# TRUST IN A CHANGING WORLD

# RAPID EVIDENCE ASSESSMENT

# 2018


# ICF CONSULTING LTD

# for

# THE FOOD STANDARDS AGENCY (FSA)


# FS303018

# Document Control

| | |
|---|---|
| **Document Title** | Trust in a changing world |
| **Job No.** | 30301940 |
| **Prepared by** | Julien Etienne, Kate McEntaggart, Martina Rigoni |
| **Checked by** | Julien Etienne |
| **Date** | 30 July 2018 |

This report has been prepared by ICF Consulting Ltd under contract to the Food Standards Agency.

ICF has used reasonable skill and care in checking the accuracy and completeness of information supplied by the client or third parties in the course of this project under which the report was produced. ICF is however unable to warrant either the accuracy or completeness of such information supplied by the client or third parties, nor that it is fit for any purpose. ICF does not accept responsibility for any legal, commercial or other consequences that may arise directly or indirectly as a result of the use by ICF of inaccurate or incomplete information supplied by the client or third parties in the course of this project or its inclusion in this project or its inclusion in this report.

# Contents

# Abstract

This study took the form of a rapid evidence assessment on what drives trust and what poses a barrier to trust among consumers, as relevant to the food industry and food regulator. Many different trust concepts, terms and definitions were identified in the literature. These include generalised trust, social trust, political trust, distributed trust and consumer confidence. There is also an important distinction to be made between low trust and distrust. All of these concepts are relevant to food in some way or another, although determining what might drive or prevent trust in food will also be dependent on the nature of the food industry and regulator, who holds the most power in the system, and what consumers are most concerned about in the food system. At a more general level, trust was found to be influenced by media coverage and crises, the endorsements of others, confirmation bias, perceptions of complexity, familiarity, honesty, consistency, independence, benevolence and ability.

# Acknowledgments

# Executive summary

## ES1  Methodology

This study took the form of a rapid evidence assessment on what drives trust and what poses a barrier to trust, as relevant to the food industry and food regulator. A systematic search was conducted using a set list of terms defined in a scoping phase (see Annex 1). Additional resources were identified based on a snowballing approach and identifying new concepts that emerged through the literature. The various sources were triangulated to identify points of consensus or divergence in the theoretical and empirical claims made.

## ES2  Summary of evidence

The first challenge in addressing trust in the food system comes in establishing a definition of trust and appropriate distinctions between different types and theories of trust. Generalised trust, also referred to as social trust, refers to the degree to which people consider most others can be trusted. Political trust is used to describe public trust in governmental entities. Distributed trust has been posited recently as an increasingly important type of trust for the digital era and refers to people's trust in the aggregate of others' recommendations. Confidence (or 'consumer confidence') is also a commonly used term in the literature, sometimes defined as a concept separate to trust, but often used interchangeably. There is sometimes an important distinction made between low trust and distrust, although this is also inconsistent within the literature.

Trust is often seen as a key feature of well-functioning societies, economies, and (democratic) political systems: it facilitates routine (economic and non-economic) interactions between individuals and organisations. For the trustee, it is a resource, a form of 'social capital' that may be relied on for achieving various purposes. Yet trust is not always good, and distrust always bad. Trust can be misplaced by being put in untrustworthy individuals or organisations, and some level of distrust from 'active

citizens' may be desirable. It is therefore important to consider 'trust' separately from 'trustworthiness'.

Much has been made of a modern crisis of trust in Western countries, but that narrative deserves to be qualified. In the UK, polling measures of generalised trust indicate it is above the OECD and EU averages and has been stable over the past decade.  Measures of trust in the government tend to fluctuate significantly over short periods, likely in response to political events. Measures of trust in government also do not necessarily indicate trust in different components of what can be considered government. Generally, there is a higher overall level of trust in the civil service, and the FSA in particular enjoys high levels of trust.

There is some indication, however, that trust in the food industry has been in decline, although this has not been well-documented, and it is difficult to come to any conclusions on this. There are certainly aspects of the food system that have provoked public concern. Processed foods and meat especially are identified in the literature as potentially problematic and less trusted components of the food system.

'Trust in food' could refer to trust in food safety, authenticity, quality, nutrition or ethical and environmental concerns. Public concerns around food at present seem to be largely around food safety, pesticide residues, antibiotics and pollutants. There is also growing public concern around sugar content. These concerns will frame how consumers perceive the food system and how they choose to place their trust.

Trust is also dependent on who consumers perceive to have power and control. In the UK, the food system is highly industrialised and is characterised by a concentrated retail sector, meaning that trust in retailers is more likely to be indicative of trust in the food system overall.

Trust is impacted by media coverage and scandal. People have a tendency to trust negative information more than positive, meaning that scandals or crises have an outsized impact on trust. Trust does tend to rebuild over time following a scandal,

however, and the impact of any scandal will depend on its intensity and on the response of actors with power in the food system.

Consumers tend to be less trusting of systems that seem very complex. They tend to be more trusting of smaller producers as compared to large multinationals, but overall more trusting of modern, highly-concentrated food systems. Consumers are also more trusting of food when they personally feel involved in the system producing it.

Face-to-face relationships or interpersonal trust tends to engender stronger trust than institutions. People are also more likely to trust entities that they recognise. People are also more likely to trust within their own groups. 'Groups' can be defined in different ways and might refer to local communities, the nation state, or other political, social or religious communities.

People tend to trust entities that come recommended, either by known or unknown others. Similarly, they tend to trust what they see others choosing to trust. People also more likely to trust information or entities that appear to conform to their existing beliefs.

Ability, benevolence and integrity are frequently cited as three important antecedents of trust. More accurately, it is how people perceive these qualities that impacts their trust decisions. Perceived ability might also be described as competence, knowledge or expertise. These are all influences on trust. However, ability does not promote trust if actors are perceived to be deficient in integrity or benevolence.

Perceived benevolence is also important to building trust. If actors are perceived to have malicious intentions, this erodes trust. Perceived integrity also builds trust. Displaying integrity might include honest behaviour, showing consistency over time and avoiding bias or conflicts of interest.

Many of these findings relate to what is important to build trust. However, building trust is only worthwhile if that trust is warranted. This is another key problem with trust—that trust can be, and frequently is, misplaced. For this reason, the recommendations emerging from this report relate not to building trust, but rather how insights on what drives and prevents trust can be used to build trustworthiness.

## ES3 Recommendations

(1) **Do: ensure public perceptions of the food system match the reality.**

(2) **Do: understand the underlying values and norms shared among consumers and make sure to align with them**.

(3) **Don't: avoid media coverage of scandals in the food industry.**

(4) **Do: address complexity in the food system.**

(5) **Don't: treat transparency as a silver bullet.**

(6) **Do: retain independence**

(7) **Do: measure trust from multiple angles.**

# 1   Introduction

This report presents the key findings from a literature review on the barriers to and drivers of consumer trust in the food system. The food system comprises the various actors producing, processing, manufacturing and selling food and drinks, and the public authorities that oversee their activities. Trust in the food system refers therefore primarily to trust in the actors – individuals and organisations – that produce and regulate food.

This literature review is part of an FSA project to understand in more depth what trust is and how it applies to the food system, what drives it and what hampers it, building on the academic literature as well as a number of additional reports from various organisations and in the media.

The broad context for this literature review is one of ongoing and upcoming changes affecting the UK food system at multiple levels. These include, in no order of importance: the UK's exit from the EU and ensuing changes to the regulatory regime for food in the UK, globalised supply chains, expansion of online marketing and shopping, technological innovations in food production, climate change, collapsing species, mass plastic pollution of ecosystems and significant constraints on public budgets for regulating the food sector.

Those changes could impact consumer trust in the food system, depending on how they affect the system's ability to fulfil key consumer expectations, such as safety, authenticity, access, affordability, transparency and wider interests such as sustainability and provenance. In that regard, trust may be an indicator of how successfully the food system is serving consumers' needs. A decline in trust, or growing distrust, may in turn make it more difficult for either industry or regulators to see their initiatives received positively and endorsed by consumers.

This report is structured as follows: after a short outline of the methodology, we explore how trust has been conceptualised, and we clarify what concepts of trust have been explored further in this study and discuss in more detail

what trust is. We build on this conceptual map to then discuss context, highlighting how various aspects or dimensions of trust have been evolving in the UK or globally, to the extent that they have been measured. We then move to the main discussion, on the drivers of and barriers to trust in the food system. We finally conclude with key learnings for further investigation and policy.

## 2 Methodology

The literature review started with a scoping phase, during which initial sources were identified and rapidly reviewed. The goal of the scoping phase was to determine what concepts of trust would be used in the search and what sub-questions would be addressed as part of the study. Another objective was to clarify what literature was relevant and how the study team's resources should be allocated across different sources. This scoping phase led the team to further specify the research questions of the study and to narrow down the list of key search terms that were then relied on to identify additional sources for review.

Following the scoping stage, a systematic search was conducted on EBSCO and Google Scholar using a list of search terms identified in the scoping phase (see Annex 1). In addition to the academic literature, other studies and measures of trust were identified, including work done by or on behalf of Edelman, Ipsos Mori, the European Commission and the OECD. Based on the sources identified during the initial review, a snowballing approach was used to identify sources cited within the identified literature, as well as sources that cited the identified literature. This way, the study team collected additional relevant sources aiming for a broad, albeit not exhaustive coverage of the relevant literature. Overall, about 150 sources were reviewed for this study.

Sources were reviewed and assessed for how their conclusions addressed each of the main questions of the study, considering both their relevance and their quality. Sources from peer-reviewed journals were prioritised over

sources in other formats (books, reports), although the latter were not discounted. The review of the information found involved triangulation between different sources, and consideration for the concepts, methods, and data used in each of the sources. The evidence collected was then organised into themes and sub-themes as they emerged from the literature and communicated back in the form of the present report.

The conclusions and recommendations developed in this report were then sent to four experts with experience in trust and food for review. Two of these experts responded with feedback on the report, and this feedback was considered in a final round of revisions.

# 3 Conceptualising trust in the food system

As with many social science concepts (such as power, institution, or preferences), the concept of trust is not stabilised, in the sense that there is not one undisputed definition being widely used in the literature. Rather, many different concepts of trust coexist. As one might expect, they are largely influenced by disciplinary perspectives and preferences. Various attempts at bringing those perspectives together mean that there has been quite a bit of cross-fertilisation between sociology, anthropology, political science, economics and psychology over the years, but not to the point where a stabilised concept would have emerged (e.g. Rousseau et al. 1998; Thomas 1998).

Rather than attempting to draw out the multifarious understandings of trust that exist (fairly comprehensive discussions of these various definitions can be found in the literature, and notably in Thomas 1998, Newton et al. 2018; Mayer et al. 1995; Rousseau et al. 1998), we outline here what we believe are the most relevant concepts of trust for the purpose of this particular study. To do so, we begin with some broad observations about the benefits of trust and the drawbacks of distrust (3.1), before discussing what trust is, exploring the various facets or dimensions of the concept (3.2). We then discuss what trust may mean for consumers in the world of food production

and food consumption today (3.3). Accordingly, we discuss key concepts of trust that we identified as the most relevant for a study of trust in the food system (3.4).

## 3.1 The benefits of trust and the drawbacks of distrust

Trust is often seen as a key feature of well-functioning societies, economies, and (democratic) political systems: it facilitates routine (economic and non-economic) interactions between individuals and organisations. It contributes to risky ventures and innovation. It helps maintain relationships and basic social functions, particularly in the face of hardship. It is the bedrock of participation in political institutions, particularly in democratic regimes. For the trustee, it is a resource, a form of 'social capital' that may be relied on for achieving various purposes. If the trustee is a regulator, for example, it can rely on the trust vested in it to make behaviours change and to achieve compliance with regulations (e.g. Raaphorst and van de Walle 2018).

Accordingly, when trust is low, or when there is no trust but instead distrust, these benefits are not present in equal proportion or various social ills may materialise. Thus, a number of studies have linked distrust to social, political and economic backwardness (Banfield 1958; Gambetta 2000). Distrust as also been linked to 'exit', such as disengagement or non-participation (in markets or public services), or 'voice', such as contestation, or even physical aggression towards representatives from distrusted organisations or institutions (Raaphorst and van de Walle 2018). Low trust, or even distrust of regulatory agencies has also been seen as a fundamental obstacle to their ability to achieve their goals, and a threat to their existence if they fail to garner sufficient support from key constituencies (e.g. La Porte and Metlay 1996; Carpenter 2010; Thomas 1998).

Yet trust is not always good, and distrust always bad. Trust can be misplaced by being put in untrustworthy individuals or organisations, and some level of distrust from 'active citizens' may be desirable so that they hold to account elected and unelected individuals who hold positions of power (O'Neill 2012;

Hosking 2017). It is therefore important to consider 'trust' separately from 'trustworthiness'. Not all entities that are trusted are deserving of that trust. Where crises of trust do emerge, they are generally because trust has been placed in an entity that has failed to be trustworthy. While this study focuses on trust, its purpose is therefore to help understand what makes actors of the food system, and particularly regulators, trustworthy.

## 3.2    What is trust?

A lack of agreement between scholars and an abundance of trust concepts means that some of the studies one may find in the literature have convoluted and sometimes unclear arguments. That is particularly the case when, rather than aiming to use a clearly defined concept of trust, they use several in combination without necessarily ensuring that these concepts do not overlap or are compatible.

In spite of this abundance of concepts, numerous contributors have aimed to identify core commonalities so as to clarify what trust is and what it is not. While the relevant literature is heavily theoretical, such debates on the dimensions of trust are also informed also by empirical data, particularly efforts to document from individuals what trust means to them and how they experience trust (and violations of that trust). While there is some disagreement in the literature, the following key features and dimensions of trust tend to be largely accepted.

■ **Trust exists in situations of uncertainty and risk.** Scholars have identified situations of uncertainty and risk as fundamentally linked to trust. As Herzfeld writes, 'questions of trust (…) arise in situations of continuing uncertainty' (Herzfeld 2005: 174). Luhmann further argues that trust is a 'solution' to risk (Luhmann 1988) and to the extent that this risk is taken willingly (Mayer et al. 1995; Rousseau et al. 1998). Put in another way, 'trust turns on a questionable but necessary capacity for predicting and anticipating the actions of others' (Herzfeld 2005: 175).

