Online privacy concern in commercial setting in Croatia

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Motivation for the study

Today Internet is an important marketing tool , while intelligent use of consumer data is a driver of competitive advantage of companies.

Increased volume of personal information gathered in online commercial transactions, its manipulation and trade, and intensified communications increase consumer concern about online privacy.

Major issuses in the literature are related to the questions of how to reduce online privacy concern (OPC) and increase consumers' confidence in using the Internet.

Related literature

Various concepts and measures of OPC exist (Li, 2011).

Concern relates to the customers' apprehension and uneasiness over the use of their personal data and the invasion of privacy on the Internet, including unauthorized collection, disclosure or other usage of personal information (Robbin, 2001; Westing, 2003; Lwin, Wirtz, and Williams, 2007; Li and Zhang, 2009).

No consensus has been reached on antecedents and consequences of OPC (Li, 2011).

Towards our model

The purpose of our research is to identify factors that significantly influence OPC and examine its outcomes in Croatian environment.

We selected a set of variables from the literature with potential impact, such as:

- Antecedents - individual factors (demographic, awareness, personal experience), control, perceived government regulation.
- Consequences - attitudes (towards online shopping), and actual behavior (protective behavior, sharing private information online, and actual online purchases).

Selection of variables and measures

OPC – Global Information Privacy Concern, which is general, one dimensional scale that measures individuals' concerns about information privacy in online setting (Malhotra, Kim and Agarwal, 2004; Smith et al., 1996).

Control (CTRL; Malhotra, Kim and Agarwal, 2004), which indicates user's control over the collected information.

Awareness (AW) - of privacy practices (Malhotra, Kim and Agarwal, 2004); and awareness to privacy (Xu, Dinev, Smith, Hart, 2008), which indicates users' awareness how the collected information is used.

Previous online experience (PE) indicates if individuals have experienced the intrusion into their privacy on the Internet (yes/no).

Regulation (REG) (Wirtz, Lwin, Williams, 2007) indicates individuals' perceptions of regulation of privacy on the Internet.

Demographics – gender, age, income, education.

Selection of variables and measures

Protective behavior (PB) (Wirtz, Lwin, Williams, 2007) indicates tendency towards fabricating and withholding from using the Internet.

Sharing private information on the Internet (SH) indicates tendency towards sharing private information on the Internet, such as private photos, locations, appointments.

Attitudes towards online shopping (ATOS) (Khare and Rakesh, 2011), indicates interest and general attitudes towards online shopping.

Actual online purhases indicate if respondents purchased online products or services (yes/no).

Methodology – data collection and sample

Data were collected from survey of internet users during the period of November 2015 – March 2016 in Croatia.

CATI method was used to collect the data.

The final sample: 2,060 internet users aged 18 or older.

The sample is representative.

We carried out two studies, first examined the impact of antecedent variables on OPC, while second study explored the impact of both antecedents and consequences of OPC.

Study 1

Anić, Ivan-Damir; Škare, Vatroslav. Online Privacy Concern in Croatia: the Effect of Consumer- and Regulatory Control Factors // 14th International CIRCLE Conference 'Creating and Delivering Value' / Ryding, Daniella ; Krzyzanowska, Magdalena, editor(s). Lancashire : Access Press, 2017. 88-89.

In first paper we examined antecedents of OPC - the relative impact of demographics (gender, age, income, education), sharing private information on the Internet, control and regulation on OPC.

Variance-based structural equations modeling (SEM) was used to test the hypotheses by means of SmartPLS 2.0.

Results – study 1

Table 1: Antecedents of OPC – demographics vs control and regulation

	Path coefficients	Hypotheses testing
GENDER -> OPC	0.0146	H_1 rejected
AGE -> OPC	-0.025	H_2 rejected
INCOME -> OPC	**-0.0317***	H_3 rejected
EDUCATION -> OPC	**-0.0340***	H_4 rejected
SH -> OPC	**-0.1414*****	H_5 confirmed
CTRL -> OPC	**0.2855*****	H_6 confirmed
REG -> OPC	**-0.2172*****	H_7 confirmed

Notes: Significance-level (one-tailed): *p<0.1, ***p<0.01.

Study 2

Anić, Ivan-Damir; Škare, Vatroslav, Ivana Kursan Milaković, Examination of online privacy concern, its antecedents and implications for online purchasing behavior, work in progress.

