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British Food Journal

Whistleblowing as a countermeasure strategy against food crime

Journal:	<i>British Food Journal</i>
Manuscript ID	BFJ-01-2017-0001.R1
Manuscript Type:	General Review
Keywords:	Food, crime, countermeasures, whistleblowing, Consumer Protection

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Manuscripts

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

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

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

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

17 **Keywords** food, crime, countermeasure, whistleblowing, consumer protection,
18 vulnerability

19 **1. Introduction**

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

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

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

Organisations can implement a range of measures to reduce risk associated with criminal behaviour, such as implementing additional or upgrading existing procedures. The costs of a missed opportunity to address a criminal threat can be great: fines, requests for compensation, higher insurance premiums, a regulatory investigation, lost jobs, lost profits and even lost lives (PAS 1998:2008). External parties including regulators can benefit too

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52 from saved resources to investigate illicit activities, prosecution and public services costs.
53 The positive consequences of whistleblowing have been synthesized (Figure 1).

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

possible deter wrongdoing. The next section of the paper focuses on examples of whistleblowing in the food industry.

2. Whistleblowing and whistleblowers

Previous studies of whistleblowing mostly involve corporate or public sector malpractice such as corruption (Schultz and Harutyunyan, 2015), police agencies (Park and Blenkinsopp, 2009; Rothwell and Baldwin, 2006), accounting and financial reporting (Hwang *et al.*, 2008, 2013), auditing (Alleyne *et al.*, 2013; Arnold and Ponemon, 1991; Brennan and Kelly, 2007; Maroun and Solomon, 2014), government agencies (Cho and Song, 2015), and healthcare (Philipsen and Soeken, 2011). Within the health setting, McDonald and Ahern (2000) reported that health workers who reported misconduct were subjected to severe official reprisals including demotion, reprimand and referral to a psychiatrist. There were also instances of individuals experiencing threats, rejection by peers, pressure to resign and being treated as a traitor, or experiencing a lack of progression in their career. Hwang *et al.*, (2008, 2013) assert that personal relationships, fear of retaliation and also media coverage discourage whistleblowing in Chinese society. Vinten (1996) associated the act of whistleblowing to a “bee-sting phenomenon” suggesting the approach can only be used once, before the act itself jeopardises the career of the whistleblower. Thus it is a high-stakes action and the potential consequences post-reporting (both positive and negative) will influence an individual’s decision to either remain silent or to blow the whistle.

The PAWC (2013) report “Whistleblowing – The Inside Story” reviewed 1000 cases between August 2009 and December 2010 across all industry sectors. Food and beverage cases represented just 3% of the total cases so the results cannot be critiqued to reflect the food supply chain specifically, however overarching themes associated with whistleblowing can be determined. The whistleblowers’ position was identified as executives (2%), managerial (15%), professional (26%), skilled (27%) unskilled (13%) and administrative

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(8%). This complies with the conclusions of Miceli *et al.*, (2008) that whistleblowers are more likely to be older, have more experience, work at supervisory levels, with higher pay, and feel a sense of responsibility for reporting wrongdoing, and have greater knowledge of appropriate internal channels. Whistleblowers can be motivated by moral purposes, professional integrity (Motarjemi, 2014), courage (Zakaria, 2015), internal locus of control (Chiu, 2003) and being proactive (Bjørkelo *et al.*, 2010). Whistleblowers tend to have more positive reactions to their work, be male and belonged to larger work groups (Miceli and Near, 1988) with knowledge of circumstances and the individuals involved in fraudulent practices (Zakaria, 2015). These characteristics highlight the individual or personal factors that encourage whistleblowing a theme drawn upon later in the paper.

Wider constructs of organisational culture and subjective norms will influence the intention to whistleblow. Subjective norm is the perceived social pressure to engage, or not in a given behaviour in this case whistleblowing. Alleyne *et al.*, (2013) suggest that norms provide implicit guidelines and team norms are a moderating variable that create legitimate, socially shared standards against which an individual’s behaviour is measured (see Chatman and Flynn, 2001). Thus a whistleblower on the one hand can be seen as a member of a team or group who then goes against such team norms and attempts to change improper group behaviour (Miceli and Near, 1984 cited by Greenwood, 2015) or alternatively follows an organisational, team or group culture that welcomes whistleblowing. In previous research, the Theory of Planned Behaviour (TPB) see Fishbein and Ajzen (1975); Ajzen and Fishbein, (1980) and the Theory of Reasoned Action (TRA) see Ajzen (1985; 1991) have been used to study how attitudes and subjective norms affects an individual’s behaviour towards food handling, consumption and purchase (Bianchi and Mortimer, 2015; Irianto, 2015; Mullan *et al.*, 2015), but not whistleblowing specifically in the food sector and this is worthy of further study and explored further in this paper.

