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Food-system actors' perspectives on trust: an international comparison

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Purpose

This international comparison study compares the perspectives of actors who contribute to trust in the food system in four high income countries which have diverse food incident histories: Australia, New Zealand (NZ), the United Kingdom (UK) and the Island of Ireland (IOI), focusing on their communication with the public, and their approach to food system interrelationships.

Approach

Data were collected in two separate studies; the first in Australia, New Zealand and the United Kingdom (Study 1), and the second on the Island of Ireland (Study 2). In-depth interviews were conducted with media, food industry and food regulatory actors across the four regions (n=105 Study 1; n=50 Study 2). Analysis focused on identifying similarities and differences in the perspectives of actors from the four regions regarding the key themes of communication with the public, and relationships between media, industry and regulators.

Findings

While there were many similarities in the way food system actors from the four regions discussed (re)building trust in the context of a food incident, their perceptions differed in a number of critical ways regarding food system actor use of social media, and the attitudes and approaches towards relationships between food system actors.

Originality

This paper outlines opportunities for the regions studied to learn from each other when looking for practical strategies to maximise consumer trust in the food system, particularly relating to the use of social media and attitudes toward role definition in industry-regulator relationships.

Key words

Food; food system; food scare; consumer; trust; social media

Introduction

Maintaining consumer trust in food is an ongoing challenge for national and global food systems. The scale of modern, globalised food systems is immense, complex and fragmented (Kjærnes, 2012, Poppe and Kjaernes, 2003). Consequently, knowledge of the food system is argued to be difficult for the public to access and engage with (Meyer et al., 2012). As such, public trust in the institutions responsible for ensuring food systems are managed in line with their expectations is critical (please see our earlier work for expanded conceptualisations of trust in food (Henderson et al., 2012, Meyer et al., 2012, Tonkin et al., 2015)). Food incidents however, such as food scares and scandals, are critical tests of the public's trust in food. Food system management of such incidents has been shown to influence both public trust and intention to purchase food (Jacob et al., 2011, Mazzocchi et al., 2008, Yamoah and Yawson, 2014). Notable food incidents occurring in recent history include the Garibaldi food poisoning incident in Australia in 1995, the Bovine Spongiform Encephalopathy (BSE) crisis in the United Kingdom (UK) in 1996, the dioxin crisis involving the Island of Ireland (IOI) in 2008, and the Fonterra infant formula incident in New Zealand (NZ) in 2014 (Dey and Montet, 2017, Thomson et al., 2012). All of these incidents had unique aetiology, media reporting and responses from the relevant food industries and regional food governance bodies (Dey and Montet, 2017, Jacob et al., 2011, Regan et al., 2016, Thomson et al., 2012, Yamoah and Yawson, 2014). As such, all had different impacts on consumer trust in food. Research comparing how actors within these

different regions manage food incidents in order to maintain and rebuild (if necessary) public trust in the food system in each country may therefore lead to learnings which can be applied internationally. The purpose of the present research was therefore to compare the perspectives of actors who contribute to trust in the food system from Australia, NZ, the UK and the IOI regarding (re)building public trust in food before, during and following a food incident.

What should be defined a 'food incident or crisis' is increasingly open to academic debate (Spink and Moyer, 2011). From a food regulatory perspective, food incidents have been defined as 'any situation within the food supply chain where there is a risk or potential risk of illness or confirmed illness or injury associated with the consumption of a food or foods' (Commonwealth of Australia, 2012). However, even incidents that do not involve risks to public health and safety can result in damage to public trust in food, importantly including cases of food fraud. This was evident following the 2013 horsemeat scandal across the UK and Europe (Yamoah and Yawson, 2014). In contrast, the 2008 dioxin crisis in the Republic of Ireland, involving a confirmed risk to public health, is generally considered a success story of food incident management with little impact on consumer trust (Jacob et al., 2011, Regan et al., 2016). The success of this case points to the importance of looking to how food incidents are managed by food actors across regions as a means for understanding how to maintain public trust in food.

Trust in the actors responsible for food incident management, food provisioning, food governance and reporting on food issues is said to be an important dimension determining public trust in food more broadly (Kjærnes et al., 2006, Tonkin et al., 2016). Media, food industry, and food regulatory actors have been found to be the central players in influencing public trust during food incidents (Henderson et al., 2011). Literature suggests that both during business-as-usual and in the case of food incidents a number of strategies can be used by these actors to build and foster consumer trust in food systems, including: being transparent, proactive, credible and consistent; putting consumers

first, collaborating with stakeholders, and having procedures in place (Chapman et al., 2014, Wilson et al., 2016).

