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Supply Chains and Horizontal and Vertical Integration: Coordination through the Food Industries

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Introduction

This chapter examines two well respected forms of collaborative activity, and leads on from Chapter 3, from the premise that information sharing is not only an important dimension to ensuring food integrity but also the generation of innovative ideas, and business practices across a spectrum of social, economic and ecological concerns. The major focus in this chapter is, however, the value of collaborative activity in economic terms.

Innovation is an important stimulant of economic growth and social change, as has been highlighted in the work of the Viennese scholar Schumpeter, and following the devastation of the 2nd World War, countries including Italy and Japan looked to regenerate their economies through different forms of collaborative activity involving horizontal and vertical orientated networks.

By the 1980s, the business solutions developed were exposed to global academic communities and became the subject of much interest, due to their apparent success as mechanisms not only for economic growth but also as sources of competitive advantage.

This chapter takes us through the nature of these initiatives and questions whether these governance structures offer a long term solution to the distribution of economic value in the food supply chain.

The emergence of supply chain management and new or Marshallian industrial districts

Across intellectual disciplines, there is the view that the sharing and collective action between groups, tribes or businesses offers greater opportunities than individuals or businesses operating on their own. It is seen to enable more efficient use of such resources as time and effort in the attainment of goals. Collective activity is seen to be a means by which parties can attain solutions that go beyond their own limited vision (Westley and Vrendenburg, 1991) and 'social capital', the close ties and solidarity between parties within the collective, is critical to the formation and sustainability of such communities (McMillan and Chavis, 1989; Staber, 2007) particularly in the context of localised initiatives.

Lehner (1993) in the Future of Industry in Europe programme, *Forecasting and Assessment in Science and Technology* (FAST) suggested that in the light of global competition, there was a need for new forms of organisation and governance structures to promote economic growth. The European Commission opened up the debate on industrial policy in its "communication on industry policy in an open and competitive environment" (otherwise known as the Bangemann communication) in 1990. At this stage the economic and political collaboration between western and southern European states, now known as the European Union, had been established for over three decades. Within the commission, calls were made, as a consequence of research into both the 'Third Italy', Silicon Valley in California, and initiatives within Japan, for the mastering of the supply chain and the development of collaborative behaviour. In a climate of global economies in order to compete, Europe needed to promote innovation, (Lehner, 1993) intelligent production systems, learning innovation and rapid adaptation.

To this end, policy makers promoted horizontal and vertical collaboration in supply chains. In the context of food, the European Commission, and national and regional governments were and remain committed to promote the restructuring of food supply chains, an initiative in the UK that is promoted through rural development strategies. Rural development strategies now fall under Pillar 2 of the Common Agricultural Policy. Emphasis is currently particularly upon cooperatives and producer organisations, although a range of collective governance models can be identified over the last decades, including 'New/Marshallian industrial districts' (MIDs) and 'supply chain management' as derived from the

Toyota production system and Japanese Keiretsu, each of which are now becoming increasingly criticised in terms of their efficacy as catalysts for economic growth, including rural development and regeneration.

Whilst MIDs and 'lean' supply chain governance structures emerged in the 1980s, both have their roots in earlier intellectual ventures and are a backlash against large scale units of production and vertically integrated corporations (Loveman and Sengenberger, 1991). In what has been described as the 'post productionist' era, SMEs are identified as drivers for economic growth, which is distinct from the earlier position of academics such as Chandler (1977), who firmly believed that the era of the small business was over. The underlying premise in this renewed interest lies in the idea that whilst individual small businesses alone may be under-resourced to compete in highly competitive globalised markets, the case is other when they are involved in collaborative coalitions.

Theoretical underpinning of Marshallian industrial districts and supply chain management

Implicit in work as early as the 1920s, small businesses have been recognised as seedbeds for new enterprises (Marshall, 1920), and seen to be capable of challenging established businesses (Beesley and Hamilton, 1984). Often, lead by idea generators or entrepreneurs, they have also been labelled as sources of innovation, particularly where there is access to key skills (Karlsson and Olsson, 1998). Schumpeter (1947) defined innovation as new ways of organising existing resources, which could be classified into five distinctive types: new products, new methods of production, new sources of supply, exploitation of new markets and new ways of organising business. Others have held that product and production innovation were central to economic growth, however in the context of this chapter, it is held that all five are significant in our exploration of supply chains, and in particular that of new ways of organising business.

■ The nature and emergence of new/ Marshallian industrial districts

The first innovative collaborative governance structure to be discussed in this chapter is that of MIDs, particularly those developed in Italy. MIDs have been seen as an alternative to the Fordist production model of large integrated enterprises, which were emerging as the dominant governance structure in the first part of the last century (Piore and Sabel, 1984; Andersson and Ejermo, 2004). They represent a pendulum swing away from the earlier dominant discourse, that small enterprises were of the past and that "economic activity is carried on by large-scale enterprises which require extensive co-ordination of managers and

the managed" (Kerr, 1960: 39). SMEs were seen to be the answer to declining economies in Europe, through the development of regional economies – the so-called 'death of distance' (Cairncross, 2001).

This was explained in economic terms (Porter and Porter, 1998), but could also be interpreted as a social backlash to globalisation (Giddens, 1991), where TNCs were seen to leach out value from the regional economy (Arezki *et al.*, 2013). Equally importantly, where specific regions are in decline, local firms are seen to be less likely to retract their businesses from the area (Acs, 1992; Grabher, 1993).

The key feature of MIDs was that they offered specialised clusters of firms bounded in specific territories. These were symbiotic in nature and focused on a range of food and associated industries. The strength of such associations is that they shared and developed local resources including, human, physical and financial, with the specific purpose of developing local capacity, local skills and competence, and a sense of community (Ray, 2000; Chiarveso *et al.*, 2010).

The theory behind industrial districts assumes that economic development is based on local participation and commitment to territorial development, engendering a feeling of ownership. It has been considered a self-centred localised and conservative form of growth (Iaciponi *et al.*, 1995), which requires local social mobilisation, locally agreed allocation of resources with the specific purpose of developing local capacity, local skills and competence, thus allowing benefits to be retained within the local area (Van der Ploeg and Long, 1994). These ideas are inherent to the theory of endogenous growth. Investment in human capital, social capital, technological and intellectual knowhow generated by one business will spill over and benefit the wider economy, generating innovation in products, production, new sources of supply and markets, which leads to the internalisation of the multiplier effect and thus greater economic growth (Porter and Porter, 1998). The size of the regional multiplier depends on the extent to which the inter-industry effects are transmitted to the region (Harris, 1997).

One such example of the conglomeration of businesses in agri-food and food sectors/supply chains is that of Emilia Romagna in Italy which brought about a significant volume of literature that showed the decline of GDP and employment had been stemmed by greater integration of agrarian with non agrarian structures (e.g. Pyke *et al.*, 1990; Baptista and Swann, 1998).