Vpliv digitalizacije na upravljanje v arhitekturnem biroju

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Povzetek

Raziskovalno vprašanje (RV): V organizacijah, ki se ukvarjajo s področjem arhitekture in tudi prostorskega načrtovanja, je digitalizacija delovnih opravil izredno močno prisotna. Digitalizacija se nanaša zlasti na velike količine podatkov, ki so v vedno večji meri digitalno dostopni in so podlaga arhitektom in urbanistom pri nastajanju projektov s področja arhitekture in prostorskega načrtovanja, kar pa spremljajo tudi pogoste in obsežne spremembe na področju zakonodaje, ki pokriva arhitekturo in prostorsko načrtovanje. Zaradi tega se zaposleni v teh organizacijah srečujejo s tem, da morajo, če želijo biti učinkoviti, pri svojih delovnih opravilih uporabljati vedno več različne programske opreme, digitalnih baz podatkov in informacijske tehnologije.
Raziskovalno vprašanje se tako glasi: Kako spodbuditi pri zaposlenih, arhitektih in urbanistih višji nivo sprejemanja tehnologij in programske opreme ter tudi njihovo dejansko uporabo, z namenom, da bi dosegli večjo učinkovitost zaposlenih v organizacijah s področja arhitekture in urbanističnega načrtovanja?
Namen: Namen in cilj prispevka je, da na osnovi identificiranega problema na področju upravljanja organizacij, ki delujejo na področju arhitekturnega ustvarjanja, oblikujemo konceptulani model, v katerega bomo zajeli ključne dejavnike, ki vplivajo na nivo sprejemanja tehnologij in programske opreme ter tudi njihovo dejansko uporabo pri zaposlenih, z namenom, da bi dosegli večjo učinkovitost zaposlenih v organizacijah s področja arhitekture in urbanističnega načrtovanja.
Metoda: Poleg teoretičnih izhodišč, ki se nanašajo na specifične managementske izzive v organizacijah s področja kulturnih in ustvarjalnih industrij, kamor sodijo tudi organizacije s področja arhitekture, v raziskavi izhajamo tudi iz teoretičnih modelov sprejemanj tehnologij (TAM), ki ga razširjamo z dodatnimi zunanjimi vplivnimi spremenljivkami. Z bibliometrično analizo objavljenih rezultatov raziskav v bazi Scopus, dodatno osvetjujemo pomembnost tega raziskovanja.
Rezultati: S tem namenom v tej raziskavi izhajam iz osnovnega modela TAM, in na njegovi osnovi razvijam koceptualni model, z vključenimi zunanjimi dejavniki osnovnega modela TAM – ti dejavniki so organizacijski dejavniki ter dejavniki, povezani z osebnostnimi značilnostmi zaposlenih. Model TAM je tako dopolnjen oziroma razširjen z dvema sklopoma zunanjih dejavnikov, ki v taki obliki in na tem področju (v organizacijah s področja arhitekture in prostorskega načrtovanja) v literaturi do sedaj niso bili obravnavani.
Organizacija: Po izvedbi testiranja modela (kar pa ni sestavni del tega prispevka) lahko pričakujemo, da bodo rezultati prinesli pomembna spoznanja za upravljanje v organizacijah s področja arhitekture, saj je obvladovanje sprememb, ki jih prinaša digitalizacija, eden od perečih problemov.
Družba: Boljše upravljanje organizacij je posredno povezano z drubeno blaginjjo.
Originalnost: V raziskavi izhajamo iz modela TAM, ki ga razširjamo z zunanjimi dejavniki, kar je novost, hkrati pa bomo tudi sami oblikovali merske lestvice za merjenje teh zunajih dejavnikov. Poleg tega so raziskave, ki bi se ukvarjale posebej z organizacijami s področja arhitekture, tudi v svetovnem merilu redke, četudi veliko avtorjev priznava, da so te organizacije v svojih procesih, specifične.
Omejitve/nadaljnje raziskovanje: V nadaljevanju raziskave, bi bilo smiselno izvesti nadaljnje korake za preverjanje povezav konceptualnega modela v smeri izvedbe vseh faz empirične raziskave. Pričakujemo lahko tudi določene omejitve, povezane s podatki ter uporabljeno metodologijo obdelave podatkov.

Ključne besede: digitalizacija, organizacije s področja arhitekture, Model sprejemanj tehnologij – TAM, konceptualni model.