Previous research suggests there are two primary areas through which the conduct of these actors influences whether consumers perceive these strategies as successfully implemented. The first area involves communication with the public as a key response (Falkheimer and Heide, 2015, Jacob et al., 2011); Transparency has been shown to be the most critical strategy for rebuilding trust following a food incident (Falkheimer and Heide, 2015, Wilson et al., 2016). In practice, this means fast, open and honest communication from all stakeholders involved in the food incident, and, importantly, communication that involves the media. An emerging dimension of the communication discussion is the use of new forms of social media, such as Twitter, Facebook, and Instagram, for communicating with the public (Lozano and Lores, 2013, Regan et al., 2016, Rutsaert et al., 2014). Such applications expand the function of government-endorsed resources allowing officials to engage in a platform where users can create and upload their own content, comment on content, and interact with each other (Rutsaert et al., 2013, Witteman and Zikmund-Fisher, 2012). Social media platforms have also removed the previous mediators (the media) between communicators (regulators and industry) and information consumers, resulting in new discourses and practices around communicating food risk (Prades et al., 2014, Rutsaert et al., 2014). In particular, Chapman et al. (2014) discuss the potential for social media to enable food industry and regulators to demonstrate trustworthiness in risk communication through promoting accountability, openness, empathy and competence,

The second way in which the conduct of regulators, industry and the media impacts trust during food incidents is how coordinated the action appears to be between the food system actors responsible for managing and rectifying the food incident (Wilson et al., 2016). Collaboration between stakeholders and healthy food system interrelationships are cited as important in managing public trust during food incidents (Wilson et al., 2016). The relationships between these actors and how they work in either a complementary or combative way to negotiate food incidents,

and how this is represented in the media, is important in determining the public's trust response. As such, international comparison of food system actors' management of public trust focusing on what previous research has found to be key avenues of influence, namely their communication with the public and their apparent interrelationships, is of value.

Previous research has examined the *actions* which build and break public trust during individual food incidents (Berg, 2004, Falkheimer and Heide, 2015, Grebe, 2013, Jacob et al., 2011, Jensen, 2004). The *role* of the media, industry and regulators in (re)building consumer trust in the context of food incidents has also been explored (Henderson et al., 2014, Wilson et al., 2014). However, the unique food scare histories of different regions provide an opportunity to compare approaches to trust management that have been developed through experience across regions. The aim of this study is to compare the perspectives of actors who contribute to trust in the food system in four high income countries which have diverse food incident histories: Australia, NZ the UK and the IOI regarding: a) their communication with the public, and b) their approach to food system interrelationships.

Methods

Data were collected in two separate studies; the first in Australia, NZ and the UK (Study 1), and the second on the IOI (Study 2). Study 2 adopted the methodology used in Study 1, enabling a comparative analysis. Here we describe the participant sampling and data collection methods used for Study 1 and Study 2, followed by a description of data analysis. For the purposes of consistency in reporting of this study, we use the term 'region' to refer to the localities examined (for example, the region of Australia).

Study 1

Detailed methods for Study 1 have been reported elsewhere (Wilson et al., 2013, Wilson et al., 2016). The key components are described briefly below.

In-depth, semi-structured interviews were conducted from March-October 2013 with 105 participants (33 media, 42 food regulatory and 30 food industry actors) who were purposively sampled using pre-existing researcher networks from relevant organisations across Australia, the UK and NZ. The interviews centred on a fictitious but highly plausible and lifelike food incident that affected a large part of the food supply with the potential to threaten human health. Interview transcripts were de-identified by name and organisation and imported into Nvivo (QSR, Doncaster, Victoria). Ethics for Study 1 was obtained from the Flinders University Social and Behavioural Research Ethics Committee (Project 5593).