- **Trust is a belief**. Various expressions in the literature communicate the fact that trust is only partially underpinned (and sometimes not at all) by verification by the trustor of claims or qualities of the trustee (e.g. Thomas 1998; van der Walle and Six 2014). Rather, trust is a 'leap of faith' (Van de Walle and Six 2014), and it involves putting oneself in a position of vulnerability towards another (Mayer et al. 1995; Rousseau et al. 1998).

- **Trust is sometimes rational**. Some definitions underpin the rational dimension of trust, in particular as a form of 'calculated risk' (see for instance the literature reviewed by Rousseau et al. 1998). Mayer et al. (1995), or Kjaernes et al. (2007) have also suggested that trust is based on expectations, and particularly about social norms (also Hosking 2017). When those expectations are satisfied, trust is granted, sustained, or reinforced. However, it should also be recognized that a lot of trust is not reflexive or calculative (ibid.)

- **Trust is emotional**. While there may (sometimes) be a rational element to trust, the emotional dimension of trust is widely acknowledged in the literature. Shoorman et al. (2007) reference numerous empirical studies that have shown the role of emotions in decisions to trust. They then go on discussing how their model of trust as being based on assessment of ability, benevolence and integrity is likely mediated and underpinned by emotions and affect. Reviewing another literature, Thomas further argues: 'we know trust exists because of the emotional sense of betrayal that is aroused when it is breached' (Thomas 1998: 175). Emotions may also help explain the 'stickiness' of distrust after trust beliefs have been violated, so that behaviours continue to demonstrate distrust even long after the behaviour that elicited such response stopped occurring.

- **Trust is not always a matter of choice**. Instead of their abundant use in common and scholarly language, the words 'choice' or 'decision' do not communicate the fact that trust is often 'forced' (Hosking 2017). Not only do individuals **need** to trust (a world of distrust would not be bearable), they also often **have to**: they have to trust their currency, health care

system, and food. They cannot control all of those things, and they cannot do away with them either.

■ **Distrust is not the same as low trust**. A growing literature has argued that it is necessary to distinguish distrust and low trust as two fundamentally distinct phenomena, which should therefore be the object of distinct concepts (int. al. O'Neill 2012; Hosking 2017; Lindenberg 2000; Van de Walle and Six 2014; Roopharst and van de Walle 2018). Van de Walle and Six (2014) thus argue that low trust does not necessarily trigger changes in behaviour, while distrust does. Although disputed (see Shoorman et al. 2007 on their defence of a model assuming that low trust and distrust are one and the same phenomenon) this distinction may be particularly relevant to food: since food is a necessity good, its consumption is likely less subject to variations than other goods, and even lower trust may have little impact on consumption patterns. By contrast, distrust elicits suspicion, and may lead to distinct changes in consumption behaviours. The distinction may also be particularly helpful from the perspective of regulators or businesses. It may be necessary to dispel distrust before attempting to build trust, and that may require different measures. Thus, research reviewed by Van de Walle and Six (2014) suggests that perceived benevolence contributes to enhancing trust, whereas perceived competence contributes to dispelling distrust. Unfortunately, most of the literature and the large international surveys that collect evidence on trust have not taken up this distinction yet.

The above implies that 'trust' is a belief that actors develop and rely on when dealing with uncertainty and risk. Such a belief may apply to individuals one regularly interacts with, but increasingly scholars have also spoken of trust as a belief in the future behaviour of unknown others, a 'generalised trust'. Like almost every decision that actors take, it is complex and embodies both rational and irrational, material and symbolic dimensions.

The concept of trust has multiple dimensions. Not all of them might be relevant in the context of the food system. In the next section we explore

what 'trust' may mean and how it can be conceptualised when applied to consumers and their relationship with the food system.

## 3.3 What kind of trust can consumers have in today's food system?

Nowadays, one has very little direct experience of and control over how the food one eats has been produced, and sometimes prepared. It is therefore fair to argue that consumers lack knowledge about the food they eat. This state of **uncertainty** means that eating is a **risk**, although consumers may not be experiencing it as such. They may do so only in certain circumstances (e.g. in the immediate aftermath of a food incident) or if their background has made them particularly aware of the risks involved (e.g. microbiologists are more likely to be attentive to such risks than the general population. Jackson goes further, building on survey evidence collected in Europe, and arguing that most consumers are in a state of anxiety about the food they eat (Jackson 2015). Food anxieties are evidenced in the attitudes recorded in various opinion polls, such as Eurobarometer work (TNS 2010) and the self-reported food concerns of participants in the FSA's own public attitudes tracker (FSA 2018). Such surveys include leading questions on the level of concern consumers may feel about different types of food, and while they may provide an idea of consumers' attitudes, it is not clear that it reflects the manner they feel towards food at all times. Nonetheless, consumers' lack of knowledge or control over the food they purchase and consume means that, at a minimum, they have to trust those who produced the food they absolutely need.

Historically, trust has been understood as a *relational concept* between two persons, and often between equals, that is nurtured and maintained by repeated interactions in which familiarity develops (e.g. Blau 1986). While short supply chains and face-to-face consumer-supplier interactions still exist and provide opportunities for such trust relationships to develop, most of the production and provision of food to consumers today is characterised by de-

personalised relationships. As claimed by Wilson et al. (2017), consumers are disconnected from the food chain, and they rely on a range of strangers to access safe food. Supply chains have grown long (often spanning several countries), and they include large business organisations (including a number of multinationals) which are present at all stages of the food chain: production, processing, retail, or catering. Consumers' interactions with these entities are not of a nature that enables the development of relationships of trust, as traditionally understood. If there is any familiarity that develops between consumers and the entities that provide them food, it is 'thin familiarity', or 'marketed pseudo-familiarity, localism and traditionally based on symbols rather than forms of interaction' (Kjaernes et al. 2007:199).

If there may be trust in the food system, it is therefore not 'relational'. The literature offers various alternative conceptualisations to designate non-relational trust: 'generalised trust', 'social' or 'societal trust', 'institutional trust', 'political trust', or 'distributed trust'. The related notion of 'consumer confidence' is also discussed below.

## 3.4 What trust concepts may apply to consumers and their relationship with the food system?

**Generalised trust** can be expressed as trusting people as a whole, in an unselective manner (Newton and Zmerli, 2011). It means trusting unknown others, (Delhey et al. 2011 in Uslaner, 2018) and can be conceived as the belief that most people can be trusted. Generalised trust is frequently referred to in political science literature and examined at country level, often as part of general attitude surveys (such as the British Household Panel Survey). High levels of generalised trust have been associated with objective measures of democracy (Newton 2010), and generalised trust is used as part of overall measures of 'social capital' (Lin 2001), such as those conducted by the Office for National Statistics (ONS 2017). Social capital is defined by the OECD as the 'networks together with shared norms, values and

understandings that facilitate co-operation within or among groups' (Keeley 2007: 103) and is one common measurement of overall societal wellbeing.

There has been growing interest and there is a large literature on generalised trust. One may attribute this 'success' to the fact that generalised trust is well established as an empirical concept (it is being measured extensively and regularly), and because it can capture 'trust' in modern society (e.g. Mayer et al. 1995), which is not the same as the 'trust' that anthropologists and early sociologists studied:

> 'general trust is vital to modern, large-scale, mobile, and heterogeneous society in which the weak ties of daily life require risk-taking with strangers and casual acquaintances.' (Newton and Zmerli 2010: 171).

The concept of generalised trust is also sometimes referred to as 'generalised **social trust**' (e.g. Newton and Zmerli 2010), to communicate the idea that it is embedded within society and is about society as a whole. As such it can be understood as a diffused and shared 'culture of trust' (Thomas 1998). The notion of generalised social trust can be relevant to the food system because of its indiscriminate nature. It implies that, when consumers put their trust (voluntarily or not) into those who produce the food they eat or those who regulate the food chain, they do so without knowing who they are (most consumers may trust that the food chain is regulated without having any idea of who is actually in charge). It also implies that the underpinning elements of trust in the food system may not be specific to it at all, but rather be embedded into far broader values and norms that individuals acquire when they grow up (as discussed in the next chapter; also Hosking 2017). The notion of generalised trust also embodies routine interactions, such as those that consumers have with the food system. Except in contexts of crisis when they may see the risks of eating certain foods as particularly high and therefore devolve significant thinking to what they should eat, consumers normally invest little thinking and see little risk in such simple acts as buying food from a supermarket. Whatever trust there is

in consumers' relationship with those who produced or sell that food is called 'weak' (Hosking 2017), and the ties that link consumers to those who produce and sell the food purchased are 'weak ties', not 'strong ties'. Such 'weak ties' are fundamental to the cohesion of society (Granovetter 1983), as they link together members from different social groups.

The notion of generalised social trust is also distinct from the notion of **political trust**, which encompasses distinct components, such as trust in elected entities (government, parliament, etc.) and trust in the administrative component of the state (courts, police, regulators, civil servants more broadly, etc.) (Uslaner 2018). The two notions are not similar and they do not overlap, although social trust contributes to political trust (Newton and Zmerli 2010). As such, both concepts of social and political trust are relevant for understanding consumer trust in the food industry and in the food regulator. The relevant literature is extensive.

One additional concept, initially stemming from work in computer science, is the concept of **'distributed trust'**. The idea of distributed trust was developed out of a need for a better trust management system for handling online risks (Abdul-Rahman & Hailes 1997) and has been used most recently to conceptualise the changing nature of trust in the digital age. It refers to the trust in the aggregated data of unknown others, perhaps best exemplified by platforms like Uber or Airbnb (Botsman 2017). Distributed trust might also be referred to in the literature as 'decentralised trust' and it is related to concepts of crowd-sourcing and electronic word-of-mouth. Distributed trust is highly relevant to the food industry. Many rapidly growing and novel food business sectors rely on distributed trust as part of their business plans. Food delivery applications use ratings to engage with consumers and many online food retail services also now allow consumers to rate the products they have purchased. Perhaps most notably, the popularity of sites like TripAdvisor has made distributed trust extremely important for the catering industry. Distributed trust is also the theory driving blockchain technologies, which are frequently cited as a potential solution for food fraud and other problems in

the supply chain (Seidel 2017). However, the majority of the relevant literature is highly technical and based in computer science.

**Consumer confidence** is another commonly-used term in the literature. Some studies attempt to draw a distinction between *trust* and *confidence*, for example by defining trust as stemming from an alignment of values between the trustor and the trustee and confidence as resulting from experience (Earle 2010 in Siegrist 2010). However, similarly to how there is little agreement among researchers on how to define and measure trust, there is similarly little agreement on how to define and measure confidence, and the terms are often used interchangeably.

These concepts have informed the manner in which the literature review was conducted. Before we move to the discussion of what may be driving or, on the contrary, hampering trust when applied to regulators and the industry in the food sector, we discuss in the next section trends in trust in the food system as they can be documented from various sources.

# 4      The current state of trust in the food system

In this section we discuss the context for the study, and particularly trends in trust as they are discussed in the literature and measured in various ways, in the UK, Europe and globally. We begin by addressing the broad narrative of 'trust in crisis' to nuance its relevance to the UK context and qualify the quality of the evidence that one can rely on to characterise trends in trust (4.1). We then discuss in more detail trends in general trust and political trust (4.2), trust in the food industry (4.3), developments in the food industry that may have an impact on trust (4.4),trends in consumer concerns in relation to food (4.5) and trust in other industries (4.6).

## 4.1      Is trust really in crisis?

The backdrop for this literature review is the debate on trust's decline (and more broadly, that of 'social capital') in the West. That debate has been

driven primarily by United States academics and commentators, following notably the work of Robert Putnam (Putnam 1995; Clark 2015), however mention of a crisis of trust is found across a wide range of sources. More recently, pollsters have further argued that there is a global 'crisis of trust', mentioning decline in generalised trust, but also political trust, and trust in various types of organisations, primarily businesses and the media (Edelman 2018c).

The debate and the evidence, in Europe and in the UK in particular, is more nuanced, however. On the one hand, where it is measured by opinion surveys of consumers, trust does not appear to be in decline (Raaphorst and van de Walle 2018). Thus, in the UK, 'generalised trust' – the extent to which people feel that unknown others can be trusted – has remained relatively stable over recent decades (Richards & Heath 2015). Similarly, trust in government, public authorities and business have been stable in the UK (e.g. OECD 2017a; Edelman 2018; TNS 2017). The UK findings of the Edelman trust barometer in 2018 thus concluded that, in the period between 2012 and 2018 "UK trust remains flat across all institutions".[1]

Yet concern that trust might be decreasing and/or distrust increasing in Europe has been voiced by various commentators, although the evidence in that regard can be ambiguous. Thus, Newton et al. (2018) and Hosking (2017) see in the UK vote to exit the UK (and in the election of Donald Trump in the US) an indication of falling political trust and/or growing political distrust. Raaphorst and van de Walle (2018) further argue that there may be other signs of distrust than voting for anti-system politicians or parties. Using the categories elaborated by Hirschman, they identify instances of 'voice' (contestation) and 'exit' (disengagement, or non-engagement) from social activities or public services as evidence of low trust or distrust in society. However these instances tend to provide anecdotal evidence only, which can

---

[1] https://www.slideshare.net/Edelman_UK/edelman-trust-barometer-2018-uk-results/1, slide 4, accessed on 13/07/2018.

be difficult to build upon to generate a broader diagnostic of a general decline in trust or an increase in distrust.

Nonetheless, these attempts to expand the sources of evidence to document trends in trust are revelatory of the limitations of polling data for this purpose. Indeed, the use of surveys has been criticised as being insufficient by some, as it does not address the distinction between trust and trustworthiness (O'Neill 2012; Six & van de Walle 2014). This can be seen by the results of the Edelman barometer, where countries such as India and China have the most trusted institutions, despite also scoring high on indexes that would suggest a lack of trustworthiness (such as corruption, see Transparency International 2018; alternative survey evidence rather points to the link between the quality of institutions and trust in the civil service, e.g. Houston et al. 2016). Self-reported trust attitudes by such polls therefore tell us less about the trustworthiness of different institutions across the world but may perhaps reflect more on the cultural and political expectations of the population being polled. There are therefore limitations to the quality of the evidence on trends in trust. With these limitations in mind we now discuss in more detail various trends.

## 4.2   Generalised trust and trust in government

Generalised trust in the UK has remained largely consistent over time (Richards & Heath 2017). It is slightly higher than the OECD average, but significantly below levels in the Nordic Countries (OECD 2017b). Although it is measured in different ways by different studies, this general trend is confirmed by data from the World Value Survey (Inglehart et al. 2014) and the European Social Survey (Olivera 2013). Generalised trust tends to be lower in urban areas and is the lowest in London (Richards & Heath 2017).

