



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Material and Non-material Motivation of Compliant Food Businesses: Disclosure of Food Hygiene Inspection Results in Germany

Miroslava Bavorová¹, Anica Fietz²

^{1,2} Martin-Luther University Halle-Wittenberg



**Poster paper prepared for presentation at the EAAE 2014 Congress
'Agri-Food and Rural Innovations for Healthier Societies'**

August 26 to 29, 2014
Ljubljana, Slovenia

Copyright 2014 by author1 and author2. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.

Abstract

The publication of food inspection results is one of the innovative measures introduced that use both material and non-material motivation of food businesses to increase regulatory compliance. Disclosure is not a new instrument and has been implemented in, for instance, Denmark, Los Angeles or New York. In Germany, in the last decade a few food hygiene controls results were established (e.g., Berlin Pankow, North Rhine-Westphalia (NRW), Zwickau). In this paper, we present the first results of the empirical study we carried out in NRW at the beginning of 2014. The survey was carried out to answer the question of whether the disclosure of hygiene controls influences the motivation of food businesses to comply with rules.

1. Introduction and Theoretical Framework

Besides technological hazards and hitherto unknown health threats, moral hazard and malpractice in food businesses represent an additional source of risk which can be termed “behavioural food risk”. From a regulatory perspective, adverse outcomes associated with deviance from rules represent negative externalities that are caused by the breaking of rules designed to prevent them. From a narrow rational choice perspective, the probability of improper practice increases with the benefits for its authors. It decreases with the probability of detection and resulting losses. It also decreases with bonds to social norms that protect producers from yielding to economic temptations. The design of mechanisms that reduce behavioural risks and prevent malpractice requires an understanding of why food businesses obey or do not obey the rules. A crucial assumption of neo-classical theory is that economic agents behave rationally and maximize expected utility with utility exclusively depending on profit. However, many empirical and experimental studies show that human behaviour often deviates from the prediction of narrow rational choice theory. Increasing number of authors stress that non-material motivations should at least be considered in a comprehensive analysis which does not only consider material payoffs, but also non-material costs (disutilities) and benefits (utilities) associated with economic action (cf. Hirschauer et al., 2012; Frey and Stutzer, 2007; Ostrom, 2005). The theoretical framework of this work was developed by Hirschauer et al. (2012) and is summarized in Figure 1.

The publication of food inspection results is one of the innovative measures introduced that use both material and non-material motivation of food businesses to increase regulatory compliance. Disclosure is not a new instrument and has been implemented, in for instance Denmark, Los Angeles or New York. In Germany, in the last decade a few food hygiene controls results were established (e.g. Berlin Pankow, North Rhine-Westphalia (NRW), Zwickau). In this paper, we present the first results of the empirical study we carried out in NRW at the beginning of 2014. We ask the question of whether the disclosure of hygiene controls influences the motivation to comply with rules. Reconstructing the actors’ decision situation - by understanding the material and non-material motivations of the businesses concerned - will allow us to evaluate the role of transparency to get the expected utilities right.

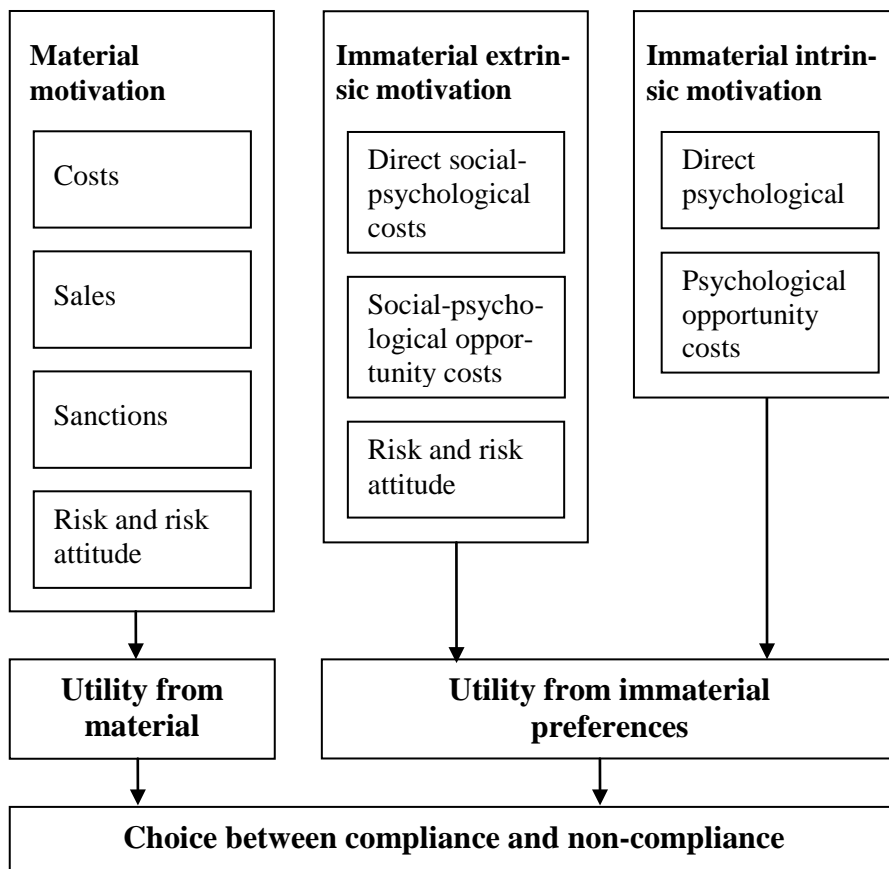


Figure 1: The material and immaterial motivations that need to be studied in a economic analysis of compliance and non-compliance (Hirschauer et al. 2012).

