



Whistleblowing as a countermeasure strategy against food crime

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Purpose: The aim of this research was to undertake a two-phase desktop review of literature sources in order to conceptualise, frame, and critique existing whistleblowing models and strategies and consider how whistleblowing strategies form part of an effective food crime management system (FCMS) especially for small and medium sized organisations.

Design: Existing literature from academic sources, financial, healthcare, food industries has been reviewed and critiqued in order to construct a conceptual framework that can inform future empirical research.

Findings: Whistleblowing strategies can form an effective part of a FCMS. Appropriate regulatory protection of those who whistleblow is crucial to not only safeguard individuals but also to mitigate food crime and protect consumers from loss and potential harm. Barriers to whistleblowing exist and if these are not addressed then individuals will be reluctant to report food crime. Further empirical research is required to assess the influence of these and other factors identified in this research and how they can be overcome.

Originality / Value: The framework will provide food industry practitioners with guidance on the effective application of whistleblowing strategies within a FCMS

Keywords food, crime, countermeasure, whistleblowing, consumer protection, vulnerability

1. Introduction

Whistleblowing can be a mode of ethical resistance (Glazer and Glazer, 1989); a vehicle to promote rights through movements such as consumer issues (Greenwood, 2015); or a process to give a voice to animal rights and environmental concerns with regard to an organisation's practices. Whistleblowers are seen as either individuals who undertake heroic and noble deeds; or as malcontent, trouble-makers and misfits for exposing wrongdoing (Zakaria, 2015). The term 'whistleblow' was coined by Nader *et al.*, (1972) as disclosure by organisational members of illegal, immoral, or illegitimate practices that are executed under

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3 27 the control of their employers, to persons or organisations that may be able to effect action as
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5 28 a result of that disclosure (Miceli and Near, 1984; 1985; Near and Miceli, 1995; Near and
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7 29 Miceli, 2016). Publically Available Specification (PAS) 1998 (2008:9) Whistleblowing
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9 30 arrangements: Code of practice defines a whistleblowing concern as a “reasonable and honest
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11 31 suspicion an employee has about a possible fraud, danger or other serious risk that threatens
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13 32 customers, colleagues, shareholders, the public or the organisation’s own reputation”.

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16 33 The authoritative individual that whistleblowers disclose to can be either *internal* to
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18 34 the organisation: e.g. a supervisor (Soeken, 2014), manager (Miller, 2015; The Economist,
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20 35 2015), or someone in the direct chain of command, or *external* such as regulatory officers or
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22 36 independent supervisory bodies, inspectors, auditors, the police, MPs, consumer/citizen
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24 37 groups, undercover reporters (Evans, 2014; Tang and Babich, 2014) or the media (Harris and
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26 38 Barrett, 2009; PAS 1998, 2008). The Ethics Resource Centre (2012) report that 84% of
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28 39 private sector employees stated they would report any wrongdoing internally, but only 18%
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30 40 would report to external parties. Whistleblowing is the only means of uncovering illicit
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32 41 practices instigated or condoned by senior management (Moy, 2015). Organisations benefit
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34 42 from early internal detection and prevention of criminal practices, so it is in their interest to
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36 43 facilitate this means of detecting, preventing or mitigating criminal activity. Further
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38 44 appropriate risk management with regard to criminal practice will deter potential food safety
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40 45 issues, product recall, profit loss, and will maintain integrity, reputation, trust and brand value
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42 46 for the organisation.

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45 47 Organisations can implement a range of measures to reduce risk associated with
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47 48 criminal behaviour, such as implementing additional or upgrading existing procedures. The
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49 49 costs of a missed opportunity to address a criminal threat can be great: fines, requests for
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51 50 compensation, higher insurance premiums, a regulatory investigation, lost jobs, lost profits
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53 51 and even lost lives (PAS 1998:2008). External parties including regulators can benefit too
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3 52 from saved resources to investigate illicit activities, prosecution and public services costs.
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5 53 The positive consequences of whistleblowing have been synthesized (Figure 1).
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54 **Take in Figure 1**

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56 The aim of this research was to undertake a two-phase desktop review of literature
57 sources in order to conceptualise, frame, critique existing whistleblowing strategies and to
58 consider how whistleblowing strategies could be integrated within an effective food crime
59 management system (FCMS). The scope of the review included peer-reviewed articles, trade
60 publications and online news items. Regulatory sources were reviewed to provide examples
61 of legislative frameworks adopted to provide protection to whistleblowers. The second phase
62 of the review included analysis of literature sources to provide an evidence base for historic
63 examples of disclosure of criminal activity in the food chain and to critique the context in
64 which they had occurred. This analytical approach led to a preliminary conceptual
65 characterisation of whistleblowers and the factors that influence them. Lastly, the value of
66 whistleblowing strategies in the food sector was considered and critiqued. In this context food
67 crime has a wide focus and illegal activity can span food safety and food quality issues as
68 equally as illicit activity and behaviour. The aim of this paper is not to contextualise what
69 constitutes food crime specifically, but to look at the use of formal whistleblowing strategies
70 within a FCMS to mitigate and, where possible prevent, illegal activity. If the food industry
71 wants to effectively counter illicit and illegal practice, it must proactively ensure that internal
72 reporting channels are available for staff. If these protocols do not exist, there is increased risk
73 that external channels will be used to disclose wrongdoing and prevent an organisation from
74 rectifying the problem internally first (Near and Miceli, 1985). This highlights the importance
75 of whistleblowing as a management control mechanism to identify, mitigate and where

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3 76 possible deter wrongdoing. The next section of the paper focuses on examples of
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5 77 whistleblowing in the food industry.
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7 78 **2. Whistleblowing and whistleblowers**

