



Marketing Information Systems: course syllabus

Course code: PV250

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ERCIM research program

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About myself

Diploma of engineer mathematician
(Kaunas University of Technology,
Applied mathematics study program)

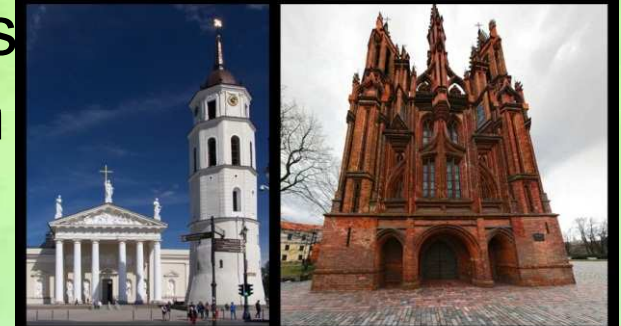
Phd degree: Doctor of social sciences.

University of Management and Economics
(ISM). Dissertation theme: „Substantiation
of multidimensional marketing information
system: concept and model“

Pedagogical Certificate of Associated
professor of informatics (docent) (Vilnius
University)

Assoc.prof. of Vilnius University, Lithuania

Business career: director of bookstore,
marketing and IS manager at travel
agency, engineer programmer

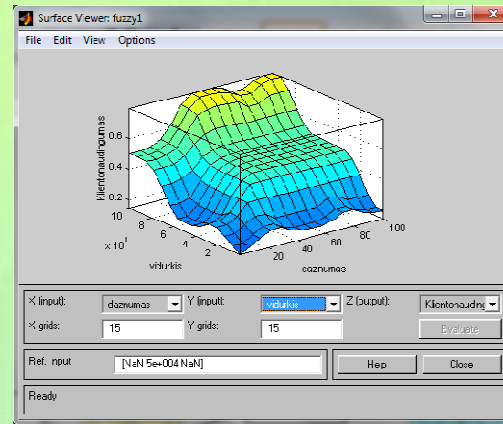
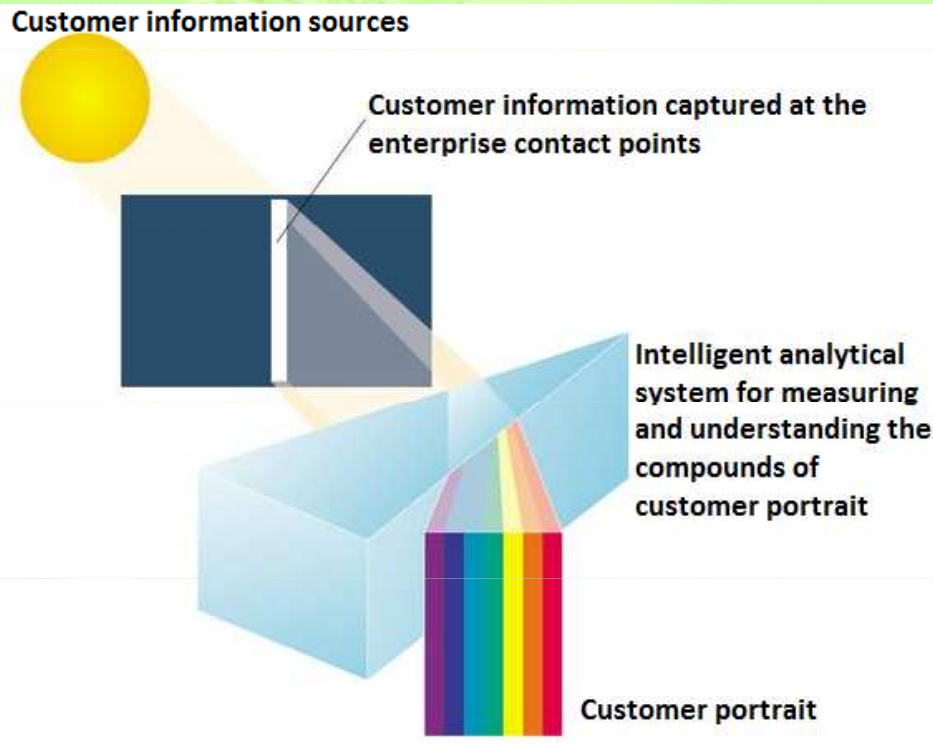


Every drop in the ocean counts [Yoko Ono]



Research themes

The research is oriented to application of artificial intelligence, computational methods for business data analysis in domains of financial markets, marketing and surveillance systems



	Classification (1)	
	Classif..0.1	Classif..1.1
Total	91.0000	101.0000
Correct	80.0000	71.0000
Wrong	11.0000	30.0000
Correct(%)	87.9121	70.2970
Wrong(%)	12.0879	29.7030

$$SE = -\frac{1}{\log_2 2^L} \sum_{i=1}^{2^L} r_i \log_2 r_i$$



Timetable

Part 1: Oct.7 Mon 16:00–19:50 B204

Part 2: Oct.8 Tue 14:00--17:50 G331

Part 3: Oct.29 Tue 14:00–17:50 G331

Part 4: Oct.30 Wed 10:00–13:50 G331

Part 5: Nov.26 Tue 14:00–17:50 G331

Part 6: Nov.27 Wed 10:00–13:50 G331

Assessment session: 1-2nd week of January

Course objectives

The module is aimed to:

