

## Motivating and Enabling Value Chain Innovation in Canada's Agri-Food Industry



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## Executive Summary

Despite innovation being on the forefront of policy discussions for over 20 years, Canadian firms continue to underperform in innovation when benchmarked against their rivals.<sup>1</sup> A key reason for this is that Canadian governments' investment in innovation is heavily biased towards scientific research and development (R&D).



Comparatively little investment has been made towards enabling or motivating organizational innovation. Yet it is organizational innovation that researchers<sup>2</sup> say has the greater positive impact on translating new ideas and knowledge into economic performance and competitiveness. Technological and scientific discoveries produce tools. However, like any tool, how they are applied to achieve a given outcome determines the advantage that can be derived from their use.

Evidence proves that appreciable and continual improvements in business performance can only occur when businesses more closely align their strategies and operations with customers and suppliers than traditional business approaches allow. The existence of strong relationships enables businesses to achieve outcomes that would otherwise be unattainable.

Innovating as a value chain enables businesses to create competitive advantages that are very difficult for competitors to copy. The leading business innovators of the future will go beyond borrowing and adapting others' best practices. They will create altogether new ideas and practices, in turn rewriting the rules and increasing the gap between themselves and the competition. Innovating as a chain equips businesses to achieve market-oriented improvements in products and services, resulting in increased revenue. It also enables businesses to streamline operations within and between themselves – resulting in higher levels of efficiency and productivity than would otherwise be possible.<sup>3</sup>

This paper commences by explaining why value chain innovation is important to the future prosperity of Canada's agri-food industry. It then discusses the factors that determine businesses' motivation and ability to innovate in line with market demands. Inhibitors to value chain success are also presented. The penultimate section of the paper describes the influence that government policy plays in enabling and motivating market-driven innovation in the agri-food industry. It concludes by describing the role that industry, government and academia can play in facilitating and motivating Canadian agri-food innovation at the business level, leading to a more competitive agri-food industry.



## VALUE CHAINS: inputs and farming through to consumers

### Introduction

A rapidly changing business environment typified by technological innovation, finite resources, industry consolidation, deregulation and changing consumer demands, is driving businesses (wherever they are situated along the value chain) to develop new and sustainable approaches to creating and capturing value.<sup>4</sup>

Because the value chain approach to management and innovation is founded upon drawing on relationships between customers and suppliers to develop strategic and operational strengths and capabilities, it creates competitive advantages that are very difficult for competitors to copy. This is particularly the case when compared to competitive advantages that are based on technological or scientific innovation. Innovating as a value chain rather than as independent links results in competitive advantages that are among the most desirable and sustainable. This has led to collaboration with like-minded partners being described as the most fundamental of requirements for enabling businesses to develop a sustainable competitive advantage.<sup>5</sup>

Closely-aligned value chains are forming more slowly in the agri-food industry than in industries such as IT and automotive.<sup>6</sup> Reasons for this include that agri-food policies, legislation and regulations impact the motivation and ability of individuals and businesses in a chain to collaborate and innovate in response to known and projected market opportunities. The creation of an environment that supports the development of robust, innovative and competitive agri-food value chains can be enhanced through effective partnerships being developed between industry, academia and government.



### Why Value Chain Innovation is Important to Canada's Agri-Food Industry

The old business model of independent companies competing against other companies is slowly being challenged by distinct value chains competing against other value chains for market dominance.<sup>7</sup>

Operating as a closely-aligned value chain provides businesses with unique benefits. It enables businesses to more effectively compete in "an environment characterised by scarce resources, increased competition, higher customer expectations and faster rates of change".<sup>8</sup> The ability to actively coordinate efforts and resources along the value chain, coupled with the ability to continually reduce production costs, is increasingly what separates leaders from the wider industry. This change is placing added pressure on businesses that do not belong to closely-aligned value chains to find ways to remain competitive.<sup>9</sup>

The primary benefit of operating as a closely-aligned value chain is financial sustainability. Participating in a closely-aligned value chain helps businesses ensure that other members of the chain are meeting critical specifications, such as those associated with traceability or food safety. They become less vulnerable to another businesses' performance proving inadequate. The same businesses possess the opportunity to differentiate their products based on specific attributes, through having the ability to more effectively design and monitor all of the processes used to produce an end product.

