# LOCAL DISTRIBUTION OF ORGANIC FOOD: A REVIEW AND RESEARCH AGENDA

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## ABSTRACT

There has been an increasing consumer demand for local and organic food, which has led to unconventional ways to distribute the food from farmer to consumer, which are known as alternative food networks (AFNs). AFNs promote a sustainable and civil economy, environment, biodiversity and respect for farming tradition. However, they are face a challenge to maximize the distribution of local and organic food. The purpose of the paper is to make a review of challenges present in alternate food networks and propose a research agenda. The methodology adopted in this paper is a literature review, in order to increase our understanding of different food distribution channels within AFNs and the challenges they face. The challenges for each food distribution channel were identified and then compared to 'conventional' distribution systems, and then presented. The results will help researchers, practitioners and policy makers to focus on strategies that mitigate these challenges in order to increase the distribution of local and organic food.

**Keywords**: Food distribution system, alternative food networks, distribution channels, sustainability, localness.

## 1. INTRODUCTION

Food is central to human beings and heavily impacts the lives of the entire society. Over the years there has been an increasing demand for food sources due to population growth. The increasing population pose a direct threat to the availability of food, increasing pressure on the entire food supply chain. The conventional food supply chain is able to mass-produce food but is still insufficient to meet the rising demand and maintain high quality (Gascón, 2018). Therefore, this led to an increased preference for local and organic food (Feldmann & Hamm, 2015). Local and organic food is increasingly promoted (Ilbery & Maye, 2005; Horst et al., 2016), which encourages large and small-scale farming to turn to direct markets (Brinkley, 2017). The growing popularity of the local and organic food movement is expected to change consumers and farmers

(Brinkley, 2017) and alleviate fears about food safety (O´Neill, 2014). The local food produced is sustainable and reduces agricultural impact on the environment (Renting et al., 2003). It reduces transport distances and provides the opportunity to generate income in the local community (DEFRA, 2002). Hence, this has given rise to an "alternative" form of food supply chain. The alternative food supply chains or otherwise known as alternative food networks (AFNs) are a newly emerging network of farmers, consumers and other actors that use alternative methods of supplying food to the consumer (Murdoch et al., 2000). However, the AFNs are facing a challenge to maximize the distribution of local and organic products in the long term. Therefore, the purpose of this paper is review existing short food distribution systems for local and organic food and propose a future research agenda. In order to achieve this, a literature review on short food distribution systems is conducted and different food distribution channels within AFNs are studied.

## 2. METHODOLOGY

The methodology used on the research is a literature review. According to Snyder (2019), the literature review is considered as a research method. The literature review has been developed by using a seven-step model of the comprehensive literature review (CLR) to incorporate rigour, validity and reliability. The seven-step model offer a tool that can be used to inform the various components of the primary research study (Onwuegbuzie & Frels, 2016). For this literature review the three phases of the seven-step model has been utilized (exploration, interpretation and communication). The steps followed in the exploration phase are: 1. Exploring beliefs and topics; 2. Initiating the search; 3. Storing and organizing information; 4. Selecting/deselecting information; 5. Expanding the search to include more media, observations, documents, experts, secondary data or sources. The step followed in the interpretation phase is: 6. Analyzing and synthesizing information. Finally, the step followed in the communication phase is: 7. Presenting the CLR report. The methodology process and the status for each step is shown in figure below (Figure 1).

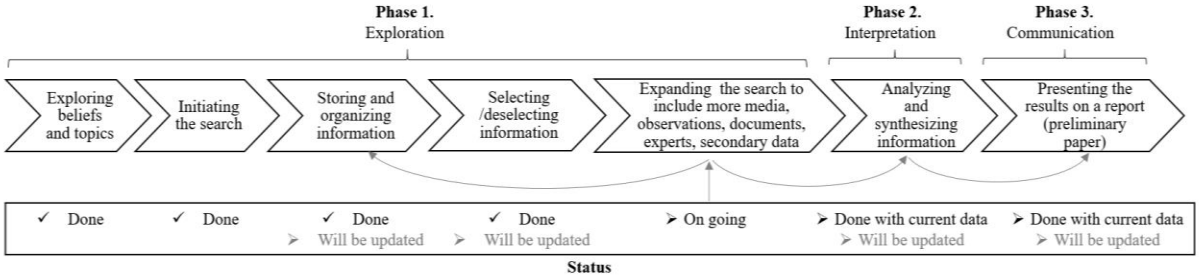


**Figure 1.** Methodology process and status of the current research.

## 3. FINDINGS

When studying the literature, some demands for the AFNs can be identified: environmental, social, economic and health and well-being. Some of the AFNs have shown some increase aspects of access to healthy food, but there is an issue of access to healthy food with respect to its quantity and quality (Freedman et al, 2011; Kortwright & Wakefield, 2011; Ruelas et al, 2012). Research should focus not only on quality of food, but also on how to build alternative food supply networks (Freidberg & Goldstein, 2011). The challenges that were identified are listed in table (Table 1).

