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Information Strategies for Agricultural Exporters

ABSTRACT: This study revealed some important divergences between new entrants and those more experienced at selling overseas. While experienced exporters have well-developed informal networks of information and focus their search strategies on better long term and short term supply/demand information, "would-be" exporters tend to be more concerned with locating a "qualified" buyers list, and getting information on export procedures, and trade logistics. In addition, would-be exporters expressed frustration with two types of obstacles where information is least likely to solve the problem: Time lags when shipping perishable goods and exogenous factors (such as precipitous changes in a foreign government).

Prospects for sales in off-shore markets influence production/marketing decisions in the American food and agriculture system on a daily basis. Producers in the U.S. whose markets traditionally have been domestic are being both pushed and pulled into the global arena. Saturated domestic markets, accompanied by low prices are an impetus to consider exports in the market mix, while new markets, especially where characterized by higher prices, serve as a magnet for U.S. goods and services. Agricultural exports totaled \$54.2 billion in FY1995, accounting for about 10% of total U.S. export trade (USDA, 1996). In recent years exports have accounted for about 20% of gross farm income, and generated over one million farming and non-farm jobs (USDA, 1993).

Despite the appeal of the export arena, agricultural businesses often face fundamental questions when beginning the journey towards overseas sales. The ques-

tions raised around the issue of export promotion are persistent and plague many organizations which network with and provide information to American businesses. In the food and agriculture sphere, the USDA has a unique capacity to support export initiatives, but decision makers in the Congress and the USDA are pondering the most effective way to target and deliver support to would-be exporters.

It is both the burgeoning interest of U.S. producers in global markets and the desire of policymakers to find important ways to encourage export activity that motivate the research discussed in this article. Some key issues considered are: What information products are most useful? Is information the key barrier, or are other exporting obstacles even more difficult to overcome? What is the information-seeking behavior of small and large producers and how might newer technologies fit in with their strategies? Answers to these questions are explored using the results from two related research efforts: a 1994 survey of U.S. firms engaged in the export business and a 1996 series of four focus groups conducted in New York and California with businesses who produce and export fresh market apples.

THE LITERATURE

Several themes dominate the export literature, including:

1. Exploration of differences between exporters and non-exporters to identify barriers to exporting and key success factors;
2. Examination of the relevance of firm size in export decisions; and
3. Discussion of the role of government in export promotion.

An excellent overview to the discussion of the challenges to exporters is a 1986 study by Kedia and Chhokar (1986), who review various studies which have explored the barriers to exporting, including, among others: attitudinal barriers in managerial mindset (Simpson and Kujawa, 1974), difficulties in identifying foreign markets (Alexandries, 1971), lack of knowledge about export procedures (Pavord and Bogart, 1975), lack of exposure to other cultures, (Pavord and Bogart), and difficulties in financing export and collecting payment (Bilkey, 1982).

The literature also includes studies which focus on export barriers for agricultural and food companies in particular. A study of 37 food processors in Louisiana by Kedia and Chhokar found that export managers cite seven factors as perceived barriers to exporting: (1) difficulty in identifying foreign markets, (2) lack of knowledge about exporting procedures, (3) lack of exposure to other cultures or ways of doing business, (4) extra time and paperwork required, (5) difficulty in dealing with government regulations, (6) inability to finance sales, and (7) product distribution problems. In a survey of 55 agricultural firms in Oklahoma, Hollon (1989) found that key barriers for both new and experienced exporting firms

include a lack of knowledge regarding export competition and import restrictions, product promotion or distribution problems, and financing difficulties.

A common finding of research regarding barriers to trade is that to minimize or eliminate inhibitions by management regarding exporting, a firm must first acquire a significant amount of information regarding product marketing, regulations, financing, and foreign business practices. In their survey of agribusiness firms, Barringer, Wortman and Macy (1994) found that perceived barriers result, in part, from a lack of knowledge and information regarding export markets. Charlet and Henneberry (1991) found that 55% of exporters and 88% of non-exporters surveyed in Oklahoma had not conducted any foreign market analysis.

