

QUATTRO TECH

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Starting, managing and sustaining are key elements in the entrepreneurial process. For the sole owner/proprietor this means having responsibility for the growth and development of each of these. Growth produces dramatic changes for the venture that in turn means changes for the owner. This case is about an owner who faces challenges of executive maturity, shared governance and staffing that may be addressed through strategic planning. It is about a small business owner who established and has grown a manufacturing operation to the point that he has to consider how to move to the next level of development. This means placing more focus on the external environment through strategic decision making.

HISTORY

Quattro Tech USA was founded in 1996 by Ken Jones, an American with ties to North Carolina agriculture, and Preston Barnes, a New Zealand businessman who was in the pharmaceutical industry. Preston Barnes had been working for a firm that sold syringes for both human and animal usage when he had the idea to develop and manufacture a vaccinator specifically designed for animal use. The original products included a bottle holder for animal vaccines and two different types of animal health vaccinators. Ken Jones served as the distributor for the products in the U.S. in the early days of the company and even sold the products from the trunk of his car.

Within a year, business had grown to the point that the company needed to rent a one room office. Products were expanded to include artificial insemination catheters for animal livestock markets. By 2000, an entire line of Quattro Tech vaccinators was introduced. This expansion made it necessary to move to a larger office.

Originally, the products were produced in New Zealand then shipped to the United States fully assembled. In 2003, production was moved to the United States and was outsourced to a nonprofit organization in Smithfield, North Carolina. After 8 months, Quattro decided that greater quality control was needed and began to assemble the

products at its own production facility. In August, 2005, Ken Jones bought Preston Barnes's shares and became the sole owner of Quattro Tech USA.

PRODUCTION AND QUALITY CONTROL

The decision to move production was based upon a desire for increased quality control as well as financial considerations. From 1996 to 2008 the value of the New Zealand dollar fluctuated rather greatly, from a low of about \$.41 in US dollars to a high of about \$.79 in US dollars. See Table I for information about the value of the New Zealand dollar. Purchasing products from New Zealand with such wide fluctuations meant that costs were rising and falling unpredictably while the selling price of the products was fairly stable. By moving purchase of materials and production to the U.S., Quattro Tech could more easily predict costs. In addition to the change in costs caused by the fluctuating value of the New Zealand dollar, there were rather higher freight costs caused by the distance that the products traveled.

Table I
Changing Value of NZ\$

Month	Year	Value of NZ\$ in US\$
December	1996	.7050
December	1997	.5914
December	1998	.5223
December	1999	.5087
December	2000	.4297
December	2001	.4157
December	2002	.5108
December	2003	.6468
December	2004	.7149
December	2005	.6937
December	2006	.6936
December	2007	.7689

The desire on the part of Quattro Tech to have greater control over the quality of the product stemmed from business necessity. Mr. Jones had noticed that the New Zealand employees frequently sent defective units to the United States and that they did not inspect their own work. Their attitude seemed to be "Sell it and forget it." Quattro Tech's vaccinators are of relatively low cost compared with the pharmaceuticals that they deliver, but a defective vaccinator could be the cause of ruined pharmaceuticals – thus costing the farmer not only his time but also the cost of both the vaccinator and the pharmaceuticals.

Pharmaceutical Companies are the largest purchaser of the vaccinators. They purchase the vaccinators with their own logos and give them to farmers who have purchased pharmaceuticals. The value of the vaccinators (about \$15 per unit) as compared to the value of medications administered (between \$900 and \$20,000) highlights the importance of producing a quality vaccinator – a \$15 vaccinator could ruin thousands of dollars of medications if it doesn't function properly. These companies could lose future sales of their own products if the vaccinators fail to perform as expected. Keeping these large customers meant that quality had to be very tightly controlled.

Quattro Tech purchases molded parts and assembles the vaccinators at their North Carolina facility. When the molded parts are received, a worker checks them for quality. An experienced worker assembles the first twelve units for each order and only after approving the quality of the parts will the order be sent to the Assembly Department. After this, another experienced worker pulls all the other parts needed to complete the order. Parts are put in separate boxes and each box is weighed to determine that the appropriate number of parts are being sent to Assembly. There are 20 to 25 workers in the Assembly Department at any point in time and each worker in the Assembly Department checks her own work to assure its quality.

When a defective vaccinator is identified, the worker is not punished for identifying the problem. Each worker understands that pushing through a bad unit is not helpful to any of the parties involved. Each unit produced has an identifying number which can be traced to the date of production and the production workers who worked on the items. Since each vaccinator has 20 or more parts, several people assemble each unit. After the units are assembled, the box containing them is weighed. If the weight differs from the standard weight, the box is opened and each individual unit is re-inspected. After an order is fully assembled, it is sent to the warehouse where a Quality Control supervisor randomly inspects 3% of all finished products. Quality is controlled at each step in the process and Quattro Tech guarantees its products – forever! The firm has a strong belief that quality control belongs to everybody!

Since manufacturing was moved to the United States, there are few returned vaccinators. Quattro Tech has found that 98% of the units returned simply needed cleaning prior to being returned to the customer. If the customer didn't clean the units properly and they malfunctioned, Quattro Tech sends proper care instructions with the units when they are sent back to the customers. This is another example of not only talking about necessity for quality but actually embedding it into the company's culture. This is a far cry from the "sell it and forget it" mentality of his former partner.

