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

**Environmental Dimensions:**
- E-learning environment

**System Dimensions:**
- Infrastructure and system quality
- Course and information quality
- Institution and service quality

Source: Bhuasiri et al., 2012: 846
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)

<table>
<thead>
<tr>
<th>Number</th>
<th>Statement</th>
<th>rating</th>
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<tbody>
<tr>
<td>5.1.</td>
<td>I am unfamiliar with e-learning and unable to deal with it at the moment.</td>
<td></td>
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<tr>
<td>5.2.</td>
<td>I am unfamiliar, however if it involves computers I am uninterested, as we are not investing in anything at the moment.</td>
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<td>5.16</td>
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- 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%)
Ownership (Phil = 0.970; Sig. = 0.000):

Sector (Phil = 0.967; 0.000):

Industry (Phil = 0.942; 0.000):

Size (Phil = 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) (4)

- Based on the cross tabulation analysis there is a significant correlation between ownership and the following e-learning contents: on-the-job training of vocational jobs, retraining, new equipment and tools, qualification examinations, labour regulations, compulsory in-house training.

- More than one third of foreign companies use e-learning systems for on-the-job training for vocational jobs (38%), qualification examinations (36%) and familiarisation with new equipment and tools (33%).
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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