

- *Second group of objects have information on danger sources.*
- *The third group of objects gather data on ways to minimize the risk..*

### **Conclusion**

The article is devoted to the database developing process in case of mobile information systems. As a result of the research the “Danger sources” “Danger sources” was developed.

### **References**

- [1] Watt A. Database Design – 2<sup>nd</sup> Edition. In: Open Educational Resources, Hewlett Foundation, <https://opentextbc.ca/>, last accessed 2019/02/19
- [2] Stages of development of Databases. In: Pidruchnyk, <https://www.vidminnyk.com/prykladne-programne-zabezpechennja/bazy-danyh/etapy-rozrobky-bazy-danyh>, last accessed 2019/02/19 (in Ukrainian)
- [3] Creating data bases. Stages of development. In: Studopedia, <https://studopedia.org/12-86935.html>, accessed 2019/02/19 (in Ukrainian)
- [4] Savchuk, V. V., Kunanec, N. E., Pasichnyk, V. V., Popiel, P., Weryńska-Bieniasz, R., Kashaganova G., Kalizhanova, A.: Safety recommendation component of mobile information assistant of the tourist, In: Proceedings on SPIE 10445, Photonics Applications in Astronomy, Communications, Industry, and High Energy Physics Experiments 2017, 104455Z (7 August 2017); doi: 10.1117/12.2280

**Bogavac Milanka, Ph.D., Assistant Professor,  
Faculty of Business and Law of the “Union – Nikola Tesla” University in  
Belgrade,  
Belgrade, Serbia**

**Čekerevac Zoran, Dr., Full Professor,  
Faculty of Business and Law of the “Union – Nikola Tesla” University in  
Belgrade,  
Belgrade, Serbia**

## **IDSME INDEX AS A TOOL FOR SMEs DIGITALIZATION EVALUATION**

IDSME index is created for an evaluation of the SMEs achievements in the process of digitalization of doing business. It is authors’ contribution to analyzing the ability of SMEs to adapt to a new business environment. The index is based on 28 indicators grouped into 10 sub-dimensions that are also grouped into four dimensions. Sub-dimensions and dimensions are weighted according to their influence on the modern doing business, and their impacts on business results. To get a comparable index, an aggregation is made using the following formula:

$$IDSME(SME_i) = \text{Connection\_to\_the\_Internet}(SME_i)_i * 0,15 + \text{Digital\_skills}(SME_i) * 0,15 + \text{Integration\_of\_digital\_technologies}(SME_i) * 0,45 + \text{Internet\_usage}(SME_i) * 0,25$$

Table 1 Structure of SMEs Digitalization Index (IDSME)

Dimension	Sub-dimension	Indicator	Criterion	min	max
<b>1. Connection to the Internet</b> (w=15%)	1a. Connectivity to broadband Internet (w=25%)	1a1. Connection to a fixed broadband Internet	Possession of an active connection	0	1
		1a2. Connection to a mobile broadband Internet	Possession of an active connection	0	1
	1b. Connection to the Internet via a public telecommunication network (w=15%)	1b1. Connection to the Internet via phone line	Possession of an active connection	0	1
	1c. Internet speed (w=30%)	1c1. Subscription to fast BB access	Declared access speed $\geq$ 30Mbps	0	1
	1d. Possibility to work from a remote location (w=30%)	1d1. Users of the working from remote location option	% of employees who used this opportunity in the last three months	0	10
<b>2. Digital skills</b> (w=15%)	2a. basic skills (w=35%)	2a1. Internet users	% of employees who used this service in the last three months	0	30
		2a2. E-mail users	% of employees who used this service in the last three months	0	30
		2a3. Using the Office software	% of employees who used some Office software component in the last three months	0	30
	2b. Advanced skills (w=65%)	2b1. ICT experts	% of employees	0	10
		2b2. STEM graduates	% of employees	0	20
		2b3. Programmers	% of employees	0	5
<b>3. Integration of digital technologies</b> (w=45%)	3a. Use of digital technologies (w=50%)	3a1. Possession of an own website	Possession of an active website	0	1
		3a2. Possession of an or more accounts on social networks	Possession of an or more active accounts on social networks	0	1
		3a3. Keeping records electronically	Possession of dedicated software	0	1
		3a4. Using of B2B e-business models	Internet activities in the last three months	0	1
		3a5. Using of B2G e-business models	Internet activities in the last year	0	1
		3a6. Using cloud computing	Possession of an active Cloud account	0	1
		3a7. Using some decision support tool	Possession of dedicated software	0	1
		3a8. Using automation	Possession of equipment	0	1
	3b. Electronic	3b1. Online selling	Sales made online	0	1

Dimension	Sub-dimension	Indicator	Criterion	min	max
	commerce (w=50%)	3b2. E-commerce turnover	% of the total turnover	0	33
		3b3. Cross-border online sales	% of the total turnover	0	25
<b>4. Internet usage</b> (w=25%)	4a. Communication (w=50%)	4a1. Individual video calls or video conferences	Internet activities in the last year	0	1
		4a2. Use of e-mail	% of e-mails in total correspondence	0	90
		4a3. Participation in social networks	Frequency of using social networks (never, rarely, at least once a month, weekly, daily)	0	4
		4a4. Intranet possession	Network possession	0	1
	4b. Transactions (w=50%)	4b1. E-banking	% of electronic- in total banking-transactions	0	90
		4b2. Purchasing over the Internet	% Internet shopping in total purchases	0	25

Calculating IDSME index can help SMEs to perform a self-evaluation and look at their achievements and weaknesses, see their position in the competitive business environment, and develop plans for their future development.

This research is performed within the frame of the Ms. Bogavac doctoral dissertation, whose mentor was prof. Čekerevac. More details about the methodology and results of the research can be found in Bogavac, M., & Cekerevac, Z. (2019, July 15). IDSME Index – New Method for Evaluation of SMEs Digitalization. (Z. Cekerevac, Ed.) MEST Journal, 7(2), 9-20. doi:10.12709/mest.07.07.02.02.

**prof. dr. eng. Liviu Marius Cirtina,**  
**lecturer dr. eng. Adriana Tudorache**  
**Faculty of Engineering**  
**«Constantin Brâncuși» University of Tg-Jiu**

## **EFFECTS OF MEASURING UNCERTAINTY OVER THE QUALITY OF THE PRODUCTS**

*Keywords:* - tolerances, objectivity control, dimensional repartition, quality, cost.

If a customers to be certain of being supplied with a product that fully conforms to specifications, the supplier must operate an internal monitoring system to guarantee that the goods are correct at the point of sale. Despite inspection being