Another vein of the export literature looks more closely at issues of scale. A repeated theme is that small and medium sized firms are a significant reservoir of untapped export potential and therefore should be exporting a lot, even though they are not. Empirical results are mixed on whether firm size is a key determinant of export behavior. For example, Czinkota and Johnston (1985) found no relationship, while Reid (1983, 1985) did find such a relationship.

Several studies have suggested that the Federal government can, and should, help fulfill some of the information and assistance requirements of prospective and current agricultural exporters. Hollon (1989) found that agricultural exporters in Texas had significant gaps in their understanding of export trade and market opportunities, and that more federal assistance targeted to small firms was required to address their needs. However, some firms are either not aware of USDA services, or are choosing not to use USDA services

While the studies cited here are a small sampling of the accumulated literature on export issues, they illustrate the characteristic concerns of researchers in the area. The literature is filled with attempts to answer the question of how exporters differ from non-exporters,¹ and how size comes into play. A relatively new theme, however, is the role of information technology in the export journeys of U.S. producers. For example, many studies were written before the Internet had a serious presence in the business community. The contribution of this paper is to examine current search strategies of exporters and would-be exporters and to explore how newer technologies might contribute in the future.

A CONCEPTUAL FRAMEWORK

The literature on exporting contains many overlapping and interrelated themes, pointing to the need for a unifying framework to guide an examination of the issues surrounding overseas sales. The concept maps shown in Figures 1 and 2 help to show the relationships between many aspects of exporting, and served as a general framework for the study.

Beginning with the broadest perspective (Figure 1), we suggest that a firm makes choices about allocating production between export and domestic activities.

In theory, choices should be made based on the relative risks and returns from the two alternative markets. In addition, certain characteristics of the firm, such as size, location, product or service characteristics, and management style also influence the market mix between domestic and export sales.

Thus, understanding the company's view of the risks and returns associated with the export market is an important focus of the current study. Figure 1 also indicates some reasons returns to exports may be perceived as high: untapped markets (e.g., Eastern Block countries), competitive advantages in terms of speed of delivery, price or quality, the existence of certain "premium niches" for USA products, and the availability of very large markets (e.g., China). Based on previous research, it is clear that issues such as the following would be viewed as adding risk to export activities: changes in currency, lack of a recourse for nonpayment, less infrastructure for transactions, potential for changes in legislation and political structure, and intercultural difficulties.

A more detailed perspective on the risks involved in the export arena can be viewed in Figure 2. Export markets obviously can be viewed as risky when considering the possibility that foreign business firms and, indeed, foreign governments may be unstable. The latter may put up unexpected barriers to trade, and can suddenly change phyto-sanitary regulations in a food market. However, another category of risk factors results simply from the time lags that occur between sale and delivery of the goods. Information gaps can be a third element that makes export markets seem risky, since exporters may lack information both at the macro-level (e.g., where are the new markets?) and at the micro level (e.g., what cultural differences exist in this particular market and how do they impact the acceptance of my product?).

Information, whether it comes from private or public sources, cannot completely eliminate the risks of exporting. However, information can substantially lessen the gaps that exist, and with increased levels of technology (such as video and bar-coding), even the time lag problems may be somewhat lessened. The use and role of information in reducing the perceived risks depends, in part, on certain managerial attributes, such as the level of international experience, the attitude to risk, and the search strategies that typify the manager's approach to new markets.

For example, international experience of the manager may lessen the perceived risks of exporting by decreasing some of the information gaps related to cultural differences and market characteristics, regulations, and distribution systems. Attitude to risk on the part of the manager can influence the way outcomes are measured, and less risk averse managers may be better able to withstand the stresses associated with changes from outside factors, information gaps, and time lags. Attitude to risk can also influence search strategies. For example, an extremely risk averse manager might require more information, or information from a variety of sources in order to reduce exposure. A less risk-averse manager might be satisfied with an informal or focused search strategy. In turn, the search strategies of the

