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The Gateway to a Market-driven Agricultural Economy: A Framework for Demand Chain Management in the Food Industry

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Abstract

It has been recognized that agriculture and food companies have a long tradition of being commodity-driven, with an emphasis on production technology, high volumes, and quality consistency. In the context of global hyper-competitivity, the ability to understand customer needs and adapt to a wider variety of customer situations will become crucial. The purpose of this paper is to provide a structured demand chain design framework that can be linked with Gateway and Corridor management practices. Since a direct correlation exists between the wealth of a nation and how it consumes food, we first present five utilities and several factors that are perceived differently by customers once a nation becomes affluent. We then present supply and demand thrusts that could leverage Canada's position in international food trade. Finally, some analysis and limitations are presented.

Introduction

Adam Smith recognized that division of labor and specialization increase market efficiency. Functions such as production, wholesaling, retailing, and transportation in a supply chain are strategically located in an economy to act as a buffer between heterogeneous supply and demand conditions. Functions that perform tasks can be divided across systems, and these divisions are even more important in the context of global hyper-competitivity. Today, we recognize that organizations have demand and supply chains that require active management to maximize efficiency. By considering the set of interdependent organizations engaged in the process of making a product or service available for domestic or foreign consumption, marketing competence can be improved.

The purpose of this paper is to offer a broad perspective on marketing food products domestically and abroad. It applies various existing concepts in management and economics to the context of gateways and corridors. The paper is based on the notion of Demand Chain Management (DCM), which encompasses a more holistic view of all those processes that should respond to the ultimate customer. We first outline the market utilities perceived concerning food-related products that are altered when a country witnesses an increased industrialisation of its processes. A few factors and five kinds of utilities are presented. Second, we present a conceptual framework for Gateway and Corridor (GC) Management, including six supply thrusts on the one side, and five demand thrusts on the other. The framework is meant to be organically generic and not applied to one specific commodity or market, as all commodities and targeted markets necessitate an idiosyncratic approach. Finally, without being specific to a targeted market or commodity, a DCM framework for food products is presented which provides an integrative approach for demand chain design based on food marketing practices, and which requires continuous evaluation of perceived utilities by customers.

Background on Management Structures: Supply and Demand Chain Management

Supply Chain Management (SCM), which offers a cost-led approach to marketing, is distinct from the broader perspective of Demand Chain Management (DCM). Nonetheless, the differences between the demand chain-led organization and the supply chain-led organization are differences of emphasis. It has been recognized that agriculture has a long tradition of being commodity-driven, with an emphasis on production technology, high volumes, and quality consistency. Also, agriculture and food are considered mature industries where potential for growth is limited. As world food markets offer more value-added products, the food industry in Canada must develop competencies that are market related. An approach tailored to specific markets or segments would be most effective.

DCM is a concept that draws from a large number of disciplines, and is primarily concerned with logistics. It is defined as a practice that manages and coordinates the supply chain, considered backwards from end-customers to suppliers (Vollman et al. 2000). While DCM may be more difficult to establish given that aspects of the chain are highly complex (Williams et al., 2002), efficiencies in DCM are likely to result where transaction costs can be reduced (Williamson, 1975). The framework presented in this paper is largely inspired by DCM principles.

The ability to link customers and suppliers into tightly integrated networks via DCM is now sought by many organizations today. For example, DCM offers timely opportunities for Canada to develop its Asia-Pacific Gateway and Corridor (GC) Initiative. The GC Initiative recognizes that the flow of goods with other nations from the Asian Pacific region should become more efficient.

Gateways and corridors can be found all over the world. A gateway is defined as a location that promotes the continuity of circulation in a transportation system which services supply chains. Transportation corridors commonly link gateways to the inland (Rodrigue, 2007). The gateways and corridors that offer the most efficient alternatives in terms of time, cost, and energy efficiency have an advantage over others.

