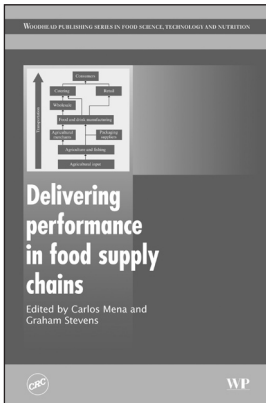


Reviews



Delivering Performance in Food Supply Chains

Edited by C. Mena and G. Stevens

2010, Woodhead Publishing, Cambridge, 700 pages, ISBN 9781845694715, £170.00

The supply chain concept emerged in the 1980s and was initially applied mainly to products subject to assembly-line production techniques. It evolved from logistics and emphasis was placed not only on breaking down the barriers inhibiting the flow of physical goods – from the materials supplier to the producer or assembler and on to the distributor, and also within their organizations – but also on the flow of information in the opposite direction. In time, the concept came to be applied to the food industry but, as the editors point out in their opening chapter, this necessitated considerable adaptation of the approach. In analysing food supply chains it was necessary to take account of seasonality of both supply and demand, issues related to health and safety, the short shelf life of many products, which complicates the use of inventory as a way of addressing uncertainty caused by demand volatility and, last but not least, the impact of food

production and distribution on the environment.

Modern food supply chains have largely succeeded in offering a growing range of relatively low-cost food to consumers while, at the same time, having to address issues such as health and nutrition, sustainability, and corporate social responsibility. How this has been achieved is the broad theme of this book's excellent collection of 24 chapters by some of the leading thinkers on the topic.

The collection is organized into six sections. Four papers in the initial section discuss relationships within the chain, covering the use of performance measurement as a tool for relationship management; the impact of power imbalance on the chain's success; the role of supplier assessment to manage relationships in the context of standards; and, finally, the subject of innovation including promoting innovation through collaboration (or 'co-innovation' as the authors call it). The trend towards collaboration between competitors is, indeed, a recurring theme throughout the book. The second section considers ways of aligning supply and demand. The first paper discusses the use of sales and operations planning,

and suggests ways in which it can be applied to the food industry; the second looks at ways of addressing uncertainty through planning, auditing, and performance diagnostics, while the third considers the alignment of marketing and sourcing.

Five papers in the third part of the book address the question of process efficiency and effectiveness. The first discusses a value chain analysis methodology and describes how this has been applied to the UK pork industry, with an emphasis on eliminating waste and thereby increasing productivity. The second looks at the use of 'agility' in order to avoid erosion of the alignment between customers' demands and supply capacity, using examples from the fish and salad sectors. The third chapter in this section considers the problem of loss or 'shrinkage' in grocery retailing, both in terms of physical and value losses. The author points out that it would be unwise to talk about an 'average' level of shrinkage as losses are invariably context specific; a salutary reminder for those who are once again using dubious statistics to promote work in the post-harvest field. Further chapters in the section look at cost and time as measures of supply chain performance, and at whether the already efficient British supermarket distribution system could achieve further efficiency

gains as a result of collaboration between competitors.

Three chapters in the fourth section address the vital topic of food quality and safety and how to maintain these in the supply chain. The first considers consumer perception of risk. The second reviews and summarizes the major international private standards now in use, such as GLOBALGAP, HACCP and ISO, and is a potentially useful guide for those in developing countries struggling to understand the implications of the plethora of standards they now face. A final chapter addresses quality in the food chain, including the role of communication, traceability, and 'total quality management'.

Section 5 addresses the use of technology in the food supply chain. The first chapter in this section considers 'active' and 'intelligent' packaging and its role in quality management, stock control, and waste reduction. This is followed by a useful overview of refrigeration technologies and recent developments in the field of refrigeration, together with practical advice on factors that need to be taken into account by companies when specifying refrigeration systems. The next chapter looks at the use of simulation and modelling to improve fresh fruit supply chain management and uses a case study of pineapple shipments from Ghana. This is followed

by a consideration of the use of e-business in food supply chains. The initial enthusiasm for e-business in the food sector, including among developing country exporters, does not seem to have been matched by subsequent adoption rates, at least as far as sales to consumers are concerned. The authors examine the reasons for this. A final chapter in this section considers the use of radio frequency identification (RFID) in food supply chains.

The final section addresses issues of sustainability and corporate social responsibility. The first chapter looks at the external or environmental costs of food distribution, such as carbon emissions and congestion. The authors identify several developments that could offer significant benefits, including transport collaboration between companies, increasing maximum truck weight and redesigning logistics systems. They estimate that implementation of six priority areas could cut the cost of externalities by 17 per cent. The next chapter returns to the question of voluntary standards, this time in the context of developing sustainable supply chains. Fairtrade, organic, GLOBALGAP and the Ethical Trade Initiative are considered in some detail and the authors examine some of the trends that are beginning to emerge. A final chapter summarizes the major technological trends affecting food

supply chains, particularly in the context of sustainability.

The editors' introduction is somewhat disappointing, providing a brief analysis of global trends and describing each chapter of the book in a couple of lines rather than attempting to draw out the most significant issues raised. However, this weakness is more than compensated for by the overall content of their publication. In their introduction they note that the book takes a developed-country perspective but their assumption is that other parts of the world are likely to follow a similar path. As this review has tried to emphasize, many issues are raised that seem extremely applicable to developing countries. The aims of maximizing efficiency, matching demand and supply of perishable products, reducing waste, improving supply chain relationships and collaboration, and of meeting consumers' needs for safe and high-quality food should be universal. Although this book has been primarily written by academics from the UK and Europe, its applicability goes way beyond that region. It should be a very valuable resource for food companies, supply chain specialists, and development experts throughout the world.

