



# Multidimensionale Risks in the XXI Century

*Online Conference, 20-21 OCTOBER 2021*

Kirill Gavrilov

National Research University – Higher School of Economics, Moscow, Russia

Institute of Sociology of Russian Academy of Sciences, Moscow, Russia

Maria Butynko

KGU Infogorod, Moscow, Russia

## **The perception of cyber risks: the psychometric paradigm approach**

This study is based on the “psychometric paradigm” methodology that is aimed at finding risk perception dimensions by analyzing judgments people make about risks (Slovic, 1987; 2000). Several studies have used psychometric scales to examine the perception of cyber risks (van Schaik et al. 2017; Huang et al. 2010; Garg & Camp 2012), but our work proposes some additional features:

1. Previous studies were focused exclusively on cyber risks, but we include traditional risks used in “psychometric paradigm” research. Our list of risks is related to studies conducted in Russia (Mechitov & Rebrik 1990; Rodionova et al. 2009) and consists of 60 items – from natural catastrophes to terrorism. We added several cyber risks with highest ratings according to previous research: communication technologies (Bassarak et al. 2017), identity theft (van Schaik et al. 2017; Oliveira & Baldi 2019), cyberbullying (van Schaik et al. 2017; Oliveira & Baldi 2019), hackers and viruses (Huang et al. 2010). We also added Internet fraud as the most general type of cyber risk.

2. We adapt the methodology for online survey with small or absent financial incentive, unlike previous studies that were conducted predominantly offline. Recent online studies used virtually the same offline questionnaire with the result of low response rate and long complete time (Bassarak et al. 2017; Fox-Glassman & Weber 2016). Instead, we apply a split questionnaire design when each participant rates only 1/6 of all risks (see Bronfman & Cifuentes (2003) for similar design).

2359 respondents (53% females) recruited via Yandex Toloka (a crowdsourcing platform similar to MTurk) completed the survey. In the presentation we will discuss the place of cyber risks among the traditional risks on the risk perception dimensions obtained via the PCA technique and the results of clusterization of risks.

**Keywords:** cyber risks, risk perception, psychometric paradigm, online survey