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10 79 Previous studies of whistleblowing mostly involve corporate or public sector
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12 80 malpractice such as corruption (Schultz and Harutyunyan, 2015), police agencies (Park and
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14 81 Blenkinsopp, 2009; Rothwell and Baldwin, 2006), accounting and financial reporting (Hwang
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16 82 *et al.*, 2008, 2013), auditing (Alleyne *et al.*, 2013; Arnold and Ponemon, 1991; Brennan and
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18 83 Kelly, 2007; Maroun and Solomon, 2014), government agencies (Cho and Song, 2015), and
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20 84 healthcare (Philipsen and Soeken, 2011). Within the health setting, McDonald and Ahern
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22 85 (2000) reported that health workers who reported misconduct were subjected to severe official
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24 86 reprisals including demotion, reprimand and referral to a psychiatrist. There were also
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26 87 instances of individuals experiencing threats, rejection by peers, pressure to resign and being
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28 88 treated as a traitor, or experiencing a lack of progression in their career. Hwang *et al.*, (2008,
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30 89 2013) assert that personal relationships, fear of retaliation and also media coverage discourage
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32 90 whistleblowing in Chinese society. Vinten (1996) associated the act of whistleblowing to a
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34 91 “bee-sting phenomenon” suggesting the approach can only be used once, before the act itself
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36 92 jeopardises the career of the whistleblower. Thus it is a high-stakes action and the potential
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38 93 consequences post-reporting (both positive and negative) will influence an individual’s
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40 94 decision to either remain silent or to blow the whistle.
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45 95 The PAWC (2013) report “Whistleblowing – The Inside Story” reviewed 1000 cases
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47 96 between August 2009 and December 2010 across all industry sectors. Food and beverage
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49 97 cases represented just 3% of the total cases so the results cannot be critiqued to reflect the
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51 98 food supply chain specifically, however overarching themes associated with whistleblowing
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53 99 can be determined. The whistleblowers’ position was identified as executives (2%),
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55 100 managerial (15%), professional (26%), skilled (27%) unskilled (13%) and administrative
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3 101 (8%). This complies with the conclusions of Miceli *et al.*, (2008) that whistleblowers are
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5 102 more likely to be older, have more experience, work at supervisory levels, with higher pay,
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7 103 and feel a sense of responsibility for reporting wrongdoing, and have greater knowledge of
8
9 104 appropriate internal channels. Whistleblowers can be motivated by moral purposes,
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11 105 professional integrity (Motarjemi, 2014), courage (Zakaria, 2015), internal locus of control
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13 106 (Chiu, 2003) and being proactive (Bjørkelo *et al.*, 2010). Whistleblowers tend to have more
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15 107 positive reactions to their work, be male and belonged to larger work groups (Miceli and
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17 108 Near, 1988) with knowledge of circumstances and the individuals involved in fraudulent
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19 109 practices (Zakaria, 2015). These characteristics highlight the individual or personal factors
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21 110 that encourage whistleblowing a theme drawn upon later in the paper.
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25 111 Wider constructs of organisational culture and subjective norms will influence the
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27 112 intention to whistleblow. Subjective norm is the perceived social pressure to engage, or not in
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29 113 a given behaviour in this case whistleblowing. Alleyne *et al.*, (2013) suggest that norms
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31 114 provide implicit guidelines and team norms are a moderating variable that create legitimate,
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33 115 socially shared standards against which an individual's behaviour is measured (see Chatman
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35 116 and Flynn, 2001). Thus a whistleblower on the one hand can be seen as a member of a team
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37 117 or group who then goes against such team norms and attempts to change improper group
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39 118 behaviour (Miceli and Near, 1984 cited by Greenwood, 2015) or alternatively follows an
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41 119 organisational, team or group culture that welcomes whistleblowing. In previous research, the
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43 120 Theory of Planned Behaviour (TPB) see Fishbein and Ajzen (1975); Ajzen and Fishbein,
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45 121 (1980) and the Theory of Reasoned Action (TRA) see Ajzen (1985; 1991) have been used to
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47 122 study how attitudes and subjective norms affects an individual's behaviour towards food
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49 123 handling, consumption and purchase (Bianchi and Mortimer, 2015; Irianto, 2015; Mullan *et*
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51 124 *al.*, 2015), but not whistleblowing specifically in the food sector and this is worthy of further
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53 125 study and explored further in this paper.
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3 126 Historic whistleblowing cases in the food industry suggest that whistleblowers
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5 127 themselves suffer negative personal consequences including: depression and symptoms of
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7 128 extremely poor mental health (Motarjemi, 2015a; 2015b); altered responsibilities (Dyck *et al.*,
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10 129 2010), refusal of pay increment, lack of peer support (Curtis, 2006), removal from usual
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12 130 duties (Soeken, 2014), loss of employment (Motarjemi, 2014; Motarjemi, 2015a; Philipsen
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14 131 and Soeken, 2011), stigma associated with being a “troublemaker” (Philipsen and Soeken,
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16 132 2011); psychological harassment (Motarjemi, 2015a); resignation under duress (Dyck *et al.*,
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18 133 2010), threats of revenge and isolation (Tan and Ong, 2011), and possibly even murder
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20 134 (Zhuang, 2012). Ponemon (1994) suggest that the nature and extent of the retaliation imposed
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22 135 by the organisation’s management or co-workers against the whistleblower is perhaps the
23
24 136 most significant determinant of a whistleblower’s intention to disclose wrongdoing.
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27 137 Furthermore, if whistleblowers seek personal redress from organisations for the personal
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29 138 consequences of their disclosure, in the event that the case comes to court, corporate bodies if
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31 139 they so choose have significant financial resources to “buy witnesses, delay the legal
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33 140 processes and exert political pressure” leaving the employee in question unable to progress
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35 141 with new employment or to have closure (Motarjemi, 2015a).

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38 142 As part of this research a range of contemporary whistleblowing case studies across
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40 143 the food industry have been drawn together. The cases reflect issues such as potential animal
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42 144 welfare violations, bribery, corruption, and negligence with regard to food safety and food
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44 145 quality issues (Table 1). Disclosure was conducted both internally, and also externally to
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46 146 parties such as regulators or the media.

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49 147 **Take in Table 1**

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54 149 The breadth of the scope of examples shown in Table 1 demonstrates that it is difficult
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56 150 to draw boundaries around, define and contextualize types of illicit behaviour associated with
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3 151 the food chain and that need to be addressed within an organisation's FCMS. Illicit behaviour
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5 152 is not binary in terms of products, activities or actors and often reflects an acceptance of
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7 153 customary illegality i.e. the acceptance and tolerance of illicit activities by predominantly
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9 154 legal economic actors (Gregson and Crang, 2016). Factors that can drive customary illegality
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11 155 including market competition and resource scarcity, inadequate governance, lack of sanctions
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13 156 and low probability of discovery, rapid development of systems, logistics and technology,
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15 157 data swamping and opacity (Charlebois et al. 2016; Manning et al. 2016; Manning, 2016;
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17 158 Marvin et al. 2016). Opacity, even food crime itself, is driven by market dynamics and
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19 159 seeking to survive in market economies with organisations that have better economies of scale
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21 160 or operate as oligopolies (Manning *et al.*, 2016).
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27 162 2. Food crime

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29 163 , Many illicit practices go undetected by both regulatory authorities and senior
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31 164 management in food businesses. Hence, the discovery of such practices often relies on
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33 165 individuals who report wrongdoing. Illicit activities elude formal enumeration and
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35 166 measurement and circumvent institutional systems, regulations and associated enforcement
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37 167 penalties (Feige, 1990). Further, the types of process verification activities undertaken in
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39 168 market-focused second party audits and third party certification audits are constrained by the
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41 169 scope of the system standards used, the planned nature, the time available and the frequency
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43 170 of the audits, and the volume of data to be assessed (Manning, 2013; Manning and Soon,
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45 171 2014). Illicit behaviour in the food supply chain arises as a result of misrepresentation
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49 172 associated with:

