

**1.5 Rationale and objectives of the study**

Organic food market in India has not yet grown beyond niche of overall food market and is witnessing both demand and supply side constraints. A recent study conducted by Nina Osswald in collaboration with ICCOA at three urban centers of India. The study reported that, the full potential of the domestic market has not been realized to date due to a number of challenges including product availability, supply chain constraints and consumer awareness and also the challenges which are faced by the stakeholders in domestic market. Particularly on the supply side, farmers lack access to separate facilities for storage, transport, and processing of produce. These bottlenecks make it difficult to bring a reliable flow of fresh produce to major cities where high demand is concentrated, and it is also one of the reasons for a high price for organic foods. Currently, there are not many producers to meet the growing demand in the big cities. Some of the large-scale organic farmers are integrated into export supply chains that make their produce unavailable in the domestic market. Smallholder farmers who constitute the majority (>80%) of farmers in India. Moreover, they are either don't have access to market due to lack of knowledge and poor resources & infrastructure, ultimately they end up with selling in conventional market, losing out the price premium. Currently, huge demand is creating but adequate supply is the important bottleneck. Lack of awareness on part of consumers is another barrier that needs to be addressed on demand side in order to sustain the growth in organic sales (Osswald, 2013). Additionally on operations side, the lack of coordinated supply chain and inadequate retail presence weaken the marketing of organic products. In addition, (Oberholtzer, Dimitri, & Greene, 2008) stated that, there is a lack of scientific literature examining organic food marketing, especially for the middle section of the supply chain. Similarly, (Kledal, 2007) indicates two important research questions within the organic sector. Among which: "What type of partnerships between suppliers and retailers could minimize the risk of investments for all parties. So the critical mass of supply can be exploited and benefit all actors along a supply chain?".

The emergence of organized retailing presents potentially profitable market opportunities for smallholder farmers. Given the sheer size of the market as well as a premium price provided to those able to supply regularly and as per the organic standards. In developing countries context like India, smallholder farmers are more habituated to producing within the context of particular seasons and selling to spot markets, without

directing production at the requirements of the market. Indeed, as highlighted by some researchers, the predominant philosophy of majority of the smallholder farmers is “*produce first and then look for the market*”. Instead of analyzing the market opportunities, making the necessary contractual arrangements with buyers, and then producing what the market really wants (Fairbairn, 2003). The emerging organic produce supply chains in India have been found to be excluding small producers. This is due to reasons of high certification costs, smaller volumes they produce, and tighter control by chain leaders in the absence of local market outlets for the organic producers (Singh, 2009b). In addition, organic fresh produce market is highly fragmented, and it is concentrated in the major cities of India. As stated by CEO of big retail company “*there are problems with supply chain of organic products, since products in need are not always available. Moreover, the premium price, which can be 50-70 percent more than the conventional products, is certainly deterring consumers*” (Times, 2013). Designing and managing local organic food supply chains is complex, and it faces socially bound uncertainties such as poor collaboration, communication and information sharing (Kottila, Maijala, & Rönni, 2005; Stolze et al., 2007). Thus, integrating smallholder farmers in organic supply chain not only has significant influence on domestic market development but also on producer’s livelihood.

After literature analysis about organic production, supply chain and consumer preferences towards organic food products. We realized that, majority of such research work is carried out in developed countries context, making information scarce in developing countries like India. India has great potential due to the exponential rise in urban population where the demand for organic and green produce is apparent. Thus, there is a need to address issues as mentioned. The consumer knowledge and awareness is crucial for growth of the organic food market. Thus, investigation of the consumers’ attitude, purchase pattern of organic food, willing to pay for organic food and supply chain governance will benefit consumers, producers and intermediaries of organic produce. It also builds strategies towards removal of market imperfections and the corresponding benefits of widened and pure competition.

This dissertation is a modest attempt towards analyzing/understanding the organic production and marketing situation from the perspective of consumers, smallholder producers and organic fruits and vegetables supply chain in Karnataka State. Karnataka was first State to implement organic farming policy in the country.

## Objectives:

The overall objective (general aim) of this study is to analyze/understand the organic fruits and vegetables production and marketing situation from the perspective of smallholder producers, consumers and organic fruits and vegetable supply chain in Karnataka State, India. The subject is thus approached from two different perspectives: that of actors in the supply chain organization and that of supply and demand. Special attention is devoted to identifying better functioning of supply chain from the smallholder's perspective. The specific objectives of the study are:

1. To determine the factors, those motivate consumers towards purchasing organic food, their preferences towards different categories of organic food and to segment consumers on the basis of food choice motives.
2. To determine consumer's preferences for purchase places and factors influencing on them.
3. To determine the socio-economic characteristics, and organic food attributes influencing consumer willingness to pay and potential barriers to purchase.
4. To determine the attitudes of smallholder farmers towards the adoption of organic fruits and vegetables farming. In addition, to identify segments of smallholder farmers in accordance with their attitudes and their relationship with farming objectives and the degree of orientation of farmers towards production. Further, to assess the potential barriers towards the adoption and development of organic farming.
5. To examine the various marketing channels for organic fruits and vegetables and to identify farm-level factors that influence smallholder organic farmers in supplying different channels.
6. To examine the organic fruits and vegetable supply chain from the perspectives of chain relationships and relationship sustainability.

## 1.6 Thesis outline

This study is comprised of eight chapters; **Chapter 1** introduces the thesis with research domain and background of the research. Further, it presents rationale and objectives of the present study and conceptual framework. **Chapter 2** identifies various factors that motivate consumers to buy organic food products. Further, consumer preferences towards different variety of organic foods and segmentation of consumers on the basis of food choice

motives and food preferences were presented. **Chapter 3** evaluates the consumer preferences for purchase places and determining factors. **Chapter 4** provides the analysis of the socio-economic characteristics and organic food attributes influencing consumer willingness to pay for organic products and potential barriers to purchase organic foods in the study area. **Chapter 5** explains the attitudes of smallholder organic fruits and vegetable farmers towards adoption of organic farming and segments of farmers based on their attitudes and their relationship with farming objectives were identified. Further, the degree of orientation of farmers towards production and the potential barriers towards adoption and development of organic farming were analyzed. **Chapter 6** provides insights into the various marketing channels for organic fruits and vegetables and farm-level factors that influence smallholder organic farmers in supplying different channels. **Chapter 7** evaluates the organic fruits and vegetable supply chain from the perspectives of chain relationships and relationship sustainability. Finally, in **Chapter 8** the general findings and implications to the development of organic food production and marketing are discussed, and policy recommendations and conclusions are presented.

## **1.7 Conceptual framework**

The conceptual framework for this research is as presented in Figure 3. This study focuses on the individual actors in the organic fruits and vegetable supply chain. The special attention was given to both producers and consumers to link them more effectively by identifying constraints and opportunities on the both demand and supply side. In addition, relationships between chain partners and relationships sustainability in the chain was studied.

The left side of the figure shows the possible structures of organic fruits and vegetable supply chains in the study area. In the middle of the figure, we present the main research domain that will be studied in this project. (i) The demand and supply of organic food and (ii) the coordination of the supply chain. These significantly influence the development of the organic food sector. The figure reflects the importance of the supply chain coordination for an improved supply; that is, the supply of organic products that better matches with the expectations of consumers. The framework also presents important concerns from both consumption and supply side for increased organic food consumption as well as supply. It also indicates how an improved (coordinated) supply chain can play an effective role in reducing these barriers. More concretely, an improved supply chain can tackle the barriers of “too high prices” and a “lack of availability”. Which can be achieved by enhancing organic