Historic whistleblowing cases in the food industry suggest that whistleblowers themselves suffer negative personal consequences including: depression and symptoms of extremely poor mental health (Motarjemi, 2015a; 2015b); altered responsibilities (Dyck *et al.*, 2010), refusal of pay increment, lack of peer support (Curtis, 2006), removal from usual duties (Soeken, 2014), loss of employment (Motarjemi, 2014; Motarjemi, 2015a; Philipsen and Soeken, 2011), stigma associated with being a “troublemaker” (Philipsen and Soeken, 2011); psychological harassment (Motarjemi, 2015a); resignation under duress (Dyck *et al.*, 2010), threats of revenge and isolation (Tan and Ong, 2011), and possibly even murder (Zhuang, 2012). Ponemon (1994) suggest that the nature and extent of the retaliation imposed by the organisation’s management or co-workers against the whistleblower is perhaps the most significant determinant of a whistleblower’s intention to disclose wrongdoing. Furthermore, if whistleblowers seek personal redress from organisations for the personal consequences of their disclosure, in the event that the case comes to court, corporate bodies if they so choose have significant financial resources to “buy witnesses, delay the legal processes and exert political pressure” leaving the employee in question unable to progress with new employment or to have closure (Motarjemi, 2015a).

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

Take in Table 1

The breadth of the scope of examples shown in Table 1 demonstrates that it is difficult to draw boundaries around, define and contextualize types of illicit behaviour associated with

the food chain and that need to be addressed within an organisation’s FCMS. Illicit behaviour is not binary in terms of products, activities or actors and often reflects an acceptance of customary illegality i.e. the acceptance and tolerance of illicit activities by predominantly legal economic actors (Gregson and Crang, 2016). Factors that can drive customary illegality including market competition and resource scarcity, inadequate governance, lack of sanctions and low probability of discovery, rapid development of systems, logistics and technology, data swamping and opacity (Charlebois et al. 2016; Manning et al. 2016; Manning, 2016; Marvin et al. 2016). Opacity, even food crime itself, is driven by market dynamics and seeking to survive in market economies with organisations that have better economies of scale or operate as oligopolies (Manning *et al.*, 2016).

2. Food crime

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

- **product integrity:** the intrinsic quality attribute of totality or completeness (Manning and Soon, 2014);

- 175 • **process integrity**: the activities undertaken to produce the food item encompassing
- 176 the design, assurance, monitoring and verification of processes within the product
- 177 life-cycle to ensure that they remain authentic and intact, i.e. extrinsic characteristics;
- 178 • **people integrity**: the honesty and morals exhibited by an individual; and/or
- 179 • **data integrity**: the consistency and accuracy of data through the food product life-
- 180 cycle (Manning, 2016)

181 Food **crime** prevention **measures can utilise** well-established tools such as Six Sigma
182 and **hazard analysis critical control point (HACCP)** methodologies (Moyer *et al.*, 2017),
183 **HACCP being routinely associated with food safety and legality**. Similarly the use of threat
184 analysis critical control point (TACCP) and vulnerability analysis critical control point
185 (VACCP) methodologies such as **Publically Available Specification Guide to Protecting and**
186 **Defending Food and Drink from Deliberate Attack** (PAS 96: 2014) and CARVER+SHOCK
187 have utility in addressing wider food crime. Effective countermeasures within a FCMS reduce
188 criminal opportunity (Spink *et al.*, 2015). Countermeasures can be developed to mitigate risk
189 **associated with food crime and illicit behaviour** with regard to all four elements of food
190 integrity: product, process, people and data. Spink *et al.*, (2016) suggest that crime
191 countermeasures fall into five distinct categories: **detection** i.e. the identification of
192 opportunity, **mapping** of the food chain to identify vulnerabilities or hotspots, **deterrence** by
193 inhibiting opportunity to commit crime, **prevention** through promotion of the robust
194 management systems and **disruption** should crime occur. Indeed there must be a holistic
195 approach whereby detection and deterrence countermeasures operate in consort as elements of
196 a FCMS that includes a product testing programme (Moyer *et al.*, 2017). However, advanced
197 product testing methods **require highly technical laboratory skills and the tests incur**
198 **considerable cost that supply chain pressures may not be able to bear, putting this option**
199 beyond the financial resources also be overcome by strategic, competent and knowledgeable

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actors, thus unless it is part of a wider integrated FCMS it can be of limited value. Detection, mapping and prevention activities can only be developed to address known issues or activities making TACCP and VACCP also of limited value with regard to emerging and novel illicit behaviour or entrepreneurial, enterprising, situational crime risk that is reactive, responsive and specific to an organisation, the products it produces and the associated supply chain.