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52 173 • **product integrity:** the intrinsic quality attribute of totality or completeness
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54 174 (Manning and Soon, 2014);
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3 175 • **process integrity**: the activities undertaken to produce the food item encompassing
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5 176 the design, assurance, monitoring and verification of processes within the product
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7 177 life-cycle to ensure that they remain authentic and intact, i.e. extrinsic characteristics;
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10 178 • **people integrity**: the honesty and morals exhibited by an individual; and/or
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12 179 • **data integrity**: the consistency and accuracy of data through the food product life-
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14 180 cycle (Manning, 2016)
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17 181 Food **crime prevention measures can utilise** well-established tools such as Six Sigma
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19 182 and **hazard analysis critical control point (HACCP)** methodologies (Moyer *et al.*, 2017),
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21 183 **HACCP being routinely associated with food safety and legality**. Similarly the use of threat
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23 184 analysis critical control point (TACCP) and vulnerability analysis critical control point
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25 185 (VACCP) methodologies such as **Publically Available Specification Guide to Protecting and**
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27 186 **Defending Food and Drink from Deliberate Attack** (PAS 96: 2014) and CARVER+SHOCK
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29 187 have utility in addressing wider food crime. Effective countermeasures within a FCMS reduce
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31 188 criminal opportunity (Spink *et al.*, 2015). Countermeasures can be developed to mitigate risk
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33 189 **associated with food crime and illicit behaviour** with regard to all four elements of food
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35 190 integrity: product, process, people and data. Spink *et al.*, (2016) suggest that crime
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37 191 countermeasures fall into five distinct categories: **detection** i.e. the identification of
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39 192 opportunity, **mapping** of the food chain to identify vulnerabilities or hotspots, **deterrence** by
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41 193 inhibiting opportunity to commit crime, **prevention** through promotion of the robust
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43 194 management systems and **disruption** should crime occur. Indeed there must be a holistic
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45 195 approach whereby detection and deterrence countermeasures operate in consort as elements of
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47 196 a FCMS that includes a product testing programme (Moyer *et al.*, 2017). However, advanced
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49 197 product testing methods **require highly technical laboratory skills and the tests incur**
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51 198 **considerable cost that supply chain pressures may not be able to bear, putting this option**
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53 199 beyond the financial resources also be overcome by strategic, competent and knowledgeable
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3 200 actors, thus unless it is part of a wider integrated FCMS it can be of limited value. Detection,
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5 201 mapping and prevention activities can only be developed to address known issues or activities
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7 202 making TACCP and VACCP also of limited value with regard to emerging and novel illicit
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9 203 behaviour or entrepreneurial, enterprising, situational crime risk that is reactive, responsive
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11 204 and specific to an organisation, the products it produces and the associated supply chain.

14 205 **3. Food crime management**

16 206 Food crime is undertaken by individuals and/or groups with varying criminal and
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18 207 business modus operandi (Manning *et al.*, 2016). FCMS can be both transactional and
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20 208 transformational in nature. Transactional processes focus on the policies, procedures and
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22 209 protocols, often called pre-requisites that drive formal management of food crime and
23
24 210 illegality and minimise risk (Manning *et al.*, 2016). Conversely, transformational processes
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26 211 encompass both formal and informal organisational culture and the role of employees,
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28 212 irrespective of formal responsibilities, in enabling the organisation to maintain legal and
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30 213 ethical practice and to detect, deter and disrupt criminal activity. Transformational elements
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32 214 of a FCMS seek to inspire staff to consider that food legality and compliance is important and
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34 215 to empower them to realise fully their specific role in ensuring compliance. Further
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36 216 employees need to be aware that there is always the potential for emerging or re-emerging
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38 217 crime challenges that must be effectively controlled, or where possible eliminated. Thus
39
40 218 whistleblowing strategies need to be embedded into both the transactional FCMS to ensure
41
42 219 that individuals are aware of the organisation's systems and procedures and also in the
43
44 220 transformational culture. Senior management must demonstrate both through their
45
46 221 commitment to the FCMS in terms of both engagement and appropriate resource allocation
47
48 222 and also in their overseeing of an effective business culture that demonstrates that in a
49
50 223 transparent business such strategies are welcomed and adopted as part of a wider corporate
51
52 224 disclosure discourse. Lamming *et al.*, (2001) determine that there is a spectrum between
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3 225 transparency and opacity proposing that organisations can work in a form of corporate
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5 226 “hinterland” in terms of their selective discourse. Therefore, crime risk increases in this
6
7 227 hinterland where transactional controls do not operate as intended and an informal culture can
8
9 228 not only just exist, but flourish.

10
11 229 Criminal organisations and networks complement and interact with traditional markets
12
13 230 and supply chains reducing transaction costs, and providing increased business opportunities
14
15 231 for both buyers and sellers (Williams, 2001). This entrepreneurial illicit approach (Manning *et*
16
17 232 *al.*, 2016) is in contrast to the regulatory hierarchical mindset, bureaucratic rivalry and
18
19 233 competition, interagency antipathies, and hesitancy to share information, align databases or
20
21 234 coordinate enforcement operations (Williams, 2001). This makes crime mitigation activities
22
23 235 often less agile and reactive than the criminal networks they are seeking to disrupt. Whilst
24
25 236 FCMS are of value, integrated reactive measures such as whistleblowing protocols are
26
27 237 essential too.

238 239 **3. Regulatory response towards protecting whistleblowers**

240 **3.1 European Union**

241 The European Committee on Legal Co-operating (CDCJ) of the Council of Europe
242 developed the Recommendation CM/Rec (2014)7 on the protection of whistleblowers
243 (Council of Europe 2014). Member states are encouraged to develop a robust national
244 framework that facilitates and protects whistleblowers. The Recommendation sets out a
245 number of key principles to ensure that: laws to protect whistleblowers cover a broad range of
246 information that is in the public interest; individuals have access to more than one channel to
247 report and disclose such sensitive information; mechanisms are in place to ensure reports and
248 disclosures are acted upon promptly; whistleblowers are entitled to have their identities kept
249 confidential by those to whom they report; and all forms of retaliation are prohibited as long

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3 250 as the individual whistleblower has reasonable grounds to believe in the accuracy and
4
5 251 credibility of the information.
6

7 252 Four EU member states have advanced whistleblower protection laws including the
8
9 253 United Kingdom (UK), Luxembourg, Romania and Slovenia. Of the other twenty-three EU
10
11 254 member states, sixteen include partial legal protection for whistleblowers in the public and/or
12
13 255 private sectors. For example, in October 2012, Italy included into its Anti-Corruption Law the
14
15 256 country's first ever provision intended to legally protect government employees against
16
17 257 negative implications linked to disclosure acts of wrongdoing. Previously, Italy has no
18
19 258 specific whistleblowing protection laws in place (World Law Group 2012). There were
20
21 259 cultural barriers in Italy where whistleblowing was viewed as treason (Osterhaus and Fagan,
22
23 260 2007) or betrayal (Dungan *et al.* 2015). Efforts by workers' unions in Italy to protect
24
25 261 whistleblowers led to the proposed amendments to Italy's Anti-Corruption Law (G20 Anti-
26
27 262 Corruption Action Plan, 2010). The Italian public sector can report wrongdoing as long as it is
28
29 263 not committed out of defamation or intent to harm a person's right to privacy. The act
30
31 264 however, does not apply to the private sector. There has been a call by Transparency
32
33 265 International Italia for wider protection covering employees in both public and private sectors
34
35 266 (Worth, 2013). In France, a new anti-corruption law was adopted on December 9, 2016 (Law
36
37 267 2016-1691) the so called "Law Sapin II". This strengthened the law with regard to
38
39 268 whistleblowing particularly against discrimination or retaliation against whistleblowers. The
40
41 269 law lays down precise requirements that provide context to whether a whistleblower would be
42
43 270 entitled to protection under the law (WIN, 2017a). The remaining seven countries (i.e.
44
45 271 Bulgaria, Finland, Greece, Lithuania, Portugal, Slovakia and Spain) have limited or no legal
46
47 272 frameworks (Transparency International's Secretariat, 2013).
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53 273 In the UK, the Public Interest Disclosure Act 1998 protected workers from unfair
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55 274 treatment or victimisation from their employer if they reported wrongdoing in the workplace
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3 275 (FSA, 2016a). Employees, who are aware of wrongdoing within the food industry, including
4
5 276 suspecting or witnessing of a breach in welfare of an animal at slaughter, can disclose that
6
7 277 wrongdoing under the protection the Act affords if they raise their concerns in accordance
8
9 278 with the Act's provisions. A given act of disclosure is a qualifying disclosure for
10
11 279 whistleblowing if the worker reasonably believes one or more of the following has occurred:
12
13 280 criminal offence, breach of a legal obligation, miscarriage of justice, danger to the health and
14
15 281 safety of any individual, damage to the environment and deliberate concealment of
16
17 282 information is happening currently, occurred in the past or is likely to happen in the future
18
19
20 283 (FSA, 2016b). In implementing this Act, the UK Food Standards Agency (FSA) has extended
21
22 284 protection to food industry workers, whether or not the information is confidential, and
23
24 285 whether or not the wrongdoing occurred in the UK itself (Motarjemi, 2014).