In 2007 the federal state of North Rhine-Westphalia (NRW) established the pilot project “NRW-Smiley” (NRW 2007). As of 2011, 14 of the state’s 31 local administrative districts have adopted the NRW smiley scheme. The NRW smiley scheme represented a voluntary award scheme that was cancelled in 2013. To begin with, the smiley was assigned to participating restaurants only. The project was later expanded to food businesses such as bakeries or butcher shops which sell non-prepackaged food or slightly perishable food to consumers. Food businesses which are located in one of the administrative districts that have adopted the scheme had the opportunity to participate in the system. Participation was free of charge but required a written agreement with the NRW Ministry for Consumer Protection in which the food business agreed that its inspection data may be passed on to the ministry. Regular inspections by the local food authority have continued to be carried out without advance notice. The food authority has evaluated the company’s compliance using a list of 18 pre-defined criteria. For each criterion ratings from 1 (very good) to 5 (insufficient) were assigned. A quality certificate including the smiley was awarded to businesses which score 2 (good) on average over the 18 criteria. In addition, no criterion should be rated less than satisfactory (3). The certificate could be displayed in the business premises until the next inspection. A list of businesses that were awarded the certificate was additionally published on the ministry’s homepage (www.munlv.nrw.de). In 2013, the pilot project was abolished. The main argument was that there is low interest of the businesses in voluntary disclosure. From 93.000 businesses in NRW, only about 520 were awarded a smiley up to 2014.

2. Data and Methodology

We carried out a postal survey. Using the addresses that were made public in the Internet we sent the questionnaire to the businesses that participated in the NRW transparency project. We sent 481 questionnaires and received 134 responses (response rate 28%). The questionnaires were filled in by owners (48%), executive directors (18%), branch managers (5%), quality managers (2%) or department leaders (28%). The majority of businesses were mass caterers (45%), restaurants (29%) and butcher shops (9%). 87% of businesses from our sample are independent firms, 8% subsidiaries and 2% franchises.

3. First Results

The first descriptive results of our survey carried out in the beginning of 2014 are depicted in Table 1. The results of the questions aiming at non-material motivations show that about half of the respondents fully agree or agree that the display of the smiley influences the behavior of their peers towards them. About 80% stated that the publication of negative results would be embarrassing for them. In case of deviance, 79% of the respondents feel uncomfortable independent of whether relevant others or the public are informed about their behaviour. Considering the material motivation, 70% of respondents fully agree or agree that, a positive smiley influences the turnover of a business positively. Surprisingly, only 19% fully agree or agree that, because of the smiley, they had more customers. The share depends on the form of the establishment. The agreement rate was higher among restaurants (29%) than among mass caterers (10%). As expected, fewer businesses with a majority of regular customers fully agree or agree with the latter statement (16%) compared to businesses with both regular and occasional customer (38%).

Table 1: Non-material and material motivation of compliant food businesses, North Rhine-Westphalia, 2014

		Fully agree	Agree	Undecided	Rather not agree	Not agree	No answ.
Non material motivation	Positive smiley I received influenced the behavior of my peers towards me positively	18 %	32	22	15	9	2
	This reaction was perceived even by my family members	10	24	21	27	11	7
	If also negative results would be published, a negative evaluation would be embarrassing for me	39	39	15	2	2	2
	A negative smiley feels to me embarrassing - no matter if I am the owner or an employer	45	38	8	3	3	2
	In case of deviance (Verstoß) I do not feel well - no matter if somebody learns about it or not	32	47	10	2	4	5
Material motivation	A positive smiley influence the turnoff of a business positively	32	38	15	8	3	3
	The consumers are aware of smiley and decide in favor of positively evaluated businesses	18	28	31	14	5	4
	Because of the smiley, we had more customers.	4	15	22	38	13	7

4. Next steps

The data gathered in the survey will be analyzed using factor and cluster analysis. Factor analysis will be used to identify the relevant factors/motivation for participation in voluntary transparency systems. Cluster analysis will allow us to structure the businesses into uniform groups.

5. Reference List

Hirschauer, N., Bavorová, M. and Martino, G. (2012): An analytical framework for a behavioural analysis of non-compliance in food supply chains. *British Food Journal* 114: 1212-1227.

Frey, B.S. and Stutzer, A. (eds.) (2007). *Economics and Psychology. A Promising New Cross-Disciplinary Field*. Cambridge.

Ostrom, E. (2005). *Understanding Institutional Diversity*. Princeton and Oxford.