Study 2

Study 2 was designed as a replication study based on the methods used and findings from Study 1 (Wilson et al., 2013, Wilson et al., 2016). Data were collected on the IOI from August 2015 to March 2016. The published Study 1 protocol (Wilson et al., 2013) was followed and further information about processes was obtained from researchers involved in Study 1 through six Skype meetings and email contact as required. Interviews were conducted with 50 participants (20 media, 13 food regulatory and 17 food industry actors). Interview transcripts were de-identified by name and organisation and imported into Nvivo for analysis. Ethics for Study 2 was obtained from the Social Research Ethics Committee (SREC) at University College Cork.

Analysis

Once data collection was complete the data from Studies 1 and 2 were merged to form one dataset for the present analysis. Therefore all the four regions were compared individually and equally. Comparison between the regions was based on the method of comparative health research, which allows the evidence from multiple countries to be utilised in a systematic way (Burau, 2013). Specifically, exploratory comparative health research was used. This aims to investigate the same phenomenon in multiple countries and focuses on identifying what is similar and what is different

between countries (Burau, 2013). The key areas of interest for the present analysis (or phenomenon under investigation) were identified by the research team based on previous research (Wilson et al., 2014, Wilson et al., 2016), and included food actors' communication with the public and food system interrelationships. Sub-themes within these major areas were identified from within the transcripts as analysis progressed using thematic analysis (Braun and Clarke, 2006), and identification of sub-themes was iteratively conducted as exploratory cross-country comparison progressed. The data were grouped by actor type (media, food regulatory or food industry), major theme area and finally sub-theme area for cross-country comparison. Negative cases were sought from the data to enable depth and nuance of understanding. Two researchers completed the analysis (AW, ET).

Findings

In this section we compare the perspectives of actors who contribute to trust in the food system in four high income countries which have diverse food incident histories regarding (re)building public trust in food before, during and following a food incident. There were two predefined areas of focus, namely communication with the public, and food system interrelationships. With regard to communication with the public, the subtheme of the use, advantages and disadvantages of social media was strong, detailed and offered important contrasts, and as such we have chosen to focus the results on these findings. Regarding food system interrelationships, the sub-themes of regulator-industry relationships, media-regulatory/industry relationships and attitudes towards relationships were the strongest subthemes, and are therefore the focus of this section.

We begin by comparing Australian, UK, NZ and IOI food system actors' perspectives regarding the impact on public trust in food of the use of social media during times of food crisis and business-as-usual. This is followed by a comparison of actors' perspectives on relationships between media, industry and regulators, and how these work in either a complementary or combative way to negotiate food incidents to support public trust in food.

Public communication - Social media

Use

While all actors from all regions reported some use of social media in their work, generally, both regulatory and industry actors from the UK and the IOI appeared to use it more extensively and for a greater variety of reasons. Australian, UK and IOI regulators commented that social media was used in their work, although not necessarily by them personally. Australian and IOI government organisations tended to have a media unit responsible for managing social media or had rules regarding who could use social media and when. This was seen as helping to manage misinformation. Australian, UK and IOI regulators, and Australian industry actors described a limited range of uses for social media, primarily to provide information to consumers and for recalls. Conversely, a large number of UK and IOI industry actors described active engagement with social media, with the target communication network broader than simply consumers,

> *'…at the moment we're using it mostly just as a way of keeping in touch with and engaging with some of our loyal followers and, yeah, some key people we want to interact with in terms of MPs and food businesses and people working in civil society' (UKI2).*

Some UK and many IOI industry actors, as well as UK regulators, also saw uses for social media beyond direct public communication, including enabling them to '*keep up to date with current thinking and new studies and what's happening out there; just keeping an eye on the big picture' (UKI6),* and also to monitor consumer opinion.

IOI regulatory and industry actors described social media as being especially valuable during times of food crisis for leveraging journalistic relationships, and both providing information, but also assessing consumer response to an incident, even as '*an early warning indicator……. Social media is very instant it's probably good for us, as well for us, to use social media, to gauge how people are feeling about the incident' (IOIR9).* UK and IOI media actors echoed this idea, and also described

using it to identify stories that will resonate with the public and make connections with information sources, with two UK Media actors reporting using it to identify people affected by a food scare and interview them as case studies.

