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SZKOŁA GŁÓWNA HANDLOWA
W WARSZAWIE
WARSAW SCHOOL OF ECONOMICS



E-learning in management – Focus on Hungary, Serbia and Slovakia

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Welcome Ladies and Gentlemen!



Why are the boots on the table?

Typical IB/IM topics

- ❑ Internationalization
- ❑ Globalization
- ❑ FDI
- ❑ Mgmt. functions of multinational firms
- ❑ Localization
- ❑ Int. Communication&culture
- ❑ Etc.

Emerging topics

- ❑ Ethics
- ❑ New elite in IB/IM
- ❑ Role of new &future firms
- ❑ Role of second langauges
- ❑ Impact social media&e-learning
- ❑ Etc.





1. Theoretical background
2. Management challenges
3. Empirical research
4. Conclusions
5. Limits and future plans



Theoretical background (1)

About e-learning



- In a wider sense:
 - it is a process of training, transferring knowledge or studying which is aided by digital equipment (storage, retrieval, display, forwarding and feedback of content and study-aides)
- More specifically:
 - it is an open form and framework of training, accessible through a private or public network, which enables the efficient organization of the training process for the user (young or adult),
 - as well as an appropriate communication and feedback between tutor and trainee, regardless of time or distance

Theoretical background (2)

E-learning's Critical Success Factors (CSF)



Personal Dimensions:

- Learners' Characteristics
- Instructors' Characteristics
- Extrinsic Motivation

CSFs for E-learning

Environmental Dimensions:

- E-learning environment

System Dimensions:

- Infrastructure and system quality
- Course and information quality
- Institution and service quality

Theoretical background (3)

Prons and cons

Advantages

- Cost reduction
- Time and space flexibility
- Multimedia forms
- High interactivity

Disadvantages

- Lack of direct interpersonal relations
- Not exact definite time and place of training
- Difficulties with verification of knowledge

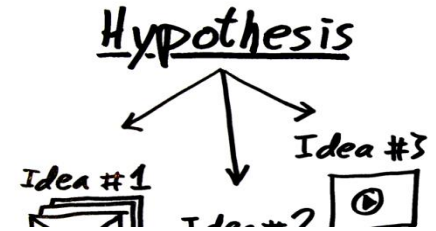
Management challenges

Eight-dimensional e-learning framework by Badrul Khan



Empirical research

Hypotheses



- H1: The **character of an enterprise** (e.g., the business sector or owner) influences the perception of its usefulness, and so enterprises belonging to the **same sector** are perceived similarly in terms of usefulness
- H2: There is a correlation between perceived **usefulness and course quality** and content of e-learning
- H3: There is a significant correlation between the **learning content and target group of learners** (employees)

Empirical research

Questionnaire



- Introduction
- Response characteristics (1-3 Parts)
 - Size (headcount, revenue), branch, sector and owners
- Use of e-learning (4-4.14 Sections)
 - Usage, area(s) of usage, framework, initial cost, responsible function, maintenance budget, content and format
- Opinion on e-learning (5.1-5.16 statements)

Number	Statement	rating				
		1	2	3	4	5
5.1.	I am unfamiliar with e-learning and unable to deal with it at the moment.					
5.2.	I am unfamiliar, however if it involves computers I am uninterested, as we are not investing in anything at the moment.					
5.16					

- Future plans



Empirical research

Sample (n=270)



- In total, 158 questionnaires from **Hungary**, 58 from **Serbia** and 54 from **Slovakia** were returned.
 - **Sector** (Private 5%, Public 24%, Business 71%)
 - **Size** of responding organizations (Micro enterprise 31%, Small enterprise 19%, Medium-sized enterprise 14%, Large-scale company 36%)
 - **Industry** (C) Processing 25%, (K) Finance, Insurance 20%, (G) Trade & Vehicle Repair 16%, (S) Industry & other services 14%, (J) Information & Communication 10%, Other 15%)
 - **Owners** (Domestic 68%, Foreign 27%, Other 5%)

Empirical research

Use of e-learning



□ **Ownership** (Phi= 0.970;
Sig.= 0.000):

□ **Sector** (Phi= 0.967;
0.000):

□ **Industry** (Phi= 0.942;
0.000):

□ **Size** (Phi= 0.370;
0.044):

