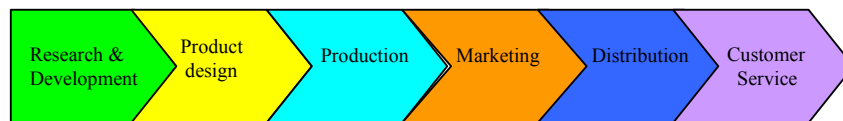


Using the Internet for better marketing and productivity gains, by Stuart and Joanne Locke

"*Que sera sera*, what ever will be, will be" might have a nice ring to it but for today's agriculturalists and horticulturalists it's not necessarily a good mission statement. Commodity and food-based industries operate in an international market that is far from perfect in terms of entry and competition. There are quotas and tariffs that restrict access to some markets, increasing competitive pressures from emerging agricultural producers, higher quality expectations from consumers and the combined effect is, in many sectors, to squeeze margins.

Better marketing and productivity gains and are two prongs of the fork of the value chain of business (Figure 1) that can lift returns. The Internet has a role to play in both regards. It is not a panacea for ailing industry, it is not a way of trying to capture part of the good returns to farmers in favourable years; it is just part of modern commerce and needs to be used wisely. E-business is just modern business with the Internet as its platform.

Figure 1 The value chain



Adapted from Horngren, Foster and Datar (1997).

The Internet, first of all, offers an important potential for improved marketing and opens up global possibilities. A global marketing approach may or may not be realistic for individual growers. Nevertheless, the Internet changes the terrain, the playing field for produce and will at a minimum impact indirectly on all producers. Second, it offers the potential to lower production costs through improved supply chain efficiency. Lower production costs, improved quality, and reduced overheads are all important in maximising margins that are continually under price pressure. How can the average fruit, flower, or goat grower gain the benefits from the Internet and what are the risks?

Information Access

One level of participation on the Internet is to use it as an almost boundless, up-to-the-minute database of information about markets. Information on everything from the latest prices for lamb, sheep and beef to cultural insights into the best timing for having flowers ready for the Japanese market is available. There is also the potential to tap into overseas trends and preferences for either low fat or GE free food and do your own analysis of the best way to position your product for future markets.

On the production side, information on technological advances in equipment and husbandry techniques, the latest products and research is accessible.

The risks with this level of participation on the Internet are low, and the potential to identify important information that is of great benefit to the producer is high. There

are things to be careful of, however. First, it is often not clear what is the source or quality of the information posted on the Internet. Anyone can set up a site and post "information" and there is no regulation to ensure that it is not overstated or misleading. So, it is important to look carefully at the address for the site and information about the entity that supports it for clues about its reliability. It is also a good idea to get a second opinion before committing oneself to a purchase or significant strategy on the basis of Internet information alone.

Another risk is that a large number of hours may be spent searching in an unproductive way. Sites focussed on agriculture or horticulture that provide links are a good way to cut down search times (see Figure 2) as are meta-search engines such as *ixquick*. Overall, the potential to keep up with the play and identify ways of improving productivity or new markets means that this is a worthwhile consideration for many in the industry.

Figure 2 Useful sites

New Zealand Sites	
Te Puna website for Agriculture	http://tepuna.natlib.govt.nz/web_directory/NZ/agriculture.htm
MAF	http://www.maf.govt.nz/MAFnet/index.html
Agriculture in New Zealand	http://homepages.ihug.co.nz/~Sfindlay/yrds/agri.html
Wrightsons	http://www.agnz.co.nz/
Precision Agriculture	http://www.precisionagriculture.co.nz/
Fencepost	http://www.fencepost.com/
International	
Biotechnology by categories (U.N)	http://www.fao.org/biotech/forum.htm
Agriculture Network Information Center (USA)	http://www.agnic.org/
On-line markets	
Live.ex (access through Fencepost - NZ)	http://www.fencepost.com/
Agritrade	http://www.agritrade.com/
1Worldlink	http://www.1worldlink.com/
Metasearch engine: ixquick	http://ixquick.com/

A second level of interaction with the Internet is to actively participate in exchanges either over the Internet or by identifying customers and suppliers this way. The potential here for revolutionary ways of improving marketing and value chain efficiencies are great, but the risks are higher too.

Marketing on-line

Is this realistic for the individual grower? That of course is the key question in terms of seeking the competitive edge. There is certainly an intuitive appeal in going it alone and selling direct to a purchaser thus removing the "middleman" and reducing costs through saving on commission.

Direct selling

Getting producers and consumers together is obviously important and this is what a market place does. Sophisticated markets like the stock exchange had simple face-to-face beginnings. The origins of the Stock Exchange lie in the coffee houses of European cities where merchants wishing to raise investment funds used to post

notices and prospective investors did likewise. Over time the transactions became more standardised.

There are several agricultural examples of direct electronic markets developing in New Zealand and these parallel those overseas in basic form. Live.ex run through Fencepost (www.fencepost.co.nz) provides a simple means of listing and potentially selling or buying stock. The system is straightforward and according to their website.