This provides the ability to make market-oriented improvements in products and services, and for businesses to streamline operations within and between themselves – resulting in higher levels of efficiency than would otherwise be possible.<sup>10</sup> Businesses are able to learn and act on knowledge in unique ways, leading to them having the ability to adapt more effectively to change than if operating as independent organizations.<sup>11</sup>

As has already occurred with businesses operating in the IT, aeronautical and automotive industries, Canadian businesses operating in the agri-food industry will increasingly need to learn how to apply value chain management (VCM) approaches to their business. Otherwise, they will be extremely hard-pressed to successfully compete in the increasingly challenging global environment.<sup>12</sup>

## The Motivation to Change and Form an Innovative Value Chain

How a value chain is managed dictates its success. Its organizational structure, strategic orientation and business culture are the drivers that determine the chain's competitiveness and the benefits that its members derive from their participation.<sup>13</sup>

Knowledge by itself is insufficient motivation for a business to act on its capabilities. By itself, knowledge is also insufficient for enabling change. Individuals must be motivated to learn, then translate that learning into purposeful action.<sup>14</sup> The motivation to learn and change often stems from the influence that policies and programs enacted by industry and government have on individuals' and businesses' attitudes and behaviours.



The dominant driver of value chain collaboration stem from individuals and businesses realizing that remaining competitive is an outcome of successfully delivering on customer and consumer demands.

The most powerful enabler of value chain innovation is the attitude of participants.<sup>15</sup> Attitude shapes individuals' perceptions of the world around them, their relationship to other inhabitants of that world and the opportunities that this offers. For example, attitude determines whether someone is customer centric, views inter-firm collaboration as critical to success, considers open communication as a necessity, is motivated and able to adapt to change, factors people into every decision, invests in information technology, and is obsessed with performance measurement.<sup>16</sup>

Key to achieving sustainable competitive advantage through value chain innovation are shared vision, compatible structures and processes, open communication, and shared benefits and costs.<sup>17</sup> The majority of these enablers flow from the quality of relationships that exist between, and within, the businesses that comprise the value chain.

A further motivation to form collaborative relationships comes from individuals identifying how they will enable their business to increase its profitability.

Close relationships enable more effective information exchange, which facilitates problem solving, which in turn leads to greater potential for commercially significant innovation.<sup>18</sup>

Adoption of value chain approaches also enables businesses to mitigate risk and uncertainty through having the ability to better anticipate and respond to their collaborators' needs and handle unexpected events more effectively than otherwise possible.<sup>19</sup>

Increased profitability also stems from how collaboration enables businesses to reduce input costs, inventory costs and overall production costs. In aligning their strategies and operations, value chain partners can reduce transportation costs, handling costs, packaging costs and energy costs. Simultaneously, businesses are able to improve customer service, marketing effectiveness and overall productivity. This also reduces waste and produces environmental benefits that can be marketed to environmentally conscious consumers.

## Determinates of Businesses' Ability to Form Innovative Value Chains

The greatest driver motivating businesses to form a value chain occurs at the individual level - the attitude and motivation that individuals have to learn and adapt.

The ability to innovate directly in line with market demands requires skills not traditionally associated with the Canadian agri-food industry. They include the ability to learn from different sources, and then translate new knowledge and skill sets into a different way of conducting business. Other capabilities that producers and managers of agri-food businesses require to develop and maintain close strategic relationships with customers and suppliers include human resource, financial management and marketing capabilities.<sup>20</sup>

That many individuals lack these types of skills is a key reason why adversarial transactional business relationships continue to typify much of the Canadian, even global, agricultural and agri-food industry.<sup>21</sup>

Given the current lack of skills, it is not surprising that English Food and Farming Partnerships<sup>22</sup> stated that agribusiness managers "have to recognise that the attitudes and business practices that served well in an era of protection and price support are unlikely to be appropriate in the future."<sup>23</sup>



Before changes will occur in managers' attitudes and behaviours, changes must first occur in the perspectives they possess towards the factors that determine the success of their business and the environment within which they operate.<sup>23</sup>

Changed perspectives increase individuals' ability to learn and apply increasingly sophisticated problem-solving skills. In turn, this enables the businesses that together form the value chain to continually improve the level of strategic and operational alignment that exists within and between them, in relation to target market(s). Specific enablers of value chain innovation include: respect, trust and reputation; compatibility of partner firms; mutuality and interdependence; and sharing of resources and management personnel.<sup>24</sup>

In addition to participants' attitude (mentioned above), proactive and effective communication is critical to successfully developing and maintaining productive relationships.<sup>25</sup> The ability and motivation to communicate effectively relies on the existence of strong, effective leadership. It is suggested that one organization must take the position of leadership among chain members to avoid "...chaos among the member organizations".<sup>26</sup>

A company can exemplify its leadership role by demonstrating a willingness to share strategic and often confidential information with other value chain members, as well as advocating values and long-term goals that generate enthusiasm. It will also understand and appreciate the distinct needs of each member organization and the kinds of relationships that are needed to support them.<sup>27</sup> While the company that adopts the leading role is likely to reside in the middle of the chain, it can be situated anywhere from input supplier through to retailer or foodservice operator.

The ability to communicate information enables organizations to respond to customer needs and to create the knowledge-related capability required to create competitive advantages.<sup>28</sup> Communication also enables businesses to build the level of trust required to develop successful value chains alliances.

