b>	<b>Transactional processing</b>
2 Project and campaign	Creating strategic advantage ERP (enterprise resource planning) CRM	Analytic applications, EAI (enterprise application integration), CRM
3 Value chain system		
4 Competitive system		
5 End-user „ad hoc“ support		
6 Support for marketing management processes		
7 Marketing intelligence system	<b>Decision making support (DSS)</b> <b>Expert systems (ES)</b> <b>Executive information systems (EIS)</b> <b>Business intelligence systems (BI)</b>	<b>data warehouses, data mining, OLAP (online analytical processing)</b>
8 Multidimensional MkIS		

# Marketing IS concepts

- 1 Integration of functional modules
- 2 Project and campaign
- 3 Value chain system
- 4 Competitive system
- 5 End-user „ad hoc“ support
- 6 Support for marketing management processes
- 7 Marketing intelligence system
- 8 Multidimensional MkIS

# 1 Integration of functional modules

- This concept is the most prevailing.
- **MkIS** modules are composed by creating collection of functional modules, each of them designed for specialized marketing-related function.
- The concept correspond to the theoretical works which present marketing function of the enterprise as list of activities and personal responsibilities
- The input information for each module is different and related to functions (e.g. sales, customer service, advertisement)
- Output- standardized reports and analytical possibilities

# Example : SAP integrated system:

System modules are composed of various functional blocks.

## mySAP Customer Relationship Management - Enterprise

Marketing	Marketing Planning	Customer Segmentation	Campaign Management	Trade Promotion Management	Lead Management	Personalization		
Sales	Sales Planning & Forecasting	Territory Management	Account & Contact Management	Activity Management	Opportunity Management	Quotation & Order Management	Contract Management & Leasing	Incentive & Commission Management
Service	Service Planning & Forecasting	Customer Service & Support	Resource Planning & Optimization	Service Operations Management	Professional Services			
Analytics	Customer Analytics	Product Analytics	Marketing Analytics	Sales Analytics	Service Analytics	Interaction Channel Analytics		