■ **Foreign firm: 56%**

■ **Public or State 49%**

■ **Information &
Communication 69%**

■ **Large-scale company 69%**

Empirical research

Analysis of factors that influence e-learning system usage



□ Cost-Efficient

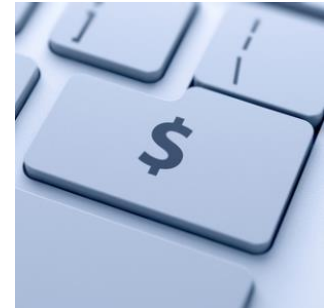
- Medium-size enterprise 18%;
- (J) Information & Communication 44%;
- Foreign 42%

□ More Effective Education Form

- Large-scale company 37%; (J) 56%; Foreign 38%

□ Better Use of Time

- Large-scale company 44%; (J) 37%; Foreign 33%



H1: The characteristics of the enterprise (business sector/ owner/ size) (1)







- The **average** period of e-learning by business sector, size, industry and ownership. (4.00– 6.44 years) **Not show significance**
- **No correlation** between the **target groups** of e-learning and **sectors, size, industries and ownership.**
- There is a **significant correlation** between
 - **Internal developers** are mostly employed by the **public or state** sector (41.0%).
 - More than a quarter of the **large-scale enterprises** (27.9%) employ external providers for e-learning.






H1: The characteristics of the enterprise (business sector/ owner/ size) (2)



- In the case of using **free or pay e-learning** framework systems there is **no significant** correlation between the different **sectors** and **ownership**. 
- In the case of different **sizes**, **correlations of medium strength** can be detected at different **sizes**. Nearly half of the **large-scale** companies, a quarter of **micro-enterprises** and a tenth of **small-and medium-sized enterprises** involved in the examination **use free e-learning** software. 
- Based on the cross tabulation analysis, a **significant correlation** can be seen between **ownership** and external foreign companies which **provide** e-learning. The greatest number of foreign companies interviewed (16% of the respondents) **used** foreign enterprises. 
- A similarly **significant correlation** can be found between **sectors** and the internal organizational units dedicated to **developing** e-learning. Thirteen percent of the responding **public or state** organizations use the services of an internal organizational unit to improve e-learning content. 



H1: The characteristics of the enterprise (business sector/ owner/ size) (3)



- A **significant correlation** can only be detected in **improving language skills**. The **correlation** is of medium strength, whilst it is 11% for the **private sector**. 
- 7 of the 9 examined areas showed a **significant correlations**. (Retraining, Informatics, Qualification Examinations, Labour Regulations, Compulsory In-house Training, Fire Protection and Labour Safety, Improving Language Skills, On-the-job Training for Vocational Jobs, Professional Software Support, New Equipment and Tools.) Regarding content, in all cases it is the large-scale companies which use e-learning systems to the greatest extent. 
- There is **no correlation** between **e-learning content** (Improving language skills, Professional Software Support, Informatics, Fire Protection and Labour Safety) and **ownership**. 

H1: The characteristics of the enterprise (business sector/ owner/ size) (5)



- If we also examine the format in accordance with the content, we can find **significant correlation**. In our primary research we asked about the **following formats: Text, Presentation, Multimedia / Video, traditional format, Standard, SCORM content, Interactive, communicating with the student**. A significant correlation exists between the four examined e-learning formats and **company size**. 
- Frequency was the strongest in large-scale companies, followed by micro and small enterprises; finally medium-sized enterprises followed when we examined all size categories and formats.
- If we examine **ownership**, we can conclude that there is **no significant correlation** between the **format** of e-learning materials (text, multimedia and standard) and **ownership** on the one hand, but, on the other, a weak correlation does exist between **presentation** and using the **interactive format**. 

H1: The characteristics of the enterprise (business sector/ owner/ size) (6)



- If we examine **the use/non-use of e-learning systems**, it is clear that it is in a **significant correlation** with the **sectors**. This system has been used by 38% of the **private sector** and 46% of the **public or state sector**. ✓
- **The use/non-use of e-learning systems correlates** with the **size** of the enterprise. E-learning methods are used by more than half of the large-scale companies, more than one third of medium-sized enterprises and 27% of micro and small enterprises. ✓

H2: There is a correlation between perceived usefulness and course quality and its content (1)

- E-learning systems are used for the following reasons:

- cost-efficiency,**
- more effective form of education,**
- better use of time,**
- employees' needs and training opportunities,
- easier administration and registration,
- diverse content.



- In most cases e-learning is regarded as a **more effective form of education**, but it is also seen as **cost efficient** and a **better use of time**.