## Inhibitors to Value Chain Innovation

Inhibitors to value chain innovation can come from within the involved businesses or the external environment within which they operate.<sup>29</sup> This section is therefore divided into 'Internal Inhibitors' and 'External Influences'.

## INTERNAL INHIBITORS

A primary cause of the slow rate of attitudinal and behavioural change occurring in Canada's agri-food industry is individuals' inability to communicate effectively with businesses operating at different levels along the value chain.<sup>30</sup> The impact of poor communication is exacerbated by the agricultural and agri-food industry tending to lack a learning culture.<sup>31</sup> These factors result in a tendency to look to the past for ways to compete in the future,<sup>32</sup> the continuation of entrenched, adversarial business relationships,<sup>33</sup> and the perpetuation of business models that are unsuited to enabling businesses to compete in the 21<sup>st</sup> Century.<sup>34</sup> It also leads to the continuation of mindsets that are unsuited to the task of forming and managing closely-aligned value chains.<sup>35</sup>

A significant inhibitor of value chain innovation is the lack of strategically-aligned, incentive systems.<sup>36</sup> Strategically-aligned, incentive systems are required to elicit chain-oriented behaviour through establishing a strong framework of rules and decision-making processes. Another significant inhibitor to businesses developing close, strategically-aligned, commercial relationships include businesses not believing that they can mutually benefit from entering a long-term commercial arrangement with other members of the value chain. This leads to them being distrusting of the overall VCM concept, or not believing that potential partners possess the fortitude and vision required to break away from the adversarial mindsets that typify the agri-food industry. Evidence shows<sup>37</sup> that this lack of trust has made the task of implementing value chain approaches in the agricultural and agri-food industry a more difficult and protracted endeavour.

Despite trust being considered a prerequisite to sustained value chain integration, it is a rare commodity that is often missing, not only between chain partners but also within a single organization.

Lack of trust invariably stems from an inability to communicate effectively. It is not whether individuals agree that determines whether or not organizations communicate effectively, it is whether they possess the emotional accord required to understand each other's point of view.<sup>38</sup>

The inability to communicate prevents individuals from possessing the ability and desire to learn, then apply the resulting knowledge in unique ways.<sup>39</sup> It also prevents individuals from establishing the empathy required to remain committed to a long-term partnership.<sup>40</sup>

Attempts to increase value chain integration often create a sense of organization vulnerability, requiring workers and managers to step out of traditional comfort zones.<sup>41</sup> The challenge when working with multiple producers to achieve the critical mass often required to form closely-aligned value chains comes from meshing unique production management styles, incompatible information systems, diverse attitudes and different approaches to measuring performance. The challenge can seem insurmountable.

Unless producers are committed to the formation of value chain relationships, they will continue to behave opportunistically and sell for the highest price on a given day. Simultaneously, agri-food managers will continue to purchase at the lowest price, unless they too are committed to the formation of value chain relationships.

That this situation persists across much of the agri-food industry has been attributed to the existence of inconsistent goals and poor measurement practices. Divergent goals lead to producers and their customers making self-interested decisions. Poor measure practices lead managers to continually base their decisions on assumptions. It also leads to producers and their customers being predominantly price or cost reduction focused, rather than focusing on increased quality, customer service or access to new resources.<sup>42</sup>

## EXTERNAL INFLUENCES

Lewin (1936)<sup>43</sup> stated that to understand the reasons for individuals' and organizations' attitudes and behaviour, researchers need look no further than the environment in which they operate. A number of external factors have played a role in the reasons why the agri-food industry has been slower than other industries to embrace value chain approaches. For example, research has shown that government policies, legislation and regulations have an enormous influence on how businesses are managed and how their commercial activities are conducted.<sup>44</sup>

Government, institutional and industry policies have lessened producers' and other agri-food managers' exposure to external influences that would otherwise have motivated them to invest time and effort to develop management skills that go beyond those directly associated with crop or livestock production.<sup>45</sup> The same factors have also impacted the attitudes and behaviour of many producers and business managers by limiting the influence that market forces have had upon determining industry structure, and how the infrastructure that does exist is managed in relation to the end market.

