

Bennewitz® (Germany)

Traditional handicraft adopts B2C e-commerce to penetrate new markets

Location: Annaberg-Buchholz, Saxony, Germany

Timing: Started 1997 and on-going

Type of initiative: B2C, expansion of market, digital integration of internal business processes with external orders

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Source materials: Internet, press releases, printed materials sent by firm and Interview with Alexander Apian-Bennewitz, member of the management

Domain 2: Digital SMEs

Objective 4: to improve the effectiveness of B2B and B2C tools

KF 4.1 Better Marketing

Indicator 4.1.1. Increase in market share

Indicator 4.1.2. Increase in turnover

Indicator 4.2 Better use of e-transaction tools

Indicator 4.2.1. Increased share of e-sales to consumers

Objective 1: to Improve Working Partnerships:

KF 1.3. Better consumer networks

Indicators 2.1.3.2 Increase in B2C e-commerce

Indicators 2.1.3.3 Improvement in customer relation management

Indicator 2.1.3.5. Improved two-way communication with customers

1. Background

Augenoptik Bennewitz. Bennewitz® (<http://www.bennewitz.com>)

Model: Traditional handicraft branches out into B2C e-commerce to penetrate new markets and increase turnover. The micro-enterprise as a pilot case for new "virtual business" models

Founded in 1946 in Annaberg-Buchholz, near Chemnitz, in the former GDR-Land Saxony, the optical firm Bennewitz saw the changes brought by German reunification as an opportunity for relaunching what had been a traditional handicraft firm operating within the confines of the East German economic system. Demographic trends (an ageing German population) favoured growth of the market for vision aids, while the new practices of the German national health insurance regarding vision aids contributed to a the development of a better-informed customer base.

With increasing competition in the optical branch, growth could have been achieved by opening a branch of the firm in another location. Yet establishing a B2C operation on the Internet presented a far more cost-effective and less resource-intensive solution, allowing the firm to remain focused on its traditional strengths in precision crafting of lenses, while providing individualised customer service, low prices, and a quick turnaround of orders. Offering name-brand optical products at far lower prices has allowed the firm to compete with larger companies in addition to penetrating foreign markets.

A further innovation used by the firm was the application of digital technology in tracing glasses frames and lens cutting using the most modern CNC (computerised numerical control) techniques in which precision lens-cutting machines are guided by computer.

In October 1997 bennewitz.com was launched, applying internally developed software, and successfully joining traditional craftsmanship with modern information techniques. Bennewitz was one of the first enterprises from the handicraft optical branch to make the move to the WorldWideWeb.

Bennewitz.com allows on-line ordering of vision aids and optical instruments. Among the presently more than 1500 products offered on-line are prescription eyeglasses, designer sunglasses, microscopes, contact lenses and contact lens care products, telescopes, cameras, orientation instruments, hygrometers, and scientific lenses. The target markets are the following:

- Consumers of replacement glasses or additional glasses - useful for repeat customers who already have their visual aids needs documented and do not require an eye exam in loco;
- Consumers of contact lenses and care solutions for contact lenses - useful for customers who already know their contact lens needs;
- Consumers of cameras or optical instruments

Through a strong visual presence on the Internet the company was able to improve its competitive position and market presence outside the traditional local market to the rest of Germany and other German-speaking countries. Now the firm serves customers world-wide: some orders have come from as far as Moscow and Los Angeles. Recently it developed English-language pages and is looking into the possibility of expanding on-line service to more languages as well as increasing the customer service capacity.

There were a number of challenges to the project: since customers cannot get an eye exam or try on frames on-line, they have to either go to the Bennewitz shop (which limits the geographical range of the potential "traditional" customers), or have the eye exam performed elsewhere, with a reliable certified optical prescription passed on to Bennewitz. In fact, on-line optical customers tend to be those who seek replacements, additional glasses or contact lenses for which the necessary information is already known; or those customers who seek a better price for optical products they have already been informed about in another on- or off-line shop.

The internally developed software used in the web-site has been so effective and successful that other firms have requested licensed versions. Thus, a sideline activity has been the modification and licensing of the Bennewitz applications. The software *sCat* (for smart catalogue) together with the so-called QPA technology (QPA stands for "QuickProductAdvisor" - a search technology where articles can be found by definition of their features) were developed in-house and are now also available to firms in different branches. Software development took place internally since at the time there were no affordable commercially available software solutions that would work well for the specialised requirements of the optical branch.

