Consumer Information in the food service industry vs. food retailing

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Abstract— **In order to define consumer expectations over a traceability and information system for the entire food supply chain, the information behaviour of consumers in the food service industry has been subject to an analysis for the first time. In comparison to consumers in retailing, significant differences appear in information seeking behaviour as well as in the information desired.**

Keywords— **meat traceability, consumer behaviour, food service industry.**

I. INTRODUCTION

Due to changes in modern society the food service industry[1] market has grown to be ever more important in the last few decades. These changes originate in the increasing number of working women and single households [2]. In the last couple of years a slight decline in this trend has been observed. However, while a reversion of the trend only strikes the individual gastronomy, the sector of canteens and catering is continually growing [3]. Currently about ¾ of the quantity consumed of (unprocessed) meat, as well as meat products, are distributed via retailing. The remaining ¼ is sold in the food service industry. However, due to the larger gross margins, the significance is disproportionately high [1].

A systematic overview of the different sectors of the food service industry is presented in Figure 1.

The aim of the joint research project *IT FoodTrace*[2] is the development of a traceability system for the entire food supply chain. In the supply chain the food service industry is placed on the same level as retailing. Within the project, the sub-project *systematised food service industry*[3] aims to develop improved concepts for food safety and inspection. The first attempt to design such a system for the food service industry was the development of a traceability system for a large fast food chain by Horváth [4], which was more or less a supply chain management system designed specifically for the needs of this company.

The system to be developed in this project will not only respect the requirements of a single participant in the supply chain, but will also meet the expectations of consumers. It is therefore important to know whether consumers in the food service industry demand other information than the consumers in retailing. Various studies have analysed consumer behaviour concerning food. Most sectors of retailing (supermarkets, discounters, etc.) have been covered in great detail, but no studies have examined the food service industry. Now for the first time a study has been conducted examining the demand for information[4] on meat in selected sectors of the food service industry, and compared to retailing.

Besides the demand for information, it was also an objective to investigate the willingness to pay for additional information concerning traceability in the food service industry. The best method to measure willingness to pay is an experimental auction, as conducted by Hobbs [5] and Dickinson and Bailey [6]. This study however only intends to identify differences between the food service industry and retailing. Interviewees have therefore simply been asked about the price premium they were willing to pay.

[1] Food service industry includes all establishments that prepare meals for consumption out of home, as well as for delivery to homes. [1]

[2] www.itfoodtrace.de

[3] The sub-project is restricted to the sectors systematised gastronomy, catering and communal feeding (marked grey in Fig. 1).

[4] Information in this context is every part of knowledge (regarding the product, its production or the establishments it run through), that has an influence on the buying decision.