Canada's Asian-Pacific GC Initiative seeks to enhance Canada's commerce with the Asian-Pacific region, increase the Gateway's shares of North America-bound imports from Asia, and improve the efficiency and reliability of the Gateway for Canadian and North American exports (Government of Canada, 2006). The Gateway and Corridor concept for Canada is as much about the direction of strategic positioning and information push as market research and orientation. Market orientation is commonly defined as the extent to which a supply chain or an individual organization in the marketplace uses knowledge about the targeted market as a basis for decision making about what to produce, how to produce it, and how to market it (Grunert et al., 2005).

Marketing Utility Variations

Consumers in developing countries tend to perceive market utilities differently from those in western countries. Specifically in food marketing that difference is vital. In the case of food products, consumers in prosperous markets often look for products that offer convenience. In these markets, consumers increasingly expect to be provided with information intensive food products. Usually, and contrary to less prosperous countries, rising incomes in the developing world have also led to an increase in the availability and consumption of energy-dense, high-fat diets. For example, rapid income growth, especially in China and other Asian nations, boosted world average caloric intake to record levels in many regions during 1964-2000, mainly from increased consumption of cereals, meat, and vegetable oils (Bassino, 2006). In addition, the United Nations Food and Agriculture Organization predicts that from the year 2007 to 2015 the average daily caloric intake in developing countries will increase by nearly 200 kilocalories as a result of rising average incomes and falling commodity and food prices (Panagiotopoulos, 2006). This can be summed up as a statement that there is a direct correlation between micro-economic development and food consumption practices and trends within a given country (WHO, 2002). It is also important to note, at least for marketers, that there is no empirical evidence that globalisation of world food markets results in a convergence towards a common diet between nations (Sengul and Sengul, 2006). In fact, diets become more diverse. Some evidence suggests that economies are generally responsive to global food change related to processed products, food-away-from-home consumption, and premium food commodities such as beef (Coyle, 2006; Ma et al., 2006).

Economic utilities in marketing and distribution measure the ability of a good or service to satisfy a customer's needs or wants (Gundlach et al., 2006). Economic utility can be divided into five types: form, time, place, information, and possession. First, the creation of form utility encompasses all activities used to change the appearance or composition of a good or service with the intent of making it more attractive to potential and actual users. Secondly, time utility consists of the increased satisfaction created by marketing through making products available at the time consumers want them. Thirdly, place utility plays a significant role as well. It is the increased usefulness created by making a product available at a location preferred by consumers. Fourthly, information utility is defined in marketing as the value given to a product that provides the user with useful information. And finally, the increased usefulness created by making it possible for a consumer to own, use, and consume a product is called possession utility, or sometimes ownership utility.

Utility factors that are enhanced in developed economies are outlined in Figure 1 on the following page. The factors mentioned in Figure 1 have the potential to alter all utilities, but only those that are greatly altered by the outlined factors are discussed. Some factors are interlinked as well.

Figure 1
Enhanced Food Distribution Utilities in Developed Countries

	Time	Place	Information	Form	Possession
Food Security	X	X			
Water Irrigation and Energy Networks	X	X			
Water Sanitation		X	X		
Food Safety	X	X	X	X	
Logistics	X	X	X	X	
Capital		X			X
Communication Technology	X		X		
Market Fragmentation	X	X	X	X	X
Target Marketing	X	X	X	X	X

The first contributing factor is food security. Food security describes a situation in which people do not live in hunger or fear of starvation. The stages of food insecurity range from food secure situations to full-scale famine. This indicator responds to a physiological need of consumers, as described by Maslow's hierarchy of needs (Piron, 2006; Vrontis, Kogetsidis and Stavrou, 2006). Water irrigation and energy networks, additional factors that are linked to physiological needs, influence utility enhancement in food marketing. The essential role of infrastructure, including the energy, water, and irrigation sectors, is key for time, place, and information utilities in a given market. Enhancing efficiency and transparency in these sectors should become a primary concern for governments. Water sanitation in developing countries is also a contributing factor, which responds to safety needs of domestic consumers. In poor countries, for example, women spend vast amounts of time trudging to and from water supplies, bringing water for cooking and washing.

