

Competing on the Basis of Value

OR HOW TO FIND YOUR NICHE AND EXPLOIT IT

By: Leo Ditschun

The Canadian manufacturing industry, at 3.6% of the world market is, nevertheless, an extremely important part of the Canadian economy, contributing almost 40% of our GNP annually. But because of this small global share, the industry is, and has been, under severe competitive pressures for some time. Due to the huge volumes achievable by the multinational companies, price sensitivity is seen to be paramount and most often tends to drive our firms continually toward "lowest cost producer status" as the principal means of competitive advantage in contrast to the option of competing on the basis of differentiable, value-added features and commanding higher prices.

The past decade has seen the fallout of these pressures as firm after firm has continued to modernize facilities, pare down staffing levels and introduce various programs to improve efficiency and competitiveness and yet are still finding lower priced competitors.

There are no magic solutions for accomplishing this change, however, there are processes within an organization that help or hinder the management of change. This article describes an approach which has proven to be an excellent process in aiding manufacturers to find a niche and exploiting it to achieve sustainable competitive advantage.

Customers Buy Value

It is always surprising that, even though low price is generally considered to be the main customer buying criterion, in a room full of people it is often difficult to find one who drives the cheapest car or who wears the lowest priced clothes. Obviously, customers buy products and services based on their perception of value not price and companies must therefore compete on the

basis of providing the 'best value'.

There are two components to providing value, one of course is the price, but the other is the benefit the customer gets. The supplier who is the most competitive is the one who provides the customer with the perception of the best value for the price paid - i.e., who establishes the greatest apparent differential between the price paid and the benefits the customer receives.

Mathematically this can be described as:

$$CV = PB - P$$

where CV = customer value

PB = perceived benefit

P = price

Value (competitiveness) can therefore be increased by both lowering the price but also by increasing the benefits.

Given the small size of our manufacturing industry in global terms, finding a niche and exploiting it, provides perhaps the most effective way for a Canadian company to establish and maintain a global presence.

The Mapping Process

The mapping process (or simply creating a MAP) is a tool which gives an organization the opportunity to develop a unique **competitive value equation (CVE)** for a product or product family and then to establish a series of supporting projects or programs which, when implemented, will assure competitive differentiation.

MAP provides a logical process which ensures that a common understanding is reached by the members of an organization thereby assuring that all are working towards the same goal. There is a sequential progression from the business strategy to:

(1) assessment of the market-position for a given product or family

(2) assessment of the current manufacturing capability



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(3) identification of the differences between the market needs and the organization's current capabilities to meet it

(4) assessment of the organization's capabilities to change

(5) definition and prioritization of the activities to achieve the improvements.

The execution of these projects (defining the **PATH**) is pursued using project management principles. (Diagram 1)

Defining Your Competitive Value Equation (CVE)

The first step in defining a CVE is to choose a product or product family. The market analysis encompasses the definition of the chosen product's market position vis-a-vis its main competitors for all of the fundamental bases of competition.

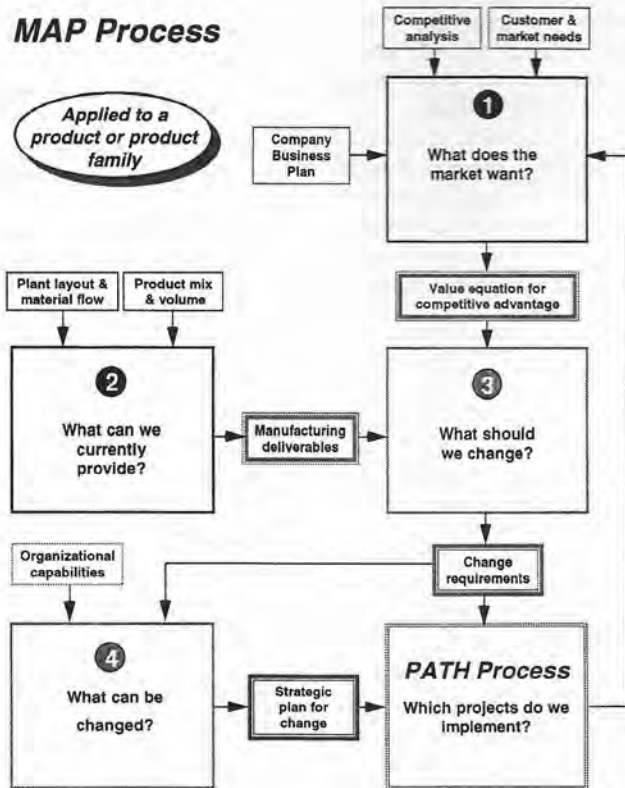
Each is then graded to be at one of the following:

1. Market-qualifying level (MQ) - where the characteristics of the product are about as good as the market expects.

2. Market disqualifying level (DQ) - characteristics are below what the market expects.

3. Order winning (OW) level - characteristics are much better than the market expects.

MAP Process



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Diagram 1

Six Fundamental Bases of Competitive Differentiation

Various research has shown that in addition to price being a basis for fundamental differentiation, others are:

- Delivery
- Quality
- Performance
- Innovativeness
- Flexibility

Each of these has been used effectively

in the past to give manufacturers a unique competitive position in their chosen niche.

Factors in the CVE

Because of the nature of competition, price has usually outweighed all of the other factors.

Competing on **PRICE** obviously implies becoming the lowest **cost** manufacturer. On the issue of cost, the major components are incoming raw materials, capital equipment, work-in-process, finished goods inventory, operations and people.

Becoming the world's lowest cost producer given Canada's infrastructure, wages, tax levels and standard of living, is difficult indeed - particularly without the volume advantages of a multinational.

Price differentiation in most cases is not achievable for many Canadian firms especially those who have a high level of physical value added in their products. It is somewhat easier for those companies who compete on the basis of high intellectual and low physical value-added.

Within the context of **DELIVERY** as a differentiating value characteristic, consideration should be given to both the absolute delivery time as well as delivery time reliability. The objectives are to improve the time from order to order-fulfilment and receipt by the customer - i.e., using the **speed** of manufacturing throughput and the **accuracy** of a commitment as the basis of competition. An important by-product is the attendant reduction in cost due to reduced inventory carrying cost and high material turnover.

With reference to **QUALITY** (meeting the specifications) as a differentiating factor, the major challenge is to narrow the frequency distribution of product variability. This results in significant dividends in reducing the cost of rejects and rework. Superior quality must not only be pursued in the products but also in the services a company provides. Superior quality, if recognized as such by the customer, contributes substantially to adding value.

PERFORMANCE (high value-added product features or best level of service) to differentiate a product can also play a main role. Indeed, this tends most often to be the second major differentiator after price but is difficult to see how this can be a major differentiator if the work is a sub-system being manufactured to specs from the Original Equipment Manufacturer. In addition, however, bundled-in support services can also enhance a product's value to a customer.

Using **FLEXIBILITY** as an order-winning characteristic can be a major advantage in the sense that it allows for the incorporation of Just-in-Time (JIT) or 'pull' manufacturing systems with the inherent benefits of reducing Work-in-Process and finished goods inventory. Organizational flexibility should also be investigated as a value-added differentiator. By that we mean the ability to very quickly form a special team or process to address a customer need.

When looking at **INNOVATIVENESS** as a basic differentiator, besides the obvious new product introduction, the development of a new manufacturing process or the use of a new technology or material should be considered. In manufacturing this has often been used as a differentiator to develop a new market or fragment an existing one.

Once all of these factors have been evaluated in light of the market's expectations, it is a simple step to define the CVE for the chosen product. At least one characteristic must be chosen to be at the OW level and all others must be at least at the MQ level. Of course, any that are currently at the DQ level must be brought up first.

In some instances, not all six categories apply and in such cases those factors should be set at zero.

Establishing a Competitive Value Equation

The general Competitive Value Equation (CVE) is $CV=(PB)-P$ where $PB=(Del.+Qual.+Perform.+Innov.+Flex.)$

A specific CVE is then developed as follows:

We will use the example of the Japanese luxury car marque Lexus in competition against the German Mercedes. For years Mercedes has been selling cars on the basis of higher Quality and Performance compared to other cars and commanding a premium price. Delivery, Flexibility and Innovation do not matter in this market sector. If Lexus is to be successful, they must convince the buyer that they are just as good as Mercedes in all the significant terms and quite a bit better in one.

Delivery - since this is not a factor the term is set to zero.

Quality - this is very important and as Mercedes has an established position here Lexus must be at least equal. So they set this at MQ (same as Mercedes).

Performance - this is also very important. Again Mercedes has an established reputation, so Lexus can only hope to be accepted as equal. Set this also at MQ (same as Mercedes).

Innovativeness - is not a factor, so this is set to zero.