In second paper we examined the the impact of

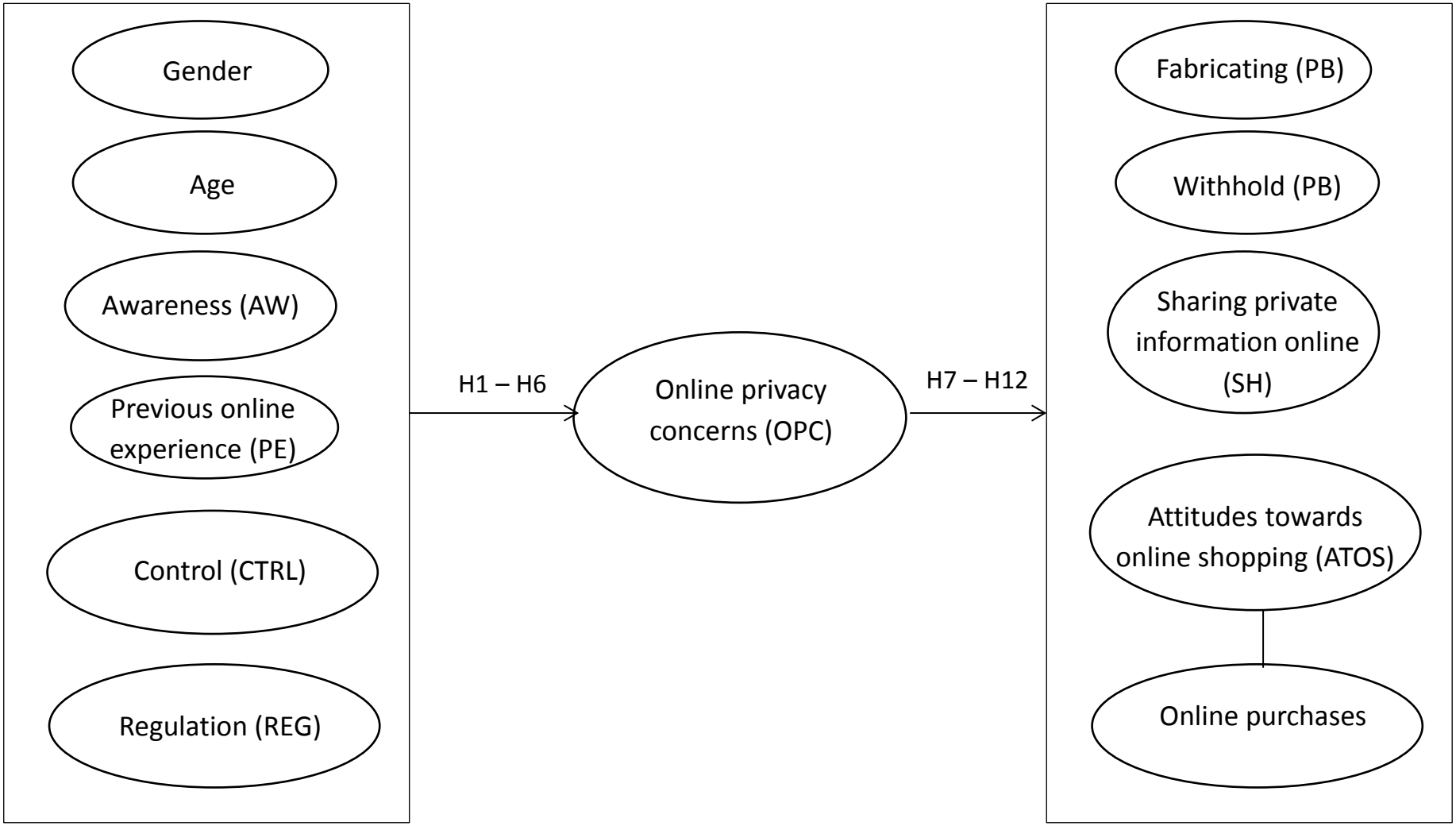
antecedent variables (gender, age, awareness, previous online experience, control and regulation) on OPC, and

the consequences of OPC, examining a group of behavioral variables (fabricating, withhold, sharing private information online, attitudes towards online shopping, and online purchases).

Data were analysed by using factor analyses (EFA, CFA) and structural equation modelling (SEM).

N=1990, after deleting outliers.

Results – study 2



Source: Anić, Ivan-Damir; Škare, Vatroslav, Ivana Kursan Milaković, Examination of online privacy concern, its antecedents and implications for online purchasing behavior, work in progress.

Results – model 2

Table 2: Standardised structural coefficients

Hypotheses	Coefficients	Status
Gender → OPC	-0.005	H_1 rejected
Age → OPC	-0.016	H_2 rejected
AW→ OPC	-0.037	H_3 rejected
PE→ OPC	**-0.096***	**H_4 confirmed**
CTRL → OPC	**0.254***	**H_5 confirmed**
REG → OPC	**-0.174***	**H_6 confirmed**
OPC →Fabricating (PB)	**0.178***	**H_7 confirmed**
OPC → Withhold (PB)	0.003	H_8 rejected
OPC → SH	**-0.129***	**H_9 confirmed**
OPC → ATOS	**-0.162***	**H_{10} confirmed**
ATOS→ Online purchases	**0.564***	**H_{11} confirmed**

Notes: Significance-level : *p<0.001, N=1990; Attitudes mediates the effect between OPC and online purchases (H_{12} is confirmed).
Source: Anić, Ivan-Damir; Škare, Vatroslav, Ivana Kursan Milaković, Examination of online privacy concern, its antecedents and implications for online purchasing behavior, work in progress.

Results – model 2

Control and regulation are the most important factors influencing OPC, while demographic variables are insignificant.

Previous online experience also influences OPC.

With regard to behavior variables, OPC positively influences fabricating, and negatively sharing private information online and attitudes towards online shopping.

OPC does not influence actual online purchases directly, but through attitudes.

Attitudes positively affect online purchases and mediate the relationship between online privacy concerns and online purchases.

Conclusion

Contribution to the literature

- Perceived government online privacy regulation and control are the key factors influencing OPC.
- Demographic variables are not important in explaining OPC.
- OPC positively influences fabricating, negatively sharing information online and attitudes towards online shopping.
- Attitudes mediate the effect of OPC on online purchases.

Conclusion

Implications for privacy policy and marketers

- In Croatia, government intervention in the enforcement of more stringent data protection is necessary.
- Government and businesses might provide citizens more control in online transactions.
- Online marketers should be careful not to abuse and distribute private information without permission.
- Policy efforts should be clearly communicated to public.
- Raising awareness of actions related to privacy protection is important.

Limitations – study conducted in a single point of time, limited set of marketing variables included, one country

Future research – expand the model with new marketing variables, test the model in various environments and countries.

Thank you for your attention.

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