Further, recent trends in global food production, processing, distribution, and preparation are increasing demand for food safety research and processes in order to ensure a safer global food supply. Consumers are increasingly aware of food safety as foodborne diseases take a major toll on health and millions of people suffer or die as a result of eating unsafe food (Herath and Henson, 2006). In order to comply with food safety policies and regulations, organizations are required to promote transparency, or in other words, to give information to consumers wherever and whenever they desire to purchase a food product.

Logistics generally lead to better control of processes. Improved logistics creates a more efficient flow and storage of goods from their point of origin to the point of consumption. It leads to more points of purchase for consumers, and it is the part of the supply chain process that plans, implements, and controls the flow of goods. Logistics can also be seen as the management of

inventory, at rest or in motion. Western economies typically take for granted good logistics because of their advanced infrastructure, such as roads, bridges, railroads, airports, and seaports. Logistical effectiveness is often influenced by better technology. Perishability management is also an important contributing factor in the development of logistics. Consumers and organizations benefit from the use of fridges, coolers, and freezers.

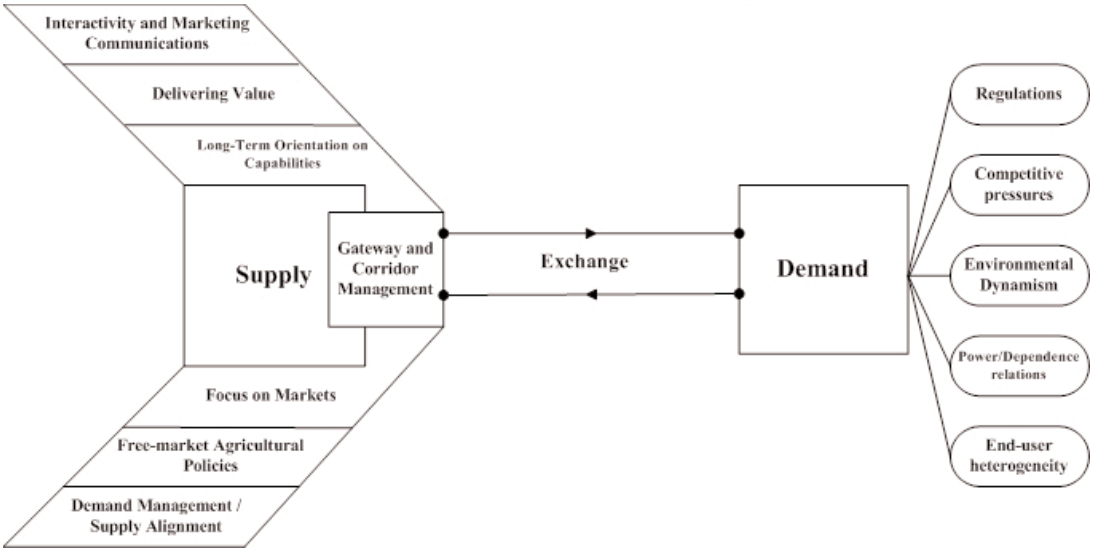
A developing country's specific capital market imperfections are caused by asymmetric factors that limit the depth and scope of these markets, which directly affects consumers. The developing capital market imperfections translate into a higher cost of capital, which adversely affects investment decisions and credit. Firm investment decisions that are made in an environment with a high cost of capital, in turn, cause problems at the macro level by creating a potential underinvestment (low growth rate) problem. When the cost of capital is damaged by imperfections caused by risk premiums, there may be distortions in the allocation of capital in developing countries, which will in turn affect utilities sought by customers (Tarhan, 2007).

Many developed economies profit from high-quality communication technologies. Communication technologies are perceived as a primary driver capable of shaping marketing efforts. Specifically, the internet can shift food consumption trends by delivering food product information directly to consumers without the influence of newspapers, television news programs, or other media. This is specifically relevant to organizations and issues such as genetically modified organisms, organic farming, fair trade products, and functional foods. Companies effectively target consumers and suppliers by tailoring customized messages that address individual concerns with potentially decentralised national marketing campaigns, which place greater emphasis on local needs and increase interactivity. Interactivity is more probable through the use of proper communication technologies.