2. Objectives

The objectives of "going on-line" and creating an e-business were essentially two-fold:

- expanding the geographic market reach of the firm, the brand name and the products
- linking the B2C processes with the internal business and administrative processes on the Internet, thus saving costs and better integrating business procedures.

The firm now has more customers online than through the retail store. Prior to moving part of the business on line, the market was limited to the local area near Annaberg-Buchholz, a small town, effectively constraining the size of the customer base. Customers physically came to the shop, underwent eye exams or brought in their prescriptions and made purchases in person.

The on-line integration of business processes has led to time and money savings, which are passed on to the customer in the form of lower product prices and quicker, more efficient services. In fact, customers can save up to 30% compared to other retailers.

3. Resources

3.1. Financial resources:

- The company invested 20,000 EUR over a period of 18 months for hardware.
- An estimated 50 man-hours of work per month goes into the programming and further development of Bennewitz.com and the underlying e-commerce solution *sCat*;
- An estimated 10 man-hours of work a day is dedicated to management and administration, i. e. preparing orders, sending out merchandise and billing.

3.2. People and skills

The firm is a micro-enterprise with only 4 staff members; the very high complementarity of human resources competencies has allowed the firm to use *exclusively internal skills for both the business and marketing strategy and the design of the dedicated software*. Small size, flat hierarchy, short decision-making process facilitated a very quick realisation of new ideas. Flexibility, agility, and speed are distinct advantages of the micro-enterprise; but small size also limits capacity and the staff constantly work on weekends to provide a high level of customer service.

The internalisation of the project has kept the costs very low and has ensured that the website's customer service remains a "seamless process." A key element in success has been the ability to translate the particularities of the optical business into effective and efficient e-practices. The master optician and optometrist Matthias Haase (one of the co-proprietors) had extensive programming skills, which proved extremely useful in building the website. Alexander Apian-Bennewitz had strong legal and business skills (he studied law and recently became an optician, too) and the vision of expanding the small optical business to larger horizons. The intimate knowledge of their business allowed the staff to develop e-practices tailored to specific requirements without the attendant "translation losses" involved when an outsider is hired.

3.3 Technology

- multiprocessor systems running *Linux-RedHat*
- portable PC
- Intranet (LAN)
- Internet (WAN)
- Linux versions of programming software for application-, process-, user- and partner-integrative e-commerce application *sCat* and QPA-Technology by using the PERL programming language for Unix-based web-servers employing Apache server software with a `mod_perl` module
- stand-alone and interlinked databases as well as front ends and interfaces for such databases
- web-based and browser-oriented storefront including order and track functions based on interlinked databases accessible via partially intelligent search functions
- CNC (computerised numerical control) technology
- computer-guided precision-grinding machinery

4. Outputs/Results

The following results have been observed:

- *Growth of on-line business:* In 2000 around 5000 orders were realised via Internet. In late 1999/early 2000, there were approximately 50,000 hits per month; by mid 2002 this had risen to around 120,000 hits a month on Bennewitz.com. By late 1999/early 2000, about 40% of turnover was generated through the Internet; this share has expanded even further to around 60% of turnover by April 2002.
- *Expansion of geographic customer base:* Expansion of the market from a radius of around 50 km from Annaberg-Buchholz to the German national market. Due to the appearance of the site in the German language and a significant price differential, many on-line customers are now from Austria and Switzerland. The addition of English-language pages has facilitated market expansion, for example to the English-speaking countries and Scandinavia.
- *Sideline sales of successful software:* Internally developed Software sCat is now marketed to other firms for similar applications in different branches. Several companies are now using this software for their own applications.
- *Reduction of costs/increasing efficiency of business processes:* savings are passed on to customers in the form of lower product prices (up to 30%) and quicker, more efficient services.

Bennewitz has received significant official recognition for the success of its website:

- Bennewitz is recognised as an example of "Best Practice" by the Saxon Agency for the Digital Economy (SET-Sächsische Entwicklungsgesellschaft für Telematik mbh) as well as the Saxon Working Committee for the Digital Economy of the Chamber of Industry and Commerce in South-West Saxony (Sächsische Arbeitsgemeinschaft elektronischer Geschäftsverkehr (SAGeG) bei der Industrie- und Handelskammer Südwestsachsen).
- In 1999 Bennewitz won the Saxon Multimedia Award "*Digisax*" for the best shop solution.
- In 2001 Bennewitz received the third prize of the "*Internet Prize of German Handicrafts 2001*" for its on-line service. The prize was awarded by the Federal Ministry of Economics and Technology of Germany (Bundesministerium für Wirtschaft und Technologie) together with the Central Association of German Handicrafts (Zentralverband des Deutschen Handwerks), Deutsche Telekom AG and the business magazine "*Impulse*" for outstanding innovative achievements in the application of the Internet in the business practices of handicrafts.