**Table 2.** Challenges in the AFNs´ distribution channels.

| No | Challenges | Source |
|---|---|---|
| 1 | Meeting the rising demand for food in quantity. | Accorsi et al, 2016 |
| 2 | Meeting the increasing demand for organic, welfare-friendly and locally produced food. | Bosona et al, 2011; Kroma, 2006; Marsden & Smith, 2005; Gracia et al, 2012; Levidow and Psarikidou, 2011 |
| 3 | Maximizing the distribution of local and organic products in the long term. | Figueroa-Rodríguez et al, 2019, Wittman et al, 2012 |
| 4 | Keeping the availability of products. | Berg and Preston, 2017; Figueroa-Rodríguez et al, 2019, Wittman et al, 2012 |
| 5 | Supply that allows a variety of products. | Figueroa-Rodríguez et al, 2019, Wittman et al, 2012 |
| 6 | Limited growing season and unpredictable weather patterns | Wittman et al, 2012 |
| 7 | Guaranteeing optimal pricing of local and organic food products by creating viable economic alternatives, which mean fair compensation for farmers and attractive prices for consumers | Barbera & Dagnes, 2016; Berg and Preston, 2017; Figueroa-Rodríguez et al, 2019, Wittman et al, 2012 |
| 8 | Finding solutions for logistic cost as a bottleneck for small and local food producers; decrease distribution and additional investments cost as a key factor for economic success | Bosona et al, 2011; Galli et al, 2013 |
| 9 | Accessibility in terms of location | Wittman et al, 2012 |
| 10 | Accessibility in terms of hours and days of operation | Berg and Preston, 2017; Figueroa-Rodríguez et al, 2019; Wittman et al, 2012 |
| 11 | Reducing distance and time for the customer access to the market | Figueroa-Rodríguez et al, 2019; |
| 12 | Controlling the distribution connecting consumers to producers. | Martinez et al, 2010 |
| 13 | Transferring logistics and best practices from the conventional supply chains to improve efficiency and effectiveness. | Mittal et al., 2018 |
| 14 | Competition from the conventional food system | Wittman et al, 2012 |
| 15 | Farmers distributing their products to those in need while maintaining their operations | Biewener, C., 2016 |

## 4. CONCLUDING DISCUSSION

A review of the existing short food distribution systems for local and organic food has been conducted and a research agenda has been proposed. Challenges were identified for local food distribution channel. In order to deal with these challenges, a general research agenda is suggested. The main conclusion is that more research is needed on the field of distribution channels for AFNs especially on the direct or face-to-face forms of distribution channels. Moreover, it is possible to affirm that little scholarly data exists on distribution channels for the accessibility of local and organic food. Therefore, more work is also needed from the academic side in order to support and lead the actors of the distribution channels. Based on the literature, the authors propose a generic

research agenda. Five directions have been proposed based on the own considerations of the authors (Table 2). The directions for future research have been evaluated according to two criteria; the level of importance and the term (time period of study). The priority can get values from 1 to 9, while smaller values will indicate higher priorities from the authors' perspective.

**Table 2.** Research agenda base on own authors' criteria.

| No | Directions for future research | Level of importance | | | Term (time to work with) | | | Priority |
|---|---|---|---|---|---|---|---|---|
| | | High (1) | Medium (2) | Low (3) | Long (1) | Medium (2) | Short (3) | |
| 1 | Validate the impact of the challenges on the distribution channels for AFNs | | 2 | | | 2 | | 4 |
| 2 | Identify the requirements or characteristics of the distribution channels of the AFNs. | 1 | | | 1 | | | 1 |
| 3 | Identify the advantages and disadvantages of each distribution channel on face-to-face AFNs forms. | 1 | | | | 2 | | 2 |
| 4 | Study the capacity of different places to develop a local food distribution system | 1 | | | 1 | | | 1 |
| 5 | Design the distribution system that closely connects consumers and farmers of local and organic food, answering their requirements and allowing efficient and sustainable development. | 1 | | | 1 | | | 1 |

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