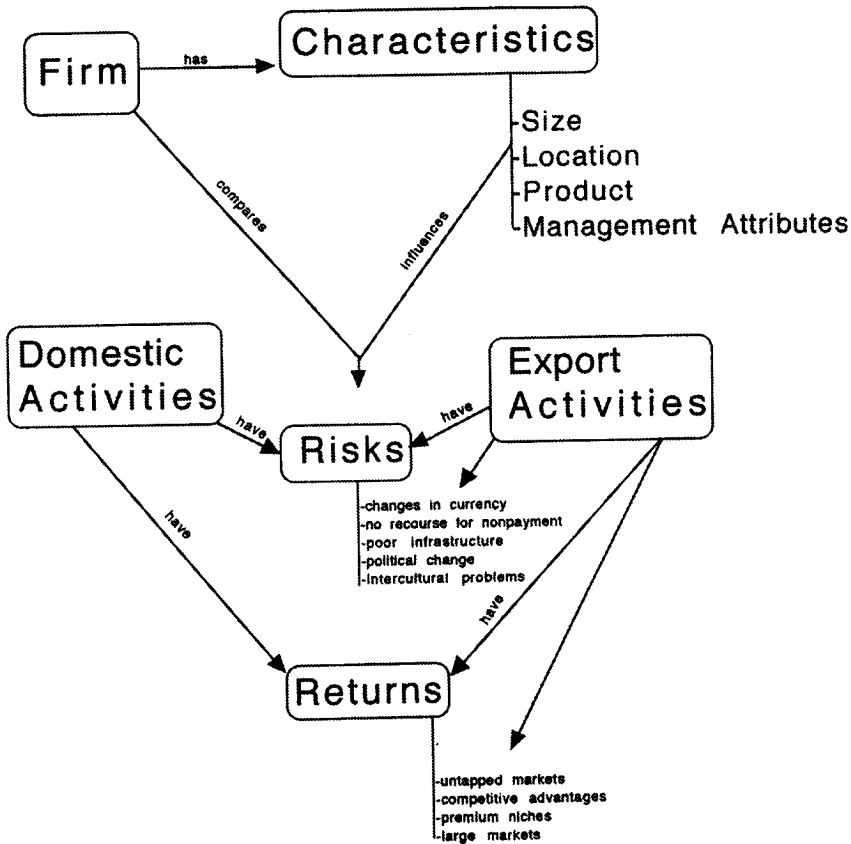


Figure 1. Risks and Returns to Exporting vs. Domestic Activities

manager can influence whether there is a strong focus on traditional information sources, such as contacts (people-based information sources) and print, or whether newer delivery vehicles, involving electronics and video are emphasized.

The role of the public and private sources of information is also portrayed in Figure 2. Typically, public agencies have concentrated on solving macro information gaps, by gathering data on new markets and current national price trends. But the government has also made some efforts to help exporters understand foreign markets through trade shows, trade missions, and educational materials, such as videos on exporting environments. Reports issued by FAS trade posts address a variety of micro information gaps, but do not address highly localized information gaps faced by exporters.

Traditionally, government information has been delivered in print medium. However, there has been considerable recent effort to make use of the Internet as a delivery vehicle.² In part, the movement toward electronic delivery has been moti-