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Mag. Andrej BOŽIN, univ.dipl.inž.arh., je leta 1994 diplomiral na Fakulteti za arhitekturo Univerze v Ljubljani, leta 2002 pa magistriral na znanstvenem magistrskem programu in si pridobil naziv magister arhitekturnih znanosti. Leta 2018 se je vpisal na doktorski študijski program na Univerzi v Mariboru, na Fakulteti za organizacijo. Leta 2007 je opravil strokovni izpit s področja opravljanja inženirskih storitev pri ZAPS in ima dolgoletne strokovne izkušnje na področju arhitekturnega projektiranja, svetovanja, inženiringa in nadzora ter prostorskega načrtovanja. Bil je projektant in odgovorni vodja projektov pri vrsti projektov s področja arhitekture in urbanizma v različnih arhitekturnih birojih, od leta 2005 pa vodi svoj arhitekturni biro v Mariboru. Na pedagoškem področju terciarnega poučevanja in andragoškega dela in usposabljanja, sodeluje od študijskega leta 2008/2009 dalje, saj je habilitiran visokošolski in višješolski predavatelj in predava predmete s področja urbanizma, varstva okolja in urejanja prostora ter arhitekturnega oblikovanja.

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The Impact of Digitization on Management in the Architectural Bureau

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Abstract

Research Question (RQ): In organizations operating in the field of architecture and spatial planning, the intense digitization of work tasks is taking place. Digitalization refers in particular to large amounts of data that are increasingly accessible in digital form and are the basis for architects and urban planners in the development of projects in the field of architecture and spatial planning; all this is accompanied by frequent and extensive changes in the field of legislation covering architecture and spatial planning planning.
As a result, employees in architecture and spatial planning organizations face the need to use more and more software, digital databases and information technology in order to be effective in performing their work tasks.
The research question is as follows: How to enhance the acceptance of technologies and software, as well as their actual use, by employees, architects and urban planners, with the purpose to achieve greater efficiency of employees in organizations in the field of architecture and urban planning?
Purpose: The aim of this paper is to create a conceptual model based on the identified problem in the management of organizations, operating in the field of architectural planning and design, in which we will capture the key factors that influence the level of adoption of technologies and software, as well as their actual use by employees, in order to achieve greater efficiency of employees in organizations in the field of architecture and urban planning.
Method: In addition to the theoretical basis, which relate to the specific management challenges in organizations, operating in the field of cultural and creative industries, including architecture organizations, the study also utilizes the theoretical technology acceptance models (TAM), which are expanded with additional external influential variables. With the bibliometric analysis of published research results in the Scopus database, we further highlight the importance of this research.
Results: On the basis of TAM model I developed a conceptual model, extended with the included external variables, added of the basic model TAM - these factors are organizational factors and factors related to personality characteristics of employees. The TAM model is thus complemented or expanded with two sets of external factors, which in this form and in this field (in organizations in the field of architecture and spatial planning) have not been considered in the literature so far.
Organization: After the testing of the model (which is not an integral part of this paper), we can expect that the research will bring important results for management in architecture organizations, as the management of the changes, brought about by digitalisation, is one of the important challenges.
Society: Better management of organizations is indirectly linked to social well-being.
Originality: In this study the TAM model is expanded with external factors, which is a novelty, and at the same time we will also form measurement scales for measuring these external factors. In addition, research involving specialized architectural organizations is also rare on a global scale, although many authors acknowledge that these organizations are specific in their processes.
Limitations / further research: In the continuation of the research, it would be useful to perform further steps to check the relationships of the conceptual model and to implement all phases of empirical research. We can also expect certain data constraints and constraints arising from the data processing methodology.

Keywords: digitalization, architectural organizations, Technology Acceptance Model - TAM, conceptual model.

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Andrej Božin, Msc, has graduated from the Faculty of Architecture at the University of Ljubljana in 1994 and finished his Masters of Science degree in 2002, when he obtained the degree title Master of Architectural Sciences. In 2018, he enrolled in the doctoral study program at the University of Maribor, at the Faculty of Organizational Science. In 2007 he passed a professional examination in the field of engineering services at Chamber of Architecture and Spatial Planning of Slovenia, He has many years of professional experience in the field of architectural design, consulting, engineering, control and spatial planning. He was the designer and responsible project manager for a number of projects in the field of architecture and urban planning in various architectural bureaus; since 2005 he has been running his architectural bureau in Maribor. He is also a habilitated lecturer of higher education in the field of urban planning, environmental protection, partial planning and architectural design. He has been participating in tertiary teaching and andragogy work and training, since the academic year 2008/2009.

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