Advantages

Again, while actors from all regions saw advantages to using social media, UK and IOI actors described the most. Media actors from all regions, Australian and UK regulators, and UK and IOI industry actors considered a major advantage of social media to be two-way communication, especially as a vehicle for responding to consumer concerns and misreporting during a food incident. Australian media actors, Australian, UK and IOI regulators and UK and IOI industry actors talked about the speed of transmission of social media as an advantage, particularly during food incidents,

> *'It's immediate and it comes back to my earlier comments about if you can show response quickly that helps allay that trust eroding, I truly believe. The longer you wait in silence then the longer people are left to make up their own stories, which are usually more detrimental than what the truth is' (AUR19).*

UK and IOI industry actors, and one IOI regulatory actor, saw the lack of a third party in social media communication as a key advantage. There were also additional advantages to using social media identified by individual actor groups. For Australian, UK and IOI industry actors social media was seen as enabling transparency from the food industry to the customer. One IOI industry actor also described that social media is *'…not faceless, the email is a little bit faceless' (IOII15).* IOI media actors explained that social media could assist in resolving the often competing priorities of journalistic accuracy and breaking news first,

> *'Well increasingly you'd be framing it digitally first and then in print. So the demand for information would be pretty intense, so you need to get stuff up there. There is kind of a protocol now where we get something up quickly and say, "look we are investigating this or we*

are trying to source more information on this and will get back to you." And you've to push social media. Then you know….on major stories we plan to have a more substantive piece up but in a certain period of time you know…again, explain or some basic information' (IOIM13).

Australian media actors saw the breadth of the social media audience as an advantage, and while IOI media actors generally agreed, one IOI media actor presented an alternative view, *'Well, I think what happens is you're talking to like-minded people on social media…. So you're not really reaching a wider public, which a newspaper does then' (IOIM11)*. Finally, one IOI media actor explained that social media provides an opportunity for the public to set the news agenda.

Disadvantages

Many of the advantages mentioned above however contributed to regulators and industry actors perceiving social media use to be risky, particularly the directness and speed of social media communication during a food incident, '*There is a danger there that worries senior civil servants is that… officials could get pulled into real time conversations over a bottle of wine' (IOIR6)*. Social media was also seen as undermining industry's ability to contain a food crisis situation by one IOI industry actor,

'…speed is going to be absolutely, again, of the upmost importance because one whiff of this and everybody wants to be a news journalist by sharing a big news, a breaking news, story on Twitter or on Facebook or whatever it is. So social media is a massive threat to something like this in a crisis' (IOII8).

Australian, NZ and UK regulatory actors and media actors from all regions were concerned about the potential for misinformation and the distortion of facts on social media, particularly around food incidents. Linked to this was the constant threat of reputations being damaged through misinformation, which was particularly expressed by UK, NZ and IOI industry actors. Due to the wide reach of social media this damage was seen as difficult to repair, *'And how damaging – you know,*

things can get out there a lot more quickly and once an incorrect message gets out there it's really hard to pull that back and correct that perception' (NZP11). Australian and UK regulators talked about the potential for social media to distort regulators' messages in particular. Media actors identified a number of causes for the lack of credibility of social media information, including the ability for any person to provide information, *'I think there are a lot of really unqualified people who have done, you know, who don't research very well, who are reacting, who are almost having fun.... there's no guaranteed credibility' (IOIM11)*, the speed of transmission as previously described, and the brevity of social media platforms which regulators from all regions also described as an issue. Australian and IOI regulators, and one UK industry actor, also viewed social media as requiring time and resources, '… *it would require a significant commitment because you've got to be able to respond in less than an hour, I would have thought, to things. You can't leave things unanswered or not responded to in that environment' (AUR25).*

As such, many media actors saw the potential for social media to have a negative impact during food incidents, *'I suppose there is a bit of scaremongering that can happen where some of these food scares could be put out of proportion' (AUM3).* While this was not the case for any of the Australian or NZ media actors, UK and IOI media actors had concerns about personally using social media, in particular Twitter. These media actors either chose not to use it or to ensure that they verified information, *'I mean I know for myself, I take what I read on Twitter with a pinch of salt' (UKM1).* Regulators from all regions similarly described needing to use containment strategies for social media use in the regulatory environment,

> *'It's wild, do you know what I mean? … so we just stick to those two. We would have relied heavily on our website so every time when we put anything on Facebook or Twitter we always connect people back to our website' (IOIR8).*