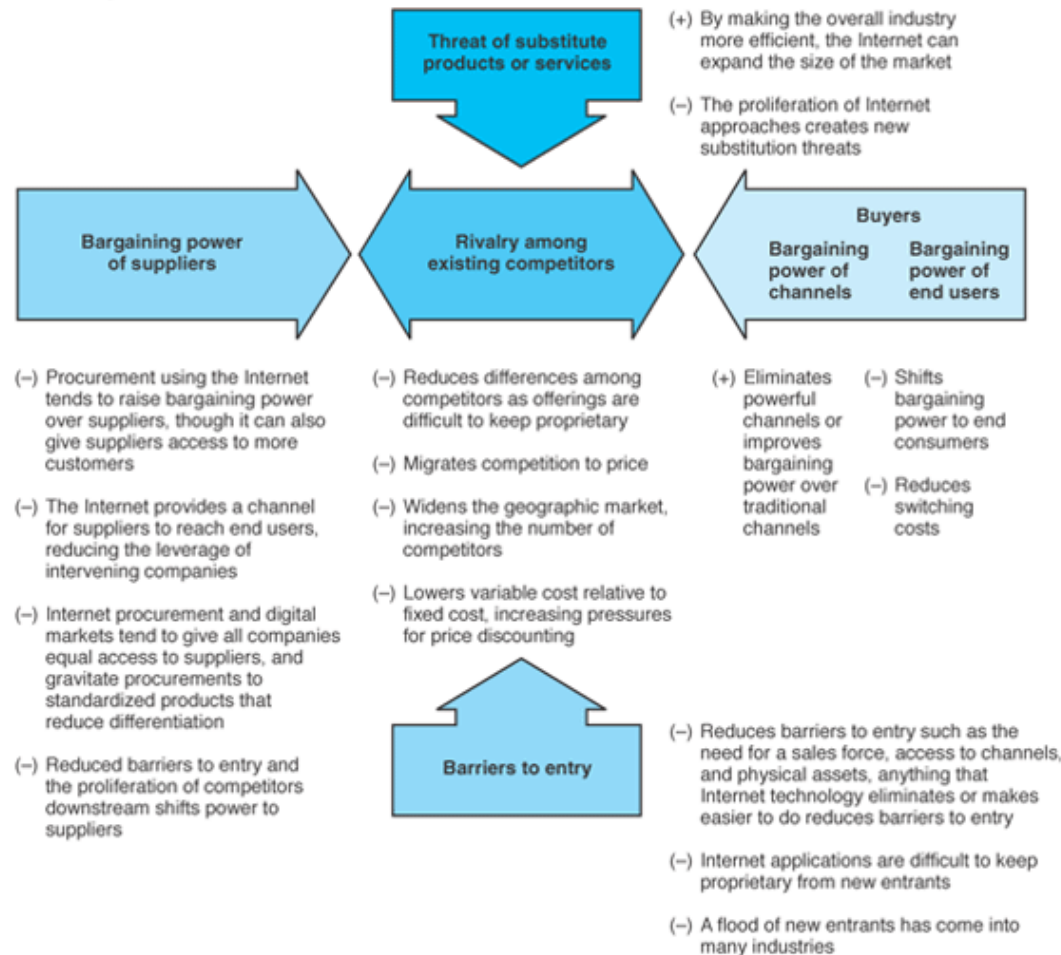


## 2 Project and campaign

- This concept corresponds to the idea that marketing lacks structure and rules.
- Each marketing activity is organized in an unique and original way; unexpected and innovative solutions created competitive advantage.
- It includes creating marketing campaigns, surveys of loyalty and satisfaction are organized by applying project management principles
- Such type of systems have mainly general functionality (not necessarily related to marketing).
- Examples- Microstrategy campaign module, marketing 4P mix search
- This concept involves matching information and goal

# M. Porter's Five Competitive Forces Model

**Exhibit 2.9** Porter's Competitive Forces Model: How the Internet Influences Industry Structure



Source: Reprinted by permission of *Harvard Business Review*. From "Strategy and the Internet" by Michael E. Porter, *Harvard Business Review*, March 2001. Copyright ©2001 by the Harvard Business School Publishing Corporation; all rights reserved.

- eCampaign
- Pre\_Campaign Guide Documents Subscriptions
  - Current\_Campaign
  - Post\_Campaign

### Campaign Design - Step 2 of 4

1 2 3 4 **Subscribe**

Market Basket Analysis can further aid in determining which products or product groups to offer as part of a special promotion. This type of report identifies all products that sell with a selected product (the study product). It also identifies how frequently each item was sold with the study product. By determining which products sell well together, it is easier to select items to include in a promotional campaign.

