

Chapter 2

Analysing Food Chain Development: A Theoretical Framework

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Abstract This chapter presents a theoretical- analytical basis for investigation and discussion of the Norwegian-Spanish salted fish trade. The focus is on convention theory and value chain theory as analytical tools for this specific trade on salted fish. Special emphasis is put on Performance Drivers in the value chain and on specific contextual convention models for this salted fish trade through the value chain in Norway to Spain trade relations.

Keywords Sea food · Economic geography · Theory of conventions · Food chain development · Markets · Performance drivers

2.1 Introduction

The seafood trade from Norway to Spain is in this book analysed in a perspective framed by an economic geography that includes material, ecological, and socio-economic aspects of human life. This chapter will develop specific analytical concepts and models used in this book by focusing on drivers and conventions for value chain performance. Section 2 summarizes the role of economic geography as a discipline. Section 3 introduces the value chain concept where economic behaviour is explored in the context of a Structure-Convention-Performance (SCP) value chain model in which the term convention replaces the term conduct in the standard SCP model (Porter 1980; Barney 1996). Section 4 discusses the use of broader sociological conventions concepts, related to different kinds of institutions, networks, values, and qualities, which are central for a deeper understanding of the

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K. B. Lindkvist, T. Trondsen (eds.), *Nordic-Iberian Cod Value Chains*,
MARE Publication Series 8, DOI 10.1007/978-3-319-16405-2_2

situation of Norwegian salted cod in Spain and for any future attempt to recapture this market. Section 5 elaborates further on the interface between the value chain and the spatial and contextual properties of the conventions commonly used in food trade literature. The remaining chapters are based on this theoretical framework. Our focus is on discussion of empirical issues regarding history, prices, exports, companies, consumption, lock-in, education, and coordination.

2.2 Economic Geography as an Analytical Framework

Production, trade, location and growth have traditionally been the main concerns in the discipline of economic geography until the late 1960s. The inclusion of political economy in the 1970s unveiled the role of power in the production and reproduction of the structural inequalities intrinsic to the capitalist system (Barnes 2000, 2001; Scott 2000; Sánchez 2003; Foster et al. 2007; Barnes and Farish 2006). During the 1980s, the ‘regulatory turn’ emphasized the interplay between economy, society, polity and technology in an alleged transition from Fordism to post-Fordism. From the 1990s, the ‘institutional turn’ has attempted to explain the geographical unevenness of innovative capabilities and the subsequent variety of (national, regional, and local) development trajectories with reference to the so-called ‘institutional thickness’, commonly defined as the density and interlocking of public and private organizations that supply material and non-material resources to economic actors. At the same time, the ‘cultural turn’ addresses the role of culture and difference in the economic process and in the performance of economic actors. Even the more recent ‘relational’ and ‘evolutionary’ turns underline the ‘softer’ issues of organization, interaction, innovation, variety, and evolution as horizontal perspectives that may inform most research in economic geography.

Such quick theoretical and methodological renovation has allowed for inclusion of a number of new concerns in the discipline: poverty, (under)development and centre-periphery relations, technology, regulation, distribution, governance, labour, firms, policy, innovation, learning, sustainability, consumption, retailing, exclusion, or education actually constitute sub-fields of their own. Economic geography still pays attention to its core topics, of course, but geographers have also sought explanations beyond the traditional understanding of the production-distribution-consumption framework, thus acknowledging that the economy is an integrated part of the society influenced by social trends, facts and features.

The increasing attention paid by to local resources, competences, and values as factors that shape the realm of production has also required focus on the influence of power, institutions, networks and culture. The endowment of different types of local resources, namely whether inputs are unsuitable for standardization, is thus better accounted for by these broader theoretical approaches. In this vein, the study of territory-specific case studies may contribute to a deeper understanding of local contingencies stemming from the interplay between economy, society, culture and places.

Therefore, economic geographers all over the world are actually dealing with new terms, concepts, and theories that come from related disciplines such as sociology, anthropology, or cultural studies, let alone economics as the most common provider of vocabulary. This book is a good example of such a multi-disciplinary path: the Norwegian salted fish value chain and its performance in the Spanish food market is analysed in a broader social and institutional context, which both fosters and hampers adaptation, innovation and change. The main applied analytical frameworks to understand and explain the Norwegian and Spanish constraints and opportunities for economic development within the salted fish business relies on theories of industrial and value chain performance (Porter 1980, 1990), theories of convention (Storper and Salais 1997) and the theories of economics of justification (Boltanski and Thévenot 1991/2006).