Food system interrelationships

Industry-regulator relationships

There appeared to be marked differences in perspectives about industry-regulator relationships between interviewees in the different regions. NZ and IOI regulators considered good relationships with the industry of high importance. Regulators in both regions therefore saw some collaboration as necessary, *'so part of having a good regulatory system is being good at voluntary uptake by industry and for us to have ways to assist them to do that by having some good guidance and information available' (NZ11)*. Australian regulators, acknowledged that at times an 'us-and-them' mentality exists, but also saw benefits in working closely with industry,

> *'… if you work closely with industry in implementing what those food safety arrangements might be, for example, they've got a better understanding of what level of compliance is possible by those individual stakeholders. It gives us confidence that, yes, they understand it, that they can implement it and we put in place verification arrangements suited to that level of confidence…through that understanding we can utilise our resources better' (AUR20).*

Alternatively, UK regulators identified a clear division of responsibilities, saying it was not the role of regulators to assist industry,

> *'I think there's an expectation on their part [industry] that we're almost viewed as a consultant in many cases and we should be providing them with information and guidance to update their systems when in fact that responsibility lies with them and they're duty bound, or they need to think about who they engage as a consultant to assist them in their activities. It's not our role really; our role is to identify… what's not compliant and to advise the businesses that they need to address these issues' (UKR5).*

However, while IOI regulators considered their relationships with industry important and key, they were clear in a manner similar to UK regulators regarding the division of responsibilities when it

came to food safety, *'The legal onus is on the industry to put safe food on the market. It's not, the legal onus is not on this organisation' (IOIR8)*.

The importance of good industry-regulator relationships from a business perspective was acknowledged by the industry actors from all regions,

> *'The FSA, people like government bodies, they're opinion formers… FSA launces, you know convenes this and then puts a league table out as to how well retailers' supply chains are managing Campylobacter, [national broadsheet] journalist picks it up and puts it in a newspaper. Customers read that' (IOII15).*

Industry actors had less clearly delineated ideas of the roles of industry and regulators compared with regulators, describing that all parties had a role in fostering good relationships, *'…it's a concerted, multiparty effort to "right well let's meet, let's be more open and transparent, let's meet regularly…"' (IOII2).* As such, collaboration and information sharing were considered by Australian, UK and IOI industry actors to be hallmarks of healthy industry-regulator relationships.

Challenges of industry-regulator relationships

Regulator and industry actors from all regions identified challenges to successful regulator-industry relationships. While communication between industry and regulators was considered central to the health of relationships, it was discussed by IOI industry actors as usually a problem, resulting in poor relationships and wasted time and resources,

> *'And a good example of that is under [trade association] a food manufacturer will have to send samples for independent analysis. The legislator will come in and ask for samples and also send them to an independent analyst, and all we are doing is duplicating cost and work, instead of sharing the data. But in order for that to happen, there needs to be a very different relationship than the one that is existent heretofore' (IOII17).*

A UK industry actor identified that this lack of communication also has the potential to damage public trust in the food industry during times of food crisis,

> *'…sometimes they don't seem to pick up the phone to us first, to the industry first, before making statements that then turn out not to be true. That is never helpful in the food safety scenario, that they make a statement that all is well and then have to withdraw it quickly afterwards' (UKI13).*

Another challenge to industry-regulator relationships raised by industry actors from all regions related to the need for shared technical knowledge and expertise. Some industry actors viewed Australian, NZ and IOI regulations (set by regulators) as often irrelevant and difficult to abide by, primarily because regulators are too far removed from the food industry and therefore do not relate to the barriers to compliance. This was seen by IOI industry actors as creating tension in industry-regulator relationships,

> *'…and the lack of people who actually can contextualise the data does not give the agencies credibility within the industry. The only people who are truly experts in any given sector, are actually the sector itself, and those are the people you need to have engaged' (IOII17).*

Relationship boundaries between industry and regulators

UK and IOI industry actors discussed that industry-regulator relationships can be damaged when regulators are insensitive to issues surrounding brand reputation,

> *'regulators, sometimes they're not always as sensitive to the sort of brand issues as food manufacturers are and they can say something which is intended for the best but, you know, plays rather badly in the media and can sometimes make matters worse' (UKI13).*