3. Food crime management

Food crime is undertaken by individuals and/or groups with varying criminal and business modus operandi (Manning *et al.*, 2016). FCMS can be both transactional and transformational in nature. Transactional processes focus on the policies, procedures and protocols, often called pre-requisites that drive formal management of food crime and illegality and minimise risk (Manning *et al.*, 2016). Conversely, transformational processes encompass both formal and informal organisational culture and the role of employees, irrespective of formal responsibilities, in enabling the organisation to maintain legal and ethical practice and to detect, deter and disrupt criminal activity. Transformational elements of a FCMS seek to inspire staff to consider that food legality and compliance is important and to empower them to realise fully their specific role in ensuring compliance. Further employees need to be aware that there is always the potential for emerging or re-emerging crime challenges that must be effectively controlled, or where possible eliminated. Thus whistleblowing strategies need to be embedded into both the transactional FCMS to ensure that individuals are aware of the organisation’s systems and procedures and also in the transformational culture. Senior management must demonstrate both through their commitment to the FCMS in terms of both engagement and appropriate resource allocation and also in their overseeing of an effective business culture that demonstrates that in a transparent business such strategies are welcomed and adopted as part of a wider corporate disclosure discourse. Lamming *et al.*, (2001) determine that there is a spectrum between

transparency and opacity proposing that organisations can work in a form of corporate “hinterland” in terms of their selective discourse. Therefore, crime risk increases in this hinterland where transactional controls do not operate as intended and an informal culture can not only just exist, but flourish.

Criminal organisations and networks complement and interact with traditional markets and supply chains reducing transaction costs, and providing increased business opportunities for both buyers and sellers (Williams, 2001). This entrepreneurial illicit approach (Manning *et al.*, 2016) is in contrast to the regulatory hierarchical mindset, bureaucratic rivalry and competition, interagency antipathies, and hesitancy to share information, align databases or coordinate enforcement operations (Williams, 2001). This makes crime mitigation activities often less agile and reactive than the criminal networks they are seeking to disrupt. Whilst FCMS are of value, integrated reactive measures such as whistleblowing protocols are essential too.

3. Regulatory response towards protecting whistleblowers

3.1 European Union

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

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as the individual whistleblower has reasonable grounds to believe in the accuracy and credibility of the information.

Four EU member states have advanced whistleblower protection laws including the United Kingdom (UK), Luxembourg, Romania and Slovenia. Of the other twenty-three EU member states, sixteen include partial legal protection for whistleblowers in the public and/or private sectors. For example, in October 2012, Italy included into its Anti-Corruption Law the country’s first ever provision intended to legally protect government employees against negative implications linked to disclosure acts of wrongdoing. Previously, Italy has no specific whistleblowing protection laws in place (World Law Group 2012). There were cultural barriers in Italy where whistleblowing was viewed as treason (Osterhaus and Fagan, 2007) or betrayal (Dungan *et al.* 2015). Efforts by workers’ unions in Italy to protect whistleblowers led to the proposed amendments to Italy’s Anti-Corruption Law (G20 Anti-Corruption Action Plan, 2010). The Italian public sector can report wrongdoing as long as it is not committed out of defamation or intent to harm a person’s right to privacy. The act however, does not apply to the private sector. There has been a call by Transparency International Italia for wider protection covering employees in both public and private sectors (Worth, 2013). In France, a new anti-corruption law was adopted on December 9, 2016 (Law 2016-1691) the so called “Law Sapin II”. This strengthened the law with regard to whistleblowing particularly against discrimination or retaliation against whistleblowers. The law lays down precise requirements that provide context to whether a whistleblower would be entitled to protection under the law (WIN, 2017a). The remaining seven countries (i.e. Bulgaria, Finland, Greece, Lithuania, Portugal, Slovakia and Spain) have limited or no legal frameworks (Transparency International’s Secretariat, 2013).

In the UK, the Public Interest Disclosure Act 1998 protected workers from unfair treatment or victimisation from their employer if they reported wrongdoing in the workplace

(FSA, 2016a). Employees, who are aware of wrongdoing within the food industry, including suspecting or witnessing of a breach in welfare of an animal at slaughter, can disclose that wrongdoing under the protection the Act affords if they raise their concerns in accordance with the Act's provisions. A given act of disclosure is a qualifying disclosure for whistleblowing if the worker reasonably believes one or more of the following has occurred: criminal offence, breach of a legal obligation, miscarriage of justice, danger to the health and safety of any individual, damage to the environment and deliberate concealment of information is happening currently, occurred in the past or is likely to happen in the future (FSA, 2016b). In implementing this Act, the UK Food Standards Agency (FSA) has extended protection to food industry workers, whether or not the information is confidential, and whether or not the wrongdoing occurred in the UK itself (Motarjemi, 2014).

