

Annex 1

This is annex to the paper:

Piotrowicz, W. (2015). Information Technology and Systems in the Visegrád Group of Countries (Czech Republic, Hungary, Poland, and Slovakia): A Literature Review. *Journal of Global Information Technology Management*, 18(2), 77-93.

<http://www.tandfonline.com/doi/abs/10.1080/1097198X.2015.1052684#.Va42qPmqgko>

List of papers included in the review (by theme/author)

Research theme - ICT access and usage

Author, date	Countries	Other countries	Paper type	Topic	Sources
(Çilan et al., 2009)	VR	EU	R/Quant	ICT access and usage	Secondary Data
(Cruz-Jesus et al., 2012)	V4	EU	R/Quant	ICT access and usage	Secondary Data
(Geipel et al., 1991)	CEE		Rev/Opinion	ICT before and just after TE	Non relevant
(Geipel, 1991)	V4	CEE	Rev/Opinion	Failure and future of IT policy	Non relevant
(Gibbs, 1994)	PL		Rev/Opinion	ICT policy and state	Secondary data
(Green and Kryszczuk, 2006)	PL		R/Quant	Household computers ownership	Secondary data
(Green and Kryszczuk, 2009)	PL		R/Quant	Household computers ownership	Secondary data
(Hanafizadeh et al., 2009)	V4	INT	R/Quant	ICT infrastructure and access	Secondary data
(Huarng, 2011)	V4	INT	R/Quant	ICT developments	Secondary data
(Kaminska, 2009)	PL		R/Quant	ICT usage, companies and individuals	Various sources
(Kryt and Paliwoda, 1992)	PL		Rev/Opinion	Historical perspective, current issues	Various sources
(Magyar and Karvalics, 2000)	V4		Rev/Opinion	Development, barriers and challenges	Various sources
(Petrović et al., 2012)	V4	INT	R/Quant	Digital divide	Secondary data
(Pook and Pence, 2004)	V4		R/Quant	IT and Social development	Secondary data

(van Zon, 2001)	HU, PL	LT, UA	Rev/Opinion	ICT changes and usage	Secondary data
(Vicente and López, 2011)	V4	EU	R/Quant	ICT access and usage	Secondary Data
(Zoroja, 2011)	V4	CEE, EU	Rev/Opinion	Internet, e-commerce and e-government	Secondary data

Research theme - ICT Diffusion

Author, date	Countries	Other countries	Paper type	Topic	Sources
(Arogyaswamy and Koziol, 2005)	PL	EU	Rev/Opinion	ICT policy and strategy	Secondary data
(Bach and Stark, 2002)	V4		Rev/Opinion	Use of interactive technologies by NGO's	Various sources
(Blazek et al., 2011)	CZ		R/Qual	ICT industry, regional study	30 ICT companies
(Cieřlik and Kaniewska, 2004)	PL		R/Quant	Telecom infrastructure	Secondary data
(Doucek and Novotný, 2012)	CZ		R/Quant	ICT services utilization	Secondary data
(Freeman and Reid, 2006)	CZ, PL		R/Qual	Barriers, SME	8 companies
(Gryczka, 2011)	PL	INT	R/Quant	Broadband penetration/Social impact	Secondary data
(Grzybowski et al., 2014)	SK		R/Quant	Price elasticity and broadband market	6446 households
(Kaminska, 2010)	PL		R/Quant	ICT usage, individuals	Secondary data
(Kaplinski, 2009)	PL		R/Mix	IT in construction sector	2 surveys, interviews
(Kotus and Hlawka, 2010)	PL		R/CA	Self-organisation on-line, social change	1 unit
(Kupiszewski, 1993)	PL		R/Qual	Technology transfer, GIS	1 organisation
(Pastuszek, 2008)	PL	INT	R/Mix	Barriers and gaps	Secondary, project results

(Šebová and Hudec, 2012)	SK		R/Qual	ICT development in Košice region	27 respondents
(Vedres et al., 2005)	V4		R/Quant	Web-page usage, civic associations	1585 webpages
(Wielicki and Arendt, 2010)	PL	US, ES, PT	R/Quant	Usage, barriers, SME	1701 SME's