25
26
27 286 In the aftermath of the 2013 European horsemeat incident, the FSA's National Food
28
29 287 Crime Unit (NFCU) was created as a result of the recommendations in the Elliott Review
30
31 288 (2014) to help ensure that prevention measures are put in place to protect consumers from
32
33 289 food fraud (FSA n.d.). In addition to setting up the Unit, the Elliot Review strongly
34
35 290 recommended firstly that any incident of suspected and known food crime should be reported
36
37 291 directly by staff to their own employers and secondly that customers can report to
38
39 292 management any potential concerns (Elliot Review, 2014). Further there should be
40
41 293 encouragement of a culture within the food industry that questions sourcing in its supply
42
43 294 chain and also wider food integrity. However, the mechanisms that enable whistleblowing
44
45 295 and reporting with the food industry, including regulatory bodies, need developing further.
46
47 296 The whistleblowing procedures and facilities provided by the NFCU enable potential
48
49 297 whistleblowers to disclose confidentially (FSA, 2016a, 2016b) dishonesty at any stage within
50
51 298 the production or supply of food, drink or animal feed (FSA, 2016b). Members of the public
52
53 299 are encouraged to whistleblow or to report suspicions of food fraud to their local authority or
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1
2
3 300 the NFCU (FSA, 2016a). All intelligence received is logged on the Food Fraud Database
4
5 301 (FFD) and the identity of the whistleblower protected at all times. Outcomes are logged on
6
7 302 the Food Fraud Database and if requested reported back to the whistleblower (FSA, 2016a;
8
9 303 IMTA, 2016). Food safety and quality concerns can also be raised via the FSA's "Report a
10
11 304 food problem" site targeted specifically on local food businesses (FSA, 2016c). The UK FFD
12
13 305 serves as an important source of intelligence and a tool to detect emerging patterns of
14
15 306 fraudulent and criminal activities (FSA, 2016a, d). In 2011, there were 54 complaints and in
16
17 307 2012 81 such complaints. **The food fraud team handled 134 cases in 2013 that comprised sale**
18
19 308 **of unfit food (42), general hygiene issues (39), mis-description (13), illegal re-dating of food**
20
21 309 **(7), single cases each of adulteration and authenticity (Elliot Review, 2014).**
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25 310 **3.2 United States**

26
27 311 The United States (US) has one of the most comprehensive whistleblower provisions
28
29 312 developed in relation to the Sarbanes and Oxley Act (SOX) and was passed by the US
30
31 313 congress to protect general public and shareholders from fraudulent practices in financial
32
33 314 markets (Sarbanes-Oxley Act, 2002; Schultz and Harutyunyan, 2015). Under the US Food
34
35 315 and Drug Administration (FDA), the Food Safety Modernization Act (FSMA, 2011) Section
36
37 316 402 prohibit retaliation by food businesses against whistleblowers who have: provided
38
39 317 information relating to any violation of the Food, Drug and Cosmetic Act (FD&C) to the
40
41 318 employer, the Federal Government, or the attorney general of a State; testified, assisted, or
42
43 319 participated in a proceeding concerning a violation of the FD&C or; objected to or refused to
44
45 320 participate in any activity that he or she reasonably believed to be in violation of the FD&C
46
47 321 (FSMA, 2011; Moy, 2015; OSHA, 2014). This regulation has driven the development of
48
49 322 whistleblowing procedures to comply with the US Sarbanes-Oxley Act (Osterhaus and Fagan,
50
51 323 2007).

52 324 **3.3 Serbia**

1
2
3 325 On 25 November 2014, the Parliament of Serbia adopted the Law on the Protection of
4
5 326 Whistleblowers, the law coming into force in June 2015 (WIN, 2017b). The legislation
6
7 327 clearly describes the act of whistleblowing, the rights and entitlements to protection not only
8
9 328 of the whistleblower themselves, but also the officials who are then required to perform a duty
10
11 329 to investigate. Indeed every employer with more than ten employees by law is required to
12
13 330 endorse an internal whistleblowing procedure. The procedure must be in a visible, accessible
14
15 331 location for all employees and it must also be posted on the company website if the company
16
17 332 has one. Fines can be imposed if businesses fail to undertake this requirement. There are also
18
19 333 strict timings set for competent authorities to adhere to in the event of external disclosure of
20
21 334 wrongdoing.
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27 28 336 **4. Market response towards protecting whistleblowers**

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30 337 The UK Department of Business, Innovation and Skills (BIS) issued a report in March
31
32 338 2015 titled “Whistleblowing: Guidance for Employers and Code of Practice (BIS, 2015). The
33
34 339 report states that whilst a voluntary requirement it is good business practice to create an open,
35
36 340 transparent and safe working environment through implementing a whistleblowing policy in
37
38 341 the workplace. Depending on the nature and size of the business, PAS 1998 (2008) outlines
39
40 342 that overall responsibility for enabling whistleblowing should rest with either the Board,
41
42 343 Chief Executive, Group Secretary, with routine responsibility falling to the human resources
43
44 344 department. In a small food business with both strategic and operational roles filled by one or
45
46 345 two individuals this could prove more difficult to disassociate.
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50 346 In this research the development of whistleblowing policies as a market response has
51
52 347 been considered with three cases using publically available policies for Associated British
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54 348 Foods (ABF) plc, Home Retail Group (HRG) plc, and Tesco plc. ABF (2016) state that the
55
56 349 purpose of their voluntary whistleblowing policy is to protect individuals working within their
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2
3 350 organisation when raising matters of public interest to stop malpractice and wrongdoing. The
4
5 351 organisation outlines a five step plan:

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7 352
- **Step 1:** Inform manager or head of department;
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9 353
- **Step 2:** raise the matter with alternative internal contacts if unable to raise with line
- 10
11 354 manager;
- 12
13 355
- **Step 3:** Initial assessment and determination of corporate action; and
- 14
15 356
- **Step 4:** Opportunity if response/outcome is not deemed sufficient to raise the matter
- 16
17 357 with others internally.
- 18
19 358
- **Step 5:** If steps 1 to 4 cannot be followed then contact external confidential
- 20
21 359 whistleblowing hotline Expolink.

22
23 360 Expolink are a privately owned organisation, founded in 1995, that specialise in providing
24
25 361 whistleblowing hotlines supporting over 20% of FTSE 100 companies, many FTSE 250 and
26
27 362 Fortune 500 companies, local authorities, government departments, police forces and multi-
28
29 363 national corporations (Expolink, 2016a). Expolink (2016b) report that 3.3 million employees
30
31 364 made contact in the January-June 2016 period with an incidence rate of 1.24 reports per 1000
32
33 365 employees from a range of organisations. Fifty three percent of the reports were anonymous,
34
35 366 with seventy percent made by telephone. The issues raised by order of frequency were:
36
37 367 malpractice (9.9%), fraud (5.1%), theft (3.7%), security (1.6%), corruption (1.3%), other
38
39 368 (78.4%). The frequency of theft and fraud from 2009 – 2016 (Table 2) shows a reporting
40
41 369 frequency of 10% in 2009 down to 3.7% of contacts in 2016 and for fraud a reporting
42
43 370 frequency of 8% in 2009 down to 5% in 2016.