In Canada, government policies have traditionally been farmer-focused, despite significant changes to the market.<sup>46</sup> A recent example of this bias is seen under the Business Risk Management suite of programming under 'Growing Forward', "designed on ideas put forward by producers. They are simple, responsive, predictable and bankable."<sup>47</sup>

Incidents such as this explain how government policy has supported the continuation of a culture where producers are resistant to change and many do not view their operations as businesses. Policies and legislation that favours farming over the wider agri-food industry have lessened the need for producers to manage their farms as commercial businesses.<sup>48</sup> This has resulted in farming largely becoming detached from the rest of the economy and environment. It has resulted in many segments of Canadian agriculture becoming increasingly fragmented, which also lessens its ability to be efficient and profitable.<sup>49</sup>

In Europe, similar challenges exist. Ongoing government support payments have fostered a culture where producers are insufficiently motivated to act or innovate as commercially-minded entrepreneurs.<sup>50</sup> In Canada, a direct and negative correlation was found to exist between producers who regularly claim income support and their longitudinal performance.<sup>51</sup> The same situation was also found to occur in the United States.<sup>52</sup>

These findings suggest that a considerable proportion of public funding is used to support mediocrity rather than motivating producers and downstream businesses to adopt best management practices. It also suggests that creating a more innovative sustainable industry will depend on identifying and remedying the unintended consequences of current policies and legislation.



## Revisiting Current Policy

As described in the previous section, government and industry policies, legislation and regulation impact the ability and motivation of businesses to develop closely-aligned value chains.

New Zealand, commonly recognized as one of the most innovative and successful agri-food producing nations in the world, has in large part succeeded due to how the changes to policy, regulations and legislation that were necessitated in the 1980s forced everyone to adopt a strictly commercial approach to how they manage their business. It also led to substantial institutional changes in attitudes and behaviour.

Government should see its role as facilitating the development of effective, market-focused value chains, through motivating and enabling businesses to acquire the necessary attitudes, capabilities and skills.<sup>53</sup> Taking this approach will become increasingly important if Canada's agricultural and agri-food sector is to meet the demands posed by a rapidly changing and globalizing market, climate change, and consumers' increasing concerns relating to food security and food safety. This means that policies, legislation and regulations need to facilitate investment into sustainable innovation, while not placing excessive regulatory burdens on the agricultural and agri-food sector.

Government investment in innovation has been heavily biased towards scientific and technological innovation. Comparatively little investment has been made towards enabling organizational innovation, which researchers say has the greatest positive impact on translating new ideas and knowledge into economic performance and competitiveness.<sup>54</sup>

This suggests that policy makers need to take a more holistic approach to the development and implementation of agricultural and agri-food policies, legislation and regulation. A reason why this has not occurred in Canada is that agricultural policy is influenced by *many* ministries including the Ministries of Education, Research, Industry, Natural Resources, Agriculture and Environment who often act in isolation. In Ontario alone, "there were seven federal and provincial departments administering 45 policies and programs that impact either value-added agriculture directly or innovation more generally".<sup>55</sup>

That this isolation and crossed purposes occurs at the federal and provincial level further speaks to the need for change.



To facilitate the development of a more sustainable, innovative and competitive industry through the development of more strategic approaches in policy, regulations and legislation, in 1998, the Australia federal government brought responsibility for the entire agri-food chain under one department. This move has enabled the Department of Agriculture Forestry and Fisheries to work more cohesively as a force to facilitate the development of a progressive and innovative agricultural and agri-food sector.

Australia, along with New Zealand, also made significant changes to programs and policies. Legislated marketing is almost non-existent. The examples that do exist, such as ZESPRI, operate along strictly commercial lines and from a value chain perspective.<sup>56</sup> Industry organizations must develop a market-oriented business plan to receive public funding. The level of subsidies paid, and to whom, changed markedly. Policies and programs are developed from a value chain perspective. Organizations such as Meat and Livestock Australia, Horticulture Australia Limited, Plant & Food Research (NZ) and Beef + Lamb New Zealand, are responsible for investing public funds into coordinated market-driven research that produces commercial benefits for industry.

For similar reasons, the UK's DEFRA (Department of the Environment, Food and Rural Affairs) has responsibility for developing policies, regulations and legislation that can advance the capabilities of the entire value chain. It was DEFRA that established initiatives such as the Food Chain Centre (FCC) and English Food and Farming Partnerships (EFFP). While FCC has since morphed into less distinct activities within the Institute of Grocery Distribution and EFFP has evolved into a European initiative, their combined work is facilitating the development of a more connected and commercially capable agricultural and agri-food sector. To develop more connected food chains, minimize replication and effectively utilize resources, the UK also amalgamated six commodity development groups into the Agriculture and Horticulture Development Board (AHDB).

## Public Supported Initiatives

Unless a radical change occurs in Canadian agri-food policies, regulations and legislation, widespread change will only occur if concerted effort is made through publicly funded programs.

Successful initiatives such as FCC and EFP illustrate what can be achieved when visionary stakeholders in government and industry partner to strategically reconnect our food and farming industry with consumers.<sup>57</sup> Initiatives of a similar vein that were undertaken in Australia include Supermarket to Asia (STA) and the National Food Industry Strategy (NFIS). Eight federal ministers sat on the NFIS Advisory Board.