Trust in the government is a more volatile measurement. It is sensitive to political events and therefore tends to fluctuate significantly over short periods of time. Different survey results all indicate that trust in government in the UK remains fairly stable at around 35 to 45 per cent (OECD 2017a,

Edelman 2018, TNS 2017). This tends to be slightly higher than the OECD and EU averages.

Although trust in government is a commonly measured indicator, it does not provide the full picture. 'Government' can refer to drastically different institutions and actors. Breaking this down somewhat, other research suggests that Britons trust civil servants more than they do politicians (59% compared to 17%) but less than they do the ordinary man or woman in the street (64%). These results also suggest that trust in civil servants has been increasing over time (up 34 percentage points since 1983) (Ipsos Mori 2017). There is greater trust in civil servants (and most 'experts') among those who have achieved higher educational qualifications. This is in contrast with trust in 'senior civil servants', which in 2014 was very low (19%) and on a par with trust levels in leading politicians (YouGov 2014).

The FSA's own research indicates high levels of trust in the FSA: of the 79% of respondents aware of the FSA, 72% trust the FSA to tell the truth in the information it provides and 69% trust the FSA to do its job. In addition, a total of 60% trust that the food industry is regulated fairly (FSA 2018). As compared to previous surveys, these results also suggest that trust in the FSA has been increasing steadily since 2014. As per the above, this is in line with the positive trend in trust in civil servants.

Overall, both social and political trust seem to be slightly higher in the UK as compared to similar countries. Additionally, trust in the UK does not appear to have been subject to the decline identified in studies in other parts of the world.

## 4.3   Trust in the food industry

Some literature suggests that there is increasing anxiety around food and that this stems from fears around modernity, new technologies and globalisation (Bildtgard 2008, Jackson 2015). Although distrust in food providers and fears around adulteration, fraud and questionable hygiene practices are found throughout history, from Ancient Roman concerns about

chalk in bread to ground pepper bulked with powdered bones in Victorian England (Davidson 2014), these concerns have changed in both nature and scale in recent decades. According to Bildtgard (2008), it is this anxiety that necessitates trust in the first place, as the only options consumers have to address anxiety is either to gain more control over their food supply (which is increasingly difficult in today's world) or to develop trust in the food system.

However, many measures of trust in government or the food industry suggest that it is low among consumers. The NFU Mutual Food Fraud Report, based on research conducted in 2017, provides a recent overview of current levels of trust in various food actors in the UK. Of those surveyed, around a third stated that they were less trusting of food than they were five years ago. In contrast, only nine per cent indicated that their trust had increased over the last five years. This suggests that while generalised trust, trust in government and trust in the FSA has remained stable or increased (as reported in the previous section), trust in the food industry has been eroding. This is not necessarily supported by other evidence, however. The Edelman Trust Barometer does not note significant declines in trust for the food and beverage industry over the past five years and there is nothing to suggest that trends in trust in the food and beverage industry differ significantly from trust in other industries (with some exceptions, such as the automotive industry, which has experienced a significant decline in trust). The FSA's tracking data also suggests that overall concern about food issues has remained relatively stable since 2010. FSA research does indicate that trust in the food industry is low, however, with only 41% agreeing that food industry workers had their best interests at heart (FSA 2018).

When it comes to specific elements of the food system, the NFU Mutual Report found that trust was lower among certain product types, with 'processed foods' garnering the overwhelmingly highest amount of concern, followed by red meat and supplements. Retailers are the most trusted food outlets, takeaways are the least. The FSA's Public Attitudes Tracker 2018 indicated that only 28% of people are always confident that food is what it

says it is on the label, although it also found 75% are usually or always confident that food is what it says and accurately labelled (FSA 2018).

The NFU Mutual Report indicates that consumers have the most confidence in British food, with 38% expressing confidence in the British food chain. Respondents showed markedly less confidence in the European food chain (12% expressing confidence) and the least confidence in the Global food chain (7% expressing confidence). Around a quarter of respondents indicated that they had more confidence in short, local supply chains and this proportion was significantly higher (43%) among those aged 75 and older.

While these results largely refer to confidence in the authenticity of food, consumer expectations may also refer to food quality and nutrition, convenience, affordability, as well as ethical and environmental concerns. A recent poll conducted by the Food Ethics Council suggests that especially among younger consumers, the food industry is not perceived as being 'fair' either to workers in developing nations, the natural environment or farm animals (Food Ethics Council 2018).

The overall picture of rather higher trust in food regulators and rather low trust, or even distrust in the food industry is consistent with earlier work conducted by Kjaernes et al. (2007).

## 4.4 Developments in the food industry

Trust in the food industry will also inevitably be shaped by the nature of the industry itself and current trends in food provisioning. The UK food system is, in general, highly industrialised. UK consumers have a greater preference for processed and off-the-shelf foods than their European counterparts (Kjaernes et al. 2007) and have a diet significantly higher in 'ultra-processed' foods (Monteiro et al. 2018). Food provisioning in the UK is characterised by a highly concentrated retail sector. The top four retailers control around 70% of the market, although discounters are gaining increasing importance and market share (Kantar Worldpanel 2018). UK consumers spend around a third of their total spend on food, on eating and drinking outside the home (DEFRA

2018). This suggests that for the UK market, trust in a few key retail actors, as well as in catering establishments, will play an important role in determining overall trust in the food system.

The growth of the digital economy and the recent rapid growth of online food businesses introduces a new component to consumer trust and stretches the limitations of trust. As discussed in section 3, some have suggested that in the digital age it is more appropriate to now speak of 'distributed trust' (Botsman 2017). Many of the concerns that impact the trust of e-commerce businesses are specific to the nature of online transactions, with privacy and security concerns playing an important role. Online businesses also need to establish trust due to the delayed nature of online transactions, whereby payment is often made immediately but the delivery of the goods or services takes place at a later time (Kim et al. 2008). Online food businesses therefore have additional hurdles to overcome when it comes to establishing trust. This is supported by the NFU Mutual Food Fraud Report, which identifies online businesses as among the least-trusted food outlets alongside takeaways.

## 4.5    Consumer perceptions of threats to the food industry

Consumer perceptions of risk play an important role in determining the degree to which consumers trust different actors in the food system. Conversely, the extent to which consumers trust different actors in the food system influences what issues they perceive to be a risk (Lobb 2004). As perceptions of what is risky or concerning in the food system are constantly evolving, it is important to situate trust within current public concerns.

The FSA's public attitudes tracker provides some indication of the issues UK consumers consider most pressing when it comes to food quality and safety. The latest wave (May 2018) indicated that the area of greatest concern was the amount of sugar in food. Food safety concerns were also prominent, although less so, and only around a quarter of respondents were concerned about food being something other than what it says on the label.

Public concern around food safety has remained relatively stable over time, and other evidence also suggests that food safety risks rank relatively low as compared to consumer concerns around other food-related risks (Frewer et al. 2016). Comparing the UK with other European countries, Eurobarometer work conducted in 2010 indicated that UK consumers were significantly more concerned about food safety risks than other countries. UK consumers were comparatively less concerned about pesticide residues, antibiotics and pollutants than consumers in other countries, although a significant proportion of the population still expressed worry (TNS 2010). Concerns around pesticide residues appear to have grown in Europe over recent years and a recent Open Public Consultation on EU pesticide laws found that around 85% of respondents did not feel safe consuming food that had been treated with pesticides in the EU (Ecorys 2018).

Concerns around new food technologies also remain important. The FSA's Public Attitudes Tracker suggests that around a quarter of the population remains concerned about GM foods. A Eurobarometer study from 2010 suggested that around half (48%) of UK respondents were worried about GM foods – higher than FSA results for the same period but significantly below the EU average (66%) (TNS 2010). Acceptance of new food technologies has been associated with trust in government, scientists and industry, while rejection of such technologies has been associated with trust in consumer and environmental organisations (Rousseliere & Rousseliere 2010).

Concerns around nutrition and health, such as the public's stated concern about sugar content, could also indicate a type of distrust in the food industry (or the regulator) to provide a healthy diet. Health concerns also play a large role in many consumers' purchasing behaviours. For example, following the WHO's announcement in 2015 that processed meats pose a cancer risk, supermarkets reported a sharp decline in sales of sausages and bacon (The Guardian 2015).

## 4.6    Trust in other industries

Trust is important to many sectors and industries and there are several other examples of industry-specific trust studies in the literature. Trust has been discussed to some extent in relation to nuclear energy, especially the relationship between trust in government and trust in nuclear energy and the impact nuclear crises have on reducing that trust (Prati and Zani 2012, Mah et al. 2014). There is also a substantial amount of literature on the importance of trust in the healthcare sector. Several studies have shown that trust in health care professionals is associated with better health outcomes (Birkhäuer et al. 2017). Trust has also been highlighted in the literature on financial services, as this is another industry that has been subject to both crisis and rapid changes in technology (Morris and Vines 2014).

The dominant narrative in the literature on these sectors is also one of declining trust. The literature on the financial industry is, as one may expect, discusses the impact of financial scandals and the financial crisis extensively. For instance, Pitlik (2017) discusses how trust in banks has collapsed in the US after the Enron scandal.

The extent to which lessons from these sectors may be transferred to the food sector is limited. One consideration is the much greater dependence on relational trust in some sectors, such as the healthcare sector (a similar example is the education sector), than in food. Besides, although healthcare is highly dependent on this type of interpersonal trust, it is also dependent on the public's trust in institutions (Rowe and Calnan 2006), and probably to a greater extent than trust in food is. In the case of the UK, these institutions are the NHS and the state. As Hosking notes, this dependence on trust in institutions means that, in spite of several large-scale failures and scandals affecting the NHS in the past two decades, trust in the NHS remains very high in the UK (Hosking 2017).

**Main Findings – The current state of trust in food**

- The narrative of 'trust in crisis' is not clearly underpinned by polling evidence as far as the UK is concerned, however polling evidence has limitations and other 'signals' of declining or increasing trust may need to be scrutinised as well.
- Generalised trust in the UK is above the OECD and EU averages and persistent over time.
- Measures of trust in the government tend to fluctuate significantly over short periods.
- The FSA is more trusted than the government more generally.
- There is some evidence that trust in the food industry has decreased in recent years.
- Processed foods, meat and labelling are all subject to public concern and distrust.
- Distrust in food relates to not only food safety, authenticity, quality and nutrition, but also to ethical and environmental concerns.
- The UK food system is highly industrialised and characterised by a highly concentrated retail sector. Retailers are also the most trusted of food outlets.
- Public concerns around food include food safety, pesticide residues, antibiotics and pollutants. There is growing public concern around sugar content.

# 5 Drivers and barriers of trust in the food system

The decision to trust is not always simplistic and trust is not necessarily black and white. In the same way that trust itself is a type of heuristic or strategy people use to address risk (Brunel & Pichon 2004, Cummings 2014, Uslaner 2013), there are many influences and heuristics identified in the literature that affect people's trust. Some trust appears to be rational and grounded in logic,

other is more rooted in emotion, although most instances contain elements of both and refuse neat categorisation. Most people will base decisions to trust on many different factors, in addition to being influenced by their environment and the characteristics of actors involved. Many times, there will be no decision and trust will be a matter of routine, and automatism that may be driven by habit or by the environment and constraints in which consumers find themselves.

Some factors of trust are institutionalised at a macro-level and can be analysed at a national level. They refer to deeply entrenched and widely shared expectations and social norms. They also include the distribution of responsibilities for addressing these expectations, between the state and the industry, and reliance on alternative or complementary mechanisms such as regulation and the market, as embodied in regulatory regimes and policies. The influence of such factors on trust tends to be felt in the long term.

Other factors can rather be found at a more micro-level, and their impact on trust tends to materialise in the short term. One way or another the literature tends to deal with such factors as 'information', which reflects the general observation that, in the modern food system much trust relies on symbols rather than interactions (e.g. Kjaernes et al. 2007). That information may include past experiences of different foods, their quality and safety. Other information might come from the media (including reporting on food scares and scandals), advertising or family and friends. Within the context of a highly industrialised and retailer-dependent food system, much of the information consumers receive about food will come from other signals (for a discussion on signals and interpersonal trust, see Bacharach & Gambetta 2001; Lindenberg 2000). Signals might be the appearance of a food outlet (its perceived cleanliness, décor etc.), information displayed from the regulator (such as an FHRS sign) or for individual products, labelling (Tonkin et al. 2015; Bildtgard 2008; Tonkin et al. 2016).

In practice, it is the interaction between those different factors that may help explain trust or distrust in the food system.

This section begins with a discussion of how underlying factors impact trust (5.1), and then will move on to more 'secondary' factors that influence trust (5.2). Although these factors are described individually, it is more accurate to view them not as separate influences, but rather as a web of factors that are often interdependent and become more or less important depending on the situation and new information presented.

## 5.1 Underlying factors

In this section we discuss underlying factors of trust: trust attitudes (5.1.1) and the institutional set up of food systems (5.1.2).

### 5.1.1 Embedded trust attitudes

There is an extensive literature (reviewed in Aghion et al. 2010) suggesting that trust attitudes are deeply embedded within individuals. Generalised trust tends to be largely persistent in individuals over time (Dawson 2017) even in the face of negative personal experiences (Uslaner 2013). Some authors argue that this is because trust is learned and impacted by experiences in early childhood, and thereafter becomes a core personality trait (Newton 2007), a 'disposition' or 'propensity' to trust (see literature reviewed in Mayer et al. 1995). Put another way, trust attitudes may be reproduced and confirmed through socialisation (Thomas 1998).

If drivers of trust are conceived of as layers, socio-cultural and personality characteristics can be said to form the base layer that underpins overall decisions to trust (Chryssochoidis et al. 2009). For example, trust in certification labelling has been shown to be associated with overall trends in generalised, institutional and social trust (Tonkin et al. 2015). Accordingly, measures of trust tend to find robust associations between levels of trust and demographic variables, particularly country of origin and age (see box below).

**Demographics and trust**

Certain demographic trends in trust attitudes can be identified. This includes differences based on nationality, gender and age. Some examples include that:

- Generalised trust has been shown to differ across countries and regions. In Europe. It is highest among the Nordic countries and lowest among certain countries in Southern and Eastern Europe (Olivera 2013).

- Young people in the UK are less likely to trust the government, businesses and the media (Edelman 2018).