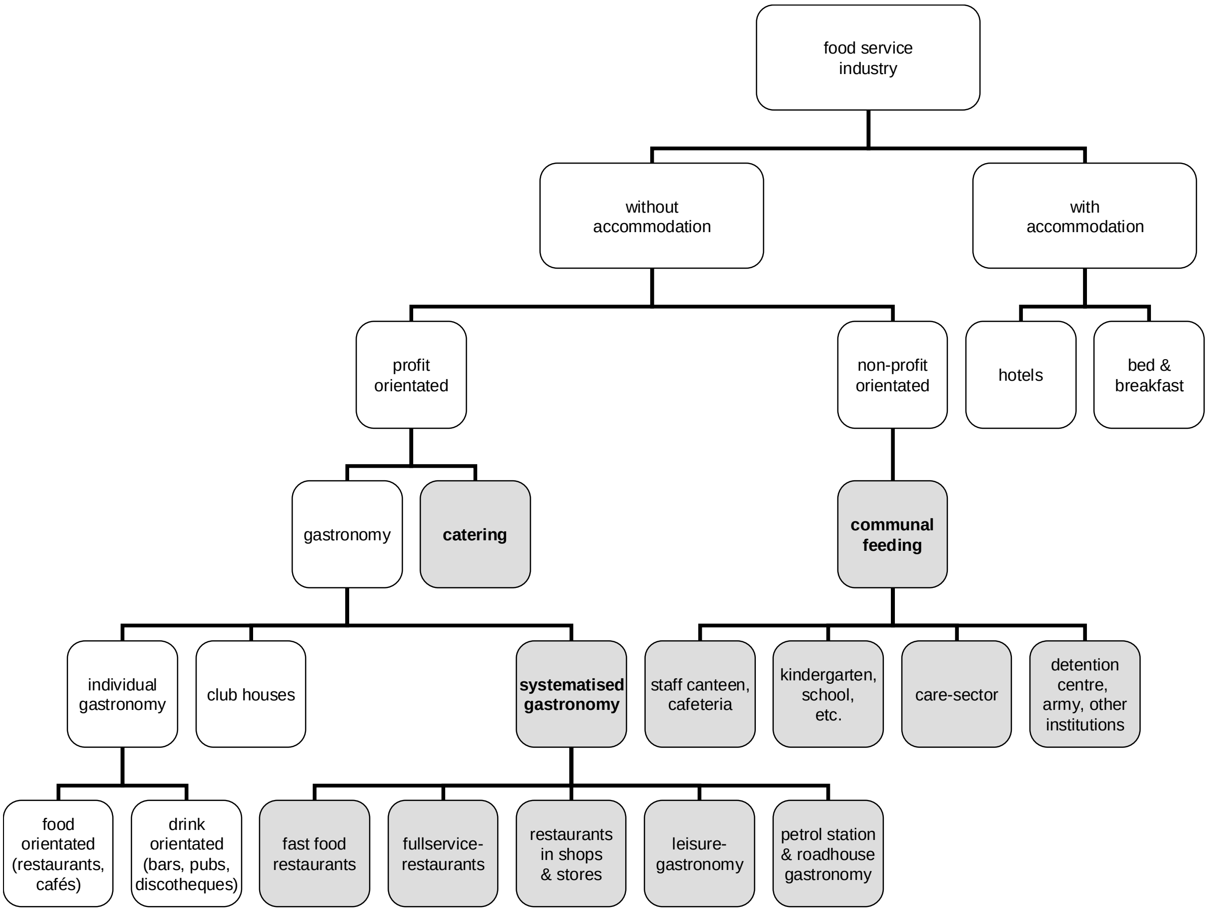

Fig. 1 Structure of the food service industry (modified from: 2)

II. METHODS

Two parallel questionnaires were formulated – one for the food service industry and one for retailing. The consumers were questioned directly at the place of consumption or purchase, where they make their consumption or purchasing decision. The survey was conducted in the metropolitan area of Stuttgart (Germany) in the time period between July and November 2007. Overall 627 people patronizing the food service industry (thereof 14% in fast food restaurants, 35% in the restaurant of a furniture store, and 51% in staff canteens) and 77 people in retail locations (thereof 42% in a supermarket, and 58% in a shopping centre with consumer market and discounter) were questioned.

The data evaluation was conducted by the means of descriptive statistics, and differentiated by food service industry (with its sectors of fast food restaurants, restaurants in shops and stores, and staff canteens) and retailing.

III. RESULTS

In answering the question of whether the information about meat is sufficient during the purchase/consumption decision, about ¾ in retail, and about ⅓ in the food service industry respond that they received the information they want (see Fig. 3). On the other hand, it was observed that the information seeking behaviour in retailing is evenly spread, while the majority of consumers in the food service industry never seek information about the meat in their meals (see Fig. 2).

Fig. 2 Information (seeking) behaviour

Against this background it is not unusual that dissatisfaction with available information in the food service industry is only slightly higher than in retailing (see Fig. 3). Over saturation with information occurs almost exclusively in the case of restaurants in shops and stores.

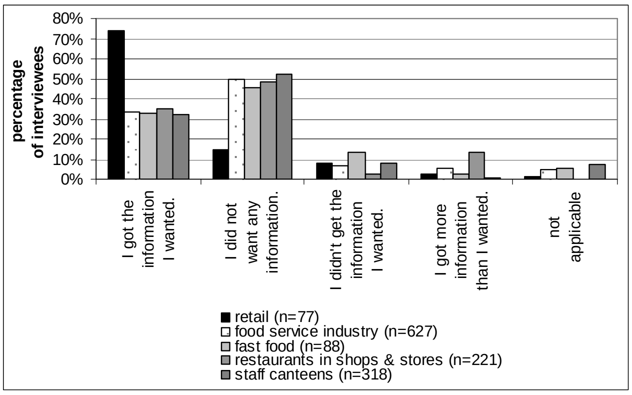

Fig. 3 Information coverage

When asked about the importance of single pieces of information (e.g. breed, transport, labels), the farm was only mentioned in second place in the food service industry, which differs from what was found in retailing. Consumers in the food service industry place the most importance on food inspections (see Fig. 4).

Through all sectors there exists a remarkably low interest in information about slaughtering and deboning (see Fig. 4). This observation is consistent with statements from consumers in group discussions carried out in cooperation with the sub-project *Consumer analysis.* Interviewees tend to evade these questions, preferring not to be confronted with the topic.