GOOD EMPLOYEES ARE PRICELESS

After moving production to the United States, Ken Jones handled almost all managerial and executive duties. Because so much of his time was taken up with managing his employees, he wasn't able to do what he did best – get out in the field and recruit new customers. Three years after moving the assembly process to the North Carolina facility, Ken hired Michael Rogers as Operations Manager. Michael had been acquainted with Ken for many years and had worked for Ken's father until a few years ago when his father sold his profitable business. Michael is a graduate of Wake Forest University and is also an ordained minister who has served as interim pastor in local churches. Because of his long history with Michael, Ken felt that he could trust him with his growing business. Ken also knew that Michael was very good at systems analysis and would help him control quality and manage the employees effectively.

Currently, there are a total of about 40 to 45 people employed at Quattro Tech, including 20 to 25 in the Assembly Department. The Assembly Department is all female and this department is made up of a workforce that is half permanent and half temporary. Temporary workers are hired through an agency in Clinton, NC. The agency assumes responsibility for evaluating employment credentials and employment taxes. Assembly workers are cross trained to minimize the disruption caused by absenteeism. An organization chart is presented as Appendix A. The organization chart is helpful in understanding the relationship between Ken's position and that of Michael.

Quattro Tech gives nine paid holidays per year. The employer pays for health insurance for all workers and also puts money into a health savings account each month. The company has found that it can purchase insurance with a fairly high deductible and fund the HSA less expensively than paying for a lower deductible policy. Quattro Tech encourages employees to put money into a Simple IRA account and matches up to 3% of their pay that they contribute to the IRA. Employees qualify for this benefit immediately upon their employment and it vests immediately. After 60 days of employment, each full-time employee is provided with life insurance and accidental death insurance.

THE IMPORTANCE OF STRUCTURE

Another priority for Michael was to perform certain HRM duties and responsibilities. In this role he was assigned the task of (a) preparing a correct organizational chart, (b) writing position descriptions and (c) developing an employee handbook. The introduction of a handbook provides policies, procedures and rules and gives employees and management alike a tool for handling the HRM function.

Shortly after Michael Rogers joined Quattro Tech, he set about to organize and standardize policies and procedures for the company. He took one look at the existing Employee Handbook, threw it in the trash and created a more comprehensive document. Each new employee receives a copy of the Employee Handbook, which includes a very complete set of policies covering almost all areas of human resource management. Michael is very detail oriented and tends to focus on the micro management organizational view.

DOMESTIC VERSUS GLOBAL VIEWS

Having made critical decisions to strengthen the internal Quattro operations, Ken now faces the question of how to structure/restructure the organization to meet the increasing domestic and global opportunities while maintaining a competitive advantage in the marketplace. As sole owner he has the power, authority and responsibility for the staffing process. The major challenge is to identify people who have the skill and experience to complement his talents thus freeing up his time to do what he does best – namely, that of carrying out the role of “Mr. Outside” where he meets, greets and makes key connections while expanding the marketing base. This structural transformation brings with it a change from individual to group responsibilities that could mean sharing of power and authority in the decision making process. How to do this while maintaining ownership “control” becomes a critical decision. This is further compounded by the matter of trust. This change is much different from the hiring of Michael who revamped the internal manufacturing operation. Ken had a long association with him and trust was not an issue. The new people will probably present any number of unknowns to include cultural, philosophic, management, educational experiences and business views.

Even though Ken has extensive travel and business experiences that will prove valuable in the external structuring process there are certain issues/questions to be addressed before successfully completing this task. Primarily these include: why, who, when, where and how to identify and select members for the team that can mesh with his organizational vision, goals, managerial views and executive style. While he recognizes that that expansion of the organizational structure has the potential for growth, it also means greater risks!

STRATEGIC PLANNING

Ken's executive maturity has grown to the level at which it is important for him to direct his attention toward strategic planning. He realizes this represents a major growth and development step if Quattro Tech is to gain market share. Developing and implementing the strategic plan will be crucial to gaining and maintaining competitive advantages. Two major factors to be considered in this process are sources for financing and identifying an advisory group. One of these very well may be directly or indirectly related to the other. At some stage in the life cycle of an organization it becomes necessary or desirable to establish an advisory group. From a legal standpoint, a Board of Directors may be required. Other sources for advice may include advisory boards, management consultants, Small Business Administration (SBA) or networking. Use of an executive advisory group rather than a management group may mean a shift in how authority, power and decision making is shared within the organization. In the search for financial resources he may discover that a Board of Directors may be an integral part of the package. His managerial view may have to be modified as he deals with the difference between creating a business plan vs. a strategic plan. This, in all probability, could have a major impact on planning, developing and implementing the plan since it may change the dynamics of the decision making process. Finally he must take into account the effects that strategic implementation will have on the entire organizational functional structure including: Production, HRM, Marketing, Finance, Accounting and R&D. The question for Quattro Tech remains, strategically where to from here? While formulating answers to this question has exciting possibilities, it also could involve considerable risks. Ken, as sole owner, is the key decision maker. Completing and implementing the strategic plan will be crucial in attaining competitive advantage.

INSTRUCTIONS FOR STUDENTS

1. Ken has asked you to help him develop a Strategic Plan for Quattro Tech. What questions do you need to ask Ken in order to begin developing a Strategic Plan?
What are the elements of the Strategic Plan?
What is the difference between a Strategic Plan and a Business Plan?
2. Does Ken exhibit common Entrepreneurial characteristics? How are Entrepreneurial characteristics different from/similar to Leadership characteristics?
3. Ken needs additional funding to expand his business. What sources are available and how will his decision be affected by his desire to maintain control of the business that he began and has nurtured?

REFERENCES

x-rates.com. (2007). Historic Lookup. Retrieved September 5, 2008, from www.x-rates.com/cgi-bin/hlookup.cgi

Appendix A