44
45 371 **Take in Table 2**

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49 373 HRG (2016) also has a five step approach for raising issues:

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51 374
- **Step 1:** Raise with line manager;
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3 375 • **Step 2:** Raise with line manager's manager either as a first contact or if individual
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5 376 raising issue is unhappy with the initial response in Step 1;
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7 377 • **Step 3:** Raise at Director level if these two steps have not given the response to the
8
9 378 individuals satisfaction;
10
11 379 • **Step 4:** Internal enquiry or more formal investigation; and
12
13
14 380 • **Step 5:** Formal arrangements for a third party legal advice organisation in this case
15
16 381 Public Concern at Work (PCAW). This organisation can give advice on external
17
18 382 disclosure. PCAW are a charity established in 1993 (PCAW, 2016).

20
21 383 The Whistleblowing Tesco Colleague and Suppliers Protector Line Policy outlines how
22
23 384 Protector Line, a confidential telephone and email service, operates for both internal and
24
25 385 external stakeholders (Tesco, 2016). Suppliers can report concerns on a website that is
26
27 386 managed by Expolink. Thus all three organisations have similar reporting systems using a
28
29 387 specific external contractor to address whistleblowing that is either not raised internally, or
30
31 388 has been raised but not addressed to the satisfaction of the person raising the concerned. It is
32
33 389 **important in all these cases to differentiate between an employment** grievance and an instance
34
35 390 of whistleblowing. PAS 1998:2008 states that an employment grievance is a dispute or
36
37 391 private complaint regarding the employee's own employment position and therefore it has no
38
39 392 additional public interest dimension. **These cases show that a** positive whistleblowing culture
40
41 393 and environment associated with an ethical culture practiced by the organisation encourages
42
43 394 staff to have strong conscience to report wrongdoing (Miceli *et al.*, 2008; Mendonca, 2011).
44
45 395 Depending on national culture, some societies fear shame but not necessarily guilt (e.g. China
46
47 396 is a shame-based society), hence shame can be used as an effective mechanism to enforce
48
49 397 staff compliance (Tang and Babich, 2014). In contrast, a culture with supportive supervisors,
50
51 398 appropriate formal structures for reporting (Brennan and Kelly, 2007) and protection afforded
52
53 399 to whistleblowers (Cho and Song, 2015; Zakaria, 2015) will drive whistleblowers to report
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3 400 wrongdoing. The challenge with purely voluntary governance measures, rather than the
4
5 401 Serbian approach, that each organisation will develop their own discrete protocols that can
6
7 402 vary in their degree of efficacy. Thus personal (individual), organisational/cultural and
8
9 403 situational factors (Dungan *et al.* 2015). are now explored further in the paper.
10

11 404

14 405 **5. Whistleblowing models**

16 406 A number of whistleblowing models exist in the literature that have been designed to address
17
18 407 mainly corporate fraud in the financial, business and public sectors but none specifically for
19
20 408 food industry. These have been analysed within this research (Table 3). The models often
21
22 409 reflect individual (Henik, 2015), organisational (Alleyne *et al.*, 2013; Brennan and Kelly,
23
24 410 2007) and cultural factors (Hwang *et al.*, 2008). Although many studies have applied the TRA
25
26 411 and TPB to food and food service sectors, little research has dealt with their application to
27
28 412 whistleblowing. Table 3 then provides the context for the potential application within a food
29
30 413 production or supply chain setting. Henik (2015 citing Goldberg *et al.*, 1999) describes three
31
32 414 types of whistleblower: (i) the strategic moral guardian (SMG); (ii) the fed-up vigilante
33
34 415 (FUV) and (iii) the inactive individual called in this research as the servant of two masters
35
36 416 (STM) see Table 4.

41 417 **Take in Tables 3 and 4**

42 418

45 419 Henik (2015) draws upon existing theory to discuss a five-stage whistleblowing model
46
47 420 around which organisational whistleblowing strategies, such as those described in this paper
48
49 421 for ABF and HRG, can be developed.

52 422 **Stage 1 – A trigger event**

54 423 A trigger event is as an event that is deemed by an individual or group to be
55
56 424 problematic (Henik, 2015). Factors that can trigger whistleblowing include internal
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3 425 motivation (Schultz and Harutyunyan, 2015), personal responsibility (Hwang *et al.*, 2008,
4
5 426 2013), seriousness of wrongdoing (Graham, 1986; Curtis, 2006) and loyalty towards the
6
7 427 company (Dungan *et al.*, 2015) see Table 3. An individual trigger may be clear in terms of its
8
9 428 legality or the trigger may be opaque creating uncertainty as to whether to raise the issue with
10
11 429 others (PAWC, 2013). □

14 430 **Stage 2 – Determining of appropriate action**

16 431 The whistleblower may be concerned whether complicity means that they themselves
17
18 432 may face sanction and this may limit action. PAWC (2013) identify in their study that in only
19
20 433 8% of the cases they examined the whistleblower admitted that they have been involved in the
21
22 434 issue themselves. Other factors that affect willingness to take action are fear of reprisal or
23
24 435 retaliation, being unsure whether the activities warrant action, uncertainty over what action is
25
26 436 possible and appropriate and the opportunity cost versus the benefit or having little faith that
27
28 437 any corrective action will be done (PAWC, 2013; Henik, 2015 citing March and Simon, 1958;
29
30 438 Latané and Darley, 1970; Miceli and Near, 1992). However, Henik (2015) argues it is
31
32 439 emotion and value conflict that actually motivates action or inaction. Stage 2 is a crucial stage
33
34 440 in the whistleblowing process as individual, organisational and situational factors play a
35
36 441 mediating role in encouraging or discouraging potential whistleblowers.

40 442 **Stage 3 – Action of whistleblowing**

42 443 PAWC (2013) suggest that a whistleblower's position in an organisation will be a
43
44 444 factor that influences the route they follow to raise their concern. The group of workers they
45
46 445 identified as less likely to approach their line manager or senior management was unskilled
47
48 446 workers. In fact their study suggested that unskilled and skilled workers were more likely to
49
50 447 approach the individual(s) who they thought was the wrongdoer or disclose to an independent
51
52 448 body rather than other workers, or finally a regulatory body. This highlights if people are to
53
54 449 come forward with concerns that as well as transactional structure in the FCMS,
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2
3 450 transformational elements such as an open culture, training and coaching are required.
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5 451 Administrative workers were more likely to approach senior management or a union
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7 452 representative through and use the employment grievance procedure rather than follow a
8
9 453 whistleblowing process or a specialist channel. This may be due to the type of trigger that
10
11 454 they were reporting, or greater awareness of policy and practice, but they were reticent about
12
13 455 approaching their line manager. Managers and executives were more likely to raise their
14
15 456 concern initially to senior management and also more likely to approach the media.
16
17 457 Ultimately, in order to prevent or reduce loss of profit, reputation and trust with customers,
18
19 458 the food industry should aim to resolve the problems internally whilst ensuring confidentiality
20
21 459 for the whistleblowers.
22
23