The programs came from the perspective that reconnection can only occur through the development and delivery of education, training and awareness efforts, in tandem with the introduction of policies that motivate businesses to act upon the opportunities offered by individuals possessing new perspectives, knowledge and skill sets.<sup>58</sup>

The primary differences between the UK and Australian programs are that FCC and EFP were primarily focused on achieving domestic outcomes, and STA and NFIS were primarily export focused. The current situation facing Canada appears almost identical to the situation that existed in the UK and Australia during the late 1990s. The 'Supermarket to Asia' program found that while international market opportunities existed for Australia's agri-food industry, a lack of VCM capabilities limited businesses' ability to secure opportunities, domestically and internationally. This led to the development of the NFIS, which placed emphasis on developing the management skills of individual businesses, particularly those operating higher up the value chain, such as farmers and their intermediaries.<sup>59</sup>

The need for value chain related education, training and awareness is underlined by efforts undertaken in Australia, the UK and Canada.<sup>60</sup> Learning is a key requirement in the development of effective value chains.<sup>61</sup> Just as the learning capabilities of individual businesses underpin their competitiveness, in a knowledge-driven economy the learning capabilities of value chains underpin their competitiveness also.

Education and training related to the formation and management of value chains, at the tertiary level and through extension, is largely absent in the Canadian agri-food industry. It is common in Australia, New Zealand, the UK, and the Netherlands.

Funding extension work to facilitate the transfer of research and development to on-farm practices, such as the cost-effective production of high quality beef, is also an important facilitator of industry development.<sup>61</sup>

Demonstration projects have proven an effective means to encourage and enable businesses to use value chain methods to systematically analyze channel costs, value propositions, critical success factors, profitability, channel power or customer linkage, leading to changes in attitudes and behaviour.<sup>62</sup>

Most analytical efforts currently end at the farm gate and often focus on aggregating prices received. This is of limited value in developing an innovative and sustainable industry. More effective analysis of the relative impact that current policies, legislation and regulation have on the formation of innovative food value chains would be valuable in fostering development of a competitive and sustainable Canadian agricultural and agri-food industry.

## Conclusion

Increased competitiveness at the enterprise level will lead to a more competitive Canadian agri-food industry. It cannot and never will be the other way round. Enabling and supporting value chain innovation is crucial to the future prosperity of Canada's agricultural and agri-food industry, because it enables businesses operating at different levels of the chain to strengthen their competitive advantage by learning and working together.

Learning enables businesses to develop new, more sophisticated capabilities and adapt to changing market demands. It enables them to reduce costs and increase productivity, resulting in increased profitability. Because the value chain approach to management and innovation is founded upon using customer/supplier relationships to develop strategic advantages, it enables businesses to develop then retain competitive advantages that are very difficult for competitors to copy.

Despite these benefits, closely-aligned value chains are forming much slower in the agri-food industry than in other industries. A key reason for this is the relationship that exists between government and industry policies and the attitudes, capabilities, and behaviour of the individuals and businesses that together form the industry.

The adoption of progressive attitudes and behaviour are not just critical to forming innovative robust value chains; they are critical for overcoming the institutional inertia which presently acts as a barrier to the wider development of innovative closely-aligned value chains.



