Marketing Information Systems: course syllabus

Course code: PV250

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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
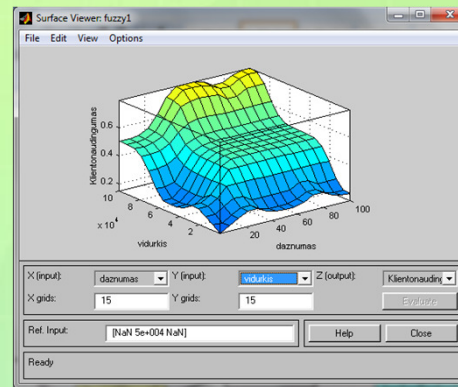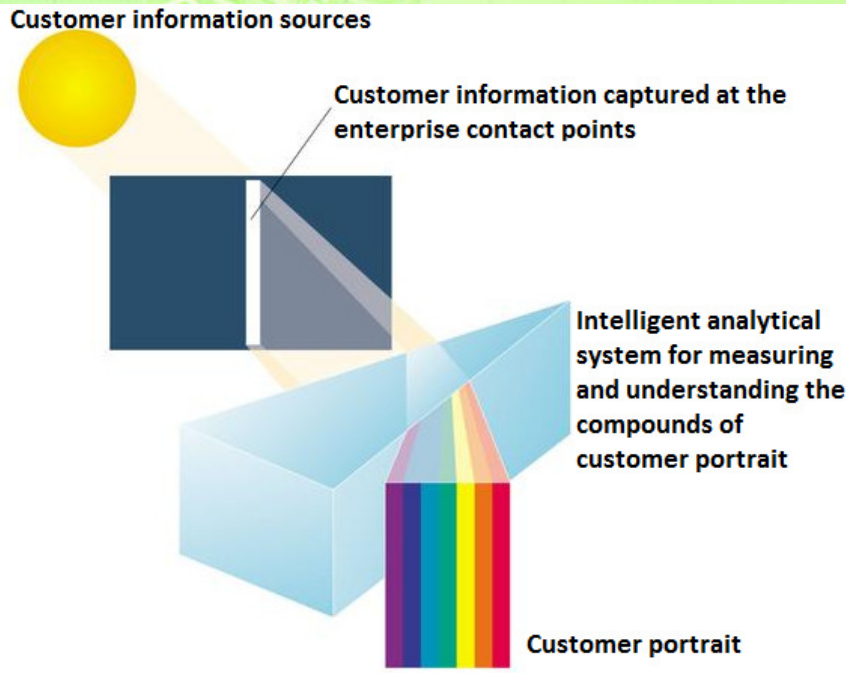
Every drop in the ocean counts [Yoko Ono]

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

Customer information sources

Customer information captured at the enterprise contact points

Intelligent analytical system for measuring and understanding the compounds of customer portrait

Customer portrait

	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

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

Reliable clients group

Prospect clients group

Lost clients group
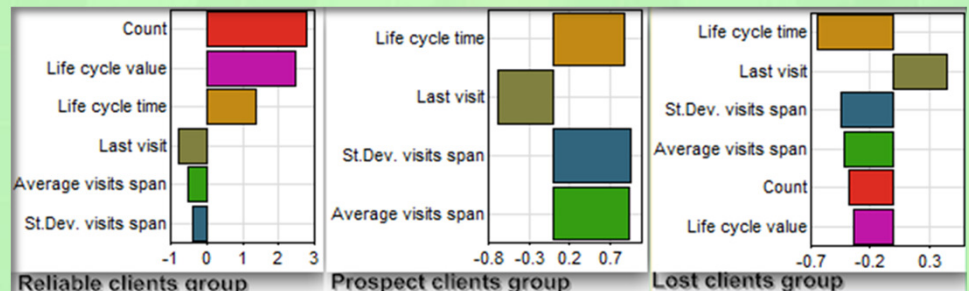
Timetable

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

Course objectives

The module is aimed to:

∞ **provide** advanced interdisciplinary knowledge and

∞ **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:

∞ deepen their scientific writing skills

∞ apply methods of virtual team learning for fulfilment of assignments in MkIS area

∞ get acquainted and acquire practical skills of marketing analytics by using

  ≈ cloud-based applications

  ≈ intelligent computational tools

  ≈ functional modules of the integrated systems,

  ≈ market games,

  ≈ applied software for marketing decision-making, planning and control.

Syllabus 1

∞ Definitions, functions, requirements for the marketing information systems (MKIS).

∞ The users of marketing information

∞ The user' requirements for the information content, inputs, retrieval and presentation.

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

Assignment 1- Part 1

Tools & software: online scientific databases, including *library.muni.cz*

1st Assignment has two parts:

> *Part 1*: starting the scientific article (abstract+introduction+analytical part+reference)

> Part 2: completing the scientific article (solution+experiment+conclusion+submission)

Part 1: (individual/team) *and lab work* *training-* scientific writing skills: analytical part. Exploring publications in scientific databases Springer, Thomson, Emerald, Elsevier, IEEE, etc. Writing in virtual teamwork space.

Syllabus 2

∞ Types and functions of management information systems
∞ Their usage for the marketing purposes: operational, analytical, OLAP, expert, executive, decision-support systems.
∞ Applying ERP, business intelligence, integrated software for marketing tasks.
∞ Cloud based and open source solutions
∞ Big Data issues.

Tools &software: Sugar CRM
Lab work training for cloud-based marketing application

Syllabus 3

Management processes of the marketing manager. Information supply for their performance:
- ∞ analytical and control applications:
- ∞ pivot tools,
- ∞ dashboards
- ∞ computational intelligence methods for marketing

Tools &software: *MS Excel* pivot module, *Statistica* advanced models, *Viscovery SoMine* trial

Assignment 2

Tools &software: Sugar CRM, MS Excel pivot module, *Statistica* advanced models, *Viscovery SoMine*

2nd team assignment and lab work training:

Operational CRM (Sugar CRM)

Analytical CRM (CRM performance analysis by applying computational intelligence methods: neural networks, fuzzy rules, Kohonen self organizing networks)

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*

Syllabus 5

Marketing models at the enterprise.
Application of business simulation games for
marketing

Tools &software (demo): CESIM modelling
solutions: *OnService, SimBrand, Hospitality,
GlobalCHallenge*

Syllabus 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*

Assignment 1- Part 2

1st Assignment (two parts- Part 2) (individual/team) *and lab work training -* scientific writing skills: marketing IS- related solution and experimental part.

Submission of the article, prepared by fulfilment of Assignment Part1+Part2 according to the requirements of scientific reviewing process

Total Mark

Assignment 1 Scientific article Part1+Part2

Assignment 2 Operational + analytical CRM

Assignment 3 Marketing plan + MkIS

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)