How does Live-ex work?

Buyers list details of the livestock they require and sellers list details of the livestock they have for sale. The Live.ex programme then generates reports showing the buyers/sellers that best matches their needs.

- *Buyers receive a report showing sellers that have the required stock for sale.*
- *Sellers receive a report showing buyers that require the stock they have for sale.*

These reports are sorted in order showing the best matches at the top of the list and include full details of the listings and contact details of the advertisers. Users can then contact each other to arrange inspection and negotiate a deal.

According to the feedback listed on the site from satisfied customers saving commission is seen as a primary advantage.

As reported by Locke (2001) in the June PIMJ, Southfresh (www.southfresh.co.nz) has extended its activities as a market exchange beyond fish to include native plants among others. The notion of the market exchange is likely to be an increasing one for rural product sales. This is likely to be more so with the deregulation of the apple exporting, and opening up of the dairy industry, albeit five years down the track, and pressure through the World Trade Organisation for less restrictions and protection in the trade (WTO) of agricultural produce.

Possibilities

It is important to appreciate that the market does not have to be producer driven. It can be buyer driven. As an illustration, in the UK there is an insurance market online where individuals and businesses can list what they want insured and insurers will bid. Contrast this to the conventional insurance situation where you ring around for a quote, or a broker extracts a commission for doing it for you.

Consider the deregulation of the apple industry and the potential for a purchase convened market exchange. Six retail chains dominate the British market and these companies could simply purchase through a buyer such as Tesco. An e-procurement system would be a natural development. The purchasers through a market exchange would list their requirements and throw it open to tender, thus eliminating the need for a centralised buying agent. A system along these lines is used by the Australian Federal Government for almost all of its procurements. Prospective suppliers need to have the capacity to online bid/tender and this of course has been a great boon to Australian E-commerce. Australia is now placed at number 2 in the world behind the

United States in terms of e-readiness. New Zealand dropped back four places between 1999 and 2000 (Economist Intelligence Unit/Pyramid Research study, 2001).

International Markets

If there is an international market place then being able to have a "stall" there may be all that is required. There is a US listed timber exchange and at least one New Zealand company is listed on the site as trading direct. 1worldlink.com describes itself as a business-to-business search engine with numerous links to market exchanges, including agricultural and mining commodities. The Dairy Board on the other hand argues that New Zealand needs one large single desk seller to be able to have an effective market presence for New Zealand produce internationally.

International marketing doesn't necessarily mean selling offshore. The New Plymouth florist's site (www.nzflorist.com) is directed at ex patriots who want to send flowers home for a birthday etc. This is a niche and the competitive advantage may or may not be sustainable. However, according to the proprietor, Margaret Pryor, the site paid for itself in 6 months (New Plymouth E-commerce Summit). It really depends on how many others wish to pursue this market segment and have the capacity to service it as well. Undoubtedly, the first mover advantage is present but how sustainable it is depends on brand recognition, service quality and price.

Risks and challenges

Where the transaction is not completed on-line then different risk elements are important. Typically, when a broker buys the produce in preparation for on-selling they assume the risk. These risks will incorporate all attributes that impact upon the variability of returns. Foreign exchange losses are one such factor, which is to the fore of the minds of those involved in the pip fruit industry. In that particular instance the "middleman" may not have assumed the risk but contracted out of it, passing it backwards to the grower.

The risks and challenges associated with individual contracts for sale, transport, settlement and documentation are non-trivial matters. As the business exchanges proliferate these will become key factors. Is the product being exchanged ex-farm gate, free on [board \(fob\) or what?](#) Once the movement is in to the international arena the picture is further complicated through the issue of which jurisdiction will deal with conflicts over the contract. The New Zealand dairy industry has experienced this more than once in the past with problems of settlement with the USSR.

Technological efficiencies

Technology is in essence removing the arbitrage of the "middleman". When it is small lots then arranging transport oneself etc doesn't pose significant problems, although whether or not it is economic needs to be considered carefully. However, once the scale is cranked up and the market is global then all the other risks, for which the middleman extracted a fee, become very real issues. Perhaps the analogy of selling part of the crop for cash at the farm gate, or off the truck tray, while the majority goes to market through the dealer is pertinent. If direct Internet sales are just a small percentage of the total output then the risk can be hedged within the current activities. However, once it becomes the mainstay of the grower's sales then further risk management is essential.

To make this type of direct marketing successful, careful attention to web-site design to make it fast to load and appealing and ensuring that the site is registered with as many search engines as possible are challenges that require specialist skills. Similarly, appropriate systems for securing on-line transactions are essential.

Seamlessness in transactions is important. It is suggested that a new online wool selling system will be superior. Part of the argument is made with reference to how synthetics are acquired by manufacturers who don't have to go to auctions to buy. This may well be true and so an "open all hours" wool exchange could be beneficial to the industry. Of course the current brokers will miss out unless they are part of the market place and so the pressure will be on to get in at floor level. As certification of microns etc is reasonably well developed quality assurance systems should prove adequate for such a market. Nevertheless, the quality of the contracting will be critical to its success and the success of on-line agricultural markets in general.