- Older consumers are more likely to consider short, local supply chains more trustworthy (NFU Mutual 2017).

- Women and those aged 50-65 are somewhat more likely to report concerns about different food issues. Young people (16-25) are least likely to report concerns (FSA 2018).

- Women are more likely to be 'reflexive' in their trust in food. This means that they are more likely to change behaviour in response to information that builds or erodes trust (Berg et al. 2005).

International comparisons, such as that carried out by Kjaernes et al. (2007) and the work conducted by Rothstein et al. (2013), as well as theoretical discussions such as Hosking's (2017) also point to the role of shared expectations and social norms, particularly as regards the role of the state in protecting the population from risk. These expectations and norms may both shape trust (or distrust[2]) in regulators, by allocating responsibilities to them and others (such as the industry). As Rothstein et al. argue, policymakers may strive to reshape these expectations and norms, for example by implementing risk-based approaches to regulation that effectively involve

---

[2] Sometimes citizens hold negative expectations towards their state, which underpin a belief of distrust towards regulators and suspicion towards regulatory intervention, and non-compliance (e.g. Etienne 2013).

signalling that certain levels of risk are tolerable and that consumers should take responsibility for the manner they deal with risk. The UK has been a pioneer in the implementation of risk-based regulation.

### 5.1.2 Institutional set up

Seen in a comparative perspective, the ways market mechanisms, regulation, the judiciary, or civil society contribute to addressing issues related to food vary from country to country. As mentioned earlier, policies in place reveal the distribution of responsibilities, and the overall structure of the food system indicates where power is concentrated and contributes to how consumers understand the distribution of responsibility within the food system. How this 'political economy' of governance for the food system contributes to consumer trust in either regulators or the industry is a question that various scholars have examined. Approaches to this question vary significantly in the literature in terms of concepts, data, and methods.

In a much-cited article, Aghion et al. (2010) report on the relationship between regulation (understood as the level of constraint imposed by the state on the economy) and distrust (relying on global social attitudes surveys). The article reports a correlation between the two variables: the more distrust there is, the more regulation is to be found. Building on a large literature, the article argues that the relationship between distrust and regulation works both ways: distrust breeds regulation, and regulation breeds distrust. Their argument should not be interpreted as indicating that all regulatory activities result in distrust or are fuelled by distrust. In fact, the definition (and measure) of regulation used in the article is very simple, not to say simplistic, and therefore alternative forms of regulation (i.e. other than setting barriers to entry into a market) are not considered.

Using a very different approach but on a related issue, Carpenter (2010) in his case study of the United States' Food and Drugs Administration (FDA) has also found that the FDA ensured that it was not perceived as being responsible or co-responsible when an incident happened, for instance when

a product recall was necessary. This suggests another way trust in the regulator may be inversely related to trust in the industry (also Maor 2014).

Case studies and comparative studies between countries provide additional evidence, although much more nuanced than what can be found in Aghion et al. (2010), that the institutional set up of the food system and its regulator, as well as local consumption patterns, can have an important impact not only on overall trust in the food system, but also on what actors are most important to that trust. To make sense of how trust relationships are linked to the configuration of actors and institutions at a country's level Kjaernes et al. have proposed a simple common grid, a 'trust triangle', where consumer trust depends on their trust in the state, their trust in the industry and their perception of the relationship between the two (Kjaernes et al. 2007).

Figure 5.1  Triangular Trust
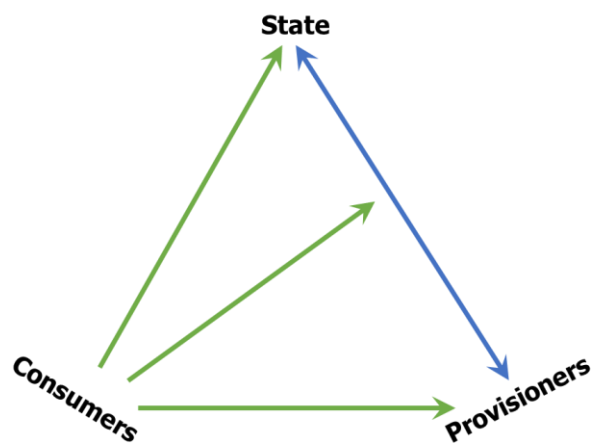


*Based on model in Kjaernes et al. 2007*

Each of the six countries examined in Kjaernes et al. (2007) displayed variable levels of trust in the state and variable levels of distrust in the food industry. There were marked differences, however, in the degree of trust or distrust in different actors. Countries where trust in food overall was high tended to have a positive balance of trust: the trust in the state was greater than the distrust in the industry. Countries with lower trust in food indicated the opposite: trust in the state was not significant enough to compensate for distrust in the industry. Trust in the relationship between the state and the

industry was more variable, however, and not necessarily dependent on overall trust in the state or distrust in the industry. For example, in the UK they found weak trust for the state and weak distrust for the industry, but strong trust in the relationship between the industry and the state, which they interpreted was linked to the creation of the independent FSA post-BSE.

Another example of how institutional factors can influence trust comes from a comparative study looking at Russia, Denmark and Norway. This indicated that trust in food in Russia depended more strongly on consumer trust in market mechanisms, whereas in the Scandinavian countries, trust in the regulator was a larger determinant of trust in food safety (Berg et al. 2005). Although trust in the regulator tends to be quite high in the UK, one study also found that consumer sentiment relied more on market mechanisms and the judicial system to maintain food safety, rather than actions taken by the regulator (De Krom & Mol 2010). Similarly, in China, where trust in food is comparatively low, trust in food provisioning systems was found to be determined less by trust in food producers and more by personal experience and information from other consumers (Zhang et al. 2016).

More generally, Kiaernes et al. (2007) argue that the actors responsible for shaping trust are likely to be those actors that are perceived to have the greatest amount of power or control within a system. This means that consumers' understanding of the food system is key to determining whether they express general confidence in food. Shifts in overall trust in food might therefore not only be caused by actors' behaviour and the various factors discussed later in this section, but also by perceived shifts in power in the food system. These shifts in power might occur due to changes in technology, changes in supply chain practices (such as through vertical integration) or in some instances, as a direct response to crisis and a loss of trust.

> **Main Findings – Underlying factors**
>
> - Generalised trust is largely embedded and persistent in individuals over time and underpins other types of trust.
>
> - Trust in the food industry is dependent on who consumers perceive to have power and control.

## 5.2 Trust and crisis

While crisis is an intuitively obvious threat to consumer trust, its importance in shaping trust in the food system is not established. Kjaernes et al. (2007) in their comparative study of trust in food systems note that, of all the countries studied, the UK is the one that has experienced the most food scandals, yet it is also the one where consumer trust is the highest. The relationship between crisis and trust is therefore not a straightforward one. The impact of crisis on trust may be mediated by information received by consumers / communication from the media, regulators or industry, as frequently discussed in the literature. But the manner regulators respond to crisis may matter even more. Below we address these two factors in turn. We then also discuss briefly the impact of economic crisis on food consumption and trust.

### 5.2.1 Media coverage and trust

There is a distinct negativity bias when it comes to receiving new information, meaning that people tend to be more trusting of information that contains negative information than positive information (Eisner & White 2005, Van Lange 2015). This has also been shown to be the case for information on food (Eden et al. 2008) and is evident in public response to media reporting on food systems.

Media reporting of food scandals has been shown to diminish overall trust in the food system (Henderson et al. 2011, 2012, Jackson 2015). This is particularly important because consumer understanding of food production

nowadays stems largely from the media rather than from direct experience (Eden et al. 2008).

This was evident in the UK following the horsemeat incident, and many explorations of consumer trust following the scandal indicated widespread concern among consumers. A Which? survey in the immediate aftermath indicated that trust in the food industry had dropped by a quarter (24%) and that 6 in 10 consumers had changed their shopping habits due to the scandal (Which? 2013). Evidence collected by the Food Safety Authority of Ireland found similar results among Irish consumers (FSAI 2013), as did a more qualitative study of both UK and Irish consumers (Barnett et al. 2016). This was supported by sales data in the year following the incident, which indicated that sales in ready-meals containing beef had declined while sales in domestic fresh meat had increased (Financial Times 2014). There is no evidence to suggest that the change in shopping behaviour was permanent, however, and other studies around consumer confidence and food scandals suggest that the damage to trust is usually greatest in the immediate aftermath of a scandal, but slowly returns to normal over time (Berg 2004).

The recent NFU Mutual work on food fraud, however, and the increased prominence of food fraud as a topic in the media suggests that the horse meat incident did open a broader public discussion and perhaps contributed to increased scepticism and a loss of trust in the food industry. The FSA's most recent public attitudes tracker indicates that of those who expressed a lack of confidence in food labelling, 5% identified the horsemeat scandal as an issue that had impacted their confidence (FSA 2018).

The long-term impact of media coverage is difficult to assess. One study found that consumer ability to recall food safety incidents depended on the intensity of the coverage but also on the recency of the event. Incidents that had been covered in the media within the previous month were easily recalled, but over time recall became significantly more difficult (De Jonge et al. 2010). This suggests that while media coverage may have a significant cumulative impact over time, unless individual incidents are given a large

amount of attention in the press, most consumers will forget them. Another study found that media reporting on a food scandal did impact household consumption practices, but only among those consumers who also considered themselves to be 'health-conscious' (Rieger et al. 2017). Although behaviour is not always a reliable indicator of trust, changes in behaviour (away from a product) following a crisis are likely an indicator of distrust (van de Walle and Six 2014).

### 5.2.2 Regulatory responses to crisis

While the intensity of the scandal will be an important determinant in how much it impacts trust, the response from government will shape how quickly consumers rebuild that trust. For example, the establishment of the FSA in the UK as an independent food safety regulator has been said to have played a significant role in rebuilding trust in the food system following the BSE crisis (Wales et al. 2006). In China, by contrast, trust in the dairy industry still has not fully recovered a decade after the melamine scandal, and the market for imported baby formula is stronger than ever (Bloomberg 2018).

Kjaernes et al. (2007) argue that responses to a food crisis 'may even reinforce trust if its resolution is achieved through meeting consumers' pre-existing norms and expectations of those it holds responsible for handling crises' (2007: 195). This echoes Rothstein et al.'s (2013) study of France, the UK and the Germany, which finds distinct underlying logics and sets of expectations towards the state and how it regulates risk. In other words, there are different, well-established norms and expectations towards the state that are shared in the population of each one of these countries. When regulatory responses to crises satisfy these norms and expectations then crisis may actually reinforce trust in regulators rather than undermine it. Other studies, such as Maor's (2011) and Carpenter's (2010), further argue that regulators responding to crises in the appropriate manner, particularly by demonstratively addressing the issue and claiming credit for resolving it, or on the contrary by lying low and deflecting blame to others for the crisis itself

(one or the other may be the most appropriate response depending on the institutional set-up they find themselves in) protect or even enhance their reputation as a result.

### 5.2.3 Trust and consumption in times of economic crisis

Beyond food scares, trust and consumer behaviour can also be impacted by economic conditions. Such impact is frequently measured as 'consumer confidence.' Consumer confidence usually refers to confidence in the economy and future economic conditions and translates into patterns of consuming behaviour. Political trust is also impacted negatively by poor economic situations (Blind 2006).

Worldwide (and in the UK), consumer confidence dropped following the 2008 crisis and has been rebuilding slowly ever since. Following the vote on the UK's exit from the EU, there was no apparent change to consumer confidence at a population level, but this masked a rise in consumer confidence among those who had voted 'Leave' and a marked drop in consumer confidence among those who voted 'Remain' (Financial Times 2018). Following the 2008 financial crisis, spending on food decreased significantly (unlike following other crises), consumers reduced their frequency of eating outside the home and discounters began gaining prominence (Griffith et al. 2013). Some of these changes to eating and shopping habits have been durable, with the rise of discount supermarkets since 2008 being particularly significant (The Telegraph 2008; The Independent 2018; Kantar Worldpanel 2018).

Such changes in consuming behaviour during times of economic crisis constitute a potential indicator of changes in consumer trust, although that is an ambiguous one: there may be no impact on trust in the regulator or trust in the industry per se, but rather a combination of anxiety about the future of the economy and reduced purchasing power due to loss of work, inflation, etc. There is some evidence, however, that people who experience economic crises during formative young adult years tend to have more pro-government

attitudes (Giuliano and Spilimbergo 2014). When it comes to food, the risks to the food system that may result from a deficit of trust are not that the food sector will collapse and consumers will stop buying food. Food being a necessity good, consumers purchase food however trustful of the food system they may be. It may be that changes in consumer practices mean buying less of the food one trusts more, and more of the food one trusts less, although there is no evidence in the literature to document this relationship.

<div style="background-color:#d9e0e0; padding:10px;">

**Main Findings – Trust and crisis**

- People are more trusting of negative information than of positive information.

- Damage to trust is greatest in the immediate aftermath of a scandal but rebuilds over time.

- The impact of a scandal on trust will depend on its intensity and on the response of actors with power in the food system.

- Economic crisis can also impact trust and food behaviour, although the evidence for this is ambiguous.

</div>

## 5.3    Complexity and control

The perceived complexity of food production is frequently cited as a barrier to trust in the food system, particularly in the wake of new information or scandals, such as the horse meat incident, that expose this complexity (Barnett et al. 2016, Van Rijswijk & Frewer 2012, Eden et al. 2008, Jackson 2015, NFU Mutual 2017). It appears to be the *perception* of complexity, rather than complexity itself that provokes distrust in consumers. Trust is supposed to be a tool to reduce or address complexity, but the more complex something is, the harder it becomes to reduce. On the other end of the spectrum, consumers tend to be more trusting of systems perceived to be

simple and the most trusting of systems over which they have a sense of personal control or involvement.

Third-party certification can be seen as a response to this, an improvement of confidence through impersonal formal means (Kjaernes et al. 2007: 199), providing a promise of control in what is perceived as a complex or unknown system. Certification does generally evoke higher levels of trust as compared to when similar claims are made without the use of a label (Janssen & Hamm 2014). However, certification can also trigger sceptical responses by some consumers, particularly those who are already concerned about complexity in the food system and feel that it is impossible for these certifications to provide the assurance that they claim (Eden et al. 2008, Tonkin et al. 2015).