Flexibility - also not a factor, so it is set to zero too.

Price - from Lexus' point, this must be the fundamental competitive

differentiator. This must be set at OW.

Therefore, the CVE would look like this for the Lexus:

$$CV=Del(0)+Qual(MQ)+Perf(MQ)+Inno(0)+Flex(0)-Price(OW) \\ =Qual(MQ)+Perf(MQ)-Price(OW)$$

Their advertising campaign is thus constructed to convince the buyer that quality and performance is the same hence why pay the higher price of a Mercedes?

Another good example is the Roy Bonisteel advertising for Lenscrafters. If one listens closely, it is obvious that they are fundamentally competing on delivery. Price and quality are the same as everywhere else, but at Lenscrafters you can get your glasses in just one hour. Hence:

$$Lenscrafter \quad CV=D(OW)+Q(MQ)-Price(MQ)$$

Can Production Deliver the CVE?

The second step, after the CVE has been established, is to assess manufacturing's current ability to deliver the desired characteristics at the order-winning and market-qualifying levels as defined in the equation. This exercise is started by first recognizing the fundamental manufacturing styles or process patterns in use (job shop, batch flow, etc.). The second part is to assess one's product mix and volume characteristics (many products/low volumes or few products/high volume, etc.).

Hayes and Wheelwright (1979) suggest that establishing this as a style vs. volume/mix matrix will reveal that certain manufacturing styles are usually used with certain product/volume mix factors which, on closer examination, shows that a given style may actually have certain inherent competitive advantages over another, depending on the product/volume mix one manufactures.

Hayes and Wheelwright propose that when a company's product/volume mix and manufacturing style places them "on the diagonal" of this matrix they are taking advantage of an inherent match. If they are not on the diagonal, then the company is incurring extra cost and has excess capabilities that they are not leveraging to advantage (see Diagram 2 on LDA's adaptation of Product Mix and Volume vs. Plant Layout & Material Flow). In other words, they may be at a competitive disadvantage.

How Much Can We Change?

Having determined its position on the matrix and compared it to each style's inherent advantages (see Diagram 3), it can be determined whether the desired order winning and market qualifying characteristics can indeed be delivered. What takes more management attention is the decision about what compromises are necessary to achieve optimum positioning on the matrix. The output of this exercise is a disciplined formation of a complete list of changes to be considered.

The next step is to evaluate a company's **ability and willingness to change!**

To manage the change implicit in achieving world-class competitiveness, there are six **manufacturing "levers"** (degrees of freedom) which may be controlled. In increasing order of difficulty to change, they are:

1. People
2. Organizational structure and controls
3. Production planning and control
4. Sourcing
5. Process technology and
6. Facilities.

A lever is "set" in a certain position (below or above industry average, world class, etc.) depending upon the company's current situation relative to others in its field. A lever can be "reset" through the implementation of appropriate projects. A lever will not stay reset but will drift back to near its original setting unless it is moved by implementing a project specifically designed to move it.

Experience has shown that focusing on the "soft" technologies (people and organizational issues) first, has resulted in greater success and has allowed achievement of a fuller measure of the potential benefits promised by the implementation of hard technologies.

Conclusions

The challenge of **achieving sustainable competitive differentiation** can only be done through continuous improvement which in turn can only be attained in an environment of continuous learning. Thus, management's role clearly is to create an atmosphere and an environment in which learning and innovation flourish. If this environment exists, then management of change becomes a smaller, more manageable effort.

The primary method for implementation is a scheme (PATH) which allows for project prioritization, an allocation of people and a time horizon adequate for the changes to be digested. In other words, long enough for the "levers" to adjust to their new positions and stay reset after the project is complete.

The MAP/PATH process is a framework which provides the necessary discipline to achieve market-driven competitive advantage first through the establishment of a unique competitive position for each product (family) and second through the implementation of appropriate change plan projects designed specifically to assure it.

This article has limited its focus to that of the manufacturing operation only. It is necessary to point out, however, that similar investigation should be done in every function in the company in order to maximize the effect of the competitive position chosen in step one of this exercise.

For example if Quality has been chosen as the fundamental differentiator, (meaning your quality is substantially better than the market's expectations), any sales and marketing literature should clearly point out the quality features and benefits; engineering should "design-in" quality functions and after sale service should also reflect this high quality.

Those firms which do not address this issue, will continue to face an on-going dilemma of negative scenarios and lack of real competitive recognition.