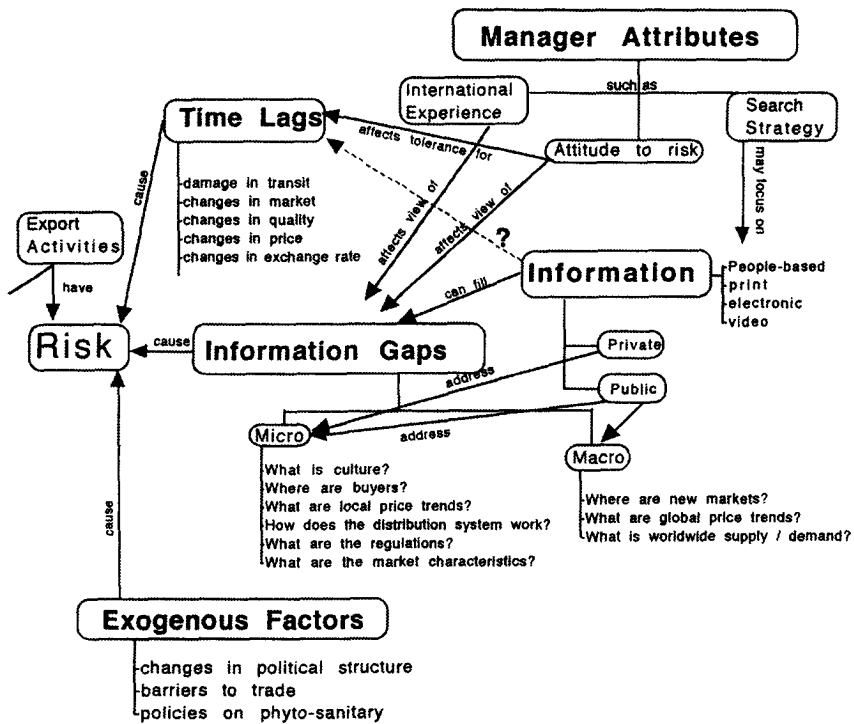


Figure 2. Types of Risk Associated with Exporting

vated by economic concerns and the desire for a broader and more cost-efficient reach of governmental efforts in promoting exports.

There are some important questions that emerge from the conceptual framework:

1. Do active exporters and would-be exporters focus on the same aspects of risk? If not, will simply gathering additional information be effective in coaxing additional agricultural firms to export?
2. Is the information currently provided by USDA addressing the sources of risk which would-be exporters consider most troubling?
3. Do the means of information dissemination currently employed by USDA match the search strategies of the business firm? Specifically, do most managers have a search strategy that includes the Internet and WWW?
4. What types of information can the public sector most effectively and efficiently provide (as compared to the private sector?)
5. How do attitudes towards risk affect the search behavior of managers?
6. What types of information technologies are being used, or might be used to address the risks associated with time lags?

These and other questions emerging from the overall framework motivated the survey and focus group research that is the basis for this study. The larger survey was used to measure the reach and usefulness of USDA information products for agricultural producers. The survey was also intended to identify challenges facing the respondents.

STUDY DESIGN AND METHODOLOGY

The 1994 survey results (reported in Bills et al., 1995) highlighted the need for a more in-depth understanding of exporter's search strategies. Exporters identified information gaps as one barrier to success, yet respondents also reported relatively low useage of government-sponsored information uses. The focus group format allowed for in-depth exploration of the relationships between risk, information, and search strategies. The focus groups also allowed for comparison between experienced exporters and would-be exporters. Although the 1994 survey of agricultural exporters was comprehensive and national in scope, it concentrated solely on firms which already had a presence in export markets.

A focus group is a guided group discussion with targeted participants. It is a method used to raise issues among key players in a given arena, test new ideas, and generate brainstorming. Unlike large-scale surveys, which can be used to generalize to a population, focus groups are specifically designed to explore issues in depth with pre-selected players in the population. The viewpoints of the players are considered valuable because they represent a particular profile. Questions are formulated in a way that leads to interactive discussion, with the intended result of surfacing issues and opinions of the group.

The firms of interest in our focus groups were both experienced and would-be apple exporters. Our questions were aimed at a discussion of their frustrations and successes in exporting (or attempts to export) and an exploration of their information search strategies. In particular, we were interested to hear how they felt public agencies might fine-tune some of their informational products. Also, we used the focus groups to address the need of USDA to obtain direct insight into how recent changes in information technologies—the Internet for example—are altering the effectiveness of their export promotion programs.

To gain precision in the group discussions, we decided to concentrate on a single commodity: apples shipped fresh in bulk. Focusing on apple shippers, we were able to compare between two geographic areas (East Coast and West Coast) and firms who differ materially in sales volume and product lines.

Facilitated discussion over a 5-hour session focused the group on four questions:

- What is your current view of the export scene?
- What are the biggest challenges for exporters?

- How do you tackle the information question?
- In a perfect world, what informational products would be helpful and what venues would be desirable?

The focus groups for this study were chosen to include a variety of different profiles found in the apple industry. A primary goal was to include a range of experience levels with regard to exporting. We also sought variety in terms of firm size, as reflected in gross sales volume, and place in the marketing chain (grower, packer, broker, exporter). Necessity dictated that we combine these benchmarks with the practical considerations of logistics and temperament. For example, it was necessary to consider who could travel to the meeting site on the same day and would be inclined to contribute constructively to a discussion in a group setting (speak their minds, share insights, etc.).