Multiple studies have found that food manufacturers tend to be among the least trusted actors in the supply chain (The Center for Food Integrity 2018, De Jonge et al. 2010, Etienne et al. 2018, Hunt & Frewer 2001) and processed foods more generally are less trusted than whole foods (NFU Mutual 2017). This could be due to the fact that for many consumers, manufacturing is perceived to be the most complex point in the food chain, the one where there is the most human intervention (the perception of 'naturalness' is low) and therefore the point at which the risk that something might go wrong as a result of human intervention is the largest. Furthermore, a study of US consumers found that there was greater trust in smaller manufacturers or farmers than larger ones (The Center for Food Integrity 2018) and Gallup poll data has indicated significantly higher levels of confidence in small businesses as compared to large businesses in the US over the past 20 years (Gallup 2018). Although equivalent data does not exist for Europe, Eurobarometer work asking about positive perceptions of SMEs as compared to 'large companies' indicated a similar discrepancy for most European countries, including the UK (TNS 2014).

This preference appears to be part of a broader trend, as larger brands have begun to lose market share in consumer packaged goods to smaller competitors for the first time in several decades. Larger brands have tried to

stay ahead of this trend by acquiring up-and-coming brands (Financial Times 2018b) and some larger brands have attempted to position their products as smaller-scale and more local than they actually are, sometimes with unintended consequences. For example, some UK retailers recently came under criticism for their use of 'fake farm' names for own-brand meat products (The Guardian 2017). However, this distinction between small and large producers should be interpreted in the broader context of modern food production. Indeed, countries with a tendency toward modern, retailer-heavy food provisioning systems show higher levels of trust in the food system overall as compared to countries where food provisioning is still characterised by small-scale, more traditional food outlets (Kjaernes et al. 2007, Meagher 2017). From a consumer's perspective, however, small-scale provisioning may be a more onerous and complex system. It requires placing trust in a variety of different actors and individuals, as opposed to trust in a single institution, and it may be situated within a system where the regulator is less visible or perceived to have less control. Therefore, while an individual producer may be trusted more if their business is smaller in scale, a system comprised entirely of smaller scale producers might be less trusted overall.

Having a sense of involvement (or control) in how food is produced can lead to increased trust in the system. Being personally involved in a system makes consumers' judgments of that system more reliant on interpersonal trust than on 'institutional' trust in the broader food system and the industry and government institutions that are supposed to regulate it (Zhang et al. 2016). Having a direct, face-to-face relationship with a vendor, especially over a longer period of time, helps drive trust (De Krom et al. 2010). Thus, an Australian study found that rural participants were more trusting of the food system, often citing direct experience of its production and regulation. Urban or metropolitan participants were more suspicious of the food system in general and felt that more regulation was necessary (Meyer et al. 2012).

Personal control extends to the kitchen: in the same way that consumers are more trusting of food they produce themselves (Zhang et al. 2016), there is

also a 'lifestyle bias' when it comes to food safety, meaning that people assume that risks arising from lifestyle choices are lower for them than for the general population (Frewer et al. 2016).

Although it appears to be easier to build trust through face-to-face relationships, these types of interactions are becoming less relevant to the food system. In response, industry is increasingly using marketing tools to make their brands seem more personal, local or traditional using symbols rather than actual familiarity (Kjaernes et al. 2007). The rise of digital media and the continuing clever use of social media by marketers can be framed as part of this trend and evidence suggests that effective use of social media by brands can build trust (Laroche et al. 2013), although other authors question the substance of such 'fake' or 'pseudo familiarity' and its impact (Kjaernes et al. 2007).

> **Main findings – Complexity and control**
>
> - Consumers tend to be distrustful of systems that seem very complex.
>
> - Consumers are more trustful of smaller producers than larger ones but are more trusting of modern highly-concentrated food systems overall.
>
> - Feeling involved in the food system contributes to increased trust in food.
>
> - Face-to-face relationships engender more trust than institutions.

## 5.4 Familiarity and the unknown

Likely related to the distrust of complexity, people also tend to prefer familiar entities over those that are unknown. This preference is sometimes referred to as the 'recognition' heuristic and means that people are more likely to trust entities that they recognise and less likely to trust unknown entities (Metzger

& Flanagin 2013). This has been shown to be the case for politicians in elections (Kam and Zechmeister 2013). In food, it is evident in the lack of trust in many new food technologies (Jackson 2015, Henderson et al. 2011) and unrecognised ingredients (Label Insight 2016). For certification schemes, recognition of a specific label has been associated with trust in that label. Lack of recognition of a label might also mean that the certification label counterintuitively becomes a barrier to trust, increasing scepticism among consumers that feel overwhelmed by information (Eden et al. 2008, Tonkin et al. 2015)

The preference for familiarity also underlies people's tendency to trust within a group. Historically, the 'group' may have been conceived based on geographical proximity, but behavioural similarity, frequency of interaction or common fate might also create a group identity (Stolle 2002). When it comes to food, the creation of a national or local food identity or cuisine can help establish a sort of 'food community' that helps to establish trust, but with the rise of electronic media, geography is not the only basis for the establishment of food communities (Bildtgard 2008). Transnational movements (such as clean eating, veganism, 'paleo' diets or some ecological movements) could be envisaged as modern food communities that encourage within-group trust and prescribe what foods can be considered trustworthy. Religion or other lifestyle choices might also determine not only food choices, but who and what is recognised and therefore trusted in the food system. Kosher or Halal certification provides an interesting case study for trust in a food system based around religious community (e.g. Lytton 2013). There is some debate as to whether social media might exacerbate these tendencies and create 'filter bubbles' or 'echo chambers', a concern highlighted by recent political events and fears of increasing polarisation among political opinion and groups. However, much of the concern around echo chambers and social media ignores the fact that social media only represents one medium through which people receive their news. Most people still interact with news and opinion in a variety of ways, which can have a moderating effect (Dubois and Blank 2017). Furthermore, recent survey data indicates that traditional media

are more trusted sources than social media (e.g. Edelman 2018; Etienne et al. 2018). Nevertheless, traditional understanding of what constitutes a 'group' and therefore what within-group trust might be based on deserve reconsideration with the rise of digital media and new forms of communication.

Being better informed might also be considered a type of familiarity. Edelman's trust barometer indicates year after year that those who are 'better informed' tend to be generally more trusting of Governments, NGOs, the media and business, but these citizens are decreasing as a percentage of the population as more people choose to stop following public policy and business news (Edelman 2018). The value of being better informed to developing trust will likely depend on the nature of the information, however. If being better informed exposes consumers to information about complex systems or to information on food scandals, this information is more likely to increase anxiety rather than trust.

In this way, recognition can be judged as a heuristic that builds trust only when there is nothing else contributing to the erosion of trust. As a baseline, 'better the devil you know' might apply to many situations for many people, but there is a limit. For example, one study found that recognition did not help if the entities involved were perceived to be disingenuous in some way, such as supermarket-owned certification schemes (Tonkin et al. 2015) and another study examining what entities consumers ranked most trustworthy for information on GMs found that a fictitious consumer safety organisation outperformed several real third party schemes (Hunt & Frewer 2001).

### 5.4.1 Domestic Country of Origin

Country of Origin labelling or information has also been shown to increase positive perceptions of foods, when the labelling indicates that food was produced domestically. This effect has been shown in fish, where information indicating EU origin increased positive consumer perceptions (Altintzoglou et al. 2010). Notably this is only the case where the food system already enjoys

high levels of trust. The infant formula scandal in China in 2008, where Chinese producers of powdered milk products were found to be bulking their product with toxic levels of melamine, led to a massive increase in demand for baby formula from more 'trusted' markets, such as Europe and Australia (Jackson 2015). Ten years later, this trust effect has persisted, and the Chinese market for European infant formula continues to grow (Bloomberg 2018).

In European markets, however, trust is usually higher in foods that have been domestically produced. Consumers might be sceptical of production and control standards in other countries (Janssen & Hamm 2014), particularly in lesser-developed countries (Wongprawmas et al. 2015), and Country-of-Origin information can potentially help provide reassurance to such consumers. For consumers who are already highly trusting of the food system, Country of Origin information is less likely to be relevant (Withall et al. 2016). Motivations for preferring domestic Country of Origin are likely to differ between consumers, but are likely to stem from some combination of a preference for familiarity, an aversion to complexity or reaction to a particular crisis or scandal.

## Main findings – Familiarity

- People are more likely to trust entities that they recognise.

- People are more likely to trust within their own group. 'Groups' can be defined in different ways and might refer to local communities, the nation state, or other political, social or religious communities.

- People who are 'better informed' overall are more likely to be trusting across institutions and entities. However, this does not mean that receiving specific information about a particular issue or group will necessarily make one more trustful of the actors involved.

## 5.5 Endorsement and recommendations

Endorsement can also be a powerful influence to building trust, as people tend to trust sources recommended by others (Metzger & Flanagin 2013) or they choose to trust because they see others around them choosing to trust (Salvatore & Sassatelli 2004). Historically, this might have referred to 'word of mouth' (WOM) and the recommendations of known others, but increasingly this could also be used to refer to the recommendations of unknown others, through online reviews and their aggregate ratings. This is sometimes referred to in the literature as 'electronic word of mouth' (eWOM). Although WOM is generally more trusted than eWOM, eWOM is still used extensively by many consumers and considered to be a trustworthy source of information, particularly when the reviews come from a site considered to be independent from the business itself, such as TripAdvisor or Google (Meuter et al. 2013). How people choose to trust eWOM has also been a subject of research, as the authors of such reviews are unknown and readers are forced to make judgments on their credibility. Credibility is influenced by the perceived quality of the review, which could be based on its relevancy, sufficiency, accuracy or currency (Filieri et al. 2015). Quality might also be judged based on the timeliness of review information or perceived relevance to their own needs (Hussain et al. 2018).

The power of endorsement is fundamental to the concept of 'distributed trust' and the growth of many new digital business models. As such, it is likely to gain increasing importance for trust in the food system as these business models spread.

**Drivers of trust on the internet**

The internet removes many of the traditional cues people have used in the past to develop and establish trust. This is due both to the nature of the platform and the increased availability of a vast quantity of information. Consumer disposition to trust, reputation, privacy concerns, security

concerns, the information quality of the Website, and the company's reputation, have strong effects on Internet consumers' trust in the website (Kim et al. 2008). Evidence suggests that people often base these judgments on visual design elements of websites, rather than on any specific aspect of website content (Metzger & Flanagin 2013). For example, one study found that the presence of a third-party seal, which might be compared to certification labelling on food, did not strongly influence consumers' trust on the internet (Kim et al. 2008).

**Main findings – Endorsement**

- People tend to trust entities that come recommended by either known or unknown others.

- People tend to trust what they see others choosing to trust.

## 5.6    Value confirmation

Self-confirmation biases can also influence how individuals choose to trust. This refers to people's tendency to place more trust in information that confirms their pre-existing beliefs (Eiser & White 2005, Metzger & Flanagin 2013). This might mean, for example, that someone with already low trust in the food industry might be more prone to trust media sources that highlight untrustworthy practices, further reducing their trust in the industry. This could also be expressed as frequent purchasers of organic food placing more trust in organic labels than less-frequent purchasers (Janssen & Hamm 2014). Value confirmation is also evident in the perceived problem of 'fake news', whereby people share and spread stories on social media that are not trusted because of their source, but rather because the content matches their existing values and political opinions (Vosoughi et al. 2018).

Trust in specific types of food might also be influenced more strongly by trust in certain actors. For example, one study found that GM food was more likely to be accepted by consumers who were highly trusting of industry, scientists and government. Consumers who placed greater trust in environmental or consumer organisations were more likely to reject GM foods (Rousseliere & Rousseliere 2010).

> **Main findings – Value confirmation**
>
> - People are more likely to trust information or entities that they perceive conform to their existing beliefs.

## 5.7    Perceived honesty

Unsurprisingly, transparency and the provision of information is often cited as a driver of trust in the literature. Thus, Wilson et al. (2017) recommend that to build trust in food, competent authorities and industry should be transparent. Transparent behaviour might be defined as reporting to consumers what is done to ensure food is safe and responding to consumer queries.

In some instances, however, too much information can have the opposite effect, suggesting that transparency is not a simple strategy. Exposure to more information on assurance schemes or government regulation may in fact contribute to lowered trust. This has already been explored in the sections above on complexity and crisis. Increased information may cause consumers to consider the difficulties of regulating complex supply chains, ultimately leading to an increase of scepticism around all regulatory practices and their trustworthiness (Eden et al. 2008, Hosking 2017, Withall et al. 2016).

For this reason, positive reactions to transparency might be better understood not as a reaction to the information itself, but to perceived

honesty. Perceived honesty has been identified as key to determining trust in governments (De Jonge et al. 2008) and in retailers (Rampl et al. 2012).

Without directly uncovering dishonest behaviour, however, it may be difficult for consumers to make judgments on the honesty of different actors. For this reason, actors might instead be judged on their *consistency* or on their perceived *independence*, which could be viewed as a proxy for honesty.

> ### Ability, benevolence and integrity
>
> An oft-cited and widely replicated model for understanding the antecedents of trust considers ability, benevolence and integrity to be the three factors central to developing a perception of trustworthiness (Mayer et al. 1995). These three factors, or a version of these three factors, are used in many of the studies that look to describe trust in the food system (for example, De Jonge et al. (2008) have conducted consumer surveys where they have tested three attributes of trustworthiness derived from previous studies (Frewer et al., 1996; Kleef et al., 2007; Earle and Siegrist, 2006 in De Jonge et al., 2008): care, competence, and openness). Depending on the actor and context, the three are of varying importance, but all three are required to develop trust in an entity. Consumers' perceptions of these three attributes will likely depend on an entity's reputation.

## 5.7.1 Consistency

The consistency of information can influence the decision to trust (Metzger & Flanagin 2013). If consumers receive information from different sources that presents consistent messaging about an entity, then this helps to establish trust in the information and potentially also trust in the entity itself. Perceived consistency in a product or service can also help to establish trust in that product. This is one of the drivers behind what is frequently referred to as 'McDonaldisation', where entire business models are based not necessarily

on quality, but on providing the exact same service across business locations and geographies (Bildtgard 2008).