2.3 Performance Drivers in Value Chains

Value chains are the main structure in the core of diversified and specialized economic activities linking natural resources, production and distribution systems to market needs (Porter 1985).

The traditional definition of a value chain is as a “complex set of interrelated activities required to produce a good or service and distribute it to consumers” (Hayter and Patchell 2011, p. 15). Independent, profit seeking buying and selling entrepreneurs and organisations are the driving force in each value chain wheel between the point of primary production and the final consumer markets. Each wheel in the value chain may also take advantage of resources in specialized production regions. For example, fishing and primary processing are placed close to fishing grounds, while retailing takes place close to consumers in big cities. Each firm in the chain may be categorized in strategic groups, like fishing trawlers or wholesalers, which are following the same strategies and are exposed to similar competition with respect to limited production factors and customers (Porter 1985). Each production stage in the value chain is thus a competition arena directed by some common governing conventions and strategies as illustrated in Fig. 2.1.

Figure 2.1 illustrates that value chain structures are binding supplying and consuming regions together. The driving fuel in the value chain wheels is the exchange of two contra-flowing value streams, where products and services are flowing downstream from harvest to the consumers met by a counter upstreaming purchasing power from consumers and other financial suppliers.

The methods and contents of transaction decisions in all stages of a value chain relies however on established conventions defined as “. . . practices, routines, agreements, and their associated informal and institutional forms which bind acts together through mutual expectations” (Salais and Storper 1992, p. 174). Conventions can be both informal and formal. Informal as commonly accepted rules of behaviour that form the basis of shared cognitive frameworks that allow for coordination among economic actors (Storper and Salais 1997). The formal rules are ‘more visibly’ codified, written down, and supported by the state (Storper 1997, p. 72).

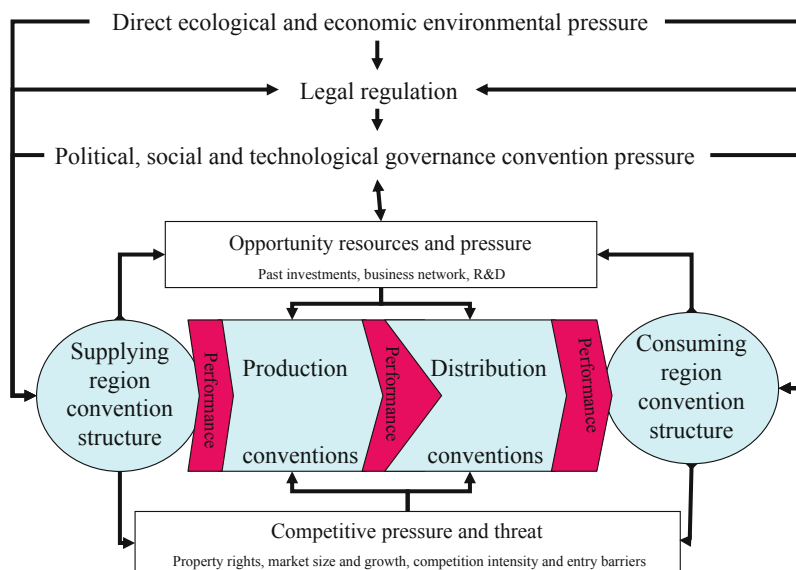


Fig. 2.1 Structure-Convention-Performance (SCP) value chain model. (after Trondsen 2012)

The theory of conventions (Salais and Storper 1992; Storper and Salais 1997; Storper 1997) takes industrial production as its main field of discussion. According to Storper and Salais (1997, p. 5) “... *industrial production is organized around the making of particular products; it is in specific product markets that competition takes place*”. Nevertheless, industrial goods are not just mere objects, but “... *the material result of an extraordinarily complex ensemble of social processes [and] relations between persons*” (pp. 37–8). This conceptualization goes beyond the individual firm’s responsiveness as an explanation for each industry’s performance and turns the value chain into a substantive research topic for economic geography.