Assembling focus groups to meet several desired criteria is a challenge. In particular, it is difficult to identify “would-be” exporters in the purest sense of the term—a packer with zero previous experience now ready to try overseas marketing. Therefore, most of the “would-be” exporters in the focus groups do have at least some modest exposure to overseas selling. However, they view their firms as inexperienced in exporting and have a desire to increase their presence overseas.

Four focus groups were conducted during June 1996, with numbers of participants varying between four and nine firms at each session (Figure 3). The New York sessions were held in New York’s principle apple growing regions—near Lake Ontario and the Hudson Valley. Both California focus groups involved firms in the Central Valley. Data on firm characteristics were collected on-site and during follow-up activities. Many of the firms reported participation in more than one activity (Figure 4). Most were involved in direct sales into export markets, with

10 of 11 and all 17 participants in New York and California, respectively, representing firms that currently export fresh market apples. Some also produced

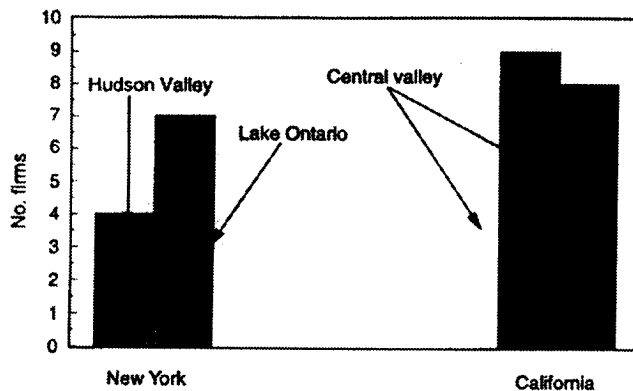


Figure 3

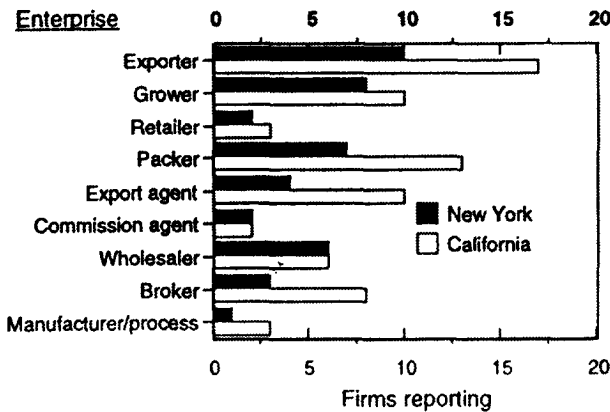


Figure 4

apples, and/or operated packing houses. Participants also included brokers and export agents.³

Focus Group Results

The results of the focus group meetings (reported in their entirety in Streeter, et al. (1997)) built on the survey results and yielded some interesting evidence with regard to our key research questions on risk, complexity of information, management variables, and size factors. Focus groups are not used to generalize to the population; instead they are used to highlight key issues and to explore specific areas with a particular audience. Therefore, the discussion that follows is intended as an organized discussion of the information-related issues that rose to the surface in the course of conducting four focus groups.

Success Stories, Stumbling Blocks, and Differing Viewpoints

The focus group discussions were filled with individual anecdotes. Individual exporters from various groups could be identified as successful, experienced exporters, while others could be viewed more appropriately as “would-be” exporters; either due to lack of experience or because of discouraging past experiences. There were certain elements and experiences that characterized the two groups, as summarized in the following matrix.

Experienced exporters were most concerned with understanding and anticipating long term shifts in supply and demand in the market, while “would-be” exporters were struggling more with meeting expectations of importers and with dissatisfaction about price level. Although both groups articulated concerns about financial risk, “would-be” exporters focused heavily on the issues surrounding non-payment.