Perceived consistency in advice has been shown to help establish trust in experts (Cummings 2014) and consistency in advice and information is a recommended strategy for rebuilding trust after a crisis (Wilson et al. 2017). Research on American consumers' perceptions of labelling has indicated that a large proportion feel that labelling is frequently inconsistent and overwhelming, and this is cited as contributing to distrust (Label Insight 2016). Consistency could also be linked to process-based trust, or trust that is built up over time based on experience, for industry or regulators (Thomas 1998). Trust in government has been shown to be dependent in part on process, with the apparent equity and fairness of government procedures over time mattering similarly to trust as the actual outcomes of government procedures (Van Ryzin 2011). Process-based trust and consistency may also be relevant for actors who are less prominent and may not be able to rely on familiarity or endorsement. As Thomas argues, 'an agency can maintain trust through organizational stability' (1998: 185; see also Hosking 2017 on the importance of stability as an underpinning condition for trust). Radical change – such as the perception that the regulatory regime has been significantly transformed – or a perceived loss of continuity – e.g. if a regulatory agency is terminated and replaced by a new entity – could therefore undermine trust.

### 5.7.2 Independence

Independence and the lack of conflicts of interest is extremely important to establishing trustworthiness. The perceived independence of experts is important in determining their trustworthiness (Cummings 2014) and perceived lack of bias was found to be an important determinant to whether different entities were considered trustworthy when providing information on GMs (Hunt & Frewer 2001). Third-party certification schemes are more trusted than industry-controlled certification (Zhang et al. 2016) and industry generally is not considered to be a trustworthy source of information on food,

due to perceived vested interests (Nocella et al. 2014, Van Rijswijk & Frewer 2012, Etienne et al. 2018).

Independence is also recognised as an important factor in building trust in the literature on corporate governance, and underpins the recommendation for firms to use external boards of directors (Ljubojević & Ljubojević 2008). Maintaining independence has also been recognised as important for bureaucratic agencies generally (Maor 2014) and for food safety agencies more specifically (see Borraz et al. 2006 on the reform of French food safety regulation, Devaney 2016 on consumer perceptions of food safety regulation in Ireland). Concerns about conflict of interest also drives scepticism in certification labelling (Eden et al. 2008). If people perceive that a source is trying to persuade them of something or has an ulterior motive, this diminishes credibility and trustworthiness (Metzger & Flanagin 2013, Frewer et al. 1996).

This can make the task of building trust naturally more difficult for industry, as industry actors inherently will also be perceived to have a strong conflict of interest. One study that looks to develop recommendations for building trust in the food system for both the regulator and industry suggests that food businesses should endeavour to use independent experts when communicating to the media, so as to appear more credible (Wilson et al. 2017).

**Main findings – Perceived honesty**

- Entities that appear to be honest are more likely to be trusted.

- A reputation for trustworthiness can be built up over time through consistent behaviour.

- Actors that are perceived to be biased or have conflicts of interest are less trusted.

## 5.8    Perceived intent

Perceived intent is the extent to which an actor is believed to be benevolent or, conversely, malevolent. Benevolence might also be expressed as goodwill and can be defined as the extent to which an actor is seen to express care. This could be care for consumers, the environment or society more broadly depending on the context. The development of Corportate Social Responsibility (CSR) as a marketing technique is rooted in a desire to improve both internal and external perceptions of the benevolence of companies.

Work in the Netherlands has indicated that perceived benevolence had the biggest influence on promoting trust across actors (De Jonge et al. 2008), although a study on German consumers found that it was of lesser importance to determining trust in retailers (Rampl et al. 2012). For consumers of organic foods, perceived benevolence has been shown to be an important driver of trust (Pivato et al. 2008). On the opposite end, if consumers perceive that an actor has malicious intent and lacks regard for their wellbeing, this damages trust. For example, perceptions that manufacturers are intentionally trying to mislead or manipulate in some way, for example by including 'healthy' messaging on confectionary, can also contribute to increased distrust in industry (Tonkin et al. 2016).

### Main findings – Perceived intent

- If actors are perceived to have malicious intentions, this erodes trust.

- Some evidence suggests that appearing caring is the most important quality for actors in the food system to build trust.

## 5.9 Perceived ability

Unsurprisingly, perceived ability, competence or knowledge is an important factor to determining whether an actor is judged to be trustworthy. Perceived competence seems to matter more for some actors than others, but it is almost universally important as a baseline determinant for trust. No matter how honest or well-meaning an actor is, if they are perceived to be incompetent, it is difficult for them to develop trust. It has been shown to be relatively more important for determining trust in manufacturers than other actors in the food system (De Jonge et al. 2008). For risk managers, perceived expertise was more important than perceived honesty in determining trust (Van Kleef et al. 2007). Ability was also found to be an important determinant in developing trust in retailers (Rampl et al. 2012).

Although there has been much discussion in recent years on the loss of trust in 'experts', research suggests that this is not due to a loss of trust in expertise or knowledge, but rather a growing perception that 'experts' are deficient in other characteristics important to trust, such as honesty and benevolence (Hendriks et al. 2015). Perceived competence, knowledge and expertise remains important to trust, so long as actors also indicate trustworthiness through other behaviours.

> **Main findings – Perceived ability**
>
> - If actors are perceived to have malicious intentions, this erodes trust.
>
> - Competence, knowledge and expertise are important influences on trust. However, ability does not promote trust if actors are perceived to be deficient in honesty or benevolence.

# 6    Conclusions

This literature review has aimed to extract information on the nature of consumer trust, what drives and hampers it, from a corpus of about 150 sources. The literature reviewed includes numerous theoretical and conceptual papers, which demonstrate the wide range of concepts of 'trust' that are used by scholars. The complexity of this conceptual landscape reflects three debates in scholarly circles:

■ A debate on the phenomenon of trust, what it is and what it is not, which largely interacts with debates on cooperation, risk, and relational dynamics in social interactions;

■ A debate on what people mean by 'trust', which is largely based on surveys; and

■ A debate on modernity and what 'trust' may possibly mean in a society where an increasingly large proportion of activities do not happen through repeated social interactions, but are mediated by large organisations, symbols, and technology.

In spite of extensive literature reviews conducted by scholars from various disciplines, there is no settled understanding of trust. Rather, trust, like other concepts such as 'institution', 'motivation' or 'compliance' has been increasingly understood as multi-dimensional: combining elements of calculation typical of the rational individual from classical economics, and emotions, beliefs and norms as discussed in classical sociology and anthropology. Trust is therefore a multi-faceted concept.

Applied to the question at the centre of this review – what are the barriers to and drivers of trust in the food system? – this multi-faceted concept is challenged by the depersonalised nature of consumers' experience of the food system. Consumers may well allocate their trust on the basis of multiple considerations, their familiarity with the people and organisations who produce and sell the food is not one of them. 'Pseudo', 'fake' familiarity may be engineered by marketing professionals, but its impact on how much

consumers trust the food industry is debatable. The literature is constrained by the limited empirical evidence that may be brought to bear to document trust levels: everyone needs to eat, and bar the occasional food scare when consumption patterns may temporarily change, consumers will buy food anyway. Rather, the literature is constrained to use self-reported trust (in surveys principally) as its key source of information, and to ask consumers about trust as a conscious decision even if it is not routinely conscious when it comes to buying food. Attempts to understand what consumers mean by trustworthiness have delivered obvious responses. Consumers want competence, positive intent, and openness as conditions for trust. The recommendations that academics have formulated in essays or theoretical papers (papers that are not based on empirical data) are consistent with these requirements. They have informed the policies of numerous regulators to provide information to consumers, be transparent, and project commitment to protecting consumers and competence through communication. Much of the empirical literature on trust in the food system has in fact been framed in terms of risk communication and crisis communication, whether in the USA or in Europe, with an overemphasis on food safety as a key expectation from consumers.

Arguably, much of the other aspects of consumer expectations towards the food system have been poorly documented. Few studies have explored how different actors involved in the food system are perceived by various groups of consumers and why. This can be expressed simply as the regulator and the industry, but the food industry is itself not a monolith. Trust in retailers differs from trust in the catering sector or food processors and this differs again from trust in primary producers.

Where the literature provides useful insights is on three main aspects.

Firstly, the literature helps qualify the extent to which information and transparency indeed contribute to trust in the food system. Information on the complexity of the food system or on the uncertainties of new developments in the food sector may add to the anxiety of consumers and lower trust in the

food industry. On the other hand, indications that information is withheld may also undermine trust. What balance should be struck may depend on topic, context, and careful consideration of what information different groups of stakeholders may need. Various heuristics that consumers use to assess information may also be harnessed or at least considered to better anticipate how information may be received and what impact on trust it may have.

Secondly, the literature emphasises elements that are fundamentally distinct from communication yet contribute to trust in the food system: the manner in which regulators respond to crises; the consistency of their actions over time; their position as neutral, honest brokers between all parties.

Thirdly, the literature underlines the structural, institutionalised features that shape trust at the national level: deeply ingrained dispositions which are reproduced through socialisation and form a basis for trusting unknown others, in the industry or in government; norms and associated expectations as to what the state and the industry should do in relation to food; rules and institutions that allocate responsibilities; and more generally the perceived structure of the food system and who has the most power within the system. As convincingly argued by Kjaernes et al. (2007) and others, risk is accepted, and the system is trusted when practices and policies are consistent with the expectations and the norms that are widely shared within society. When there is a breakdown, there must be realignment. Ultimately, whatever strategy is applied to sustain and develop consumer trust in the food system, it must be based on a thorough understanding of what consumers expect the role of the state, the industry, and other relevant constituencies should be, rather than on policymakers' ideas of what consumers' expectations towards them and the food system should be.

## Recommendations

Importantly, many of the drivers of and barriers to trust identified in this study (see Figure 6.1) relate to how different actors and entities are perceived, rather than how they actually are.

Figure 6.1  Drivers and barriers of trust in the food system

| Drivers of trust | Barriers to trust |
|---|---|
| Crisis handled well by government/industry | Media coverage of crisis |
| Sense of personal control | Perceived complexity in supply chains |
| Familiar, recognised names or institutions | Unrecognisable names, ingredients, institutions |
| Endorsement by known/unknown others | Known/unknown others express distrust |
| Information is consistent | Information is inconsistent |
| Information confirms existing beliefs | Information contradicts existing beliefs |
| Actors perceived to be honest | Actors perceived to be dishonest |
| Perceived competence/knowledge | Perceived incompetence |
| Actors perceived to be benevolent | Actors perceived to be malevolent |

However, to ensure a trustworthy system, it is not enough to work toward increasing trust on the basis of perceptions unless that trust is warranted. The following recommendations therefore do not relate to building trust directly, but rather to how an understanding of trust can contribute to building trustworthiness.

(1) **Do: ensure public perceptions of the food system match the reality.**

When considering where trust is placed in the food system, it is important to pay attention both to the power dynamics within the food system and how the public perceives those power dynamics. Trust in food is most dependent on trust attitudes toward actors that are perceived to have the greatest influence on and responsibility for the system. Ensuring that

public perceptions match the reality may or may not contribute to increasing trust in the system, but it will help members of the public hold the right actors to account, contributing to a more trustworthy industry and ultimately, a more trustworthy regulator.

(2) **Do: understand the underlying values and norms shared among consumers and make sure to align with them**.

Theoretical studies suggest that trust in the food system is likely largely aligned with generalised trust, which is itself based on attitudes, norms and values shared within the population. By gaining a better understanding of these attitudes, norms and values actors of the food system will be better able to act in a way that will make them appear trustworthy to consumers.

(3) **Don't: avoid media coverage of scandals in the food industry.**

Media coverage of the food system is important to holding the industry and the regulator to account. It may lead to a short-term decrease in trust, but ultimately this trust is likely to rebuild over time. Media coverage of a food incident should be viewed by the industry and the regulator not as a PR issue, but instead as an opportunity to hold their own institutions to account and thereby increase trustworthiness.

(4) **Do: address complexity in the food system.**

Although businesses or supply chains that are complex in nature are not inherently untrustworthy, the more steps or actors involved in system, the harder it is to make robust judgments about its trustworthiness. Examining complexity in the food system and where it might lead to challenges is therefore important to ensure that complexity is not a barrier to trustworthiness. Regulation plays a role in making the food system more or less complex. It may contribute to multiplying levels of regulatory intervention and to confusion in terms of who is responsible for what. It may also reduce complexity by streamlining regulatory processes. Where

complexity is inevitable, it is important to develop ways to communicate this complexity that allow consumers to accurately judge trustworthiness.

(5) **Don't: treat transparency as a silver bullet.**

Transparency may not always drive trust. If the information supplied by a regulator leads to a picture that is overly complex or implies a lack of competence, transparency may become a barrier to trust. However, recommendations for transparency are also rooted in the belief that transparency helps to hold entities accountable. How transparency is performed, however, may or may not actually contribute to accountability, and it is important to ensure that regulator or corporate transparency does not become a box-ticking exercise. Transparency should therefore be explicitly considered not as a tool to build trust, but instead as a tool to build trustworthiness.

(6) **Do: retain independence.**

Retaining independence as a regulator is extremely important. Keeping free of vested interests signals trustworthiness to the public, and is particularly important for the regulator as industry actors in the food system will inevitably be perceived to have a vested interest and will therefore always engender lower levels of public trust.

(7) **Do: measure trust from multiple angles.**

Many of the surveys that look at 'trust' or 'confidence' are limited by the fact that they consider only trust and not distrust. The focus on 'trust' also does not necessarily address what makes the food industry or the regulator 'trustworthy'. Survey measures of trust should therefore be refined to address both trust and distrust, and to measure components or attributes of trustworthiness separately and test their relevance for elaborating a composite measure of trust and distrust. Measures of trust should also move beyond surveys that ask directly about trust in various actors and entities, and instead ask questions that disaggregate how trust differs between different parts of the food system and within different

contexts. Although some surveys have addressed these differences, it is important to carefully consider how different actors are framed and how the wording of questions might bias respondents toward greater trust or distrust. Beyond surveys, measurements should also pay attention to other behaviours that may be indicative of trust or distrust, including instances of 'exit' and 'voice', although the challenges of measuring such behaviours in relation to food should not be understated.

# 7    References

- Abdul-Rahman, A. and Halles, S. (1998) A Distributed Trust Model. Proceedings of the 1997 workshop on New security paradigms: 48-60.

- Aghion, P., Algan, Y., Cahuc, P., and Shleifer, A. (2010) Regulation and Distrust. Quarterly Journal of Economics 125 (3) (August): 1015–1049.

- Altintzoglou, T., Verbeke, W., Vanhonacker, F., & Luten, J. (2010). The image of fish from aquaculture among Europeans: impact of exposure to balanced information. Journal of Aquatic Food Product Technology, 19(2), 103-119.

- Banfield, E.C. (1958) The Moral Basis of a Backward Society. The Free Press, New York.

- Barnett, J. et al (2016) Consumers' confidence, reflections and response strategies following the horsemeat incident. Food Control 59: 721-730.