Market conventions regarding product qualities, promotion, distribution, service and prices may drive consumer demand (Bestor 2004; Wilkinson 2006; Trondsen and Young 2006). The management conventions in each of the harvesting, production and distribution stages of the value chain may be framed by performance measures like price, profit, market shares etc.

Figure 2.1 also illustrates that the embedded resources and conventions in the structural environment also influence the configuration and performance of each production stage, as well as the value chain as a whole. In fisheries for example, the business orientation and value chain configuration are to a high degree influenced by fish harvest fluctuations (Trondsen and Johnston 1998). The geographical basis of the value chain provides resources and barriers for operational, as well as competition protection and pressure. Regulation is as illustrated in Fig. 2.1, central in this discussion since conventions, informal at their origin, are often the basis for formal legal arrangements, which compel producers to follow the rules and practices considered by authorities as conducive to realization of the national values and

goals of the food sector. Other formal organizations, private/public or profit/non-profit, located between producers and consumers play specialized roles related to food provisioning.

Regulation of the opportunity to enter producer or distribution strategic groups may reduce competition intensity and willingness to innovate and change. This is the case when the government issues limited licences for fishing or patents or when businesses invest in merger and acquisition to gain market dominance. Access to capital together with growth and the size of the served market relative to the total supply influence the competitive pressure in the value chain (Hayter and Patchell 2011, p. 17). The more protected the dominating participants are in each production stage, the better is their shared position in gaining monopoly profits in the transaction process without innovation (Barney 1996; Porter 1985).

The available value chain resources, convention structures and competition intensity may also lock-in and thereby limit the participant's value adding possibilities. This takes place notably in specialized value chains with high internal rivalry and high exit barriers, for example in industries embedded in outdated technologies (Porter 1985).

The competitive strength of each production and distribution stage in a chain influences also its exposure to opportunity resources and the pressure from competitors. Past investments in specialized and market-oriented technology, business networks and research and development (R&D) tend to influence strategies and access to networks, offering inspirational conventions and pressure to innovate (Grunert et al. 2010; Rogers 2003; Narver et al. 2004; Day 1994; Sousa de Vasconcelles e Sá and Hambrick 1989). The available internal and external opportunity and innovation resources and pressure or the innovative environment may thus influence each production stage, as well as the value chain as a whole (Porter 1990). Threatening competitive pressure related to the firms weakness may also occur in line with the SWOT model (strengths, weaknesses, opportunities and threats) described by Fleisher and Bensoussan (2002). The main connector between each production stage is thus the control or coordination of the industrial and market transactions that carry out the supply of products in demand, and services downstream in the value chain, against competitive purchasing payment (Gereffi et al. 2005; Grunert and Ellegard 1993).

The configuration of the value chain may therefore reflect the allocation of control over the value-adding transactions, which bind the operational production stages together. For example the Norwegian klipfish industry located in the northwest Norway has a strong influence on the salted fish value chain between the harvesting ground for codfish in the Northern Norway and the klipfish markets in Portugal and Brazil. Within this system, entrepreneurial drivers are participants in search of satisfactory rather than maximum profits, as Cyert and March (1963) and Simon (1957) have pointed out. The conventions prevailing among the units of the value chain are kinds of intangible trust assets reflecting the firms' competitiveness, which are contextually influenced (Dulsrud 2002). This may explain how the comparative advantage is developed, while the control over the value chain transactions (market power) achieved by the firm explains its actual competitive advantage (Prahalad and Bettis 1986; Porter 1985).

Adaptations to the dominant conventions take place within each stage of the chain (Gary and Wood 2011; Grunert et al. 2010). Each production and distribution stage is also influenced by different crossing value chains as well as different functional, legal and geographical contexts. Such inter-chain competition is demonstrated for instance by value chains for fresh cod, frozen cod and salted cod which are supplied from the same cod sources (Helstad et al. 2005). The participants therefore balance this inter-chain competition in a broader production system, which includes several value chains (Fisher 1997). Each stage in the chain must therefore compete to control its share of the market and input factors in the production systems. This is especially the case if they supply similar or substitute products and services as other value chains (Porter 1985). The firms involved in production and organization may thus capitalize on conventions as common platforms if they secure competitive advantages towards other competing strategic groups (Prahalad and Bettis 1986; Bettis and Prahalad 1995). The individual firms that compete within each stage of the value chain, such as primary fish processors, have common interests reflected in the behaviour, guided by the conventions shared among several similar production environments. Shared conventions within each specific stage of the value chain are thus built on common experiences and joint reflexivity (Storper 1997). This development of common, competitive convention platforms in the functional and geographical parts of the chain is one main concern of this book.