Report: Market Basket Analysis

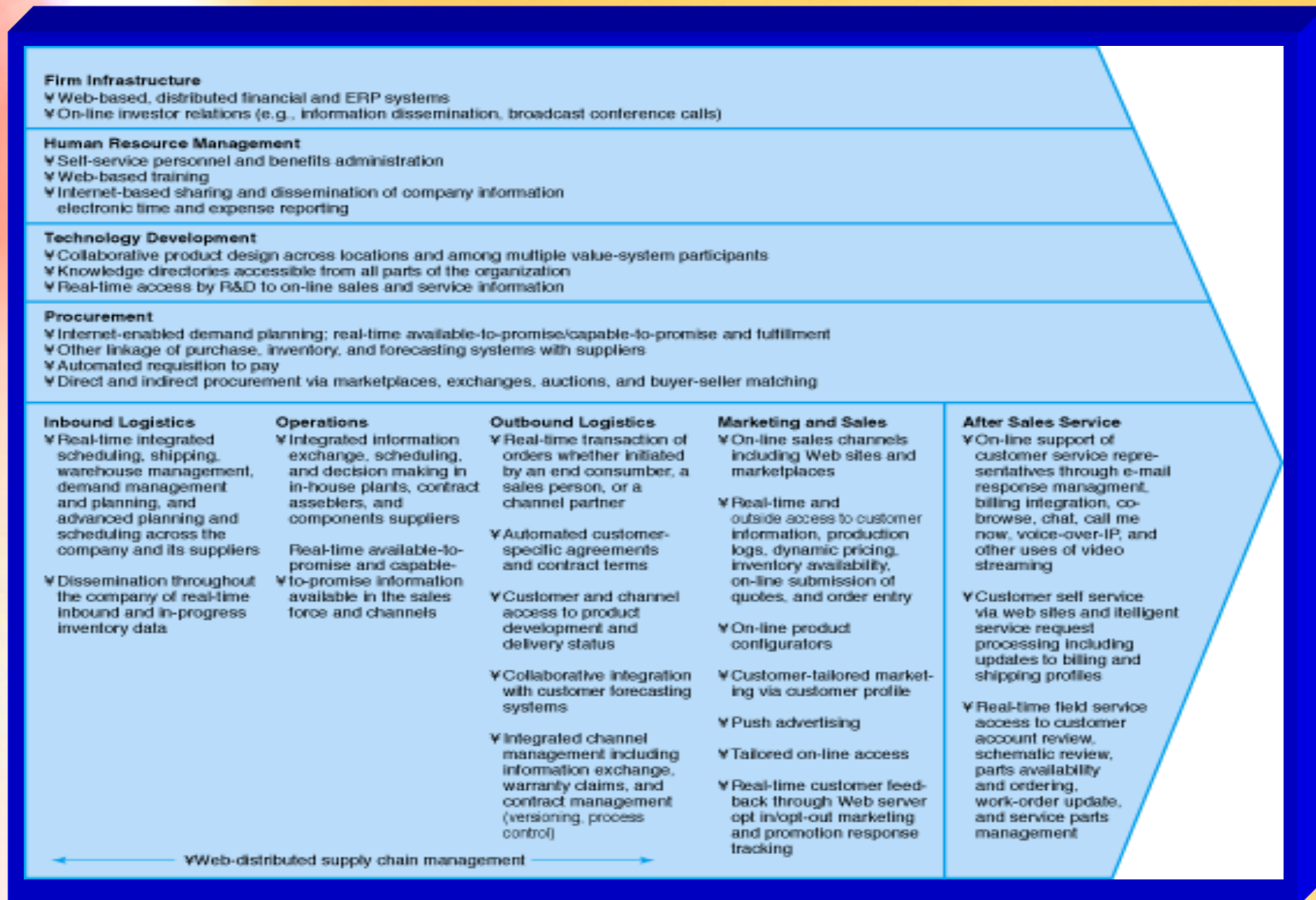
Measures	Attachment Rate (%)
Study Product Group	
Pop	
Art & Architecture	
Business	
Literature	
Miscellaneous	
Science & Technology	
Sports & Health	
Audio Equipment	
Cameras	
Computers	
Miscellaneous	
TV's	
Video Equipment	
Action	32%
Comedy	22%
Drama	16%
Horror	20%
...	...

Study Product Group: ^ Pop < 44 >  
Month: ^ Jul-1999 < 199907 >

## 3 Value chain system

- These are MkIS aiming effective supply of marketing department by information from various sources emanating in the enterprise value chain: warehouses, point of sales terminals, mobile communications, call centres, etc
- Information from various sources is stored in data warehouses for further analysis

# The Value chain Framework (M.Porter)



Source: Block and Segev (1996). Reproduced with permission of the authors.

## 4 Competitive system

- MkIS system has functionality which creates barrier for competitors to entry.
- Functions are specialized for business
- Airline reservation (Smart Amadeus, SABRE), pharmacy (SKS Vaistai, Microstrategy Inc., SAP), parcel sending services (UPS)

## 5 End-user „ad hoc“ support

- Information supply for the“ad hoc” needs of the user (high level , mid level managers)
- Include expert, executive information, rule based procedures.
- Mainly are related to dashboards

## 6 Support for marketing management processes

- MkIS modules for planning, control, audit, accounting methods
- Information sources and methodology is selected by the marketing specialist
- E.g. marketing planning software





## 7 Marketing intelligence system

- Marketing knowledge and intelligence management
- Includes methods and functions for capturing information (surveys, social network, transaction)
- Data mining methods, computational intelligence for detecting hidden relationships

