

SESSION 9
RESEARCH STRATEGIES

SHIFTING FROM PRODUCTION TO MARKET-LED RESEARCH IN SUB-SAHARAN AFRICA: THE CASE OF ECABREN

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ABSTRACT

Overcoming production constraints in order to increase bean productivity in Sub-Saharan African countries has dominated bean research in the ASARECA and SADC regions for the past 15 years. In several countries, bean researchers rarely look at the needs of clients, with resulting failures in adoption that are mainly due to a focus on product instead of considering the customer first. Donor institutions wanted ASARECA and its commodity networks to develop a consumer focus if they really wanted to contribute to poverty alleviation and economic growth for the people of the region. In the 1990s, the Eastern and Central Africa Bean Research Network (ECABREN) made a proposal to include market issues in bean research, and after 1998, all commodity networks started shifting from a product focus to a customer focus in order to conduct market-driven research for economic sustainability and profitability. The ECABREN strategy is oriented towards market research, which helps target products and services much more accurately and profitably, and helps monitor and control the marketing process much more carefully (thereby cutting wasted effort and saving money).

RÉSUMÉ

Au cours des 15 dernières années, dans les régions correspondant au champ d'action de l'ASARECA et de la SADC, la recherche sur le haricot a eu pour principal objectif de lever les contraintes de production pour accroître la productivité du haricot en Afrique subsaharienne. Aussi, dans de nombreux pays, les chercheurs ont-ils essentiellement accordé la prédominance au produit (au détriment des clients), approche ayant souvent conduit à des échecs. Les bailleurs de fonds ont donc souhaité que l'ASARECA et ses réseaux de produits suivent une approche axée sur le consommateur afin de contribuer plus efficacement à réduire la pauvreté et à stimuler la croissance économique dans la région. Dans les années 1990, le Réseau de recherche sur le haricot en Afrique de l'Est et du Centre (ECABREN) a proposé d'inclure les questions des marchés dans la recherche sur les haricots et, à partir de 1998, tous les réseaux de produits ont abandonné la priorité axée sur le produit pour adopter celle axée sur le client dans une perspective de durabilité et de rentabilité économiques. La stratégie de recherche de l'ECABREN est orientée vers le marché afin de cibler des produits et des services de façon plus précise et rentable et d'aider à suivre et contrôler le processus de commercialisation de plus près (limitant ainsi les efforts et les dépenses inutiles).

INTRODUCTION

Production and marketing of dry beans (*Phaseolus vulgaris* L.) in Africa has been a major pre-occupation for farmers and scientists in Sub-Saharan Africa (SSA). Of all the constraints that have attracted the attention of scientists, among the most important are production constraints that limit the capacity of farmers to produce enough for home consumption and for sale in the local or regional market. For the last 15 years, scientists and farmers have tried—in participatory methods—to overcome the most important constraints. In some regions, where bean exports are important, market classes have become the most critical factor. In addition to production constraints, socio-economic constraints have become more relevant and agricultural research institutions have started focusing on them. It is without a doubt that the impact of research has been limited to areas where beans are important to the local economy.

Most small-scale farmers in the rural areas of developing countries live in extreme poverty, and the only way that bean scientists can contribute to the reduction of poverty and improvements in nutrition is through the development of marketable bean varieties for local, regional, and international markets. For three years now, the bean network (as with other ASARECA networks) has been engaged in market-oriented research, which

is not well understood by a number of biophysical scientists. The purpose of this talk is to explain market-led research in easy terms for scientific community gathered here, demystifying what has been considered as a taboo by scientists in the SSA region.

RESEARCH ON CONSTRAINTS TO BEAN PRODUCTION SINCE THE 1980S

Agricultural research during the colonial period involved selection and breeding of only a few varieties, mainly for export overseas. In most cases, integrated management predominantly focused on controlling rust in commercial varieties, for example. Integrated crop management, such as the use of chemical fungicides and insecticides, date of sowing, plant density, etc., advised farmers on producing a crop acceptable to Europe or local/regional markets. It is understandable that farmers at that time could provide themselves with fungicides and other inputs better than today's farmers. Since the 1980s, more production problems have been reported than before.

In fact, the most economic production constraints reported by farmers, agricultural scientists, and extension services include biotic (diseases and insect pests) and abiotic (low nitrogen and phosphorus, low soil acidity, aluminium toxicity, and drought). The most economically significant diseases have been angular leafspot, anthracnose, rust, root rot, common bacterial blight, halo blight, bean common mosaic virus (BCMV), and nematodes, while for insects, bean stem maggot, bruchids, thrips and aphids, and *Ootheca* (bean foliage beetle) have been damaging to all types of beans grown in SSA. From 1980 to 1997, hundreds of thousands of dollars have been invested in the SSA to overcome these problems. Several countries have considered characteristics such as the marketability and nutritional qualities of the selected or recommended products. The biophysical scientists in the region have become so important that at regional meetings/workshops, they are identified with the diseases or pests on which they work. For example, you can hear scientists joking:

- 'When you see Pyndji you see angular leaf spot.'
- 'When you see Buruchara you see root rots.'
- 'When you see Habtu you see rust.'
- 'When you see Fina you see common bacterial blight.'
- 'When you see Ampofo you see insects.'