Research theme - ICT impact

Author, date	Countries	Other countries	Paper type	Topic	Sources
(Arogyaswamy and Nowak, 2009)	PL	CEE/EU	Rev/Opinion	ICT innovation	Secondary data
(Dobija et al., 2012)	PL		R/Quant	Investments announcements, impact on market value	Secondary data
(Earle et al., 2006)	CZ, HU, SK	RO	R/Quant	IT and organisational change	330 enterprises 5 expert groups, 40 individuals
(Gunther, 2002)	HU	V4, CEE	R/Qual	FDI and Technology investments	45 interviews, secondary data
(Harindranath, 2008)	HU		R/Qual	Impact on ICT industry	secondary data
(Janson and Wrycza, 1999)	PL		R/Qual	IT and entrepreneurship	3 companies
(Kmieciak et al., 2012)	PL		R/Quant	Usage, innovation, SME	109 SME's
(Michalski et al., 2014)	PL	ES	R/Quant	IT innovation	133 organisation
(Piatkowski, 2006)	V4	TE	Rev/Opinion	Role of ICT in economic TE	Secondary data
(Polasik et al., 2013)	PL		R/Quant	POS payments and efficiency	3728 transitions
(Samoilenko and Ngwenyama, 2011)	V4	TE	R/Quant	ICT and human capital	Secondary data
(Samoilenko and Osei-Bryson, 2008a)	V4	TE	R/Quant	ICT and employment	Secondary data
(Samoilenko and Osei-Bryson, 2008b)	V4	TE	R/Quant	Efficiency/Telecom industry	Secondary data
(Samoilenko and Osei-Bryson, 2008c)	V4	TE	R/Quant	Efficiency/Telecom industry	Secondary data
(Samoilenko and Osei-Bryson, 2011)	V4	TE	R/Quant	Efficiency/Telecom industry	Secondary data
(Samoilenko and Weistroffer, 2010)	V4	TE	R/Quant	Efficiency, revenue generation from ICT	Secondary data
(Samoilenko, 2008)	V4	TE	R/Quant	Efficiency	Secondary data

(Samoilenko, 2013)	V4	TE	R/Quant	Efficiency/Telecom industry E-business and business	Secondary data
(Tekavčič and Marc, 2011)	V4	CEE	R/Quant	performance	Secondary data
(Van Ark and Piatkowski, 2004)	V4	CEE/EU	R/Quant	Productivity, innovation and ICT	Secondary data

Research theme - E-commerce and E-services

Author, date	Countries	Other countries	Paper type	Topic	Sources
(Dominiak, 2011)	PL	EU	Rev/Opinion	Various e-services (e-government, e-learning, e-commerce, e-banking)	Secondary data
(Janta and Ladkin, 2013)	PL		R/Mix	Internet usage by migrant for job search	315 workers/web-content analysis
(Kryczka, 2004)	PL		Rev/Opinion	ICT, e-commerce policy, changes and usage	Secondary data
(Mattoo et al., 2001)	V4	INT	R/Quant	E-commerce	Secondary data
(Papulova and Mesko, 2011)	SK		R/Mix	E-commerce	1113 individuals
(Polasik and Wisniewski, 2009)	PL		R/Quant	E-banking adoption	3519 individuals
(Polasik et al., 2012)	PL		R/Quant	Intensions to use contactless payments	1010 individuals
(Stare, 2003)	V4	CEE	R/Quant	E-commerce	Secondary data
(Stavrovski, 2004)	CZ		R/Quant	E-business model, real estate	1 organisation
(Szopiński and Nowacki, 2014)	PL		R/Quant	Online tickets and price discrimination	Secondary data