In the aftermath of the 2013 European horsemeat incident, the FSA's National Food Crime Unit (NFCU) was created as a result of the recommendations in the Elliott Review (2014) to help ensure that prevention measures are put in place to protect consumers from food fraud (FSA n.d.). In addition to setting up the Unit, the Elliot Review strongly recommended firstly that any incident of suspected and known food crime should be reported directly by staff to their own employers and secondly that customers can report to management any potential concerns (Elliot Review, 2014). Further there should be encouragement of a culture within the food industry that questions sourcing in its supply chain and also wider food integrity. However, the mechanisms that enable whistleblowing and reporting with the food industry, including regulatory bodies, need developing further. The whistleblowing procedures and facilities provided by the NFCU enable potential whistleblowers to disclose confidentially (FSA, 2016a, 2016b) dishonesty at any stage within the production or supply of food, drink or animal feed (FSA, 2016b). Members of the public are encouraged to whistleblow or to report suspicions of food fraud to their local authority or

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the NFCU (FSA, 2016a). All intelligence received is logged on the Food Fraud Database (FFD) and the identity of the whistleblower protected at all times. Outcomes are logged on the Food Fraud Database and if requested reported back to the whistleblower (FSA, 2016a; IMTA, 2016). Food safety and quality concerns can also be raised via the FSA’s “Report a food problem” site targeted specifically on local food businesses (FSA, 2016c). The UK FFD serves as an important source of intelligence and a tool to detect emerging patterns of fraudulent and criminal activities (FSA, 2016a, d). In 2011, there were 54 complaints and in 2012 81 such complaints. The food fraud team handled 134 cases in 2013 that comprised sale of unfit food (42), general hygiene issues (39), mis-description (13), illegal re-dating of food (7), single cases each of adulteration and authenticity (Elliot Review, 2014).

3.2 United States

The United States (US) has one of the most comprehensive whistleblower provisions developed in relation to the Sarbanes and Oxley Act (SOX) and was passed by the US congress to protect general public and shareholders from fraudulent practices in financial markets (Sarbanes-Oxley Act, 2002; Schultz and Harutyunyan, 2015). Under the US Food and Drug Administration (FDA), the Food Safety Modernization Act (FSMA, 2011) Section 402 prohibit retaliation by food businesses against whistleblowers who have: provided information relating to any violation of the Food, Drug and Cosmetic Act (FD&C) to the employer, the Federal Government, or the attorney general of a State; testified, assisted, or participated in a proceeding concerning a violation of the FD&C or; objected to or refused to participate in any activity that he or she reasonably believed to be in violation of the FD&C (FSMA, 2011; Moy, 2015; OSHA, 2014). This regulation has driven the development of whistleblowing procedures to comply with the US Sarbanes-Oxley Act (Osterhaus and Fagan, 2007).

3.3 Serbia

On 25 November 2014, the Parliament of Serbia adopted the Law on the Protection of Whistleblowers, the law coming into force in June 2015 (WIN, 2017b). The legislation clearly describes the act of whistleblowing, the rights and entitlements to protection not only of the whistleblower themselves, but also the officials who are then required to perform a duty to investigate. Indeed every employer with more than ten employees by law is required to endorse an internal whistleblowing procedure. The procedure must be in a visible, accessible location for all employees and it must also be posted on the company website if the company has one. Fines can be imposed if businesses fail to undertake this requirement. There are also strict timings set for competent authorities to adhere to in the event of external disclosure of wrongdoing.

4. Market response towards protecting whistleblowers

The UK Department of Business, Innovation and Skills (BIS) issued a report in March 2015 titled “Whistleblowing: Guidance for Employers and Code of Practice (BIS, 2015). The report states that whilst a voluntary requirement it is good business practice to create an open, transparent and safe working environment through implementing a whistleblowing policy in the workplace. Depending on the nature and size of the business, PAS 1998 (2008) outlines that overall responsibility for enabling whistleblowing should rest with either the Board, Chief Executive, Group Secretary, with routine responsibility falling to the human resources department. In a small food business with both strategic and operational roles filled by one or two individuals this could prove more difficult to disassociate.

In this research the development of whistleblowing policies as a market response has been considered with three cases using publically available policies for Associated British Foods (ABF) plc, Home Retail Group (HRG) plc, and Tesco plc. ABF (2016) state that the purpose of their voluntary whistleblowing policy is to protect individuals working within their

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organisation when raising matters of public interest to stop malpractice and wrongdoing. The organisation outlines a five step plan:

- **Step 1:** Inform manager or head of department;
- **Step 2:** raise the matter with alternative internal contacts if unable to raise with line manager;
- **Step 3:** Initial assessment and determination of corporate action; and
- **Step 4:** Opportunity if response/outcome is not deemed sufficient to raise the matter with others internally.
- **Step 5:** If steps 1 to 4 cannot be followed then contact external confidential whistleblowing hotline Expolink.