## References

- AAFC (2010a). *Canadian Consumer Grocery Shopping Simulation Study*. <http://www.marquecanadabrand.agr.gc.ca/research-etudes/5602-eng.pdf>; Accessed February 10, 2012
- AAFC (2010b). Business Risk Management Suite. <http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1200408916804&lang=eng>; Accessed February 12, 2012
- AAFC (2012). *Value Chain Roundtables*. <http://www.ats-sea.agr.gc.ca/rt-tr/index-eng.htm>; Accessed February 2, 2012
- Ag Education and Consulting (1999). *Forces Influencing the Evolution of Agricultural Value Chains*. September 2, 1999.
- Alvarez, J. B.; Shelman, M. (2010). Zespri. Harvard Business School; December 22, 2010
- Barrat, B. (2004). *Unveiling Enablers and Inhibitors of Collaborative Planning*. The International Journal of Logistics Management, Vol 15, no. 1, pp. 73-90
- Boehlje, M. D., Lins, D. A. (2004). *Risks and Risk Management in an Industrialized Agriculture*. Agricultural Finance Review 58 [Article #1], [http://afr.aem.cornell.edu/58/volume\\_58\\_article1.htm](http://afr.aem.cornell.edu/58/volume_58_article1.htm); Accessed January 3, 2008
- Boehlje, M. D. (1999). *Structural Changes in the Agricultural Industries: How Do We Measure, Analyse and Understand Them?* American Journal of Agricultural Economics, Vol 81, no. 5, pp. 1028-1041
- Boehlje, M. D., Hofing, S. L., Schroeder, R. C. (1999). *Value Chains in the Agricultural Industries*. Ag Education & Consulting, LLC Staff Paper #99-10 [August 31, 1999]. Department of Agricultural Economics Purdue University. [http://www.centrec.com/resources/Articles/value\\_chain\\_ag\\_industry/org\\_sc.pdf](http://www.centrec.com/resources/Articles/value_chain_ag_industry/org_sc.pdf); Accessed December 27, 2007.
- Bonney, L., Clark, R., Collins, R., Fearn, A. (2007). From Serendipity to Sustainable Competitive Advantage: Insights From Houston's Farm and Their Journey of Co-Innovation; Supply Chain Management: An International Journal; pp 395-399.
- Bonney, L.B. (2012). 'Insights into "mysterious processes": incentivising co-innovation in agrifood value chains', PhD thesis, University of Tasmania
- Cohen, W.M., Levinthal, D.A. (1990). *Absorptive Capacity: A New Perspective on Learning and Innovation*. Administrative Science Quarterly: Special Issue - Technology, Organizations, and Innovation, Vol 35, no. 1, pp. 128-152
- Collins, J. (2001). Level 5 Leadership: The Triumph of Humility and Fierce Resolve. Harvard Business Review, January 2001, pp. 66-76.
- Collins, R. (2011); *Translating Consumer Insights into Sustainable Competitive Advantage*; University of Queensland; Workshop held in Mississauga, Ontario.
- Cowan, J. (2007). *Thompsons: Succeeding through Process Improvement, Constant Communication, and Circling in on Quality*, Value Chain Management: Adding Value to Agriculture; George Morris Centre, Guelph, Ontario. DVD
- Creutzberg, T. (2011). *Canada's Innovation Underperformance: Whose Policy Problem is it?* The Mowat Centre, School of Public Policy and Governance, University of Toronto; October 2011.
- Curry, D. (2002). *Farming and Food, A Sustainable Future; Report of the Policy Commission on the Future of Farming and Food*, Department for Environment Food and Rural Affairs (DEFRA); January 2002.
- Defee, C. (2007). *Supply Chain Leadership*. PhD diss., University of Tennessee, 2007. [http://trace.tennessee.edu/utk\\_graddiss/148](http://trace.tennessee.edu/utk_graddiss/148); Accessed January 12, 2012
- Dunne, T. (2008). *Value Chains: Insights From Australia*. Webinar: Canadian Farm Business Management Council. <http://www.agriwebinar.com/Webinar.aspx?id=e8b6071a-78e6-4c8e-8515-2a5114be209f>; Accessed January 2009
- EFFP (2004). *Farming & Food: collaborating for profit*, English Food & Farming Partnership, London.
- EFFP (2005). *Making Collaboration Work*, English Food & Farming Partnerships, London.
- Fawcett, S., Magnan, G. (2001). *Achieving World-Class Supply Chain Alignment: Benefits, Barriers and Bridges*. Centre for Advanced Purchasing Studies.
- Fearn, A. F. (2007). Reasons for Alliance Failure, George Morris Centre, *Value Chain Management: Adding Value to Agriculture*; George Morris Centre, Guelph, Ontario. DVD
- Fearn, A, Duffy, R & Hornibrook, S (2005), 'Justice in UK supermarket buyer-supplier relationships: an empirical analysis', International Journal of Retail & Distribution Management, vol. 33, no. 8/9, p. 570
- Fearn, A., Pizzolato, N.D., Zanquetto-Filho, H. (2003). The Measurement of Benefits from and Enablers for Supply Chain Partnerships in the UK Fresh Produce Industry; Chain and Network Science; 3, 59-74; Wageningen University Press
- Ferrer, M, Santa, R, Hyland, PW & Bretherton, P. (2010), 'Relational factors that explain supply chain relationships', Asia Pacific Journal of Marketing and Logistics, vol. 22, no. 3, pp. 419—40.