Andrew Shepherd was formerly with the FAO and is now with CTA, Netherlands

From Sorghum to Shrimp: A Journey through Commodity Projects

Royal Tropical Institute and Common Fund for Commodities 2011, KIT publishers, Amsterdam, 150 pages, ISBN 9789460221569

This book looks at the problems of identifying, designing, and implementing development projects through the somewhat novel lens of commodities. It draws on the experience of 11 case studies chosen purposively from a diverse range of different products, countries, and lead agents. What is refreshing is its honest approach to providing common sense advice to practitioners with clearly defined 'lessons' at each stage of the project cycle and more generic advice from a broad range of experience.

The case studies address the following question: how can public resources available through grant projects be deployed to support agricultural commodity chains for local economic development?

What makes this book particularly useful to my mind is the sense that the voice of the project implementers shines out from the findings. The authors have gone to some pains to allow practitioners to speak for themselves by bringing them together for a writeshop and by lacing the text with numerous useful boxes and personal insights. You get the

sense that the conclusions and lessons come from a properly held discussion and a number of enriching anecdotes shared amongst colleagues. They have also been at pains to take a positive spin on the topic: as one contributor sagely observes 'in many meetings, discussions are problem – rather than solution – orientated, leading to a situation where problems are described as over-complex and often unsolvable'. How true.

The book has two main sections: a series of summaries of findings laid out along the project cycle from design to impact assessment in Part 1, and a diverse range of commodities case studies in Part 2 with clear and well-presented short synopses (with a little map so that you can see which country is where). Commodities include: coconut, jute, coffee, bamboo, sorghum, pearl millet, horticulture, cacao, cashew, and aquaculture. Countries providing case studies include: the Philippines, Bangladesh, India, Brazil, Venezuela, Ethiopia, Rwanda, Kenya, China, Thailand, Zimbabwe, and South Africa.

Chapter 1 attempts to 'bound' the research by defining commodity projects. This, to my mind, is one of the key challenges of such a case-study/handbook: namely, where do you stop? The team had a lot of case studies to choose from and a number of criteria to fulfil. The limitations

of the approach are well explained and realized.

Chapter 2 considers design choices for commodity projects. Does one choose a single commodity, a single country, a particular stage in the value chain, a certain technology? Should upgrading potential drive design choices or should this be allowed to 'emerge' from participation by actors in the process of project delivery? This last issue is described as 'problem or opportunity focus' and I was gratified to see confirmed a long-held belief that domestic market opportunities should be thoroughly investigated before rushing into complex export markets, with a nice example given in the Ethiopian and Kenyan bamboo furniture sectors. As the authors realistically observe, design choices are sometimes given, and it is this level of candour that makes the book useful. I was surprised to find limited discussion of the length of commodity project interventions, but this may reflect participants' personal priorities rather than a deliberate omission.

Issues of inclusion, stakeholder participation, and partnership are considered in Chapter 3. This is done using value chain analysis language with reference to KITs own important contribution to this field. A number of issues that are often overlooked are highlighted. For example, the importance to the success

of commodity projects of organizing traders is mentioned (never a popular subject, but nevertheless a key ingredient of success). Also, the challenge of involving as many stakeholders as possible against the likelihood of failing to meet everybody's expectations is highlighted.

A whole chapter (Chapter 4) is given over to the importance of flexibility in project implementation. This was my favourite chapter. After many years of implementing and reviewing commodity projects one issue that is obvious is that projects are static and markets tend to be dynamic, so built-in flexibility should be normative. However, as we all know, it is not always so easy to convince donors of this, with their tight spending schedules.

In Chapter 5 the activities or nuts and bolts of implementing a commodity project are considered. I found Figure 4, which lays out the proportion of project time ascribed to each 'activity' such as 'training', 'marketing', and 'communication', quite revealing. The effort given to marketing was less than might be expected for commodity projects. This in itself is a useful finding.

Chapter 6 considers impact and sustainability with excellent advice such as looking for quick wins and planning an exit strategy from the start. The book gives a very honest assessment of the challenges of scaling-up and entrepreneurial

uptake observing that 'there is no easy solution'. I found the discussion around the issue of purchasing capital equipment particularly honest ('when to fund equipment and buildings' p. 85).

Markets and marketing in commodity projects deserves a book all to itself and is considered here in Chapter 8 with much good and condensed advice from experience. So much advice in fact, that more lessons might have emerged.

I had few quibbles with this small and very useful book. It does not purport to be an academic review of commodities but an exercise in learning lessons from practice. A little more discussion of when is a commodity a commodity might have been useful. Touching on the literature of commodities in recent years could have grounded the choice of case studies by demonstrating how some of the commodities chosen fit into a number of wider development discourses. But, in fairness, this might have made the book less readable. Some issues from personal experience that I was looking for, but were not raised by the participants in their case studies include: the role of incentives in commodity projects; the importance of measuring viability at several stages in a commodity project

to ensure that comparative advantage exists in one way or another; how to address conflicts of interest in upgrading commodity chains; how to measure and address post-harvest losses; and, finally, the role of negotiating skills for key actors in value chains. Maybe these issues will emerge in future volumes of commodity project case studies.

The book is elegantly presented with copious boxes, pictures, and figures to maintain reader interest and consistently clear prose throughout. There are some fine photographs supplied by participants.

The audience for the lessons shared in the book should be considerable. KIT and CFC are not the only donors using commodities as the core theme for their project. Almost all donors do it. Even at the level of national agricultural research the focus is usually a commodity one.

Finally, and as an example of the commendable forthrightness of this book, the authors observe that 'room is needed for failure'. Learning from what does not work is as important as learning from what does. I think we can all agree with that.

Ben Bennett is Head of the Food and Markets Department at the Natural Resources Institute, University of Greenwich, UK