24 25 460 **Stage 4 – Organisational reaction to action**

26
27 461 PAWC (2013) state that from their dataset whistleblowers felt that no action was taken after
28
29 462 the first attempt of internal disclosure in 74% of cases and this rose to 80% when it was
30
31 463 unskilled workers who were making the disclosure. At the third attempt in 44% of cases
32
33 464 whistleblowers felt there was no organisational reaction; this was zero cases at executive
34
35 465 level, but still 80% for unskilled workers. The work of Henik (2015) shows that the
36
37 466 organisation needs to make sure that they do not alienate the individuals who seek to disclose
38
39 467 potential wrongdoing especially as this can then provide personal motivation for justice and
40
41 468 restitution. Ensuring there is full confidence in the management process surrounding
42
43 469 whistleblowing is critical.
44
45

46 47 470 **Stage 5 – Whistleblowers response**

48
49 471 The whistleblowers who actively report on wrongdoing are the SMG or FUV (see
50
51 472 Table 4 for definitions). Inaction can be due to conflicting emotions and values. Therefore, a
52
53 473 FCMS encompassing both transformational and transactional approaches will be beneficial to
54
55 474 encourage the STM to act. Henik (2015) asserts that a differentiation of emotion will
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1
2
3 475 influence the methods and aims of a given whistleblowing disclosure and the whistleblowers
4
5 476 response and whilst SMG retain their focus on halting wrongful activities, FUV will focus on
6
7 477 the desire for restitution. The causal factors that underpin the five steps outlined above and
8
9 478 their interrelationship with an associated FCMS have been conceptualised in Table 5 and
10
11 479 represented visually in Figure 2. Understanding these factors will assist food industry
12
13 480 practitioners and regulators to develop policies, guidance and best practice. These
14
15 481 transactional and transformational elements are now explored.

16
17
18 482 **Take in Table 5 and Figure 2**

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20
21 483 Adoption of crime countermeasures is based unique assessment by each organisation,
22
23 484 the organisation's risk appetite and the unique crime opportunity of the given supply system
24
25 485 (Spink *et al.*, 2016). These countermeasures then need to be integrated into an effective
26
27 486 FCMS. Countermeasures are intended to reduce criminal opportunity so if appropriate
28
29 487 countermeasure strategies are to be developed and adopted then it is important to establish
30
31 488 both the type of crime and the typology of the criminal (Manning, 2016; Manning *et al.*,
32
33 489 2016; Spink *et al.*, 2015). Organisations should as part of this approach recognise and
34
35 490 accommodate effective whistleblowing channels. Failure to do so could lead to what
36
37 491 Motarjemi (2015a) describes as "wild whistleblowing" i.e. extra-legal or illegal approaches to
38
39 492 reporting or disclosing information through internet "leaking" type approaches. Further, a
40
41 493 condoning of negative behaviour towards whistleblowers leads to a repressive, unhealthy
42
43 494 management culture (Motarjemi, 2015b) that ultimately will stifle employee loyalty, and the
44
45 495 potential for innovation, creativity and new ideas within the organisation.

46
47
48 496 Loehr and Kaye (2011) have proposed the use of the 5 C's framework in order to
49
50 497 encourage and build a loyal and committed workforce. This can be extended to consider the
51
52 498 integration of a whistleblowing strategy within a FCMS. The five "C's have been adapted in
53
54 499 this context:

- 1
2
3 500 • **Commit** to employees' professional growth and success so that they feel personally
4
5 501 invested in by the organisation and then as a result less likely to be compelled to
6
7 502 commit food crime;
8
9
10 503 • **Communicate** the organisational culture that is needed to minimise the potential for
11
12 504 food crime to all levels of staff and in the context that they will understand;
13
14 505 • **Clarify** organisational goals in terms of legality, product and personal integrity and
15
16 506 their role in helping to achieve them;
17
18 507 • **Coach** through providing appropriate and continuous training for employees so they
19
20 508 feel empowered to support the organisation and ensuring the products and services are
21
22 509 legally compliant and if necessary disclose with regard to wrongdoing; and
23
24
25 510 • **Create** accountability through a formal yet dynamic and reactive system that has
26
27 511 appropriate communication channels and assists employees to deliver their roles and
28
29 512 commitments at all levels of the organisation.

30
31
32 513 The 5 Cs demonstrate the transformational infrastructure that needs to be in place to underpin
33
34 514 the FCMS. A cultural shift towards an encouraging, and supportive environment for
35
36 515 whistleblowing can provide a source of intelligence that can help organisations to prevent
37
38 516 potential public health implications, loss of profit and protect the reputation of company. In
39
40 517 the development and implementation of a FCMS, small and medium sized food companies
41
42 518 may not have the resources and knowledge necessary to carry out risk assessments using tools
43
44 519 such as VACCP or TACCP, but with appropriate industry guidance they can more readily
45
46 520 implement a whistleblowing protocol within their organisation and with their suppliers.

47
48 521 With **appropriate induction and refresher training**, and ongoing coaching an
49
50 522 effective, and reactive FCMS can be developed which is appropriate to the **situational** needs
51
52 523 of every business. Indeed PAS 1998:2008 states that where the business is small and everyone
53
54 524 is known by name, transformational management processes may be strong enough so that a

1
2
3 525 complicated written protocol is not required, instead a simple statement will be of value to
4
5 526 that simply explains: the difference between whistleblowing and a private complaint with
6
7 527 management; how an employee can make an external disclosure and the benefits of an
8
9 528 independent helpline that facilitates the disclosure process; that whistleblowing is not a
10
11 529 mechanism for undermining managers; and the challenges with maintaining confidentiality.
12
13

14 530

15 16 531 **6. Concluding remarks**

17
18 532 Whistleblowing exposes illegal, inappropriate and fraudulent practices with the goal that
19
20 533 private and/or public exposure will force change. Many of these criminal practices go
21
22 534 undetected by regulatory authorities and at times senior management of an **organisation**.
23
24 535 Conventional behavioural models such as TRA and TPB can be extended to include
25
26 536 individual, organisational, cultural and situational factors to study whistleblowing intention
27
28 537 among food production workers and this has been the approach used in this conceptual paper
29
30 538 in developing **Figure 2**. Greater understanding **not only the forward process, but also the**
31
32 539 **feedback loops, and the situational** factors of influence will **assist** food industry practitioners
33
34 540 **in developing effective FCMS that include a whistleblowing strategy**. Therefore appropriate
35
36 541 regulatory protection of those who engage in whistleblowing activities is crucial to both
37
38 542 mitigate food crime and protect consumers from loss and potential harm. **Without considering**
39
40 543 **the specific difficulties that arise and addressing the existing barriers to whistleblowing it is**
41
42 544 **unlikely that the whistleblowing can become an effective strategy for addressing food crime.**
43
44 545 **Therefore further empirical research is required to assess the influence of these barriers and**
45
46 546 **how they can be overcome. The model in this paper provides opportunity for such primary**
47
48 547 **research.**
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991 **Table 1. Examples of whistleblowing incidents in the food industry**