## References

- Fortescue, S. (2006). Bowland 'Em Over: Dairywomen, an editorial supplement to *The Grocer*, *The Grocer*, September 9 2006, pp. 26.
- Food Chain Centre (2007). *Food Chain Centre: Best Practice For Your Business; Completion Report*.
- Fulton, A., Fulton, D., Tabart, T., Ball, P., Champion, S., Weatherley, J., & Heinjus, D., (2003), Agricultural Extension, Learning and Change, Rural Industries Research and Development Corporation, Barton, ACT. <https://rirdc.infoservices.com.au/downloads/03-032.pdf>, Accessed October, 2007
- Goleman, D. (2000). Leadership That Gets Results. *Harvard Business Review*, March-April 2000, pp. 78-90
- Gooch, M. (2012); Evaluating the Effectiveness of a Value Chain Management Teaching Methodology; PhD Dissertation; University of Queensland. (Unpublished).
- Gooch, M., Marenick, N. (2012) *Characterising the Determinants of Successful Value Chains*; Canadian Agri-Food Policy Institute, Ottawa.
- Gooch, M., LaPlain, D., Felfel, A., (2011). *Adding Value to Veal*. Value Chain Management Centre, George Morris Centre.
- Ison, R.L. (2000). Experience, tradition and service?: Institutionalised R&D in the Rangelands: *Agricultural Extension and Rural Development: Breaking out of Traditions*, Eds. Ison, R.L., Russell, D.B., Cambridge University Press, pp. 103-132.
- Ison, R.L., Russell, D. (2000a). The research-development relationship in rural communities: an opportunity for contextual science, *Agricultural Extension and Rural Development: Breaking out of Traditions*, Eds. Ison, R.L., Russell, D.B., Cambridge University Press, pp. 10-31
- Ison, R. L., High, C., Blackmore, C. P., Cerf, M. (2000), Theoretical Frameworks for Learning-Based Approaches to Change in Industrialised-Country Agricultures, *In Cow up a tree: knowing and learning for change in agriculture: case studies from industrialized countries*, Ed. Anonymous, Institut National de la Recherche Agronomique, Paris, pp. 31-55.
- Johnson, S. (2002). Supply Change Management in the Lamb Industry: An Analysis of Opportunities and Limitations. University of Sydney . <http://www.csu.edu.au/faculty/science/rman/afbmnetwork/conferences/2004/proceedings/Johnson.pdf>; Accessed February 20, 2007.
- Kilpatrick, S., Johns, S., Murray-Prior, R., Hart, D. (1999). *Managing Farming: How Farmers Learn*, Rural Industries Research and Development Corporation, Kingston, ACT, <http://www.rirdc.gov.au/reports/HCC/UT-18A.doc>, Accessed February 15, 2007
- Lambe, C. Jay, Robert E. Spekman, Shelby Hunt. (2000). Interimistic Relational Exchange: Conceptualization and Propositional Development, *Journal of the Academy of Marketing Science*, 28, 2, pp. 212-225.
- Lewin, (1936). Cited in Kolb, D.A. (1984). *Experiential Learning: Experience as The Source of Learning and Development* Upper Saddle River, New Jersey, Prentice Hall, Inc.
- Morgan, P., (2007). Livestock Marketing: Decreasing Costs, Increasing Revenue through Trust, Feedback and Attention to Detail. *Value Chain Management: Adding Value to Agriculture*; George Morris Centre, Guelph, Ontario. DVD
- Mussell, A. (2011). *Transparency in the Agricultural Policy Dialogue: Lessons from South of the Border*, George Morris Centre Newsletter; Winter 2012.
- Newton, D. (2000). *Supply Chain Learning for Australian Agribusiness*, Food Group, Agriculture, Fisheries, Forestry – Australia, Barton, ACT
- Oram, R., (2008). Opinion: The Value Chain, *Sunday Star Times: Business News*, Fairfax Media Limited, February 3, 2008, pp. 2.
- Rudmann, C., 2008. *Entrepreneurial Skills and their Role in Enhancing the Relative Independence of Farmers*, Research Institute of Organic Agriculture Frick, Switzerland
- Senge, P. (1997). The Fifth Discipline. *Measuring Business Excellence*, Vol. 1, no. 3, pp. 46-51 MCB University Press Ltd
- Senge, P.M., Dow, M., Neath, G. (2006). Learning together: new partnerships for new times, *Corporate Governance*, Vol 6, no. 4, pp. 420-430
- Schmitz, H (2005). *Value Chain Analysis for Policy-Makers and Practitioners*. Geneva, International Labour Office, 2005;
- Sparling, D., Snoek, G. (2009). Food Chains and Funding: Value Chain Development and Roles for Governments. Presented to 19<sup>th</sup> IAMA Annual World Forum and Symposium, Budapest
- Stephens, C. (2006). *Enablers and inhibitors to horizontal collaboration between competitors: an investigation in UK retail supply chains*. PhD diss., Cranfield University, 2006.

## References

- Tamilia, R.D., Charlebois, S. (2007). The importance of marketing boards in Canada: a twenty-first century perspective, *British Food Journal*, Vol 109, no. 2, pp. 119-144
- Tanner, D. (2012). Managing the Value Chain to Deliver on Consumer Perceptions of Value; 2012 Value Chain Innovation Forum; Delta Meadowvale, Mississauga Ontario; April 3, 2012
- Taylor, D.H. (2006). Strategic considerations in the development of lean agri-food supply chains: a case study of the UK pork sector. *Supply Chain Management: An International Journal*, Vol 11, no. 3, pp. 271-280
- Taylor, D.H., Fearne, A. (2006). Towards a framework for improvement in the management of demand in agri-food supply chains. *Supply Chain Management*, Vol 11, no. 5, pp. 379-384
- Tether, B., Swann, G. (2003). Sourcing Science The use by Industry of the Science Base for Innovation; Evidence from the UK's Innovation Survey; Centre for Research on Innovation & Competition; The University of Manchester.
- Troeth, J. (2002). Australia's Approach to Through-Chain Collaboration; Agriculture, Fisheries and Forestry Australia; Canberra.
- Wilson, D. T. (1995). An Intergrated Model of Buyer-Seller Relationships. Pennsylvania State University, <http://www.smeal.psu.edu/isbm/database/documents/wp95/10-1995.pdf>, Accessed June 2, 2007