Expolink are a privately owned organisation, founded in 1995, that specialise in providing whistleblowing hotlines supporting over 20% of FTSE 100 companies, many FTSE 250 and Fortune 500 companies, local authorities, government departments, police forces and multi-national corporations (Expolink, 2016a). Expolink (2016b) report that 3.3 million employees made contact in the January-June 2016 period with an incidence rate of 1.24 reports per 1000 employees from a range of organisations. Fifty three percent of the reports were anonymous, with seventy percent made by telephone. The issues raised by order of frequency were: malpractice (9.9%), fraud (5.1%), theft (3.7%), security (1.6%), corruption (1.3%), other (78.4%). The frequency of theft and fraud from 2009 – 2016 (Table 2) shows a reporting frequency of 10% in 2009 down to 3.7% of contacts in 2016 and for fraud a reporting frequency of 8% in 2009 down to 5% in 2016.

Take in Table 2

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

- **Step 1:** Raise with line manager;

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

383 The Whistleblowing Tesco Colleague and Suppliers Protector Line Policy outlines how

384 Protector Line, a confidential telephone and email service, operates for both internal and

385 external stakeholders (Tesco, 2016). Suppliers can report concerns on a website that is

386 managed by Expolink. Thus all three organisations have similar reporting systems using a

387 specific external contractor to address whistleblowing that is either not raised internally, or

388 has been raised but not addressed to the satisfaction of the person raising the concerned. It is

389 **important in all these cases to differentiate between an employment** grievance and an instance

390 of whistleblowing. PAS 1998:2008 states that an employment grievance is a dispute or

391 private complaint regarding the employee's own employment position and therefore it has no

392 additional public interest dimension. **These cases show that a** positive whistleblowing culture

393 and environment associated with an ethical culture practiced by the organisation encourages

394 staff to have strong conscience to report wrongdoing (Miceli *et al.*, 2008; Mendonca, 2011).

395 Depending on national culture, some societies fear shame but not necessarily guilt (e.g. China

396 is a shame-based society), hence shame can be used as an effective mechanism to enforce

397 staff compliance (Tang and Babich, 2014). In contrast, a culture with supportive supervisors,

398 appropriate formal structures for reporting (Brennan and Kelly, 2007) and protection afforded

399 to whistleblowers (Cho and Song, 2015; Zakaria, 2015) will drive whistleblowers to report

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wrongdoing. The challenge with purely voluntary governance measures, rather than the Serbian approach, that each organisation will develop their own discrete protocols that can vary in their degree of efficacy. Thus personal (individual), organisational/cultural and situational factors (Dungan *et al.* 2015). are now explored further in the paper.

5. Whistleblowing models

A number of whistleblowing models exist in the literature that have been designed to address mainly corporate fraud in the financial, business and public sectors but none specifically for food industry. These have been analysed within this research (Table 3). The models often reflect individual (Henik, 2015), organisational (Alleyne *et al.*, 2013; Brennan and Kelly, 2007) and cultural factors (Hwang *et al.*, 2008). Although many studies have applied the TRA and TPB to food and food service sectors, little research has dealt with their application to whistleblowing. Table 3 then provides the context for the potential application within a food production or supply chain setting. Henik (2015 citing Goldberg *et al.*, 1999) describes three types of whistleblower: (i) the strategic moral guardian (SMG); (ii) the fed-up vigilante (FUV) and (iii) the inactive individual called in this research as the servant of two masters (STM) see Table 4.

Take in Tables 3 and 4

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

Stage 1 – A trigger event

A trigger event is as an event that is deemed by an individual or group to be problematic (Henik, 2015). Factors that can trigger whistleblowing include internal

motivation (Schultz and Harutyunyan, 2015), personal responsibility (Hwang *et al.*, 2008, 2013), seriousness of wrongdoing (Graham, 1986; Curtis, 2006) and loyalty towards the company (Dungan *et al.*, 2015) see Table 3. An individual trigger may be clear in terms of its legality or the trigger may be opaque creating uncertainty as to whether to raise the issue with others (PAWC, 2013). □

Stage 2 – Determining of appropriate action

The whistleblower may be concerned whether complicity means that they themselves may face sanction and this may limit action. PAWC (2013) identify in their study that in only 8% of the cases they examined the whistleblower admitted that they have been involved in the issue themselves. Other factors that affect willingness to take action are fear of reprisal or retaliation, being unsure whether the activities warrant action, uncertainty over what action is possible and appropriate and the opportunity cost versus the benefit or having little faith that any corrective action will be done (PAWC, 2013; Henik, 2015 citing March and Simon, 1958; Latané and Darley, 1970; Miceli and Near, 1992). However, Henik (2015) argues it is emotion and value conflict that actually motivates action or inaction. Stage 2 is a crucial stage in the whistleblowing process as individual, organisational and situational factors play a mediating role in encouraging or discouraging potential whistleblowers.