Market fragmentation refers to differences between individuals in terms of demand values, beliefs, expectations, needs, and taste. The richer an economy is, the more fragmented the market will be. Market fragmentation leads to market segmentation and target marketing. Target marketing often occurs in highly competitive and developed markets. Strategies such as branding, category-killing, and private labelling are among these strategies. For example, marketing managers in diverse industries such as the food industry have embraced branding in an effort to create a differentiated identity for their products.

Distribution systems are built upon exchanges and the management of relationships (Achrol, 1997). In order for an exchange to take place, both parties must expect that the benefits of the exchange will exceed the sacrifices. In other words, the offerings must match the utilities sought by consumers. Any exchange requires at least two parties, and for voluntary exchange to take place, all parties must believe that they will be better off as a result (Blaug, 1997). Demand chains are closely integrated entities; freight transportation systems, for example, are increasingly reflecting that reality. Even though gateways remain relatively constant, the challenge remains to improve intermodal as well as transmodal movements along corridors to adapt to demand changes. In the conceptual model of food marketing and Gateway and Corridor Management presented in Figure 2, six thrusts influence supply and five thrusts influence demand. All these thrusts contribute to the exchange of food products between supply and demand, and can result in a better outcome of gateway and corridor initiatives in the food industry.

Figure 2
Gateway and Corridor Management



Supply Thrusts

1) Interactivity and Marketing Communications

On the supply side, interactivity and marketing communications require discussion. Over time, organizations within chains must learn how to communicate with suppliers, buyers, and customers. Technology plays a key role in influencing how effective relationships are shaped. It allows consistent and efficient flow of information across supply systems. In the food industry, these systems must operate as close as possible to real-time. In effect, information is the fabric of all interactions in these systems (Pitta, Franzak and Little, 2004). Interactivity involves

sharing information, cooperation, and blending processes with partners and competitors. Technology is rapidly and dramatically reducing the economic cost of distance. Containerization, satellite tracking, and multimodal systems, as well as better planes, trains, ships, seaports, and airports, are all helping to lower costs, improve quality, and facilitate just-in-time movement of goods and commodities (Anonymous, 2005).

2) Delivering Value

Another thrust we identified on the supply side is the delivery of value. Without every exchange partner perceiving value in the trade, no exchange will occur (Pardo et al., 2006). Furthermore, value should be perceived by both customer and supplier. While benefits are created by the supplier, perceived benefits are defined by the customer. However, in order to meet the challenges of the Gateway and Corridor concept in a theoretical sense we need to move towards a more multi-faceted understanding of value (Achrol and Kotler, 1999). A relationship should create a combination of exchange values (which are imbedded in the transaction), proprietary values (a sense of ownership), and relational values (a sense by both parties that value is increased for both).

It is pertinent at this time to point out the virtues of transaction costs. According to Williamson (1985), a transaction cost is a cost incurred in making an economic exchange. A number of different types of transaction costs exist. Search and information costs are incurred in the process of determining whether a required good is available on the market, in determining which good has the lowest price, etc. Bargaining costs are those expenses required to reach an agreement with the other party to the transaction. Transaction costs can be transferred as asset ownership of relation-specific investments. With the appropriate approach and market orientation, the Gateway and Corridor Initiative can help organizations involved in reducing asset-specific or relational costs. Market orientation is regarded as a major driver for creating customer value, which in turn offers a comparative advantage (Fritz, 1996; Sandvik, 1998; Grunert et al., 2005). These comparative advantages are a well-known force as they provide strong incentives for manufacturing companies to consider new production locations, particularly if cost differences are significant. Comparative advantages have permitted manufacturers to keep production costs low and the price of several consumption goods has actually declined due to the "China effect" in that China has become the world's manufacturing plant (Rodrigue, 2007).