- ∞ **provide** advanced interdisciplinary knowledge
- ∞ **augment** skills for creating enterprise information systems,
- ∞ **analyse** needs for support of marketing management processes
- ∞ **integrate** business analytics to marketing
- ∞ **enhance** the performance of marketing management specialists by managing information

Course objectives

The teaching module:

- ∞ introduces creation principles and variety of concepts used for building marketing information systems (MkIS),
- ∞ provides knowledge of the functional components and structure of MkIS,
- ∞ develops ability to distinguish and apply specific analytical computational methods
- ∞ trains skills of computerization in marketing management, including marketing planning, modelling, control and customer relationship management domains.

Course objectives

The students will:

- ∞ get acquainted and acquire practical skills of marketing processes by using
 - ≈ applied software for marketing operations
 - ≈ applied software for marketing decision-making, planning and control
 - ≈ market simulation games,
- ∞ acquire knowledge and skills of marketing information management by using
 - ≈ intelligent computational tools
 - ≈ cloud-based applications
 - ≈ functional modules of the integrated systems,
- ∞ apply methods of virtual team learning

Lecture 1

- ∞ Definitions, functions, requirements for the marketing information systems (MKIS).
- ∞ The careers and users of marketing information,
- ∞ The user' requirements for the information content, inputs, retrieval and presentation.
- ∞ marketing decision making environment, complexity of rules and variables involved

Tools & software (demo): CESIM simulation solutions for multi-stage market modelling games
Lab work training: assignment for CESIM team simulation sessions

Lecture 2

- ∞ Types and functions of marketing information systems
- ∞ Management processes of the marketing manager.
- ∞ Operational, analytical, OLAP, expert, executive, decision-support systems.
- ∞ Applying ERP, business intelligence, integrated software for marketing tasks
- ∞ Big Data issues in marketing

Tools & software: Sugar CRM

Lab work training: assignment for cloud-based marketing application

Lecture 3

- ∞ Customer relationship systems in marketing: concepts and tasks. CRM operational and analytical methods. Social network analytics
- ∞ Information supply for their performance analytics:
 - ∞ analytical and control applications:
 - ∞ pivot tools,
 - ∞ dashboards

Tools & software: *MS Excel* pivot module,
Lab work training: *variables., functions and models for analytics:* CRM performance analysis by applying pivoting

Lecture 4

- Computational intelligence methods neural networks, fuzzy rules, Kohonen self organizing networks
- Application and performance of computational analytics for marketing

Tools & software: *Statistica* advanced models, *Viscovery SoMine* trial

Lab work training: CRM performance analysis by applying computational intelligence methods: neural networks, fuzzy rules, Kohonen self organizing networks

Lecture 5

Marketing planning system: MkIS structure

Marketing process modelling by using MKIS.

Marketing system models at the enterprise.

Investigation of the theoretical and experimental research in MkIS area in the scientific literature.

Tools & software: *Marketing plan Pro*

Lab work training: Marketing planning procedures and their linking to the design of MkIS

Lecture 6

- ∞ Creating MIS in the enterprise
- ∞ Interrelationships with other computerized systems inside and outside the enterprise.
- ∞ Variety of concepts for structure and processes of the MIS models.
- ∞ ERP application for marketing.

Tools & software (demo): The marketing – oriented tools of *MS Dynamic Axapta*, *IBM solutions for marketing*

Total Mark

Lab training 1 :

CESIM team simulation sessions (results+report) (Nov.1)

Lab training 2 :

Sugar CRM assignment for cloud-based marketing application (task done)

Lab training 3 :

MS Excel pivot module (CRM data set prepared)

Lab training 4 :

CRM by applying computational intelligence methods: (*Statistica softw*) for analysis of the prepared data set)

Lab training 5:

Marketing plan + MkIS structure

Colloquium

Literature

Berry, M., J.A., Linoff, G.S. (2011), "Data Mining Techniques: For Marketing, Sales, and Customer Relationship Management", (3rd ed.), Indianapolis: Wiley Publishing, Inc.

Wood, M., B. (2005). The marketing plan handbook (2nd edition). Upper Saddle River, New Jersey: Pearson Education Inc. (Marketing Plan Pro 6.0 software embedded)

Ball, D., A., McCulloch, W., H., Frantz, P., L., Geringer, J., M., Minor, M., S. (2006) International business. The challenge of global competition. 10th edition. McGraw-Hill/ Irwin

CESIM business modelling games (www.cesim.com)

Sugar CRM Implementation <http://www.optimuscrm.com/index.php?lang=en>

Statsoft: the creators of Statistica <http://www.statsoft.com>

Viscovery Somine <http://www.viscovery.net/>

MS Axapta Dyn. <http://www.microsoft.com/en-us/dynamics/erp-ax-overview.aspx>

Online scientific databases accessed via library.muni.cz

Kotler, Ph. Marketing management (any edition)