Stage 3 – Action of whistleblowing

PAWC (2013) suggest that a whistleblower's position in an organisation will be a factor that influences the route they follow to raise their concern. The group of workers they identified as less likely to approach their line manager or senior management was unskilled workers. In fact their study suggested that unskilled and skilled workers were more likely to approach the individual(s) who they thought was the wrongdoer or disclose to an independent body rather than other workers, or finally a regulatory body. This highlights if people are to come forward with concerns that as well as transactional structure in the FCMS,

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transformational elements such as an open culture, training and coaching are required. Administrative workers were more likely to approach senior management or a union representative through and use the employment grievance procedure rather than follow a whistleblowing process or a specialist channel. This may be due to the type of trigger that they were reporting, or greater awareness of policy and practice, but they were reticent about approaching their line manager. Managers and executives were more likely to raise their concern initially to senior management and also more likely to approach the media. Ultimately, in order to prevent or reduce loss of profit, reputation and trust with customers, the food industry should aim to resolve the problems internally whilst ensuring confidentiality for the whistleblowers.

Stage 4 – Organisational reaction to action

PAWC (2013) state that from their dataset whistleblowers felt that no action was taken after the first attempt of internal disclosure in 74% of cases and this rose to 80% when it was unskilled workers who were making the disclosure. At the third attempt in 44% of cases whistleblowers felt there was no organisational reaction; this was zero cases at executive level, but still 80% for unskilled workers. The work of Henik (2015) shows that the organisation needs to make sure that they do not alienate the individuals who seek to disclose potential wrongdoing especially as this can then provide personal motivation for justice and restitution. Ensuring there is full confidence in the management process surrounding whistleblowing is critical.

Stage 5 – Whistleblowers response

The whistleblowers who actively report on wrongdoing are the SMG or FUV (see Table 4 for definitions). Inaction can be due to conflicting emotions and values. Therefore, a FCMS encompassing both transformational and transactional approaches will be beneficial to encourage the STM to act. Henik (2015) asserts that a differentiation of emotion will

influence the methods and aims of a given whistleblowing disclosure and the whistleblowers response and whilst SMG retain their focus on halting wrongful activities, FUV will focus on the desire for restitution. The causal factors that underpin the five steps outlined above and their interrelationship with an associated FCMS have been conceptualised in Table 5 and represented visually in Figure 2. Understanding these factors will assist food industry practitioners and regulators to develop policies, guidance and best practice. These transactional and transformational elements are now explored.

Take in Table 5 and Figure 2

Adoption of crime countermeasures is based unique assessment by each organisation, the organisation's risk appetite and the unique crime opportunity of the given supply system (Spink *et al.*, 2016). These countermeasures then need to be integrated into an effective FCMS. Countermeasures are intended to reduce criminal opportunity so if appropriate countermeasure strategies are to be developed and adopted then it is important to establish both the type of crime and the typology of the criminal (Manning, 2016; Manning *et al.*, 2016; Spink *et al.*, 2015). Organisations should as part of this approach recognise and accommodate effective whistleblowing channels. Failure to do so could lead to what Motarjemi (2015a) describes as "wild whistleblowing" i.e. extra-legal or illegal approaches to reporting or disclosing information through internet "leaking" type approaches. Further, a condoning of negative behaviour towards whistleblowers leads to a repressive, unhealthy management culture (Motarjemi, 2015b) that ultimately will stifle employee loyalty, and the potential for innovation, creativity and new ideas within the organisation.

Loehr and Kaye (2011) have proposed the use of the 5 C's framework in order to encourage and build a loyal and committed workforce. This can be extended to consider the integration of a whistleblowing strategy within a FCMS. The five "C's have been adapted in this context:

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- **Commit** to employees’ professional growth and success so that they feel personally invested in by the organisation and then as a result less likely to be compelled to commit food crime;
- **Communicate** the organisational culture that is needed to minimise the potential for food crime to all levels of staff and in the context that they will understand;
- **Clarify** organisational goals in terms of legality, product and personal integrity and their role in helping to achieve them;
- **Coach** through providing appropriate and continuous training for employees so they feel empowered to support the organisation and ensuring the products and services are legally compliant and if necessary disclose with regard to wrongdoing; and
- **Create** accountability through a formal yet dynamic and reactive system that has appropriate communication channels and assists employees to deliver their roles and commitments at all levels of the organisation.