3) Long-term Orientation on Capabilities

Long-term orientation in relation to market capabilities is another thrust to be considered. Rather than dealing with short-term constraints as many stakeholders have done in the past, a long-term orientation is needed. The Canadian mad cow crisis of 2003 is a primary example of short-term vision failure (Charlebois, 2005). While most stakeholders in the beef industry focused on short-term repercussions of the crisis during the two years of the ordeal, the structure in which the industry operated remained unchanged. Strong commodity markets will eventually weaken (Grunert et al., 2005), and a plan for new economic conditions is necessary. Given its scope, the Gateway and Corridor strategy offers a longitudinal perspective on trade which is required in food marketing. The level of commitment required compels stakeholders involved with the initiative to embrace a long-term vision. In addition, Canada is considered a trade-dependent nation, notably in food trades. Agribusinesses ought to develop network competence capabilities, which entail changing marketing strategies in the business-to-business sphere, in order to expand their market reach beyond the Canadian boarder.

4) Focus on Markets

The focus on markets, as opposed to production, represents another thrust on the supply side. Several developments on the demand side emerged—such as the increased importance of health, convenience, and variety—which require more emphasis on markets rather than on products (Larson, 2003; Verhallen et al., 2004). The focus of this thrust is on relationships. Whereas the historical marketing management model has depended heavily on analyzing the units of food products, prices, organizations, and transactions, the wider view of food marketing management calls for understanding relationships with customers, suppliers, resellers, and other actors within the market or non-market environment of the system. Thus, today's food marketer within the Gateway and Corridor strategy must actively manage these relationships and develop means within the organization to respond to the changing marketplace. A rapidly changing environment and the latest developments in the food trade necessitate food marketing experts to develop additional skills and qualities beyond traditional expectations, to adapt themselves successfully to the changes of the modern era, and to act as resource and relationship coordinators.

5) Free-market Agricultural Policies

The liberalization of agricultural policies is considered a supply thrust as well. More than a decade after the Uruguay Round in 1994, over two-thirds of farm income in Norway and Switzerland, more than half in Japan, and one third in the European Union came from subsidies. In contrast to this worldwide phenomenon, Canada is in a unique situation. It has a generally liberal regime for non-agricultural products and has granted market access to developing countries. Even so, further liberalization of Canadian agriculture would substantially contribute to the promotion of world trade, particularly through the simplification of Canada's tariff structure and reduction of its duty rates, as well as through the downsizing of support levels. In essence, the establishment of the Gateway and Corridor Initiative suggests that appropriate measures are needed to move away from the public support-based regime toward a productive and internationally competitive agricultural structure.

6) Demand Management / Supply Alignment

The last supply thrust identified in the conceptual model in Figure 2 is demand management and supply alignment. Demand management, a complex and multidimensional task, requires much more than simply making consumer sales data available to the chain. This supply thrust includes integrating the demand creation and demand fulfilment processes. In essence, its effect is to deploy and deliver products that convey superior customer value while using resources efficiently. Agribusinesses need to link customer needs-based segments with the supply chain; however, agricultural production has long lead times. Farm production is essentially a "push" system that creates a price-taking mentality. It is important that production is jointly forecast between all functions of the supply chain for a time period determined by the growth cycle of a given product. Improvements in logistics and information technology as well as the intensification of competition have brought about fundamental changes in the business strategies and operations of companies (Achrol and Kotler, 1999; Berthon et al., 2000; Kumar et al., 2000). The use of such technologies would be an important step in linking farm production and consumer demand in the Gateway and Corridor Management scheme. Arguably, this thrust is highly dependent upon an increase of trust amongst stakeholders and between trading partners. Incentives or monetary incentive mechanisms to encourage such behaviours should be implemented as well.

Demand Thrusts

1) Regulations

Five demand thrusts are presented in Figure 2, the first being regulations related to food marketing. Regulations are regarded as an important thrust that influences demand. Policies and regulations are, and always have been, an integral part of food distribution systems. Regulations related to food trades or domestic consumption can create an artificially homogenous demand for a product or prohibit certain forms of transactions. As a result, such occurrences increase customization (Trondsen, 1998). Food labelling, bio-technology restrictions, and food safety policies are regulative examples that potentially distort trades or domestic consumption and production.