Table 1

<i>Characteristics</i>	<i>Experienced Exporters</i>	<i>"Would-be" Exporters</i>
Key concerns	<ul style="list-style-type: none"> • long term shifts in the market • entrance of inexperienced exporters • vulnerabilities created by the marketing chain 	<ul style="list-style-type: none"> • low prices due to competition • difficulties meeting quality expectations • nonpayment problems • lack of continuity and consistency of markets from year to year • changes in phyto-sanitary requirements
Marketing Strategies	<ul style="list-style-type: none"> • strong network of leads • focused on a particular market; do not dabble • deal with problems by "going there" 	<ul style="list-style-type: none"> • move around to a variety of export sites, following prices at a given time in the market • rely on intermediaries to find markets
Orientation toward exports vs. domestic sales	<ul style="list-style-type: none"> • exports are primary focus 	<ul style="list-style-type: none"> • exports are a residual market for product which cannot be sold domestically
International experience	<ul style="list-style-type: none"> • likely to have some overseas experience at some time in their lives • travel regularly to overseas customer sites and have first hand knowledge of export environment 	<ul style="list-style-type: none"> • may not have any experience with foreign travel • have no presence at import site
Attitude to risk and self perception	<ul style="list-style-type: none"> • view export risks imposed by exogenous events as acceptable • concerned with managing risks caused by time lags • view themselves as pro-active • focused on ways to solve the information gaps 	<ul style="list-style-type: none"> • view exogenous events as a major threat to healthy exporting - very risk averse • focus on time lag risks such as nonpayment • feel overwhelmed by the obstacles
Size	<ul style="list-style-type: none"> • large enough to exploit exports with their own product or • have formed strategic alliances with others to jointly export 	<ul style="list-style-type: none"> • too small to successfully fill large export orders and • unable or unwilling to achieve successful alliances
Information needs	<ul style="list-style-type: none"> • believe only they can develop a qualified list • desire better long term and short term supply/demand information 	<ul style="list-style-type: none"> • desire a qualified buyers list • need information regarding export procedures, trade logistics
Attitude toward new information technologies	<ul style="list-style-type: none"> • cautious • can envision future role of visual technologies and use of Internet 	<ul style="list-style-type: none"> • skeptical • do not view the industry as ready for the Internet

Success stories from both East and West Coast participants were associated with exporters who had targeted a particular area and had built contacts and strategies customized for a particular market. For West Coast participants, the focus tended to be Asian countries, while successful East Coast exporters mentioned Europe and South American more often.

Another major difference in viewpoints is that experienced exporters view their overseas markets as the primary market for their product. "Would-be" exporters are more concerned with their residual domestic product and as a result, they have fewer resources to devote to tracking the overseas customer base, as compared to the nearby attractive domestic market. In addition, their primary motivation in exporting is to improve prices locally.

As predicted in the conceptual framework, we found that, among participants, the international experience of the exporter was a key to reducing perceived risks of overseas sales. In some cases, exporters cited individual travel overseas as affecting their view of foreign markets; in other cases, exporters considered regular overseas visits to be an absolute must for successful international marketing. In either case, there was a heightened understanding of the conditions of overseas markets, an awareness of the cultural difficulties, and a perception of the importance of a personal network accompanied by follow-through.

With regard to attitudes toward risk, experienced exporters tend to view the risks that come from exogenous events as acceptable (although not desirable). Their management strategies are focused around the risks introduced by time-lags. For example, they emphasize the need for insurance and documentation to keep liability minimized as the export product moves through the chain. By contrast, "would-be" exporters tend to lump controllable and uncontrollable risk together, and are therefore overwhelmed by the high risks they perceive in foreign markets.

Size does not necessarily determine whether a packer is successful at exporting, although the focus group participants emphasized the need for a "critical mass" to fill export orders on a consistent basis. Smaller firms can achieve this by forming strategic alliances with brokers or other growers or via product specialization (niche marketing). Larger firms may already produce adequate supplies to enter a foreign market.

The information needs articulated by the experienced exporters tended to be more focused on macro issues such as the size and distribution of supply and demand. By contrast, the "would-be" exporters focused on micro information needs, such as a qualified buyers list.⁴ Both groups tended to feel they had a large amount of information, and informal sources rated among the most important. Certain private sector sources were also mentioned by respondents as key sources.

The focus group findings confirmed the results of the large survey; many exporters are unaware of the products offered by the USDA. Very few of the focus group participants could name USDA products that they used. However, when shown a list of publications, many acknowledged that they had seen such information. In addition, the participants expressed some frustration with the unwieldy structure of USDA and the components that deal with the export market.