Year	Description of whistleblower	Internal Whistleblower (WB)	External (Official) WB	External (Media) WB	Description	Outcome	References
2006 ongoing	Food safety manager of Nestle	Reported there was an inadequate process in validating the nutrient content of infant formula biscuits that could result in babies choking and incorrectly labelled packaging.			Request for audit of her department was turned down. The former food safety manager is claiming \$2million compensation plus an allowance for lost earnings.	Claims of acts of reprisal including being 'treated like a child' and being humiliated. Both the former food safety manager and Nestle failed to agree on a settlement and the case went to trial.	Miller (2015); The Economist (2015)
2008	Manager at Peanut Corporation of America (PCA) (Texas processing plant)	Report to the Chief Executive Officer (CEO) of PCA about rodent infestation and leaky roof. The CEO did not respond to the manager.	Manager then reported to Texas Department of Health, and did not receive response. Subsequently, Texas authorities searched their database but found no record of emails from the manager.	The manager finally whistleblow to Safe Tables Our Priority (STOP) a national health organisation and went on Good Morning America.	The manager was triggered to whistleblow when his/her granddaughter became ill after eating peanut butter crackers.	PCA went bankrupt and on September 2015, the former CEO of PCA was sentenced to 28 years in prison.	Basu (2015); Harris and Barrett (2009); Near and Micelli (2016)
2008	Truck drivers (PCA)			Truck drivers whistleblow to media	Packages of peanut paste burst in truck and were later shovelled up and replaced back in barrels. Shipment was rejected by one Georgia company, but PCA signed for it and accepted the delivery		Harris and Barrett (2009)
2012	Local Chinese TV broadcast			Undercover reporting by media	TV reported that KFC's supplier (Liuhe Group) in China added illegal drugs in chicken feed to accelerate their growth cycles.	KFC's products were boycotted and sales plummeted 25% by early 2013. KFC stopped purchasing chickens from Liuhe Group.	Tang and Babich (2014)

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2014	Local Chinese TV broadcast			Local Chinese broadcast blew the whistle by airing footage of workers conducting fraudulent practices.	TV report showed Shanghai Hushi Food Co. Ltd. workers apparently picking up meat from the factory floor and mixing fresh meat together with expired meat; employees were overheard saying that if their clients knew what they were doing, the firm would lose its contract	McDonald's and Yum Brands Inc. (owner of KFC, Pizza Hut and Taco Bell) stopped using the supplier after the broadcast. The processing plant was sealed and products seized whilst Shanghai Municipal Food and Drug Administration investigated the allegations.	Evans (2014)
2016	Worker in abattoir		Worker secretly filmed more than 170 hours that focused on mistreatment of animals inside an Australian abattoir.		Video sent to animal rights group Animals Australia who forwarded to the regulatory authority, PrimeSafe.	PrimeSafe undertook an investigation, sanctioned the business and requested removal of four staff	Farnsworth (2016)
2017	Government health inspector in abattoir		Government health inspector went to Federal Police in 2014 with concerns over illicit behaviour in a Brazilian slaughterhouse		Alleged inappropriate practices in a slaughter plan. Alleged bribes paid by meat companies to government food-sanitation inspectors.	Undercover investigation launched and in March 2017 over 100 arrests made. Temporary export bans put in place by many countries. Case ongoing	Eisenhammer (2017)

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994 **Table 2 - Expolink – Incidence of issues (Adapted from Expolink, 2014; Expolink, 2016a; Expolink, 2016b)**

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Year	2009	2010	2011	2012	2013	2014	2016
Theft	10%	12%	7%	7%	5%	4%	4%
Fraud	8%	6%	5%	4%	6%	6%	5%
Breach of company policy*	5%	5%	5%	6%	8%	Nr	9%
Unprofessional behaviour*	4%	5%	5%	7%	6%	6%	7%

996 Nr – not reported *may not be illegal

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Table 3. Review of existing whistleblowing models and applicability to food settings

Focus	Model	Description	Potential application in Food Settings	References
Public accounting	The Graham Model –	Greater perceived seriousness of wrongdoing, and personal responsibility and lower perceived personal cost predicted greater whistleblowing intention.	A positive culture (mood) in food processing environment will encourage food production workers to have a greater sense of responsibility hence increased intention to whistleblow. Having procedures in place in the food business to protect the whistleblower and effective training, coaching and mentoring of staff will also increase the likelihood of whistleblowing	Curtis (2006); Graham (1986); Schultz <i>et al.</i> (1993)
Multiple	Fairness-loyalty tradeoff	Individuals who value fairness over loyalty demonstrates increased willingness to report wrongdoings.	Workers are motivated to whistleblow in the service of fairness and justice but can also appear disloyal to colleagues and the teams in which they operate, hence creating a dilemma that affects willingness to take action. This dilemma can be mediated by highlighting internal reporting channels and also ensuring anonymity to protect whistleblowers.	Dungan <i>et al.</i> (2015); Waytz <i>et al.</i> (2013)
Police agencies	Theory of Planned Behaviour (TPB)	Attitudes, subjective norm and perceived behavioural control had positive effects on internal whistleblowing intentions.	Park and Blenkinsopp (2009) supported the relevance of TPB in whistleblowing intention. TBP is used as the basis of understanding and enabling whistleblowing intention among food production workers by influencing perceptions and thus attitude, subjective norm and perceived behavioural control..	Park and Blenkinsopp (2009); Rothwell and Baldwin (2006) Ajzen (1985, 1991)
Multiple	Theory of Reasoned Action (TRA)	Prediction of intention through beliefs, attitude and subjective norms.	TRA can be used to predict food workers' intent to blow the whistle.	Ajzen and Fishbein (1980); Fishbein and Ajzen (1975)
Multiple	The Henik model	Model of the factors of influence in the whistleblowing decision making process through characterisation of potential whistleblowers into strategic moral guardians (SMG); fed-up vigilante (FUV) and servant of two masters (STM) via the influence of emotions.	SMG retain their focus on halting wrongful activities, while FUV shift their focus to restitution. Thus, while anger is present in both cases, the goals, targets and methods of a whistleblowing disclosure depend on the source of the anger.	Henik (2015)

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5 1009 **Table 4. Characterisation of actors in the whistleblowing process (Adapted from Henik, 2015; Goldberg *et al.* 1999)**
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Characterisation	Description
Strategic moral guardian (SMG)	Individual who focuses on accountability and results and who are motivated by strong extra-organisational allegiances and emotion (anger) at organisational inaction following their internal reporting. They seek appropriate mechanisms that will limit personal or professional impact.
Fed-up vigilante (FUV)	Individual who is initially motivated to advocate against wrongful activities by strong extra-organisational principles and is driven by revenge and catharsis, justice and restitution. As they may have already suffered retribution they can feel they have nothing left to lose or fear.
Servant of Two Masters (STM)	Individual trying to manage conflicting values of potentially whistleblowing in order to protect victims or report wrongdoing and alternatively taking no action so that they can continue to observe activities but this might bring feelings of shame or regret.