2) Competitive Pressures

The next demand thrust is the competitive environment. In developed countries, the food industry is highly fragmented, which tends to encourage fierce competition, especially in terms of price. As mentioned, when a country becomes more affluent, its wealth has a delimiting effect on its willingness and ability to purchase premium, high-priced food products. Demand chains have to negotiate within a highly competitive environment in order to succeed, and price should be one of the last marketing-mix variables that should be prioritized. The variables that should be prioritized in food trades are place, product, and promotional strategies.

3) Environmental Dynamism

Environmental dynamism, another demand thrust, consists not only of environmental change, but also of unpredictable environmental change. Dynamism heightens levels of ambiguity, which organizations must address when making decisions. Dynamism can be conceptualized in terms of magnitude, frequency, and unpredictability of change (Charlebois, 2006). These changes can be generated by natural disasters, such as tsunamis and earthquakes, or by human-induced incidents, including nuclear disasters or mad cow disease. Dynamic environments present greater contingencies to supply chains and organizations (Achrol and Stern, 1988).

4) Power / Dependence Relations

Many interorganizational relationships in a demand chain are power-dependence driven. Generally, food distributors tend to hold more power than other functions of the supply chain, especially in industrialized counties, mainly because of procurement competencies and market intelligence capabilities. Since utilities are perceived differently in relation to national wealth, this trend may not apply in poorer countries. Some have claimed that increased chain cooperation is a universal trend in the food industry (Royers and Rogers, 1998; Wierenga, 1997). However, directing all functions of a chain toward common goals is often a challenge, specifically from a production standpoint (Labrecque and Charlebois, 2006). Power and dependence relations within supply chains can be asymmetric. When an organization does something that negatively affects another organization or consumers, and the organization is not punished, opportunistic behaviours occur and there is a negative externality (Verouden, 2005). These behaviours are highly important when trying to understand demand and without such an understanding the effectiveness of Demand Chain Management can be jeopardized.