Below are some of the key factors that contributed to the above results:

- no losses attributed to friction between traditional handicraft and software programming: the business users created their own software specifically tailored to their needs.
- The visibility of the site has been favoured by the fact that the address is represented in the most-important search engines and the fact that Bennewitz practise a proactive public relations approach for Bennewitz.com.
- The effective costs of development were contained because the programming took place internally and was performed by one of the co-proprietors -- this was seen as a valuable investment of time. It took about one year to effectively develop the programme.

5. Activities

The re-organisation of the business model required the adoption of Internet and Intranet and the design of specially developed software. The launching of a net-based business necessitated a rethinking of the firm's traditional approach to doing business, shifting from customer service focused on face-to-face contact to customer service via digital media. The following are the main activities undertaken:

- building and maintaining of stand-alone and interlinked databases as well as front ends and interfaces for such databases
- establishment of a web-based and browser-oriented storefront, including order and tracking functions based on interlinked databases accessible via partially intelligent search functions

- continuous web-based and browser-oriented administration and processing of business processes based on interlinked databases
- linking of internal financial and administrative processes to external ordering process:
- adoption of an order tracking system
- introduction of on-line shop service outside of normal business hours: 24 hours, 7 days a week.
- adoption of "quick turnaround" customer service orientation: response to e-mail requests within 3 hours during business days (M-F, 9:00-18:00), telephone call centre, customers called back; orders filled within 48-72 hours. E-mail confirmation of orders. Possibility for customers to monitor status of orders online. Return policy: can return product within 2 weeks.
- Adoption of broader geographic market approach: sales outside of region and country.

6. Lessons and conclusions

The project was successfully developed. The main tangible results are:

1. Expansion of the customer base and increase in turnover generated through Internet.
2. Reduction in time needed to track orders - effective real-time registration of transactions in the administrative system.
3. Speeding up of the ordering process and the delivery of products.
4. Better relationship with customers through quick turn-around and on-line advice.
5. Through an optimisation of the business processes in the logistics chain, the firm was able to offer its products at substantially lower prices.

The success of the case relies on a strong visual presence on the internet, which is reinforced by the publicity surrounding the Internet-related prizes received. While the company retains its traditional optical activities (lens grinding), it has upgraded its production processes using modern, computer-guided machinery. By moving into a niche market (replacement glasses, additional glasses, contact lenses and supplies) not requiring direct customer contact, the firm was able to transfer a significant share of its business practices to the Internet and realise substantial cost savings, which could be passed on to customers.

The move to the Internet was undertaken internally, keeping costs very low. The critical factor in this was the business vision and programming skills of the internal staff. However, sustainability and growth of the initiative will likely require additional resources to expand the capacity to handle the increasing business of the firm. While the case is certainly a good example of how e-practices can be successfully applied to achieve a firm's objectives, some of the internal firm conditions cannot necessarily be transferred to other micro-businesses:

- internally developed customer service software by staff with intimate knowledge of optical business as well as programming, rather than an outside software contractor.
- Positive internal firm synergies and complementarities.
- passionate belief of the staff in their business.

7. Links and references

Interviews and sources

Interview and communications with Mr. Alexander Apian-Bennowitz, Member of the management, May-June 2002.

- Federal Ministry of Economics and Technology of Germany (Ministerium für Wirtschaft und Technologie der Bundesrepublik Deutschland), ef@cts, issue 02/2000 - Interview with Mr. Alexander Apian-Bennowitz, Member of the management

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- Saxon Working Committee for the Digital Economy at the Chamber of Industry and Commerce in South-West Saxony (Sächsische Arbeitsgemeinschaft elektronischer Geschäftsverkehr (SAGeG) bei der Industrie- und Handelskammer Südwestsachsen), Guidebook e-Commerce (Infoblätter e-Commerce), 2000 - Interview with Mr. Alexander Apian-Bennewitz, Member of the management

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