The previous quote suggests regulatory ignorance of the potential damage caused, but other actors described a more malicious attitude, *'if the [regulatory body] charges around like the bull in the*

proverbial china shop, not caring how much china it demolishes in the process…which has been the modus operandi historically…'(IOII17). However one IOI industry actor saw it as a necessary part of their role and therefore a natural boundary to the relationship, *'…they [regulators] deal with facts and "I'm sorry that's the end of our responsibility" …and I've got empathy with that' (IOII4).* Australian industry actors however described the opposite situation, questioning the appropriateness of the boundaries of some Australian regulator-industry relationships, *'I think food regulators are there to protect corporate industrialised food systems and not public health and safety...' (AUI1).* As such, regulatory independence and collaboration were seen to be a fine balance, with IOI regulators re-emphasised the need for clear regulator-industry relationship boundaries, *'I think that there always has to be … very, very clear boundaries between the regulator and the industry' (IOIR13)*.

Media and regulatory/industry relationships - bounded by consumer interests

Media actors from all regions saw good relationships with industry and regulators as necessary to carry out their primary role of disseminating information to the public. Therefore consumer interests provided the motivation to work with industry and regulators. This was particularly the case during food incidents, '*The media have an essential role in amplifying the information released by government and industry, especially regarding recall information' (AUM14).* Media actors from all regions were explicit that these relationships did not extend to fostering public trust in regulatory or industry actors, '*I don't think the media is a press officer for the existing...food system.... it's not the media's job to make people feel better about the current food system' (UKM6).* Worthy of note, however, is that while they did not consider themselves as having a role in rebuilding trust in industry in the aftermath of a food incident, IOI media actors did suggest that they have a duty to assist food actors in disseminating information about changed practices,

> *'No I wouldn't see that (repairing trust in the food chain after a food incident) now as being the media's role…but you know if new regulations are being devised and implemented, of course*

you will report them then. If a particular industry wants to show off what they've done, or in particular the industry at the centre that had the contamination, if they want to open their doors, and show "look we are sorry what happened, but this is what we are doing"… of course yeah I think you would be duty bound to report on that' (IOIM1).

There was recognition among Australian, UK and IOI media actors that at times working with industry needed to be reciprocally beneficial to maintain these relationships. However, IOI media actors were sensitive to perceived conflicts of interest. This was potentially because IOI media actors described the relationship between media and industry as closer than in other places due to the size of the region.

Discussion

The aim of this research was to compare the perspectives of actors who contribute to trust in the food system from Australia, NZ, the UK and the IOI regarding their approaches to public communication and food system interrelationships before, during and following a food incident. While there were many similarities in the way food system actors discussed these focal points for public trust, their perceptions differed in a number of critical ways regarding food system actor use of social media, and the attitudes and approaches taken towards relationships between food system actors. Although the results themselves provide specific opportunities for learning for food system actors, this discussion explores key points of difference in approaches to social media use and food system interrelationships.

UK and IOI actors, irrespective of actor type, described a more extensive use of social media than Australian and NZ actors. This included using social media to monitor consumer opinion, trends, and new research, identify stories and connect with information sources, to gauge consumer reaction and sentiment and to communicate with a broader audience base than just consumers. Additionally, social media was seen by IOI media actors as a tool to assist in the competing priorities of journalistic

accuracy and breaking news first. This balanced use of both social and traditional forms of media is an approach recommended in the literature (Friel and Wills, 2014), and could be a media strategy considered by regulatory and industry actors as part of food incident management plans. Comments, shares and 'likes' can be used as a measure/indicator of popular topics in online forums and a way to gage public opinion. The (dis)advantages of social media use within the food system domain identified by participants in this study resonate with those outlined in academic literature (Rutsaert et al., 2014), and centre on lack of editorial control of media content and presentation of a particular rather than balanced view (Friel and Wills, 2014, Lozano and Lores, 2013, Prades et al., 2014, Regan et al., 2016, Rutsaert et al., 2013). In contrast to our findings however, Regan et al. (2016) interviewed a similar sample of food system actors from Ireland in 2011 regarding social media use and found different results regarding the diversity of uses, and in particular the value placed on two-way communication. This highlights one potential explanation for the differences in regions noted in this study, namely that of the time elapsed between Study 1 and Study 2. Given the rapid growth of social media use within food systems (Rutsaert et al., 2013, Treem and Leonardi, 2013), it is possible that the four year interval between Study 2 and that completed by Regan et al. (2016), and the three year interlude between Studies 1 and 2 resulted in global advancements in social media use that are reflected in these data. Nonetheless, the more mature use of social media reported by the IOI actors in this study is likely to have positive impacts on consumer trust through enhancing both transparency through rapid delivery of risk information, while also improving information accuracy and use of credible information sources (Jacob et al., 2011, Rutsaert et al., 2013, Wilson et al., 2016). As such, these findings provide a useful outline of strategies for the greater incorporation and exploitation of the advantages of social media by Australian and NZ food system media, regulators and industry, and potentially those from other regional food systems not studied here. However, given the identified disadvantages (e.g. potential risks for spoiled public image), more research is needed to identify how to appropriate engage in social media that will lead to more benefit than harm.