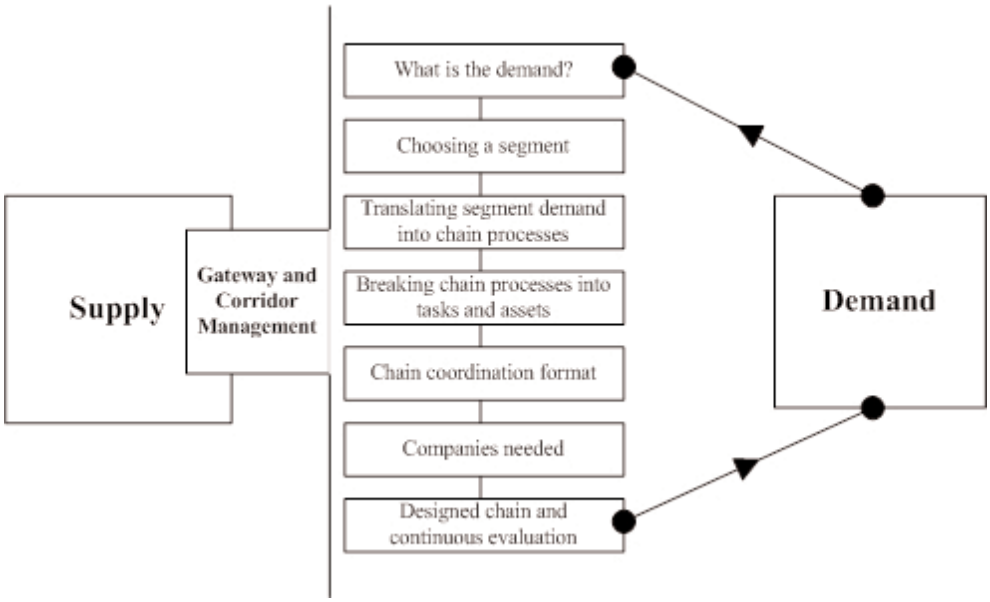
5) End-user Heterogeneity

Finally, end-user heterogeneity is a thrust that affects demand. Consumer demands concerning animal welfare, food safety, environmental considerations, organic products, fair trade products, and the use of genetically modified organisms (GMOs) are examples of trends that generate heterogeneous demands and end-user market orientations. As a result of these trends, food distribution is now considered to be more problematic. In industrialized countries, for instance, the food industry is much more dynamic and competitive, and thousands of new products are being introduced in the marketplace every year. As a country develops, demand is presented with more products, thus further and further segmenting the market. Since this phenomenon often decreases product life cycles, the industry relies on an influx of innovative products. Product life cycle management and demand chain alignment have a mutually strengthening relationship (Jüttner, Godsell and Christopher, 2006). These processes can facilitate network competence development and ensure a holistic perspective. A framework should integrate demand chain alignment and product life cycle management.

Framework for Demand Chain Design

By considering the volatility of food market utilities (Figure 1) and the various thrusts that the Gateway and Corridor Initiative depends on to obtain the desired outcome or exchange (Figure 2), a demand chain design framework can assist marketing strategists with the implementation of a sound Gateway and Corridor Management approach (Figure 3). A brief description of the framework is presented below.

Figure 3
Demand Chain Design Framework



The proposed framework emphasizes competences, such as processes, assets, and tasks, as well as coordination mechanisms and the selection of the required chain members needed in the upstream phases of the chain to satisfy a particular group of customers. The framework begins with an analysis of the needs and preferences of the customer. This process must consider the state of food-utility needs shown in Figure 1. As a result of considering the customers' opinions, a list of descriptions concerning the design target is generated along with the identification of the segments existing in the market.

The first step is to divide the final demand into homogeneous segments. The major challenge in segmenting consumer demand for chain design strategy is evident in two questions:

1) Which bases should be used?
2) How should one segment the total market?

The first question refers to the ability of the base to derive easy-to-implement segments, or in other words, actionable segments. Segmentation based on benefits (affordability, accessibility, etc.) and product/service features (packaging, quantities, healthy products, etc.) are the most commonly-used strategies in food marketing.

The second segmentation question deals with how to segment the total market in a useful manner. As feature preferences are likely to be highly influenced by benefits sought by consumers, a sequential segmentation scheme is suitable for distinguishing subgroups of consumers. Hence, the segmentation should be executed considering the five kinds of utilities that were outlined earlier in this paper. Other more specialized approaches could be used as well, such as latent segmentation models and approaches based on consumer product relations, depending on how the perceptions of economic utilities have evolved in targeted markets.

Once the overall demand has been identified, the second step consists of choosing one of the revealed segments as a starting point for an analysis of the chain's response. Many criteria have been proposed for targeting segments, such as choosing a segment that fits the company's objectives and resources, or choosing a segment related to the required costs to reach particular goals (Ruben, Boselie and Lu, 2007). These criteria may be important when considering whether a specific segment shows potential for further design effort.

The third step is concerned with the translation of needs and wants into key processes that are required to fully provide the products and services demanded by a particular segment. Companies and chains respond to specific market demand by joining valuable resources with deploying competences. Competences may result from any type of tangible (trucks, plants, machinery, etc.) or intangible (branding, reputation, relationships, etc.) capabilities.

Ultimately, the conversion of resources of any kind into products or solutions for consumers occurs through the medium of processes. We define process as a set of logically related tasks performed that achieve a defined business outcome, either within one company or across company borders (Davenport, 1993). A process in this framework is considered at an intermediate level of abstraction. For example, transport, harvesting, feeding animals, and selling are processes, and the various individual operations realised to execute these processes are defined as tasks. Additionally, we acknowledge that the execution of processes is also based on tangible assets, such as machines and land, and intangible assets, such as information and knowledge. The product and service features linked to utilities should be rated against each other to indicate their importance to the consumer.