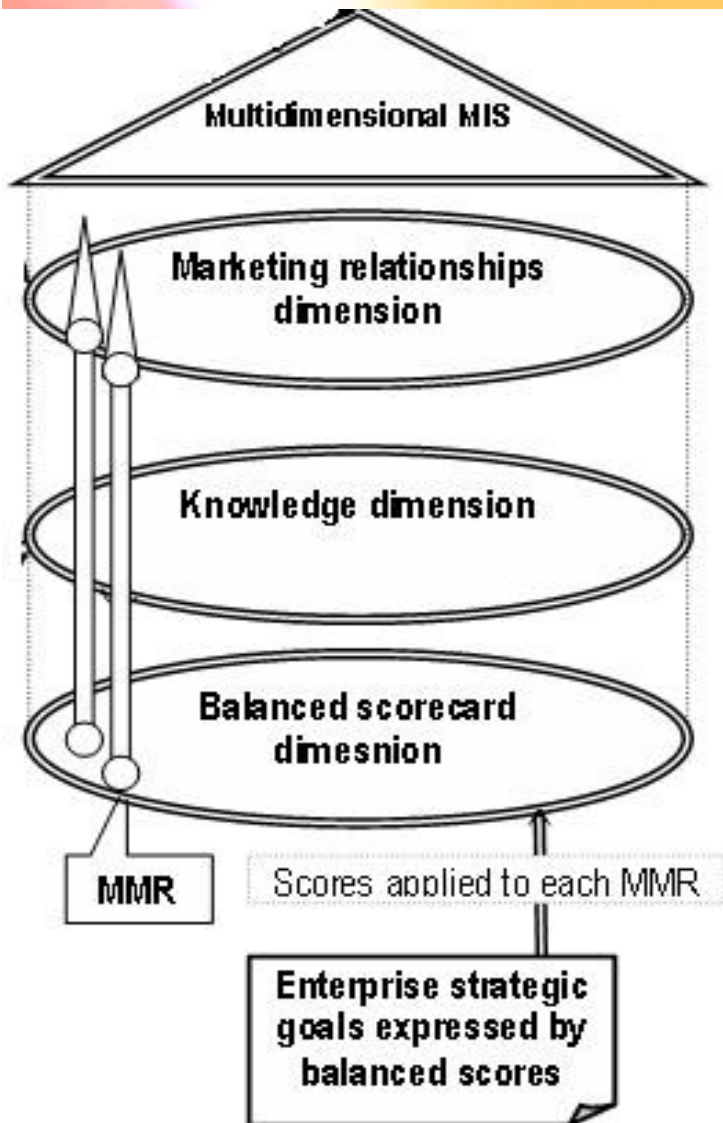
## 8 Multidimensional MkIS

- **Multidimensional MkIS is defined** as a system, created for providing information for marketing management processes (decision support, planning, control, organizing marketing activities), where the input information, describing the marketing-related phenomena, is transformed into multidimensional space, and analysed along the following dimensions: marketing relationships, knowledge and balanced scorecard.

# The levels of analysis in MkIS

- The analyzed MkIS can be applied for one or two levels of analysis and only for partial presentation of situation and dynamics.
- The most advanced systems from the multidimensional point of view are the CRM systems, created for enterprise relationships. They present possibility to map customer relationships, connected with related information created in various functional modules of the integrated system or ERP (MS Axapta, Microstrategy, SAP).
- The software for control by interrelated indicators (e.g. balanced scorecard, KPI, Six Sigma, etc.) is implemented in several certified integrated systems .
- The control modules exist separately and cannot express the marketing processes, situation and development in enterprise, however they present possibility for their conceptual integration into multidimensional MkIS.

# Structure and functioning of multidimensional MkIS



- In the marketing relationships dimension the chart of main marketing relationships gives logical view of enterprise marketing structure.
- The knowledge dimension of MkIS is formed by attaching sources of information related by context to the marketing relationships.
- The balanced scorecard dimension implements the goals level, created for feedback and control of the MkIS.

**New conceptual element of MkIS structure is the multidimensional marketing relationship (MMR). It is formed and parameterized at the three dimensions of MkIS.**

# Structure and functioning of multidimensional MkIS

- The understanding of vertical MkIS structure, consisting of the set of multidimensional marketing relationships, which can be formed and adapted for each enterprise is used instead of traditional horizontal MkIS structure, combined of operational modules of various functionality.
- The functioning of MkIS is based on the decomposing principle, where all the marketing processes and activities are represented as groups of related MMR

# The multidimensional MkIS structure

The existing MkIS can be mapped as parts of the presented system view