Research theme - E-health

Author, date	Countries	Other countries	Paper type	Topic	Sources
(Andreassen et al., 2007)	PL	EU	R/Quant	E-health usage	7934 individuals
(Bujnowska-Fedak and Pirogowicz, 2013)	PL		R/Quant	E-health services among elderly patients	286 patients
(Duplaga et al., 2013)	PL		R/Quant	E-health perception and acceptance	153 nurses
(Duplaga, 2007a)	V4	CEE	Rev/Opinion	E-health policies	Secondary data
(Duplaga, 2007b)	PL		Rev/Opinion	E-health development	Secondary data
(Kummervold et al., 2008)	PL	EU	R/Quant	E-health trends	1000 individuals per country
(Santana et al., 2011)	PL	EU	R/Quant	Health and ICT	7022 individuals
(Wilkowska et al., 2012)	PL	DE, TR	R/Quant	User diversity, technology adoption	300 individuals

Research theme - E-government

Author, date	Countries	Other countries	Paper type	Topic	Sources
(Banas, 2010)	PL		R/Mix	Access to information and e-government	500 municipalities surveyed+20 interviewed
(Černáková, 2014)	SK		R/Quant	E-government status	1216 services
(Ifinedo and Singh, 2011)	V4	CEE	R/Quant	E-government maturity	Secondary data
(Katchanovski and La Porte, 2005)	V4	INT	R/Quant	Openness of cabinet-level web pages	Secondary data
(Kopackova et al., 2010)	CZ		R/CA	E-government accessibility	39 webpages
(Melitski et al., 2011)	CZ		R/Qual	Barriers and success factors	13 government stakeholders

(Weerakkody et al., 2012)	SK	UK	R/Qual	Strategies and TE	5 experts
(Ziemba and Obłąk, 2014)	PL		R/Mix	E-government status, benefits and challenges	25 projects
(Ziemba et al., 2013)	PL		R/Qual	Success factors	22 experts

Research theme - ICT education and skills

Author, date	Countries	Other countries	Paper type	Topic	Sources
(Ala-Mutka et al., 2010)	V4	EU	Review	Status of eLearning	Secondary data
(Doucek et al., 2012)	CZ		R/Quant	Skills in ICT sector	1002 students
(Duan et al., 2002)	PL	UK, PT	R/Quant	ICT skills, SME's	186 organisations
(Mullins et al., 2001)	SK,PL	DE, UK, PT	R/Mix	Web-based Intelligent training systems , SME	300 organisations, 12 focus groups, 36 individuals
(Pelgrum and Voogt, 2000)	CZ.SK	INT	R/Quant	ICT in secondary schools	Data from research project
(Sztangret, 2014)	PL		R/Mix	Community of practice in IT sector	423 students, one case company

Research theme - ICT Sector

Author, date	Countries	Other countries	Paper type	Topic	Sources
(Kowalski and Marcinkowski, 2014)	PL		R/Quant	ICT cluster development	11 ICT clusters
(Marzec et al., 2009)	PL		R/Qual	Employability management practices, HR	18 managers
(Scholarios et al., 2008)	PL	EU	R/Qual	Employability and psychological contract	100 managers

(Soja, 2008)	PL		Interview	Changes in ICT and ICT sector	1 respondent
(Stetten et al., 2012)	CZ	IN	R/Qual	IT project management	6 projects

Research theme - IT and Business Process Outsourcing

Author, date	Countries	Other countries	Paper type	Topic	Sources
(Capik and Drahokoupil, 2011)	V4		R/Quant	Offshoring	Secondary data
(Gál, 2014)	V4	BG, RO	R/Quant	Offshoring	Secondary data
(Hardy et al., 2011)	CZ, HU, SK		R/Qual	FDI, offshoring Computer and Information Services	25 companies
(Kandilov and Grennes, 2010)	V4	CEE	R/Quant	FDI, Offshoring	Secondary data
(Micek et al., 2011)	PL		R/Quant	Outsourcing, offshoring	Secondary data
(Myszkowska, 2014)	V4		R/Quant	Teaching	Secondary data
(Oshri, 2012)	HU	INT	case	Share services, outsourcing	1 case study
(Sass and Fifekova, 2011)	V4		R/Quant	Outsourcing, offshoring	Secondary data