For the most part the suggestions that arose in the focus groups regarding USDA products centered on improving the quality of the information available. In particular, there was discussion at every focus group regarding the quality of

USDA trade leads. Two points were raised: (1) experienced buyers overseas do not have to resort to the trade leads vehicle, so leads are usually from “amateurs,” and (2) there is not enough information provided for the leads to be interpreted and sorted.

There were a wide range of attitudes about newer vehicles of information delivery. While most exporters in the focus group depend heavily on a fax machine, few were experienced users of the Internet. A demonstration of USDA’s Web products at several of the focus groups was extremely well-received, especially among experienced exporters. Some of the most experienced exporters were able to articulate what the future might hold in the way of information transfer between the exporter and importer. A minority expressed skepticism.

Using the Focus Group Results to Answer Key Questions

The focus groups were instrumental in identifying key issues regarding the use of information and export behavior. In addition, the results help to answer address the questions raised by the conceptual framework.

1. *Do active exporters and would-be exporters focus on the same aspects of risk? If not, will simply gathering additional information be effective in coaxing additional sellers to export?*

RESPONSE: Would-be exporters are far more focused on issues of price and logistics, while active exporters are concerned about surviving in a crowded market. Would-be exporters identified a qualified buyers list as a highly desirable product the government could supply, while the experienced exporters said that only they themselves have the knowledge and experience to develop such a list, as most of them have done. Instead, current exporters would like help sorting the existing information. In addition, information on new markets could change the current perception that most profitable market opportunities have already being fully exploited.

2. *Is the information currently provided by USDA addressing the sources of risk which would-be exporters consider most troubling?*

RESPONSE: In terms of the conceptual framework, the would-be exporters are very concerned with two areas where information is least likely to solve the problem: obstacles caused by time lags and exogenous factors (such as changes in phyto-sanitary regulations). While successful exporters also express concern about time-lag related risks, they envision insurance and other risk management strategies as most appropriate and do not particularly look to the government to solve the problem.

3. *Do the means of information dissemination currently employed by USDA match the search strategies of producers?*

RESPONSE: Currently, producers still rely almost exclusively on phone, fax, and paper-based information. However, time factors and the relationship aspect of business dealings place a high value on informal sources of information. Reliance

on information from personal contacts may keep exporters from looking further for paper-based sources of information (such as products produced by USDA). For example, focus group participants had a low awareness of USDA products and therefore they did not realize that some of USDA's existing products already addressed issues raised by the exporters at the session.

4. Specifically, do most managers have a search strategy that includes the Internet and the World Wide Web (WWW)?

RESPONSE: There was no experienced Internet user among the focus group participants. Skepticism over Web-based products centered on the confusing nature of the Internet and the lack of security for transactions. In general participants seemed to be holding back until the WWW "settles down." However, experienced exporters think that over time, as the Internet environment becomes more stable and easier to use, it will emerge as an important venue for sending and receiving information.

Interestingly, the Internet environment could be ideal for addressing two aspects of information raised by focus group participants. First, the participants emphasized the importance of informal contacts in building a network of customers. Use of e-mail in other business environments has become a standard method of building such networks. Depending on how quickly the technology is spread to the markets of exporters, e-mail could become as common as the fax for communication among apple exporters. Secondly, both experienced and would-be exporters expressed frustration with the sheer quantity of information they have to sort through. Web product development is now heavily focused on building useful filters for users interested in linking to various sources of information, but who also wish to have a focused search strategy.

5. What types of information can the public sector (as compared to the private sector) most effectively and efficiently provide?

RESPONSE: Although the would-be exporters were quite interested in having the USDA provide a "qualified buyers" list, more experienced exporters stated that it would be unrealistic to expect government to do so. Clearly the public sector excels at providing excellent information in the macro area (supply/demand statistics, price information, economic parameters). Through efforts such as trade shows, video products, and brochures, the USDA also addresses information gaps at the micro level. However, it will always be a challenge to provide such information in a cost-effective manner, since the needs are highly localized and reaching the target market with the right information can be difficult. Focus group participants identified private sources of information (such as the *Journal of Commerce*, steamship and airline companies, freight forwarders) as the best sources of extremely time-sensitive information.

