‘Food supply chain resilience: a conceptual vision for an intelligence-led approach to combating food criminality and terrorism’

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Food Supply Chain Risk Management
The modern day supply chain operates under increasing amounts of risk and operational uncertainty driven by strategies achieving lead-time compression, globalization, inventory management and outsourcing (Sheffi & Rice, 2005). Whilst in many ways highly efficient, we know that when these fragile food supply chains are exposed to ‘shocks’, these can trigger longer term disruption that can have profound effects on a country’s political stability, economic growth and population health prospects.

Traditional supply chain risk management (SCRM) has received extensive consideration by academic and practitioners, however, despite the vast body of knowledge on the areas of risk and resilience, holistic supply chains still struggle to construct robust and risk-aware operations that meet the purported aspirations of SCRM (Sodhi & Tang, 2012). Furthermore, as the Organisation for Economic Co-operation and Development (OECD) cite significant strands of SCRM as fundamental to engaging with Criminality, Disease, Technological (i.e. Cyber) and Terrorist threats, the academic world has arguably only helped foster a culture of aggregate historical event measurement - without affording businesses or governments concepts to enable the true measurement of cause-effect relationships (Bacon, 2014; Christopher & Lee, 2004; Punter, 2013).

Consequently, the authors contend that this reliance on aggregate level data compromises the ability of achieving food supply chain resilience which, when coupled to increasing demand for food stuffs and ever squeezed margins, means that complex globalized food supply chains are exposed to the ‘perfect storm’ of opportunistic behaviors from insider participants and external adversaries. Therefore, it is incumbent on business and governments to gain an appreciation of signal behaviours connected to food criminality and terrorism in order to detect, treat and prevent threat emergence.

Design/Methodology/Approach
To achieve a cross-functional appreciation of thematic areas pertaining to food supply chain resilience, a systematic literature review (SLR) was employed. The review utilised the key words ‘food supply chain criminality’ and ‘food supply chain terrorism’ and, due to the under-researched nature of the topic, all return outputs from all sources were analysed. The search was then narrowed to include only Chartered Association of Business Schools journals in order to build an appreciation of the research within the business academic sphere.

The outputs of both systematic literature searches were then compared against the RIIA / Chatham House report ‘UK food supply in the 21st Century: The new dynamic’ and the ‘Elliott Review into the Integrity and Assurance of Food Supply Networks – Final Report’ (Elliott, 2014), chosen because of their acceptance in the Government policy environment on food supply chain resilience. The outputs of the SLR and comparison of Government best practice in food supply chain resilience delivered a gap analysis of current business literature, from which the authors established a theoretical framework for achieving food supply chain resilience in the context of food criminality and food terrorism.

Findings
The results are still being analysed, however initial findings indicate a gap between academic business research and the accepted requirements for what food supply chain resilience would look like. As a specific example, whilst there are 12 databases pertaining to food criminality across Europe, the UK Serious Fraud Office only has access to four of them. In addition, business continues to have little or no visibility into relevant intelligence for early warning and, to date, no academic literature exists that suggests how government intelligence could connect with a procurement strategy to build greater food chain resilience.
Practical application
The research outputs can be leveraged by academia, business and governmental organisations to better appreciate an intelligence-led approach to connected food supply chain resilience.