The structure of business networks between firms, for example between primary processors and retailers or between processors, may strongly influence the accepted rules of business practice among the firms and their relative control over production factors and distribution channels. The understanding of conventions by Salais and Storper's 1992, p. 174) as "...practices, routines, agreements, and their associated informal and institutional forms which bind acts together through mutual expectations" in the production realm, is in reality a conceptualization of the social competitive pressure that reflects the control of 'accepted' conduct in business networks. Such conventions or business models reflect the perceived opportunities and pressures in the firms' environment. Formal legal regulations (like access to fishing licenses), ecological conditions (like access to large salted cod) and economic environments (like access to financing of salted fish storages between the harvest season in the winter and the next year's Lenten consumption season) may influence norms or codes of conduct as illustrated in Fig. 2.1. The legal, social and ecological pressures will then influence business transactions in the value chains carried out in competitive arenas in each stage of the value chain where rivalries take place between individuals and groups.

The performance in each processing stage of the value chain is thus not only a function of the manager's relative control over transactions between the input suppliers and paying customers, but also the competitive adaptation to production and consumption conventions that are relevant for the whole chain of functions (Fisher 1997). The actors in the seafood value chains thus have to be engaged in continuous communication, controlling and reacting of opportunities, pressures, and threats in the factor and customer markets through intermediary social and regulatory networks and organizations (Trondsen 1985). This layer of organizations and networks thus indirectly binds the value chain transactions together.

Changes in society's governance rules, such as the need for general taxation, new policy, and allocation of fish quotas, as well as ecological changes in climate and fish migration, may influence the value chain's comparative advantages, and then the development of governing conventions in the value chain (Porter 1985). Changes in the ecological environment (e.g., changes in climate, fish migration pattern, or size of the fish stock) may influence value chain performance directly and indirectly (e.g. by fishing regulations aimed at preserving sustainable fish production), as illustrated in Fig. 2.1.

Governance rules include interpretation, management, and implementation of regulations in different arenas, such as courts, government administration, and other relevant social fields. Formal or informal professional or interest groups have the opportunity to influence the governance conventions relevant for their value chain. Saltfish Processors of salted fish can for example promote increases in fish quotas for coastal vessels that catch bigger cod that are more suitable for saltfish processing than for cod caught by the off-shore trawler fleet, and they can promote regulation of the use of additives in salted fish to improve product whiteness. The different governance arenas may also interact with each other as part of a power struggle to control the direction of value chain development (Trondsen 1985). The industry actors may influence their position by participation in many market arenas in addition to their primary product market. Participation in the political arena may secure fish quotas and tax reductions, in the economic arena to secure financial services, in the social arena to secure workers, in the technological arena to secure new efficient production equipment, in the ecological arena to secure fishing grounds, and finally in the legal arena to secure protective regulations. The directly related governing conventions thus unfold themselves according to their function. However, in this book, these conventions are subordinated respectively to the conventions of the production systems and consumption conventions already accounted for.

2.4 Different Kinds of Convention Approach in Food Value Chains

Three main conceptual perspectives of *institutions*, *values*, and *networks* inform the more general theoretical background of conventions that conceptualize the relationship between food value chains and the embedded society. These three concepts may explain activities in production, distribution, consumption and regulation of food. Individual producers must take decisions within the limits defined by conventions in order to supply profitable goods to consumer markets. In this view, laws and institutions are the formalized versions of the former, more informal practices. Storper and Salais have identified up to six groups of conventions related to technology, markets, participation, identity, labour, and the role of the state.