## References-Endnotes

1. Creutzberg, 2011
2. Tether and Swann, 2003
3. Collins, R., 2011; Bonney, 2012
4. Boehlje, 1999; Senge, 1997; Senge, Dow & Neath, 2006
5. Defee, 2007; Fawcett & Magnan, 2001; Fearn, 2007; Collins, 2011
6. Cowan, 2007; Fearn, 2007; Fortescue, 2006
7. Fawcett and Magnan, 2001; Defee, 2007
8. Fearn, Pizzolato and Zanquetto-Filho, 2003
9. Ag Education and Consulting, 1999
10. Collins, R., 2011; Bonney, 2012
11. EFP, 2005; Senge, Dow and Neath, 2006
12. Dunne, 2008
13. Barratt, 2004; Fearn, Pizzolato and Zanquetto-Filho, 2003; Gooch and Marenick, 2012
14. Collins, J., 2001; Goleman, 2000
15. Gooch and Marenick, 2012
16. Fawcett and Magnan, 2001
17. Bonney *et al* 2007
18. Ag Education and Consulting, 1999; Fawcett and Magnan, 2001; Fearn, Pizzolato and Zanquetto-Filho, 2003
19. EFP, 2005; Barrat, 2004; Wilson, 1995
20. Boehlje, 1999; EFP, 2004; EFP, 2005
21. Boehlje, 1999; Fawcett & Magnan, 2001; Johnson, 2002; Taylor & Fearn, 2006
22. EFP, 2005
23. Ison & Russell, 2000a; Johnson, 2002
24. Fearn, Pizzolato and Zanquetto-Filho, 2003
25. Fearn, 2007; Wilson, 1999
26. Defee, 2007
27. Defee, 2007; Gooch and Marenick, 2012
28. Barratt 2004; Fearn, Pizzolato and Zanquetto-Filho, 2003
29. Gooch & Marenick, 2012; Curry, 2002; Oram, 2008; Stephens, 2006
30. Taylor, 2006; Morgan, 2007
31. Boehlje, Hofing & Schroeder, 1999; Fulton et al, 2003; Ison et al, 2000; Kilpatrick et al, 1999
32. Boehlje, 1999; Oram, 2008
33. EFP, 2004; EFP, 2005; Johnson, 2002
34. EFP, 2004; Fortescue, 2006; Ison, 2000
35. Boehlje and Lins, 2004; Oram, 2008
36. Bonney, 2012
37. Fawcett and Magnan, 2001; Jayaram, Kannan and Tan, 2004; and Fearn, Pizzolato and Zanquetto-Filho, 2003
38. Ison and Russell, 2000
39. Cohen & Levinthal, 1990
40. Lambe, Spekman & Hunt, 2000
41. Fawcett & Magnan, 2001
42. Ag Education and Consulting, 1999; Fearn, Pizzolato and Zanquetto-Filho, 2003
43. Lewin, 1936
44. Curry, 2002; Gooch and Marenick, 2012; Tamilya and Charlebois, 2007; Rudmann, 2008
45. Curry, 2002; EFP, 2004; Fearn, Duffy and Hornibrook, 2005; Oram, 2008; Tamilya & Charlebois, 2007
46. Mussell, 2011
47. AAFC, 2010
48. Curry, 2002; EFP, 2004; Rudmann, 2008; Tamilya & Charlebois, 2007
49. Curry, 2002
50. Curry, 2002; EFP, 2004; Rudmann, 2008
51. Gooch, LaPlain and Felfel, 2011
52. Ferrer, Santa, Hyland and Bretherton, 2010
53. Curry, 2002
54. Tether and Swann, 2003; Boehlje, Hofing & Schroeder, 1999
55. Creutzberg, 2011; Tamilya & Charlebois, 2007; Bonney, 2012
56. Alvarez & Shelman, 2010; Collins, 2011; Tanner, 2012.
57. Curry, 2002; EFP, 2004; EFP, 2005; FCC, 2007
58. Schmitz, 2005; Gooch, 2012; Gooch and Marenick, 2012
59. Troeth, 2002
60. Newton 2000; Troeth, 2002
61. Gooch, 2012; Collins, R., 2011
62. Fawcett and Magnan, 2001
63. EFP, 2005; FCC, 2007



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