The fourth step is designed to break down each key process into required tasks and assets needed to accomplish the process. In the fourth step, one begins by ranking the most important processes, as they were prioritised in the third step. The processes can be rated against each other to determine their importance for fulfilling the product/service features linked to utilities, as demanded by the customer. The goal of this step is to produce a detailed process design in technical terms, though it does not provide economic criteria for decision making.

The fifth step delineates the feasible coordination mechanisms for governing the interdependencies among different actors in the chain. At this point, we are concerned with the choice of the coordination mechanism as a means to integrate value-added tasks and assets across different actors.

Finally, it is necessary to determine which companies are needed to provide the resources required. If, in the previous step of the demand chain design, it was decided that an asset or task is better managed internally, then there is no need to worry about the chain member's selection decision. However, this qualification constitutes an exception because organizations are normally unable to execute all processes and tasks required to fulfil the opportunities on the

demand side. On the other hand, tasks and assets that are best managed through an external arm's-length relationship in the spot market do not require much effort with regard to suppliers' selection. Usually, these resources are provided by multiple sources of suppliers and there is relative certainty about replacement alternatives (Kakouris, Polychronopoulos and Binioris, 2006). The real problem of chain member selection arises for assets and tasks that need to be managed through partnership. This step of the chain design is primarily concerned with the identification of an external source of resources to reverse demand requirements that are internally deficient. An extensive list of criteria for the selection of partners should be considered at this stage.

The central proposition of this framework is that the Gateway and Corridor concept requires local firms in developing countries to engage with lead firms in established commodity chains. Such an engagement would provide local firms with access to foreign markets at a lower cost than would otherwise be possible. These new arrangements are not just about outsourcing; rather, they require the willingness of a company to divide the production chain in order to create opportunities for countries that are not efficient producers of final goods to specialise in the labour-intensive stages of production, which as a whole are capital-intensive (Yeats, 1997).

Conclusion

The Gateway and Corridor Initiative ought to go beyond the traditional frontiers of logistics, infrastructure, and the physical flow of agricultural goods. The primary intent of this paper is to assert the importance of the human factor in chain management. Roads, bridges, airports, and intermodal stations are significant but these imperatives should not precede the analysis of food consumption trends in areas such as the Asian-Pacific region. These trends will considerably impact Canada's ability to bring forth an efficient Gateway and Corridor strategy for years to come, and these changing forces in targeted markets should not be underestimated.

Demand Chain Management is an advantageous approach for the food industry in a context where Gateway and Corridor Management is integrated. The Gateway and Corridor Initiative calls for various types of cooperation as a means of problem solving. Often, when there is a common resource that can be used freely by all, each user fails to think about how his actions might harm others, as each loses sight of the common good. The predominant unit of analysis for the Gateway and Corridor Initiative is the dyad, which emphasizes the management of boundary-spanning activities. Agribusinesses and other organizations should recognize their role as part of a number of chains, having multiple customers and suppliers, and thus they should allow for strategic flexibility. Managing and marketing in dyadic and complex relationships constitutes an important network competence of agribusinesses.

Canada is known for its capacity to grow and produce agricultural resources for the world. The Gateway and Corridor Initiative invites agribusinesses to change mindsets, and to look beyond domestic borders. The objective of this paper is not only to present a demand chain design framework to respond to changing food market wants; it is also to provide a holistic understanding of value in order to grasp the activities of suppliers and customers in a strategically important exchange relationship.

We understand that the framework presented in this paper lacks detail; however, a major focus of this paper is to appreciate the conceptual vastness behind marketing food products in the developing economic regions, and apply these subtleties to a broader framework. We also acknowledge that the proposed framework was meant to be applied in a food marketing context. Even so, it is our belief that it can be applied, with some adjustments, in other industries as well.

It is interesting to postulate that the differences between a demand chain-led industry and a supply chain-led industry are based upon emphasis. In contrast to a commodity-driven economy, the demand chain approach provides a broader view of relationship management. If this wider perspective is achieved, conflicting objectives would no longer become obstacles to trade within a chain. Future studies may apply the framework presented in this paper to a specific commodity, product, or targeted market. More research is needed, however, before such a view can be held with conviction.

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