Fig. 4 Information deficits

In the group discussions, a higher level of trust in the food service industry was stated as a frequent explanation for the differences in information seeking behaviour. This statement seems to be a paradox, however the true causes are convenience, lack of time, or simply the desire for enjoyment. The results of the survey support that the average level of consumer trust in the food service industry is higher than in retailing. Figure 5 illustrates the trust in different sources of information. Trust in service personnel is remarkably low in the food service industry as a whole, and even lower in canteens compared to fast food restaurants. On the other hand, trust in food inspections is rather high.

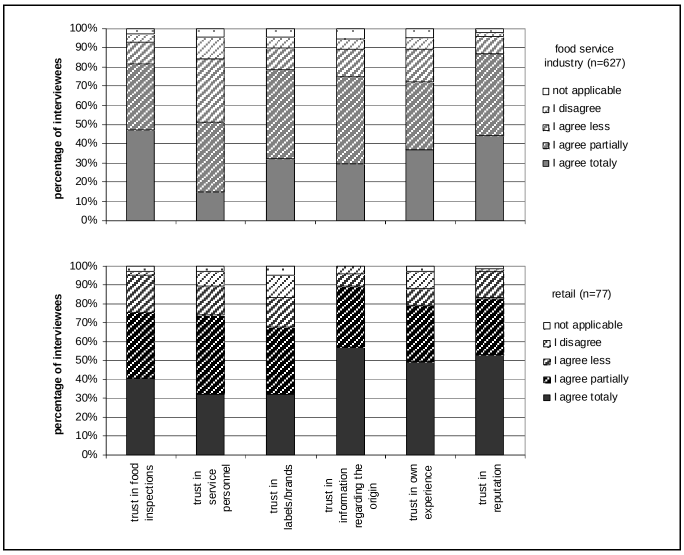

Fig. 5 Consumer trust

The most common association with traceability is the origin of the animal/meat. This corresponds with the results of preliminary studies conducted by the sub-projects *Consumer analysis* [7] and *Business models and cost-benefit analysis* [8].

Like many other pieces of information, traceability is of higher importance in retailing than in the food service industry. It is striking that traceability, as defined by article 18 of the Regulation (EC) No 178/2002, is more important to consumers than traceability according to their own definition (see Fig. 6).

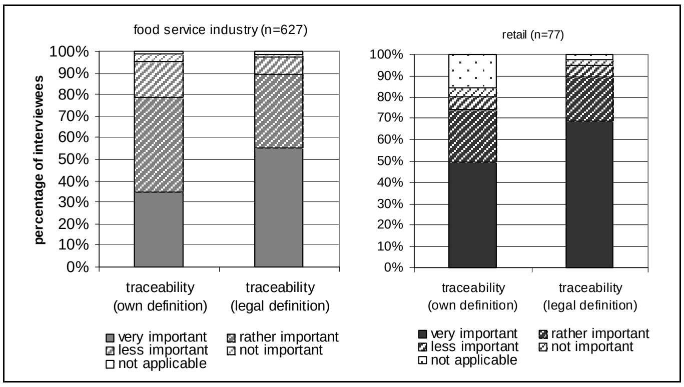

Fig. 6 Importance of traceability

With regard to the sub-project *Business models and cost-benefit analysis* the consumers' willingness to pay for information concerning traceability for the entire supply chain is of particular interest. In the food service industry the maximum price premium that consumers are willing to pay for information concerning the path of the animal/meat from farm to fork, is about ⅔ of the willingness to pay observed in retailing (see Fig. 7).

Fig. 7 Price premium for traceability information on the entire meat supply chain

IV. DISCUSSION AND PERSPECTIVE

In the food service industry the majority of interviewees neither actively seek for nor want any information, while in retailing the majority states that they receive the information they want. In restaurants inside shops and stores there is even a slight over saturation with information. This is consistent with the result that the overall trust in the food service industry is higher than in retailing. The only exception is the extremely low level of trust in the food service industry staff.

This observation is consistent with the high priority placed on food inspections among other important available information. It is the information topic in highest demand by the consumers in the food service industry. In retailing the origin/farm is the most important information.

Against this background it is understandable that the willingness to pay for additional information is significantly lower in the food service industry.

The next step in the further course of the research project *IT FoodTrace* will be the investigation of the information flow through the food service industry as part of the supply chain, and of the requirements of the food service industry as to a traceability system for the entire supply chain. Of special interest is the question of whether the provision of certain pieces of information to consumers corresponds with the business objectives of the food service industry. The question of who will bear the costs will also be an issue.

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