The *conventions of technology* offer solutions to availability of the material resources and knowledge processes used in the industrial realm. *Specialized* technologies are often restricted to certain locations (or 'sticky places', in the words

of Markusen 1996) in the value chains. Singular raw materials or communities of technicians have framed the basis for a long-term territorial economic specialization: watches in Switzerland; software in California; red wines in Burgundy; or the Norwegian klipfish, all relying on a convention of specialized technology. *Standardized* technologies may be deployed anywhere, regardless of the tacit knowledge embedded in specialized technologies, so they are suitable for mass production in low-cost locations where economies of scale are more easily achievable (Storper 1997).

The *conventions of markets* offer solutions of product sales places and may differentiate markets demanding generics from dedicated goods. *Generic* goods are those aimed at satisfying basic common needs or demands from the bulk of consumers. Price is usually the most important criterion when purchasing these undifferentiated goods. Nevertheless, competition in the current world economy is shrinking the market share for generic goods and stretching the position of *dedicated* and differentiated goods whose brand, origin, design, designer, or any other intrinsic or extrinsic properties attached by producers enhance their attractiveness for specific niches of consumers (Porter 1990).

The *conventions of participation* give solutions for entering and operating in the industry. *Restricted* participation describes a situation where entrance barriers are high due for instance to legal surveillance over the quantity of production (quotas for fish catches or milk production in the European Union), or to the control that a community of professional experts on qualification of new trainees (i.e. by limiting access to vocational schools or university faculties). When participation is *open*, no specific barriers arise against newcomers, beyond the ordinary constraints of any business.

The *conventions of identity* refer to qualification solutions of the participants engaged in the business. Identity is a *personalized* asset that actors assess each other by their individual reputation, their particular skills, their field of expertise, or their membership in the geographical or professional communities that govern the industry. Identity is *abstract* or interchangeable when actors are qualified only by their formal diplomas or by their quantitative contribution to the production process, regardless of any more nuanced or qualitative criteria.

The *conventions of labour* deal with solutions of *productivity* and management of *employment*. Workers in any industry are supposed to earn a monthly wage by making concrete efforts to produce successful industrial goods, that is, they accept that they have to be *productive* enough for the firm to stay in business. Nevertheless, they also have to accept that poor performance or market fluctuations may lead to *unemployment* when companies adjust the working time, the size of the staff and the total wages either to its revenues or to the ups and downs of demand.

Finally, the *conventions of the state* include solutions and actors who coordinate private interests and whose goals are collective interests and will, and not individual interests, with maximization of profit or market share. Nevertheless, according to Storper and Salais (1997), the state may strive for the common will in at least three different ways. The *external* state supplies clear-cut rules and a huge amount of resources for individuals to pursue the common will, defined by the state. In the *invisible hand* fashion, the *absent* state tries to maximize an individual's opportunities to achieve their own goals and interests, with no *ex ante* definition of common

guidelines apart from the maximizing of private profits. The *situated* state enhances cooperation with individuals and interest groups who have defined their joint action frameworks, and helps those groups to develop their duties and improve their economic performance.

Within the context of this book, institutions involving fishing quotas, catching and handling procedures, fish auctions, salting, freezing and other processing technologies, professional know-how and training, firm management or coastal community development are discussed as conventions that frame the aim and possibilities for coordination among Norwegian salted fish producers. Those conventions may match with conventions used by consumers to buy fish or not.

Changes in supply capabilities as well as in consumer demand preferences may, however, drive food markets built upon transactions of products and money in dynamic value chains. Currently, new concerns are influencing consumer behaviour. Boltanski and Thévenot (1991/2006) have developed a comprehensive analytical framework to explain the *orders of worth*, which are included in negotiations and compromises in transactions among different values and interests (Wilkinson 2006). The *orders of worth* may however express the content of the conventions (Murdoch and Miele 1999; Murdoch et al. 2000; Morgan et al. 2006; Straete 2004; Trabalzi 2007).

Boltanski and Thévenot's point of departure is the different criteria we use to justify individual behaviour in different situations and contexts: the home, the workplace, the community, the public arena. They have rules of their own that we follow to differentiate between appropriate or inappropriate words, behaviours or objects. With reference to these authors, we may distinguish between seven kinds of decision situations or conventions "worlds": *industrial, market, domestic, civic, public, inspirational and ecological*. The *orders of worth*, as the relevant value priorities and solutions, reflect different criteria for justification.