Research theme - Enterprise Systems

Author, date	Countries	Other countries	Paper type	Topic	Sources
(Bernroider et al., 2011)	SK	AU, SI	R/Quant	ERP absorption	409 organisations
(Beulen, 2009)	SK	INT	R/Qual	Human Resources IS, impact on staff retention	16 experts 140 enterprises, construction
(Kiseľáková, 2012)	SK		R/Quant	Knowledge Management usage	
(Leach, 2009)	CZ,HU	CEE/USA	R/Qual	Procurement practices and ICT, Supply Chain Management	18 managers
(Lech, 2007)	PL		R/Qual	IT evaluation method	1 organisation

(Lech, 2011)	PL		R/Quant	Motivations for investments Knowledge Management in IT	28 organisations
(Lech, 2011b)	PL		R/Qual	projects	10 projects 28 surveys (organisations), 3 interviews (individuals)
(Lech, 2012)	PL		R/Mix	Criteria for system selection	
(Lech, 2013a)	PL		R/Qual	ERP implementation	3 projects
(Lech, 2013b)	PL		R/Quant	IT project success criteria Knowledge Management in IT	28 organisations
(Lech, 2014)	PL		R/Qual	projects	4 project managers
(Okazaki and Skapa, 2008)	CZ,PL		R/CA	Web site standardisation	34 companies 176 companies, 500 citizens
(Olszak and Ziemba, 2011)	PL		R/Quant	ICT usage Business Intelligence CFSs in	
(Olszak and Ziemba, 2012)	PL		R/Quant	SME's ES and GIS in public	40 SMS
(Pawlowska, 2002)	PL		R/Qual	administration	15 local administrations
(Piotrowicz and Irani, 2010)	PL		R/Qual	e-procurement, benefits	4 organisations
(Soja and Paliwoda-Pekosz, 2013)	PL		R/Qual	ES benefits	164 respondents 68 enterprises, 45 project members and experts
(Soja, 2009)	PL		R/Mix	ES adoption	
(Soja, 2011)	PL		R/Quant	ES adoption	189 practitioners
(Themistocleous et al., 2011)	PL	UK	R/Qual	ES adoption	7 respondents

Literature reviews, editorials

Author, date	Countries	Other countries	Paper type	Topic	Sources
(Roztocki and Weistroffer, 2011b)	V4	TE	Rev/Opinion	ICT in transitional economies	Secondary data
(Roztocki and Weistroffer, 2011a)	V4	TE	Rev/Opinion	ICT in transitional economies	Secondary data

(Roztocki and Weistroffer, 2014)	V4	TE	Rev/Opinion	ICT in transitional economies	Secondary data
(Roztocki and Weistroffer, 2008a)	V4	TE	Rev/Opinion	ICT in Transaction Economies	Secondary data
(Roztocki and Weistroffer, 2008b)	V4	TE	Rev/Opinion	ICT in Transaction Economies	Secondary data

Notes:

Other countries – countries covered in the paper

Countries, regions – abbreviations:

AU - Austria

BG - Bulgaria

CEE - Central and Eastern Europe

CZ - Czech Rep.

DE - Germany

ES - Spain

EU - European Union

HU - Hungary

IN - India

INT - International

LT- Lithuania

PL - Poland

PT - Portugal

SK - Slovakia

TE - Transitional Economies

TR - Turkey

UA- Ukraine

V4 - Visegrad Group

Paper type:

Rev/Opinion – Review or Opinion Paper

R/Quant – Research Paper Quantitative

R/Qual – Research Paper Qualitative

References

See:

Piotrowicz, W. (2015). Information Technology and Systems in the Visegrád Group of Countries (Czech Republic, Hungary, Poland, and Slovakia): A Literature Review. *Journal of Global Information Technology Management*, 18(2), 77-93.

<http://www.tandfonline.com/doi/abs/10.1080/1097198X.2015.1052684#.Va42qPmqgko>

for full biographical details