The 5 Cs demonstrate the transformational infrastructure that needs to be in place to underpin the FCMS. A cultural shift towards an encouraging, and supportive environment for whistleblowing can provide a source of intelligence that can help organisations to prevent potential public health implications, loss of profit and protect the reputation of company. In the development and implementation of a FCMS, small and medium sized food companies may not have the resources and knowledge necessary to carry out risk assessments using tools such as VACCP or TACCP, but with appropriate industry guidance they can more readily implement a whistleblowing protocol within their organisation and with their suppliers.

With appropriate induction and refresher training, and ongoing coaching an effective, and reactive FCMS can be developed which is appropriate to the situational needs of every business. Indeed PAS 1998:2008 states that where the business is small and everyone is known by name, transformational management processes may be strong enough so that a

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

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531 6. Concluding remarks

532 Whistleblowing exposes illegal, inappropriate and fraudulent practices with the goal that
533 private and/or public exposure will force change. Many of these criminal practices go
534 undetected by regulatory authorities and at times senior management of an organisation.
535 Conventional behavioural models such as TRA and TPB can be extended to include
536 individual, organisational, cultural and situational factors to study whistleblowing intention
537 among food production workers and this has been the approach used in this conceptual paper
538 in developing Figure 2. Greater understanding not only the forward process, but also the
539 feedback loops, and the situational factors of influence will assist food industry practitioners
540 in developing effective FCMS that include a whistleblowing strategy. Therefore appropriate
541 regulatory protection of those who engage in whistleblowing activities is crucial to both
542 mitigate food crime and protect consumers from loss and potential harm. Without considering
543 the specific difficulties that arise and addressing the existing barriers to whistleblowing it is
544 unlikely that the whistleblowing can become an effective strategy for addressing food crime.
545 Therefore further empirical research is required to assess the influence of these barriers and
546 how they can be overcome. The model in this paper provides opportunity for such primary
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)

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)

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

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%

Nr – not reported *may not be illegal

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)

Table 4. Characterisation of actors in the whistleblowing process (Adapted from Henik, 2015; Goldberg *et al.* 1999)

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.

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

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		
	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		
Awareness	Knowledge of what is illegal, unethical or immoral behaviour	Ignorance or uncertainty about what is illegal, unethical or immoral behaviour	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 reporting procedure	Ignorance or uncertainty of reporting procedure		
	Duty	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)		