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1013 **Table 5. Causal factors for whistleblowing or to remain silent and associated countermeasures (Adapted from Yeates, 2012)**

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Factors	Action	Inaction	Food Crime Management System	
			Transactional	Transformational
Individual				
Personal characteristics	Moral purpose	Weakness of will	Awareness training during induction; Ongoing and updated training in examples of food crime.	Leading by example.
	Empathy for victims	Empathy for suspected respondent		
Awareness	Loyalty to company and concern over wrongdoer and their impact on the organisation, staff and customers.	Loyalty to wrongdoer who may be difficult to differentiate from the company	Documented and implemented whistleblowing policy with associated audit and verification programme	Encouraging supportive, sense of belonging with a specific focus on team and group culture with common purpose.
	Knowledge of what is illegal, unethical or immoral behaviour	Ignorance or uncertainty about what is illegal, unethical or immoral behaviour		
Duty	Knowledge of reporting procedure	Ignorance or uncertainty of reporting procedure	Sense of duty to report wrongdoing	Belief that others will report the wrongdoing so inaction is acceptable
	Severity of wrongdoing (Near <i>et al.</i> 2004; Caillier, 2016)	Perception that wrongdoing is not significant.		
Situational and Organisational factors				
Consequences	Positive impact e.g. to reduce future wrongdoing	Fear of negative consequences e.g. retaliation to whistleblowers	Protect confidentiality of whistleblower through effective procedures.	Encourage supportive, sense of belonging with a specific focus on organisational culture
	Faith in the system	Lack of faith in system (e.g. employer is perceived to be non-responsive to complaints) (Nitsch <i>et al.</i> , 2005)		

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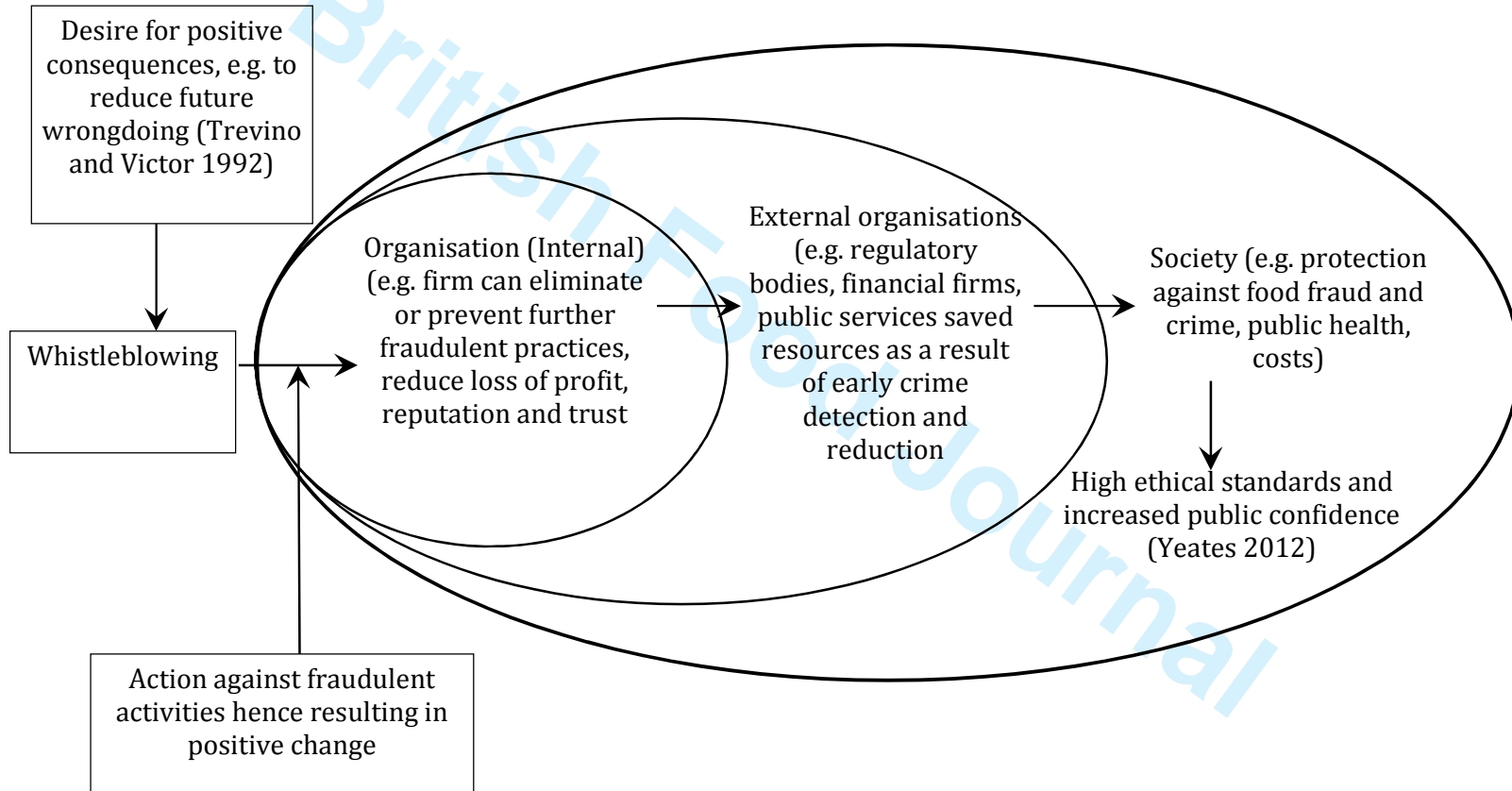


Figure 1. Positive consequences of whistleblowing (Adapted from Bowers *et al.*, 2012)

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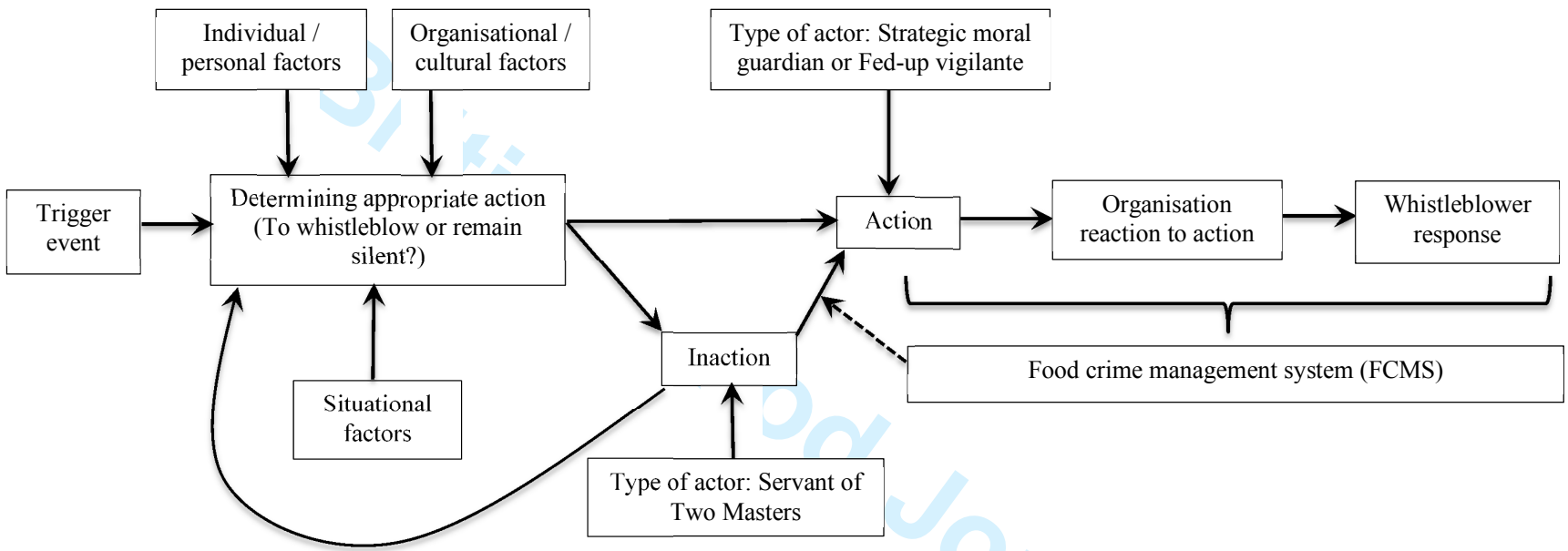


Figure 2. Whistleblowing strategies within the 5 stage whistleblowing model (Adapted from Henik 2015)