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Introduction

Food integrity is a generic and comprehensive term for sound, nutritive, healthy, tasty, safe, authentic, traceable, as well as ethically, safely, environment-friendly, and sustainably produced foods so, it includes food risk and is related to food fraud, two issues that have to be communicated to consumers.

For issues related to food integrity, social media proved to be the preferred communication channel by Romanian consumers, so why not to use them for fraud and risk communication as well?

Methodology

Based on 190 validated questionnaires, a descriptive analysis of the variables was conducted, followed by a two-step modelling: the confirmatory factor analysis (CFA) was tested first, followed by a full structural equation model (SEM). The CFA and the SEM were constructed under a proposed theoretical model using R software, *lavaan* package.

Studied hypothesis

H1 The higher the implication of consumers in online media (Importance of Online Media - IOM) when buying food, the higher the interest in food integrity (INV).

H2 There is a positive correlation between food integrity mediated by participation of consumers in online media and the involvement of the authorities.

H3 There is a positive correlation between food integrity mediated by the participation of consumers in online media and the involvement of the Food Business Operators

H4 There is a positive correlation between food integrity mediated by online media and the involvement of the consumers in reporting food adulteration / fraud and risk.

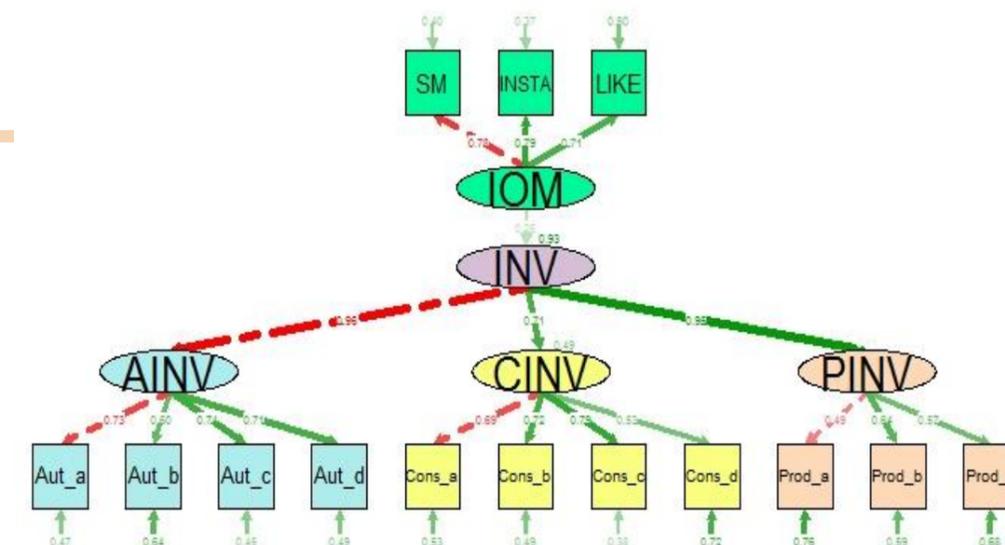
Results

Food integrity is important for consumers with 95.26 % of them being interested in quality and 93.16% in food safety and authenticity. At the same time, 69% of consumers appreciate that all involved parties (authorities, FBOs, consumers) should get involved to prevent the presence of inadequate food products on the market. These consumers are considered as being aware that they must be an active part in the food monitoring process. However, more than half of the consumers (62.11%), do not take initiative (do not notify/ appeal) to contact responsible institutions to point out deficiencies/irregularities/ deviations regarding a purchased food/ risks and only 4.73% declared that they always react.

Consumers' awareness towards involvement on food integrity

Variable	Frequency	%
Importance of these factors when buying food		
Safety	177	93.16
Quality	181	95.26
Authenticity	177	93.16
Who should get involved to eliminate /diminish inadequate (unsafe, poor quality, falsified, etc.) food products from the market?		
Authorities	39	20.53
FBOs	16	8.42
Consumers	4	2.11
All (authorities, FBOs, consumers)	131	68.95
Have you called / notified / complained to the responsible institutions to report deficiencies / irregularities / deviations regarding a purchased food?		
yes, always	9	4.74
yes, most of the time	9	4.47
Sometimes	54	28.42
Not	118	62.11
Respondents' interest in receiving information, on food integrity (%)		
Yes	156	82.11
No	34	17.89
Use of social media tools (%)		
Yes	171	90.00
No	19	10.00

The SEM measurement model shows a good relationship between the latent variables and observed variables. All the hypothesis are supported.



General structural equation model. AINV – authorities' involvement. CINV – consumers' involvement; PINV – producers (FBOs) involvement; IOM – the importance of online media when buying food; Aut_a, Aut_b, Aut_c, Aut_d – observed variables for AINV; Cons_a, Cons_b, Cons_c, Cons_d – observed variables for CINV; Prod_a, Prod_b, Prod_c – observed variables for PINV; SM, INSTA, LIKE –observed variables for IOM.

Conclusions

In Romania, besides authorities and food business operators (FBOs), consumers could be proactively involved in communicating fraud and risk, two issues related to food integrity.

If involvement is performed in a coherent manner, it might represent a significant contribution to the effort of eliminating inadequate food products from the market and of decreasing the foodborne disease burden.

Our model demonstrates that connections between consumers, FBOs, authorities and the use of social media is an important link for monitoring food integrity issues and an incentive for growing consumers' involvement in risk communication.

Further information

Gafitianu, D., Borda, D., Dumitraşcu, L., Adam, R., Nicolau, A.I. 2020, A consumer perspective on how active role of online media endorse food integrity through connecting actors involved, The Annals of the University Dunarea de Jos of Galati, Fascicle VI – Food Technology 44(2), 137-158, ISSN 1843 – 5157, <http://www.ann.ugal.ro/tpa/Anale%202020/vol%202/9.%20Gafitianu%20et%20al.pdf>.