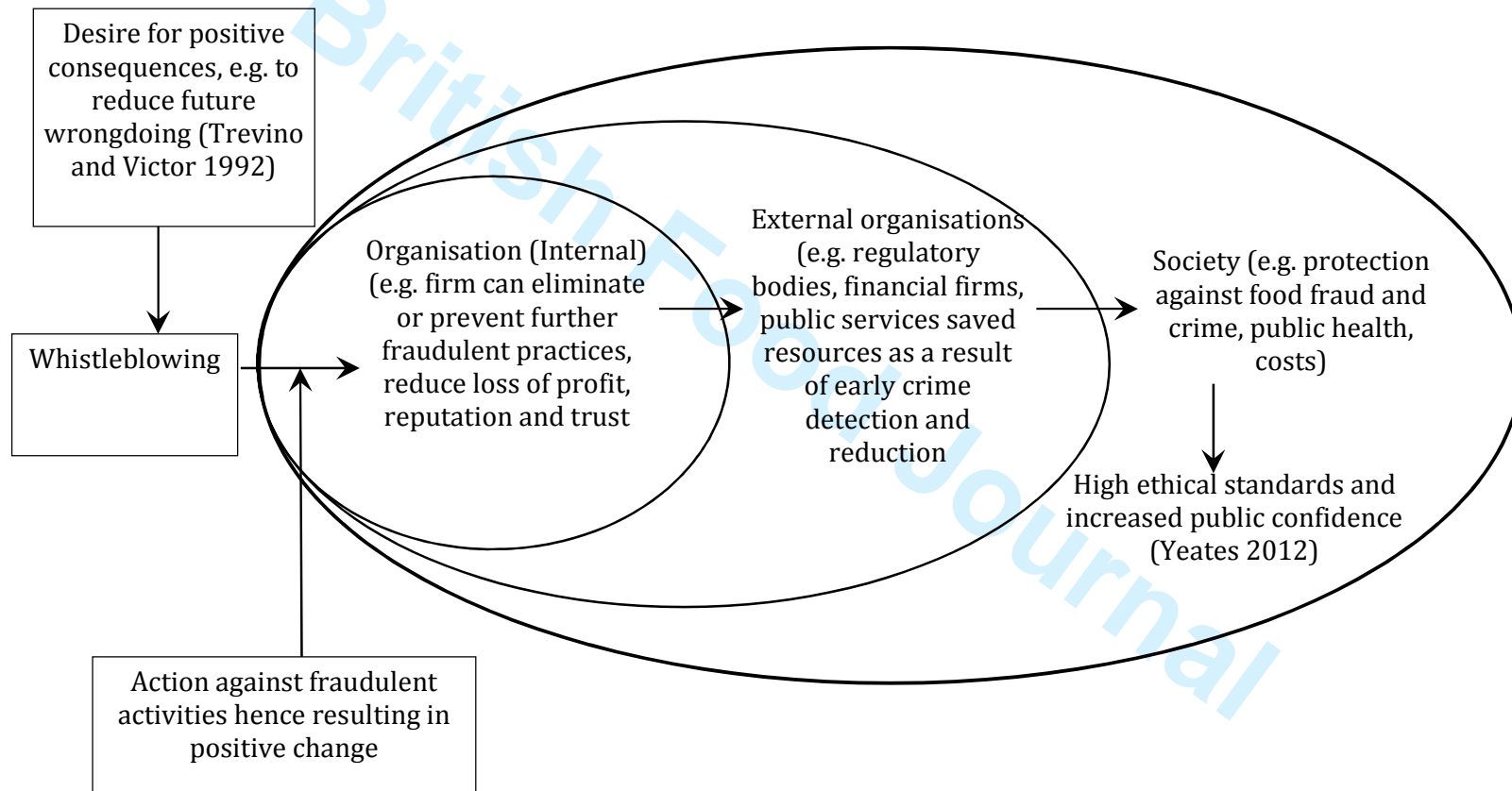


Figure 1. Positive consequences of whistleblowing (Adapted from Bowers *et al.*, 2012)

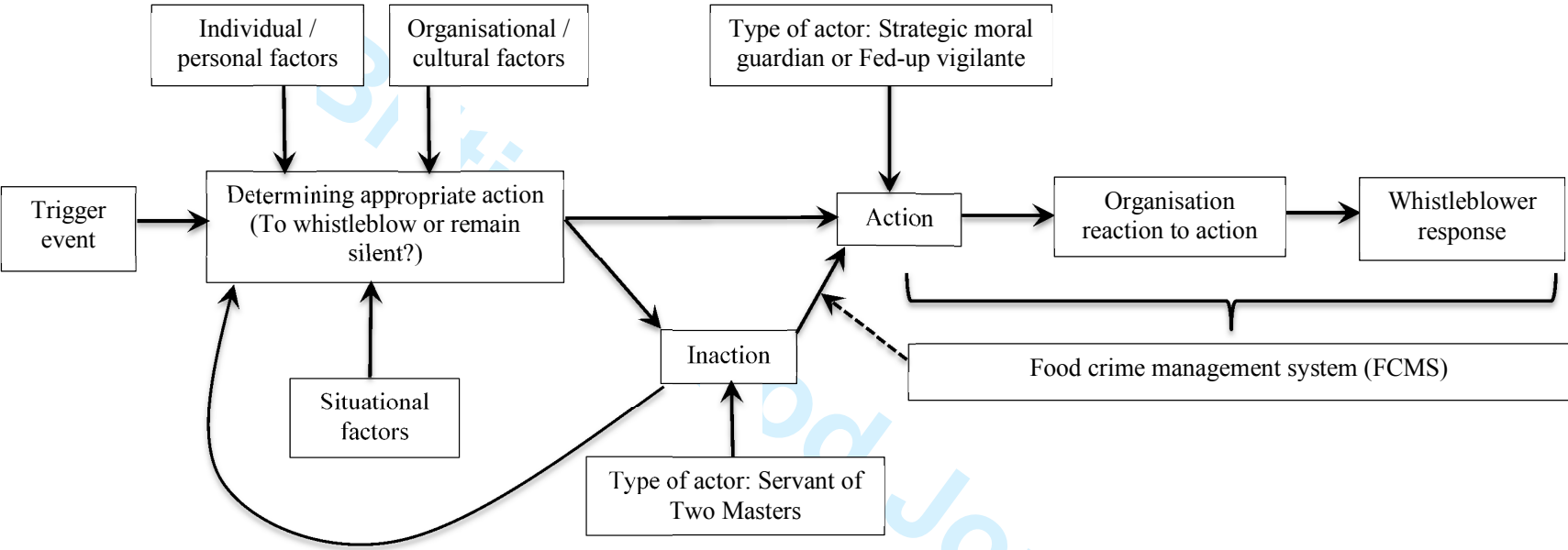


Figure 2. Whistleblowing strategies within the 5 stage whistleblowing model (Adapted from Henik 2015)