- Berg, L. (2004) Trust in food in the age of mad cow disease: a comparative study of consumers' evaluation of food safety in Belgium, Britain and Norway. Appetite 42: 21-32.

- Berg, L., Kjaernes, U., Ganskau, E., Minina, V., Voltchkova, L., Halkier, B., & Holm, L. (2005). Trust in food safety in Russia, Denmark and Norway. European Societies, 7(1), 103-129.

- Bildtgard, T. (2008) Trust in food in modern and late-modern societies. Social Science Information 47(1): 99-128.

- Birkhäuer J, Gaab J, Kossowsky J, Hasler S, Krummenacher P, Werner C and Gerger H. (2017) Trust in the health care professional and health outcome: A meta-analysis. PLoS One 12(2): e0170988.

- Blau, P.M. (1986) Exchange and power in social life. Transaction publishers, New Brunswick, NJ.

- Blind, P.K. (2006) Building trust in government in the twenty-first century: Review of Literature and Emerging Issues.

- Bloomberg (2018) Danone Is Leading the Race to Feed China's Babies. Available at: https://www.bloomberg.com/news/articles/2018-02-16/danone-sees-better-times-as-baby-formula-offsets-dairy-woes

- Borraz, O., Besançon, J., & Clergeau, C. (2006). Is it just about trust? The partial reform of French food safety regulation. What's the Beef, 125-152.

- Botsman, R. (2017) Who Can You Trust?: How Technology Brought Us Together and Why It Might Drive Us Apart. New York: PublicAffairs.

- Brunel, O. and Pichon, P.E. (2004) Food-related risk-reduction strategies: Purchasing and consumption processes. Journal of Consumer Behaviour 3(4): 360-374.

- Carpenter, D. (2010) Reputation and Power: Organizational Image and Pharmaceutical Regulation at the FDA. Princeton University Press.

- Chryssochoidis, G. et al. (2009) Public trust in institutions and information sources regarding risk management and communication: towards integrating extant knowledge. Journal of Risk Research 12(2): 137-189.

- Clark, A. K. (2015) Rethinking the Decline in Social Capital. American Politics Research 43(4): 569-601.

- Cummings, L. (2014) The "Trust" Heuristic: Arguments from Authority in Public Health. Health Communication 29: 1043-1056.

- Davidson, A. (2014) The Oxford Companion to Food. Oxford: Oxford University Press.

- Dawson, C. (2017) How Persistent Is Generalised Trust? Sociology: 1-10.

- De Jonge, J. et al. (2008) How trust in institutions and organizations builds general consumer confidence in the safety of food: A decomposition of effects. *Appetite* 51: 311-317.

- De Jonge, J., Frewer, L., Van Trijp, H., Jan Renes, R., De Wit, W., & Timmers, J. (2004). Monitoring consumer confidence in food safety: an exploratory study. *British Food Journal*, 106(10/11), 837-849.

- De Jonge, J., Van Trijp, H., Goddard, E., & Frewer, L. (2008a). Consumer confidence in the safety of food in Canada and the Netherlands: The validation of a generic framework. *Food quality and preference*, 19(5), 439-451

- De Jonge, J., Van Trijp, H., Jan Renes, R., & Frewer, L. (2007). Understanding consumer confidence in the safety of food: Its two-dimensional structure and determinants. *Risk analysis*, 27(3), 729-740.

- De Jonge, J., Van Trijp, J. C. M., Renes, R. J. and Frewer, L. J. (2010) Consumer Confidence in the Safety of Food and Newspaper Coverage of Food Safety Issues: A Longitudinal Perspective. Risk Analysis 30(1): 125-142.

- De Jonge, J., Van Trijp, J. C. M., van der Lans, I. A., Renes, R. J., & Frewer, L. J. (2008). How trust in institutions and organizations builds general consumer confidence in the safety of food: A decomposition of effects. Appetite, 51(2), 311-317.

- De Krom, M. P. and Mol, A. P. (2010). Food risks and consumer trust. Avian influenza and the knowing and non-knowing on UK shopping floors. Appetite, 55(3), 671-678.

- DEFRA (2018) Family Food 2016/17: Annual report on household purchases of food and drink. Available at: https://www.gov.uk/government/statistics/family-food-201617

- Delhey J, Newton K, Welzel C (2011) How General Is Trust in "Most People"? Solving the Radius of Trust Problem. *American Sociological Association* 76(5): 786-807.

- Devaney, L. (2016). Good governance? Perceptions of accountability, transparency and effectiveness in Irish food risk governance. Food Policy, 62, 1-10.

- Dowling GR, Gardberg NA (2012) Keeping Score: The Challenges of Measuring Corporate Reputation. In Pollock TG, Barnett ML (eds) *The Oxford Handbook of Corporate Reputation*. Oxford University Press.

- Dubois, E. and Blank, G. (2017) The echo chamber is overstated: the moderating effect of political interest and diverse media. Information, Communication and Society 5: 729-745.

- Ecorys (2018) Study supporting the REFIT Evaluation of the EU legislation on plant protection products and pesticides residues: Workshop Agenda.

- Edelman (2017). EDELMAN TRUST BAROMETER 2017. Crisis of Trust in post-Brexit Britain. Retrieved from https://www.edelman.co.uk/wp-content/uploads/UK-TB-2017.pdf

- Edelman (2018a) Edelman Trust Barometer. Available at: https://www.edelman.com/trust-barometer

- Edelman (2018b). Trust Barometer. UK findings. Retrieved from file:///C:/Users/40928/Downloads/websitefinaledelmantrustbarometerdeck2018-180121124148.pdf

- Edelman R (2018c) A crisis of trust. Available at: http://www.theworldin.com/article/10508/crisis-trust accessed on 13/07/2018.

- Eden, S., Bear, C. and Walker, G. (2008) Understanding and (dis)trusting food assurance schemes: consumer confidence and the 'knowledge fix.' Journal of Rural Studies 24(1): 1-14.

- Eiser, J. R., & White, M. P. (2005, December). A psychological approach to understanding how trust is built and lost in the context of risk. In Presentation at the Social Contexts and Responses to Risk conference, Taking Stock of Trust.

- Eiser, J.R. and White, M.P. (2005) A Psychological Approach to Understanding how Trust is Built and Lost in the Context of Risk.

- Etienne J (2013) Controlled negative reciprocity between the state and civil society, GreeSE paper No 71, London School of Economics and Political Science.

- Etienne, J., Chirico, S., McEntaggart, K., Papoutsis, S. and Millstone, E. (2018) EU Insights – Consumer perceptions of emerging risks in the food chain. EFSA External Scientific Report.

- Filieri, R., Alguezaui, S. and McLeay, F. (2015) Why do travelers trust TripAdvisor? Antecedents of trust towards consumer-generated media and its influence on recommendation adoption and word of mouth. Tourism Management 51: 174-185.

- Financial Times (2014) Horsemeat scandal weighs on UK ready meal sales. Available at: https://www.ft.com/content/bca9efb2-7a1a-11e3-8211-00144feabdc0

- Financial Times (2018) Brexit divide is shaping consumer spending. Available at: https://www.ft.com/content/17dbbfba-f60d-11e7-8715-e94187b3017e

- Food Ethics Council (2018) Fairness in the food system poll. Available at: https://www.foodethicscouncil.org/resources/publications/fairness-in-the-food-system-poll.html

- Frewer, L. et al. (2016) "Consumer perceptions of risks from food." In: Handbook of Hygiene Control in the Food Industry (Second Edition). Ed.s Lelieveld, H., Holah, J. and Gabric, D. London: Elsevier.

- Frewer, L. J., Howard, C., Hedderley, D., & Shepherd, R. (1996). What determines trust in information about food-related risks? Underlying psychological constructs. Risk analysis, 16(4), 473-486.

- FSA (2018) Public Attitudes Tracker, Wave 16, May 2018. Available at: https://www.food.gov.uk/sites/default/files/media/document/biannual-public-attitudes-tracker-wave-16-final-270718.pdf

- FSAI (2013) The Aftermath of the Horse Meat Incident. Available at: https://www.fsai.ie/publications/horse_meat_survey_2013/

- Gallup (2018) Big Business. Available at: https://news.gallup.com/poll/5248/big-business.aspx

- Gambetta D (2000) 'Mafia: The Price of Distrust', in Gambetta, Diego (ed.) Trust: Making and Breaking Cooperative Relations, electronic edition, Department of Sociology, University of Oxford, chapter 10, pp. 158-175. Available at: http://www.sociology.ox.ac.uk/papers/gambetta158-175.pdf

- Garcia Martinez, M. (2010). Enhancing consumer confidence in food supply chains. In: Delivering Performance in Food Supply Chains (pp. 285-302).

- Giuliano, P. and Spilimbergo, A. (2014) Growing up in a Recession. The Review of Economic Studies 81(2): 787-817.

- Granovetter MS (1983) The strength of weak ties. American Journal of Sociology 78(6): 1360-1380.

- Griffith, R., O'Connell, M. and Smith, K. (2013) Food expenditure and nutritional quality over the Great Recession. IFS Briefing Note BN143. Available at: https://www.ifs.org.uk/bns/bn143.pdf

- Henderson, J., Coveney, J., Ward, P. R., & Taylor, A. W. (2011). Farmers are the most trusted part of the Australian food chain: results from a national survey of consumers. Australian and New Zealand journal of public health, 35(4), 319-324.

- Henderson, J., Ward, P., Coveney, J. and Meyer, S. (2012) Trust in the Australian food supply: Innocent until proven guilty. Health, Risk & Society 3: 257-272.

- Hendriks, F., Kienhues, D. and Bromme, R. (2015) Measuring Laypeople's Trust in Experts in a Digital Age: The Muenster Epistemic Trustworthiness Inventory (METI). PLoS One 10(10): e0139309.

- Hosking G (2017) Trust in the trustworthy: a key to social cohesion? In Trust at Risk? Implications for EU Policies and Institutions. European Commission, Brussels.

- Houston DJ et al. (2016) Citizen Trust in Civil Servants: A Cross-National Examination. International Journal of Public Administration, 39:14, 1203-1214.

- Huber GA (2007) The craft of bureaucratic neutrality. Interests and influence in governmental regulation of occupational safety. Cambridge University Press.

- Hunt, S. and Frewer, L.J. (2001) Trust in sources of information about genetically modified food risks in the UK. British Food Journal 103(1): 46-62.

- Ipsos Mori (2017) Trust in Professions: Long-term trends. Available at: https://www.ipsos.com/ipsos-mori/en-uk/trust-professions-long-term-trends

- Jackson, P. (2015) Anxious Appetites: Food and Consumer Culture. London: Bloomsbury.

- Janssen, M. and Hamm, U. (2014) Governmental and private certification labels for organic food: Consumer attitudes and preferences in Germany. Food Policy 49(2): 437-448.

- Kam, C.D. and Zechmeister, E.J. (2013) Name Recognition and Candidate Support. American Journal of Political Science 57(4): 971-986.

- Kang, J. and Hustvedt, G. (2014) Building Trust Between Consumers and Corporations: The Role of Consumer Perceptions of Transparency and Social Responsibility. *The Journal of Business Ethics* 125(2): 253-265.

- Kantar (2017) 'Fake news' reinforces trust in mainstream news brands. Kantar UK Insights. Available at: https://uk.kantar.com/business/brands/2017/trust-in-news/

- Kantar Worldpanel (2018) Great Britain – Grocery Market Share Snapshot. Available at: https://www.kantarworldpanel.com/en/grocery-market-share/great-britain/snapshot/20.05.18/14.09.14

- Ke, D., Chen, A., & Su, C. (2016). Online trust-building mechanisms for existing brands: the moderating role of the e-business platform certification system. *Electronic Commerce Research*, *16*(2), 189-216.

- Keeley, B. (2007) Human Capital: How what you know shapes your life. Paris: OECD.

- Kim, D.J., Ferrin, D.L. and Rao, H.R. (2008) A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. Decision Support Systems 44(2): 544-564.

- Kim, Y., & Peterson, R. A. (2017). A Meta-analysis of Online Trust Relationships in E-commerce. *Journal of Interactive Marketing*, *38*, 44-54.

- Kjaernes, U., Harvey, M. and Warde, A. (2007) Trust in Food: A Comparative and Institutional Analysis. London: Palgrave Macmillan.

- Label Insight (2016). How Consumer Demand for Transparency is Shaping the Food Industry. Available at: https://www.labelinsight.com/hubfs/Label_Insight-Food-Revolution-Study.pdf?hsCtaTracking=fc71fa82-7e0b-4b05-b2b4-de1ade992d33%7C95a8befc-d0cc-4b8b-8102-529d937eb427. Accessed on 23 May 2018.

- Lang (2013) Elements of public trust in the American food system: Experts, organizations, and genetically modified food. *Food Policy* 41: 145-154.

- Laroche, M., Habibi, M.R. and Richard, M. (2013) To be or not to be in social media: How brand loyalty is affected by social media? International Journal of Information Management 33(1): 76-82.

- Lewis, J. D. and Weigert, A. (2012) The Social Dynamics of Trust: Theoretical and Empirical Research, 1985-2012. *Social Forces* 91(1): 25-31.

- Lin N (2001) Social capital. Cambridge University Press, Cambridge.

- Lindenberg, S. (2000) It takes both trust and lack of mistrust: the workings of cooperation and relational signalling in contractual relationships. Journal of management and governance 4: 11-33.

- Ljubojević, Č., & Ljubojević, G. (2008). Building Corporate Reputation through Corporate Governance. Management (18544223), 3(3).

- Lloyd, T.A. et al. (2006) Food scares, market power and price transmission: the UK BSE crisis. *European Review of Agricultural Economics* 33(2): 119-147.

- Lobb, A. (2004) A Methodological Review of the Impacts of Risk and Trust on Consumer Behaviour Towards Food Safety. Paper prepared for presentation at the 84th EAAE Seminar 'Food Safety in a Dynamic World.'

- Lobb, A. (2004, February). A Methodological review of the impacts of risk and trust on consumer behaviour towards food safety. In Being Paper prepared for presentation at the 84th EAAE Seminar 'Food Safety in a Dynamic World'Zeist, The Netherlands, February (pp. 8-11).

- Lodge, M. (2011) Risk, Regulation and Crisis: Comparing National Responses in Food Safety Regulation. *Journal of Public Policy* 31(1): 25-50.