H2: There is a correlation between perceived usefulness and course quality and its content (2)

- When we examine whether there was a correlation between the sums spent on the **framework for e-learning** and the **reasons for its use**, we found **no such correlation**. The figures illustrate the fact that **80%** of the respondents **spend no more than 500.000 Ft (≈€1.600)** on any framework.



H2: There is a correlation between perceived usefulness and course quality and its content (3)

- When we examined whether there was a **correlation** existing between **e-learning usage** and **e-learning content**, the answer was positive.
- A significant correlation of medium strength between
 - **cost efficiency and using new equipment and tools, cost efficiency and professional software support work,**
 - **employees' needs for e-learning training and retraining; employees' needs for e-learning training and using new equipment and tools; employees' needs for e-learning training and improving language skills; employees' needs for e-learning training and qualification examinations;**
 - **easier admin. and registration by means of e-learning and qualification exams;**
 - **diverse e-learning content and professional software support work.**



H3: There is a significant correlation between learning content and target group of learners (employees)

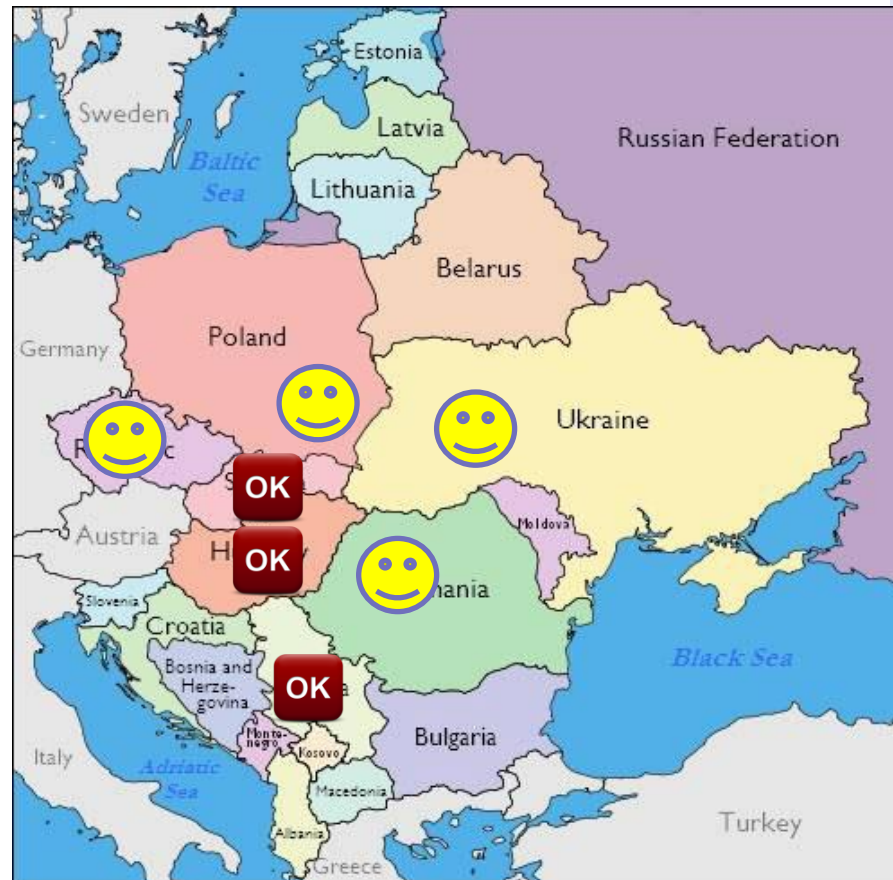
By using cross-tabulation analysis again we examined whether there was a **correlation** existing between e-learning content and format. The data illustrate that there was a significant correlation between these two e-learning factors. On the basis of Phi the **correlation is stronger than medium** between

- **text format and retraining** as well as fire protection and **labour safety content**;
- **presentation and retraining (0.524)** and **e-learning content based on improving language skills**,
- **multimedia format and retraining (0.506)** plus **using new equipment plus improving language skills** and **e-learning material supporting professional activity**;
- **interactive format and using new equipment** as well as **content supporting professional activity**.

Conclusions

- 1. The character of an enterprise influences the perception of its usefulness, and so enterprises belonging to the same sector are perceived similarly in terms of usefulness**
- 2. There is a correlation between the perceived usefulness and course quality and content**
- 3. There is a significant correlation between the learning content and the target group of learners (employees).**

Limits and future plans



- Other countries of Eastern Europe

Thank you for your attention!

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