6. How do attitudes towards risk affect the search behavior of managers?

RESPONSE: Experienced exporters have a higher tolerance for the risks inherent in overseas trade that are caused by exogenous events. Therefore, they focus their

information search in more effective areas, filling information gaps and looking for ways to cope with risks associated with time delays in the export process. Would-be exporters tend to be much more risk averse, and ironically their search for good export venues therefore can be less effective. Instead of focusing on a given area and building expertise and a network, they have a tendency to dabble, which results in a higher variability in the returns.

7. What types of information technologies are being used, or might be used, to address the risks associated with time lags?

RESPONSE: Although time lags create some risks that cannot be resolved with information, the focus groups did surface some interesting suggestions for the future. Using digital images that can be easily transmitted, transactions could be more closely monitored and coordinated. For example, one shipper mentioned using the Internet to send product photos to a prospective buyer. Instant access to important paperwork and regulations was envisioned in a futuristic Internet approach to exporting. While no one saw information technology as a panacea, there was genuine interest in its potential for increasing the ease of exporting.

CONCLUSIONS AND IMPLICATIONS

The findings of the focus group, together with the results of the larger survey, point to some interesting conclusions about the characteristics of exporters vs. would-be exporters and about the search strategies each group employs. For example, while experienced exporters have well-developed informal networks of information and focus their search strategies on better long term and short term supply/demand information, "would-be" exporters tend to be more concerned with locating a "qualified" buyers list, and getting information on export procedures, and trade logistics. In addition, would-be exporters expressed frustration with two types of obstacles where information is least likely to solve the problem: barriers caused by time lags and exogenous factors (such as precipitous changes in a foreign government). While successful exporters also express concern about time-lag related risks, they envision insurance and other risk management strategies as most appropriate and do not particularly look to the government to solve the problem. The implication of these findings is that the USDA and others interested in reaching and encouraging exporters may need to tailor their efforts differently for those who are at different levels of experience in exporting.

Search strategies of most producers still rely almost exclusively on phone, fax, and paper-based information. The focus group discussion revealed that the pressure of time on managers and the relationship aspect of business result in a strong reliance on information from personal contacts which may keep exporters from looking further for more formal sources of information (such as products produced by USDA). However, as Internet-based communication becomes more common among exporters, it could provide a valuable venue for USDA products.

There was a cautious attitude among participants on new information technologies due to the confusing nature of the Internet and the lack of security for transactions. However, experienced exporters think that over time, as the Internet environment becomes more stable and easier to use, it will emerge as an important venue for sending and receiving information. "Would-be" exporters had a higher level of skepticism. Improvements in the interface and education efforts focused on the Internet could help lower attitudinal barriers to using information technology as a tool in export activities.

Focus group participants raised two types of information obstacles that could be met with Internet-type products: the challenge of building a network of contacts, and the difficulty of sorting through massive amounts of information. Use of e-mail in other business environments has become a standard method of building professional networks. In addition Web product development is now heavily focused on building useful filters for users interested in linking to various sources of information, but who also wish to have a focused search strategy. Using digital images that can be easily transmitted, transactions could be more closely monitored and coordinated. While no one saw information technology as a panacea, there was genuine interest in its potential for increasing the ease of exporting.

For those interested in export promotion, the results of the study suggest two strategies:

1. Support efforts which speed the widespread adoption of information technologies throughout the export marketing channels, and
2. Explore the most effective and efficient ways to provide information using newer technologies, focusing on good filters, useable interfaces and appropriate content.

NOTES

1. The terms "non-exporter" and "would-be exporter" are used interchangeably in this article. However, a subtle distinction in other parts of the literature is that for some studies there is no knowledge about whether or not non-exporters have a desire to start selling overseas. Such studies simply compare firms that are exporting with others who are not. By contrast, subjects in this study were identified as producers who wished to export more.
2. A complete discussion of information sources on the Internet is beyond the scope of this report. However, it should be noted that the USDA is making substantial efforts to assist clients by posting information on the World Wide Web. See, for example, the following World Wide Web site: <http://ffas.usda.gov>.
3. For detailed information about focus group selection and characteristics, see Streeter et al., 1997.
4. "Qualified" refers to whether or not the potential buyer has a good credit rating and adequate financial resources.

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