Regulatory actors' attitudes towards industry-regulator relationships also differed notably across the regions. NZ and IOI regulatory actors discussed the benefits of collaborating with and assisting industry to implement regulatory requirements. UK regulatory actors however were explicit that this is not within the remit of regulators. Two characteristics of these different regions likely explain these contrasting attitudes. First, the UK actor sensitivity to this issue may be related to the dramatic reorganisation of responsibility within the UK food system following the BSE crisis (Houghton et al., 2008). Central to these system changes was a push to increase industry accountability for food safety (Hobbs et al., 2002, Houghton et al., 2008); therefore it is unsurprising that UK regulators express this position with acuity. Second, the IOI is geographically isolated, and both the IOI and NZ are socially smaller than the UK, facilitating more personal industry-regulator relationships, and therefore more cooperation from a regulatory perspective.

Again a number of IOI media actors differed from their Australian and UK counterparts in their expressed duty to assist food actors in disseminating information about changed practices in the wake of food incidents. This position was starkly different from the Australian and UK actors' perspectives, which were that these issues are not immediately newsworthy, and potentially create a perception of the media as uncritically accepting, or being the mouthpiece for, the food system agenda. Again this is consistent with previous research in other areas of public health crises (Hooker et al., 2012), and reflects a different prioritisation of the professional journalistic ideals of providing fair journalism while also maintaining autonomy, freedom and independence (Deuze, 2005, Örnebring, 2013). These diverse prioritisations no doubt reflect differences in the media environments, history, and critique of food incident management by the media in the different regions studied. As such, the consumer trust response to these different approaches too is likely to be regionally contextual (van Dijk et al., 2008). Nonetheless, careful reporting of improvements within food systems in response to food incidents is likely to contribute to consumer belief in both food system actor integrity and competence, resulting in trust rebuilding (Barber, 1983, Cope et al., 2010).

Some methodological issues limit the comparisons that can be made here. The roles of the participants recruited in Study 1 and Study 2 ensure broad comparison of the different actor groups as presented in this study are appropriate, however detailed exploration within each role type is not possible as a greater variety of actor types were interviewed in Study 2, including more public relations personnel. Despite this, the replication of the robust methods of Study 1 and the analysis from the same team of researchers provides confidence in this international comparison study. Additionally, the large study samples in both studies, the diversity in actor roles, and contrasting regional sizes and food incident histories enable nuances in practices to be exposed and exploited to global benefit. As mentioned previously, what might be considered a food incident is rapidly evolving due to the globalisation of food chains and information asymmetry inherent in food procurement, yet in this study an uncritical definition of a food incident was used. This reflects the definition of food incident in food regulatory authorities at the time, but if participants had been encouraged to consider cases of food fraud and other non-health related incidents they may have provided additional perspectives. Finally, the international collaboration inherent in the project design fosters shared learning and capacity building across regions, initiating international relationships that will facilitate future partnerships to support consumer trust in food across regions.

Consumer trust in food is fundamental to the effective operation of global food systems. This international comparison study provides insights regarding key focal points for trust (re)building, maintenance and repair before, during and following a food incident. While there are many similarities in the approaches taken to trust by food system actors internationally this paper outlines opportunities for the regions studied to learn from each other when looking for practical strategies to maximise consumer trust in the food system. It therefore also demonstrates the value of international comparison. While the different approaches are likely to be appropriate given the specific regulatory and social environments of the respective regions, in terms of the impact of each approach on consumer trust there may be things that each region can learn from the other. As such, further research exploring how each approach plays out in a food incident scenario and therefore

impacts consumer trust in food would be of value, in addition to regulatory organisations from the different regions forging relationships to share perspectives.

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