Standardisation

One way to improve the quality of contracting and reduce the risks for both buyer and seller is to use standard contracts. Shares and securities have become standardised. The same is true of other financial instruments such futures and options.

Standardisation is at the core of agricultural future contracts whether they a pig bellies (bacon) on the Chicago exchange or steers on the Sydney exchange. It is likely that these market exchanges for the electronic trading of agricultural products will move more and more to standard contracts with under and over adjustments. Getting the documentation right will become increasingly important for the grower.

It seems very likely that a range of rural commodity/produce market exchanges will develop. The products will be sold in standard categories. If the emerging electricity market is an indicator then there will be multiple nodes, ie places for delivery. Incremental freight charges, from farm gate, will be an additional cost to the grower.

Supply chain efficiency

Within the value chain way of thinking about how to build returns, as depicted in Figure 1 above, those aspects directly related to production and distribution are commonly called the supply chain. Enhanced efficiency, at the simplest level focus on lowering transactions costs, is very important.

Purchasing and production: In rural communities the most obvious impacts are in terms of capacity to purchase goods and services, conduct banking and investment, and seek expert assistance without leaving the property. Some of these steps are small like the move from telephone banking to touchtone banking to Internet banking. But then comes the add-ons like electronic cheques, downloading financial statements that go straight into accounts for GST purposes etc., and more is to come.

Portals like RD1, Fencepost and Wrightsons provide a range of shopping possibilities. Insurance and travel are now Internet commodities. This increases the potential for growers to do business at times that are convenient for them rather than vice versa. It is really only the TAB that seems very fussy about when you have to have the entry in by.

This type of efficiency coupled with the improved access to information on the latest developments in land management techniques, husbandry, propagation etc. as discussed earlier allow for increased efficiency of production and lower purchase costs.

Distribution: Cooperation possibilities are easier to put in place on-line. Getting produce to market is sometimes a problem when there are just part loads. Should this be a grower lead initiative for cooperative supply or a transport initiative to enhance service and profitability? Recent press release (www.stuff.co.nz 30 July 2001) from Venture Taranaki picks up on this issue:

Reducing transport costs is the major aim of a joint venture between Taranaki's flower growers and transport operators. Venture Taranaki economic development manager Anne Probert said both growers and operators want to pull together a critical mass of product volume to justify a more regular service to major markets such as Auckland.

The Internet makes it relatively simple for transport businesses to take space bookings, in real time, and schedule pickup routes that minimise distance travelled while maximising load. A computer programme could do the necessary calculations if an automated operation was warranted.

Customer service: Internet capability provides for automated tracking of deliveries and sophisticated customer relationship management software associated with on-line selling. Such software is able to capture transaction data to create a database of information such as customer payment preferences, preferred delivery methods etc.

Lessons from History - more possibilities

Richard Brealey and Stewart Myers (1996) in a very well known finance text write about reading the entrails as part of their discussion of market efficiency. The idea is that with you have to know what is going on and be able to read the signs. History doesn't necessarily repeat itself but it does provide useful indicators of how markets develop and respond to shocks and changes. Much has been written about production lines and the changes wrought by Henry Ford. Similarly, Japanese production and management methods have received plenty of exposure. A common theme from the agricultural revolution with the enclosure movements in England, through the industrial revolution through to the new economy is parsimony, making it simple.

The web offers, as a technology, a way of simplifying activities and this is where the gains to the grower will come from. Simplification of the supply chain and simplification of market access are both important consequences of the Internet. To the extent that risk can be reduced through standardised documentation and quality assurance, transactions can be sped up, search and transaction costs decreased there will be enhanced productivity.

Implications

Growers need to be e-literate and working with advisors who are switched on to the opportunities.

Steps to take

1. Search for market exchanges. See what is going on in the US, Europe and Australia. Do this using a search engine; perhaps 1world.com is worth a visit. Read what users write about it. Contribute a question or two to seek answers.
2. Look for opportunities to substitute Internet usage for physical activities like shopping, getting quotes etc. This can relate to sprays, fertilisers, machinery and almost everything. There are farm trader sites online and just visiting these is part of becoming e-conversant.
3. Try a website and list some of your produce. Will local purchasers order this way? It seems quite likely that if you can keep an up to date listing of what's available, the price, the delivery options and receive payment over the web by say visa then it will happen. If it's cheaper for the local shops then they should be motivated. If you are going down this route then probably a market exchange as an ASP (application service provider) is the sensible thing to do.
4. The question is the extent to which the Internet can act like the wholesaler/broker/agent? Of course the smart brokers etc will move to set up the market exchange and replace agents with technology, viz the Internet. There is evidence that this is the case when we look at key rural industry websites that already are up and running.

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