Economic Development Professionals should encourage their local manufacturers to understand the implications of this approach and to encourage them to implement a value-based competitive posture to assure their competitiveness in a global market. □

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1. MAP/PATH, Management of Technology and Innovation Institute, 1991
2. Hayes, R.H. and Wheelwright, S.C., "Link Manufacturing Process and Product Life Cycles", Harvard Business Review, January 1979.

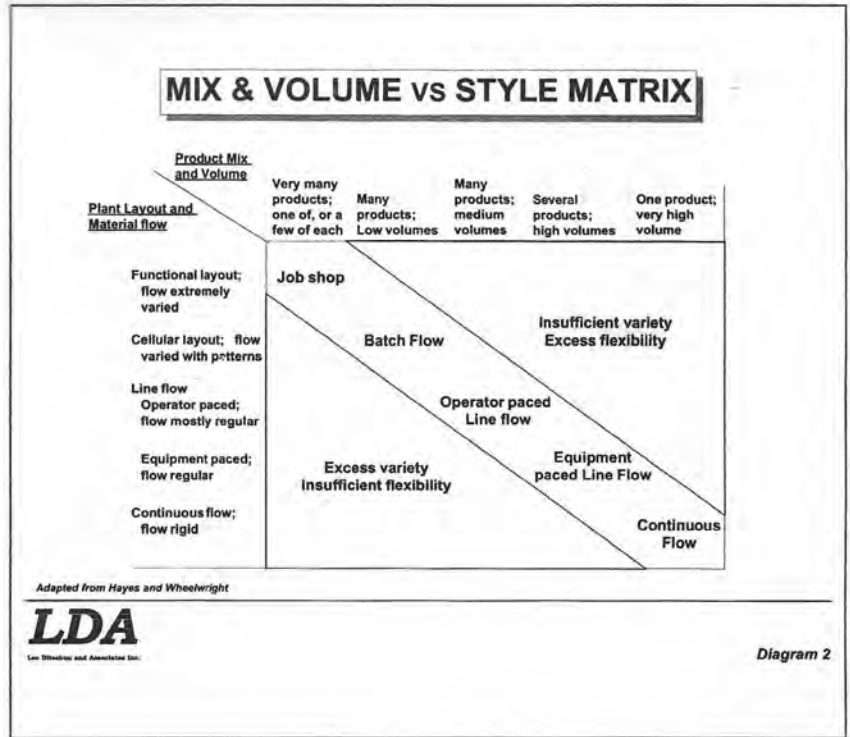


Diagram 2

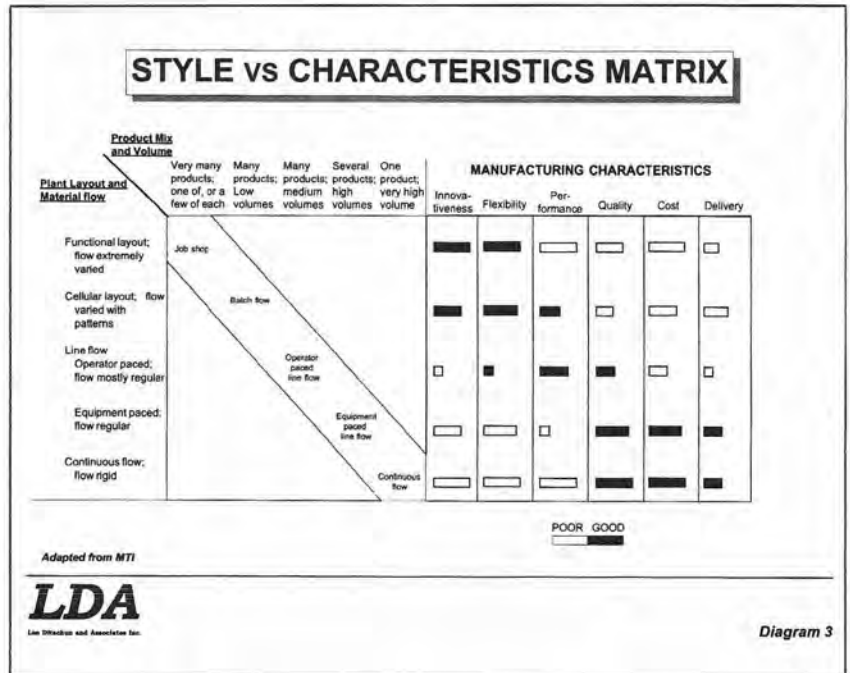


Diagram 3