- Luhmann N (1988) Familiarity, Confidence, Trust: Problems and Alternatives. In *Trust: Making and Breaking Cooperative Relations* (D. Gambetta ed.), pp. 95-107. Oxford: Blackwell.

- Lytton, T. (2013) Kosher: Private Regulation in the Age of Industrial Food. Cambridge: Harvard University Press.

- Mah, D.N., Hills, P. and Tao, J. (2014) Risk perception, trust and public engagement in nuclear decision-making in Hong Kong. Energy Policy 73: 368-390.

- Maor, M. (2011) Organizational reputations and the observability of public warnings in 10 pharmaceutical markets. *Governance* 24(3): 557-582.

- Maor, M. (2014). Theorizing bureaucratic reputation. In Organizational reputation in the public sector (pp. 31-50). Routledge.

- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. Academy of management review, 20(3), 709-734.

- McKnight et al. (2002) The impact of initial consumer trust on intentions to transact with a web site: a trust building model. *The Journal of Strategic Information Systems* 11(3-4): 297-323.

- Meagher, K. D. (2018). Public perceptions of food-related risks: a cross-national investigation of individual and contextual influences. Journal of Risk Research, 1-17.

- Metzger, M.J. and Flanagin, A.J. (2013) Credibility and trust of information in online environments: The use of cognitive heuristics. Journal of Pragmatics 59: 210-220.

- Meuter, M., McCabe, D.B. and Curran, J.M. (2013) Electronic Word-of-Mouth Versus Interpersonal Word-of-Mouth: Are All Forms of Word-of-Mouth Equally Influential? Services Marketing Quarterly 34(3): 240-256.

- Meyer, S.B., Coveney, J., Henderson, J., Ward, P.R. and Taylor, A.W. (2012) Reconnecting Australian consumers and producers: Identifying problems of distrust. Food Policy 37(6): 634-640.

- Millstone, E. and van Zwanenberg, P. (2000) A crisis of trust: for science, scientists or for institutions? *Nature Medicine* 6: 1307-1308.

- Mondak, J. J., Hayes, M., & Canache, D. (2017). Biological and psychological influences on political trust. Handbook on Political Trust, Oxford University Press, pp.143-159.

- Monteiro, C., Moubarac, J., Levy, R., Canella, D., Louzada, M. and Cannon, G. (2018) Household availability of ultra-processed foods and obesity in nineteen European countries. Public Health Nutrition 21(1): 18-26.

- Morris, N. and Vines, D. (2014) Capital Failure: Rebuilding Trust in Financial Services. Oxford University Press.

- Nannestad, P. (2008) What have we learned about generalized trust, if anything? *Annual Review of Political Science* 11: 413-436.

- Newton, K. (2007) Social and Political Trust. In: The Oxford Handbook of Political Behavior. Oxford: OUP.

- Newton, K., & Zmerli, S. (2011). Three forms of trust and their association. European Political Science Review, 3(2), 169-200.

- Newton, K., Stolle, D. and Zmerli, S. (2018) 'Social and Political Trust.' In: *The Oxford Handbook of Social and Political Trust.* Oxford: Oxford University Press.

- NFU Mutual (2017) Food Fraud Report. Available at: https://www.nfumutual.co.uk/news-and-stories/food-fraud/

- Nocella, G., Romano, D. and Stefani, G. (2014) Consumers' attitudes, trust and willingness to pay for food information. International Journal of Consumer Studies 38: 153-165.

- OECD (2015). Trust in Governments. Available at: http://www.oecd.org/gov/trust-in-government.htm

- OECD (2017a) Government at a Glance 2017. Paris: OECD. Available at: http://www.oecd.org/gov/govataglance.htm

- OECD (2017b) How's Life? 2017. Available at: https://www.oecd-ilibrary.org/economics/how-s-life-2017_how_life-2017-en

- Olivera, J. (2013) On changes in general trust in Europe. AIAS, GINI Discussion Paper 80. Available at: http://gini-research.org/system/uploads/581/original/80.pdf?1385131268

- O'Neill, O. (2012) Evidence, trustworthiness and trust. FST Journal 20(9): 3-4.

- ONS (2017) Statistical bulletin: Social capital in the UK: May 2017. Available at:

https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/socialcapitalintheuk/may2017

- Pitlik H (2017) Trust and the regulation of economic activities. In Trust at Risk? Implications for EU Policies and Institutions. European Commission, Brussels.

- Pivato, S., Misani, N., & Tencati, A. (2008). The impact of corporate social responsibility on consumer trust: the case of organic food. Business ethics: A European review, 17(1), 3-12.

- Prati, G. and Zani, B. (2012) The Effect of the Fukushima Nuclear Accident on Risk Perception, Antinuclear Behavioral Intentions, Attitude, Trust, Environmental Beliefs, and Values. Environment and Behavior 45(6): 782-798.

- Price, S., Hartwell, H., Hemingway, A. and Chapleo, C. (2016) Workplace foodservice; perception of quality and trust. Appetite 97(1): 169-175.

- Raaphorst N, van de Walle S (2018) Trust in and by the public sector. In: Searle R, Nienaber A, Sikin S (eds) Routledge Companion to Trust. London: Routledge. Pp. 469-482.

- Rampl, L.V., Eberhardt, T., Schütte, R., & Kenning, P. (2012). Consumer trust in food retailers: conceptual framework and empirical evidence. International Journal of Retail & Distribution Management, 40(4), 254-272.

- Richards, L. and Heath, A. (2015) CSI 15: The uneven distribution and decline of social capital in Britain. Oxford: Centre for Social Investigation. Available at: http://csi.nuff.ox.ac.uk/wp-content/uploads/2015/11/CSI_15_The_uneven_distribution.pdf

- Rieger, J., Weible, D. and Anders, S. (2017) "Why some consumers don't care": Heterogeneity in household responses to a food scandal. Appetite 113: 200-214.

- Rimkute D (2018) Organizational reputation and risk regulation: The effect of reputational threats on agency scientific outputs. *Public Administration*, doi: 10.1111/padm.12389

- Rothstein H, Borraz O, Huber M (2013) Risk and the limits of governance: exploring varied patterns of risk-based governance across Europe. *Regulation & Governance* 7: 215-235.

- Rothstein, B., & Stolle, D. (2008). The state and social capital: An institutional theory of generalized trust. *Comparative politics*, 40(4), 441-459.

- Rousseau DM, Sitkin SM, Camerer C (1998) Not so different after all: a cross-discipline view of trust. *Academy of Management Review* 23(3): 393-404.

- Rousseliere, D. and Rousseliere, S. (2010) On the impact of trust on consumer willingness to purchase GM food: Evidence from a European survey. Review of Agricultural and Environmental Studies 91(1): 5-26.

- Rowe, R. and Calnan, M. (2006) Trust relations in health care – the new agenda. European Journal of Public Health 16(1): 4-6.

- Ryu, Y., Kim, S. and Kim, S. (2018) Does Trust Matter? Analyzing the Impact of Trust on the Perceived Risk and Acceptance of Nuclear Power Energy. Sustainability 10(3): 758.

- Salvatore, A. and Sassatelli, R. (2004) Trust and Food: A theoretical discussion. TRUSTINFOOD Project.

- Schoorman FD, Mayer RC, Davis JH (2007) An integrative model of organizational trust: past, present, and future. Academy of Management Review 32(2): 344-354.

- Seidel, M.L. (2017) Questioning Centralized Organizations in a Time of Distributed Trust. Journal of Management Inquiry 27(1): 40-44.

- Siegrist, M. (2010) Trust and Confidence: The Difficulties in Distinguishing the Two Concepts in Research. *Risk Analysis* 30(7): 1022-1024.

ICF

- Sjöberg, L. (2002) Attitudes toward Technology and Risk: Going beyond What Is Immediately Given. *Policy Sciences* 35(4): 379-400.

- Solomon, R.C. and Flores, F. (2001) *Building Trust: In Business, Politics, Relationships, and Life.* Oxford: Oxford University Press.

- Stolle, D. (2002). Trusting strangers–the concept of generalized trust in perspective. Österreichische Zeitschrift für Politikwissenschaft, 31(4), 397-412.

- Stolle, D. (2002). Trusting strangers–the concept of generalized trust in perspective. Österreichische Zeitschrift für Politikwissenschaft, 31(4), 397-412.

- The Center for Food Integrity (2018) A Dangerous Food Disconnect: When Consumers Hold You Responsible But Don't Trust You. Available at: http://www.foodintegrity.org/wp-content/uploads/2018/01/CFI_Research_8pg_010918_final_web_REV2-1.pdf

- The Guardian (2015) UK shoppers give pork the chop after processed meats linked to cancer. Available at: https://www.theguardian.com/uk-news/2015/nov/23/bacon-sausage-sales-fall-who-report-cancer-risk-processed-meat

- The Independent (2018) Aldi and Lidl reach record market share as shoppers continue to look for low prices. Available at: https://www.independent.co.uk/news/business/news/aldi-lidl-market-share-record-high-supermarket-figures-shoppers-discount-low-prices-a8288011.html

- The Telegraph (2008) The rise of Lidl Britain during the credit crunch. Available at: https://www.telegraph.co.uk/news/features/3637902/The-rise-of-Lidl-Britain-during-the-credit-crunch.html

- Thomas CW (1998) Maintaining and restoring trust in government agencies and their employees. Administration & Society 30(2):166-193.

- TNS (2010) Special Eurobarometer 354: Food-related risks. Brussels: European Commission. Available at: http://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_354_en.pdf

- TNS (2014) Standard Eurobarometer 82 (Autumn 2014): Public Opinion in the European Union. Available at: http://ec.europa.eu/commfrontoffice/publicopinion/archives/eb/eb82/eb82_publ_en.pdf

- TNS (2017) Special Eurobarometer 461: Designing Europe's future: Trust in institutions, Globalisation, Support for the euro, opinions about free trade and solidarity. Available at: http://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/ResultDoc/download/DocumentKy/78720

- Tonkin, E. et al. (2015) Trust in and through labelling – a systematic review and critique. British Food Journal 117(1): 318-338.

- Tonkin, E. et al. (2016) Consumer trust in the Australian food system: The everyday erosive impact of food labelling. Appetite 103: 118-127.

- Tyler, T. (2003) Procedural Justice, Legitimacy, and the Effective Rule of Law. Crime and Justice 30: 283-357.

- Uslaner, E. M. (2013). Trust as an Alternative to Risk. Public Choice, 157(3-4), 629-639.

- Uslaner, E. M. (Ed.). (2018). The Oxford Handbook of Social and Political Trust. Oxford University Press.

- Van de Walle S, Six F (2014) Trust and distrust as distinct concepts: why studying distrust in institutions is important. *Journal of Comparative Policy Analysis*, 16(2): 158-174.

- Van Kleef et al. (2007) Consumer Evaluations of Food Risk Management Quality in Europe. Risk Analysis 27(6): 1565-1580.

- Van Lange, P. A. (2015). Generalized trust: Four lessons from genetics and culture. Current Directions in Psychological Science, 24(1), 71-76.

- Van Lange, P. A. (2015). Generalized trust: Four lessons from genetics and culture. *Current Directions in Psychological Science*, 24(1), 71-76.

- Van Rijswijk, W., & Frewer, L. J. (2012). Consumer needs and requirements for food and ingredient traceability information. International Journal of Consumer Studies, 36(3), 282-290.

- Van Ryzin, G.G. (2011) Outcomes, Process, and Trust of Civil Servants. Journal of Public Administration Research and Theory 21(4): 745-760.

- Verbeke, W. et al. (2007) Why consumers behave as they do with respect to food safety and risk information. *Analytica Chimica Acta* 586: 2-7.

- Verbeke, W. et al. (2007) Why consumers behave as they do with respect to food safety and risk information. *Analytica Chimica Acta* 586: 2-7.

- Viklund, M. (2003) Trust and Risk Perception in Western Europe: A Cross-National Study. Risk Analysis 23(4): 727-738.

- Visschers, V. and Siegrist, M. (2008) Exploring the Triangular Relationship between Trust, Affect, and Risk Perception: A Review of the Literature. *Risk Management* 10(3): 156-167.

- Vosoughi, S., Roy, D. and Aral, S. (2018) The spread of true and false news online. Science 359(6380): 1146-1151

- Wales, C. et al. (2006) Recuperating from BSE: The shifting UK institutional basis for trust in food. *Appetite* 47(2): 187-195.

- Which? (2013) Horsemeat scandal dents trust in food industry. Available at: https://www.which.co.uk/news/2013/03/horsemeat-scandal-dents-trust-in-food-industry-313016/

- Wills, W., Danesi, G., Kapetanaki, A. and Hamilton, L. (2018) The Socio-Economic Boundaries Shaping Young People's Lunchtime Food Practices on a School Day. Children and Society 32: 195-206.

- Wilson, A. et al. (2017) A model for (re)building consumer trust in the food system. *Health Promotion International* 32(6): 988-1000.

- Wilson, A. M., Withall, E., Coveney, J., Meyer, S. B., Henderson, J., McCullum, D., ... & Ward, P. R. (2016). A model for (re) building

consumer trust in the food system. Health promotion international, 32(6), 988-1000.

- Withall, E. et al. (2016) Obtaining consumer perspectives using a citizens' jury: does the current country of origin labelling in Australia allow for informed food choices? BMC Public Health 16: 1241.

- Wongprawmas, R., Padilla Bravo, C.A., Lazo, A., Canavari, M. and Spiller, A. (2015) Practitioners' perceptions of the credibility of food quality assurance schemes: Exploring the effect of country of origin. Quality Assurance and Safety of Crops and Foods 7(5): 789-799.

- Yang, K. (2006) Trust and Citizen Involvement Decisions: Trust in Citizens, Trust in Institutions, and Propensity to Trust. Administration & Society 38(5): 573-595.

- Zhang, L., Xu, Y., Oosterveer, P. and Mol, A.P.J. (2016) Consumer trust in different food provisioning schemes: evidence from Beijing, China. Journal of Cleaner Production 134(A): 269-279.

# Annex 1   Search terms

- Trust concepts, including:
    - Generalised trust
    - Societal trust
    - Institutional trust
    - Political trust
    - Consumer confidence
- Trust and food
    - Food safety
        - BSE
    - Food authenticity
        - Food fraud
        - Horse meat
    - Food ethics
        - Animal welfare
        - Fair trade
        - Organic farming
- Trust and globalisation
- Trust and new technologies
- Trust and crisis
- Trust and risk
- Trust and reputation
- Trust and distrust