In Salais and Storper's 1992, conceptualization, conventions are the basis for the constitution of different worlds of production and summarized under the category of *production conventions*. Boltanski and Thévenot's 1991/2006 concept of orders of worth is discussed here as covering *values* in general. In our specific analytical perspective, we see the seven kinds of justifications mostly as influences of the values and interests that underpin consumer decisions. These two main ways of organizing the use of the concept of conventions, such as two groups of production or consumption conventions in the field of food studies, may also be related to views on food production that are said to be dominant in Europe (Parrot et al. 2002). Industrial production dominates Northern Europe's food system, while the local culture obviously influences both production and consumption in southern Europe. Nevertheless, conventions are active supporting decisions both in institutions and industrial systems, as well individual preferences and, to some extent, on the moral values that predominate in Southern Europe's localized food cultures. The economic life encompasses all seven worlds of convention. Economic actors (companies, managers, workers, consumers, trade unions, regulatory bodies) do not live separate lives, but as illustrated in Fig. 2.1 have to deal with complex situations facing their internal operations, their performance in the markets, their relationships and responsibilities with the local milieu, their public reputation, their values, and their purchasing

power. Accordingly, the order of worth of *industrial conventions* relies on technical efficiency and standards to deliver reliable and durable goods. The order of worth of *market conventions* focuses on trade where margins and profits (for companies) and satisfaction and usefulness (for consumers), price and wealth being its core assessment criteria. The order of worth *domestic conventions* is concerned with tradition and with trust and place as cornerstones in the justification process. The order of worth of *public conventions*, on the other hand, stresses the role of reputation (i.e. trademarks, branding, labelling) as a key driver for economic transactions. The order of worth of *civic conventions* judges economic decisions and processes according to their contribution to social cohesion, welfare and justice, while the order of worth of *ecological conventions* is mostly concerned with their implications for environmental sustainability. Finally, the order of worth of *inspiration conventions* is important for innovation because of the commitment of individuals with beliefs, ideals or missions.

The coordination of economic life is mainly based on industrial and market orders of worth conventions, but "... the complex societies that we are studying cannot be confined within any one of the worlds that we have identified" (Boltanski and Thévenot 1991/2006, p. 195). Therefore, producers must be aware that markets are imperfect, that consumers are not purely calculative devices, and that a number of different qualities may be attached to industrial goods because consumers are also (and increasingly, at least in developed countries) sensitive to domestic, public, civic, ecological, and even inspirational values. Food is particularly appropriate as a field for developing strategies other than volume and price, because of its material and representational connections with nature, health, justice, culture, tradition, taste, or place.

Different orders of worth conventions are thus materialized in consumer solutions and decisions, and influence producers' management and practices and embodied in labels, logos, packages, advertisements, discourses and any other marketing devices, in order to enhance the qualities, attributes, features, and traits corresponding to different common principles for justification. This book discusses the ability of Norwegian salted cod producers, following northern European production conventions, to meet new demands stemming from the particular mix of orders of worth conventions that prevail in the Spanish seafood market.

The third conceptual perspective in our discussion relates to formal and informal networks and their intermediary role in the food value chain as responsible for matching production and consumption conventions as illustrated by the arrows in Fig. 2.1. At the informal level, parties collaborate on various forms of strategic coalitions where attempts can be made to realize joint intentions and goals. Nevertheless, organizations are formal coalitions of human, technical and knowledge resources that have a defined goal or purpose. Companies, trade unions, and producer associations usually pursue private interests. National, regional and local authorities, along with public agencies with specific goals, are supposed to represent a common will, according to the conventions of the state previously defined. For both types of organizations, laws, norms, rules, and acts are the normal tools for codifying practices and values in a dynamic bargaining process that, at any time and location, represents the power and influence of each actor in the value chain (Lindkvist 2010).

Nordic-Iberian Cod Value Chains

Explaining salted fish trade patterns

Lindkvist, K.B.; Trondsen, T. (Eds.)

2015, X, 223 p. 36 illus., 23 illus. in color., Hardcover

ISBN: 978-3-319-16404-5