Production versus market-oriented research

As discussed previously, in production-oriented research, the focus was the product: a resistant, high-yielding, acid-tolerant variety, etc. In contrast, market-oriented research puts the focus on the customer or client. It is concerned with the needs of the consumer. For example, the customer might want a large red bean variety or a fast-cooking variety for export. This focus has been forgotten by several research institutions; while several bean programmes have reported the release of dozens of bean varieties, only a few of them are used locally or regionally. To become a market-oriented research institution, ECABREN must be a *customer-focused* organisation. What does this mean? A customer-focused organisation . . .

- only develops the products its customers demand
- spends a lot of resources on marketing and customer liaison
- believes in the 'ask first, then supply' way of doing business

It is true that until now a number of scientists have not been interested in asking, or knowing, what the end users really want. This results in the loss of human, material, and financial resources without creating any impact on communities. Several institutions are now considering these aspects, which were often neglected.

What is marketing?

Economists tell us that 'marketing is for all businesses—big or small'. Marketing involves anything that helps towards making your customers more satisfied. Many people who were involved in different businesses in the past are no longer in business. We should remember that 'No satisfied customer = No business'. In fact, many people, such as farmers, bean seed companies, etc., stop growing a certain crop because they are unable to make profit with it.

Marketing is all to do with what are often referred to as the four *Ps* of marketing:

- The **Product** or service you sell
- The **Place** where it is sold and distributed.
- The **Price** of the product or service.
- How you **Promote** the product.

Marketing is the creative process of satisfying customer needs profitably and effectively; but this is not captured by biological scientists, who sometimes find socio-economists incomprehensible. In the bean-production channel, there are different groups that ECABREN members consider as potential partners in marketing bean technologies: producers, wholesalers, exporters, traders, and knowledgeable consumers.

What do we understand by market research?

Starting in 1997, *market-driven research* became almost a slogan in the ASARECA networks, and many scientists wondered what it meant because they were already breeding or selecting products that were commercialised for local, regional, and/or international markets. What, then, was lacking in their research approach?

The specialists give us a good definition of marketing research:

Market research is simply defined as the systemic collection of information on existing or potential markets, for analysis and subsequent action.

They tell us that to be successful at marketing, we need to find out what is going on in the market choice, specifically:

- identify customers' needs and wants
- understand the competition
- analyse the market dynamics (growing, shrinking)

This analysis tells us—biological scientists—that in order to be successful, we really need to interact with socio-economists when designing, planning, and implementing our projects.

Why do we need research?

We biological scientists sometimes feel distressed when we are told to conduct a market analysis before starting any research. This is important for both the researcher and the institution, as demonstrated below. Research is needed

- as an input to analysis and subsequent decision-making
- to find new markets
- to ascertain your customers' real needs
- to find out what your competition is doing, or why you are not doing well
- to establish the customer value proposition

Research helps to minimise risk, focus efforts, and maximise returns. In summary, market research helps in two key ways:

- First, it helps you target your products and services much more accurately and profitability.
- Second, it helps you monitor and control the marketing process much more carefully, thereby cutting out wasted effort and saving money.

Looking back, one could conclude that any research and development institution with the objective of contributing to poverty alleviation should apply market research for achieving social and economic impact. How does ECABREN plan to enter into market-led research?

DEVELOPING A MARKET-ORIENTED RESEARCH FRAMEWORK

When, in 1997, ECABREN first developed its proposal based on market orientation, it considered some information from various participants from different participating countries and referred to some knowledge that it had from different sources or studies. Although some reviewers found the proposal acceptable as being

market-oriented, a number of activities in the proposal were not based on market analysis. Two years later, the time came to phase out these activities and re-orient the research, based on market reality. Thus, the characterisation of bean markets in the ASARECA region was necessary for determining market potential and opportunities in order to set priorities and strategies for research.

With primary and secondary market and production information available, the network members identified market classes (bean types) in the region, market opportunities and marketing and production constraints with respect to locations in each country. The second step consisted of defining the goals, outputs, benchmarks, and research activities necessary for achieving the defined outputs.

To develop a market strategy, ECABREN considered its strategic objective and purpose. The network's strategic objective is formulated as 'increased income of farmers and household food security, especially protein availability, for rural and urban populations'. ECABREN's purpose is increased productivity and commercialisation of the common bean in the region, to be achieved through the development and adoption of sustainable production and processing technologies developed in partnership with national and international research institutions, non-research institutions, and beneficiaries.

An analysis of markets in the region showed that nine market classes for the common bean could be distinguished at either the local, regional, or international level (table 1).

Table 1. Market Classes, Where Important, Breeding Programmes, and Lead Countries

Market class	Number of countries where important			Programme	Market class	Lead country
	Domestic	Region'l	Internat'l			
Calima (20%)	7	3	2	01	Red mottled	Uganda
Large red (10%)	8	2	—	02a	Large dark red	Tanzania
Small red (20%)	9	1	—		kidney	
Brown/speckled	5	1	1	02b	Small red	Ethiopia
sugar (10%)				03a	Pinto	Kenya
White	7	1	5	03b	Sugars	DR Congo
Yellow/tan	6	2	—	03c	Carioca(evaluation)	Ethiopia
Pinto	3	—	—	04	Climbing beans	Rwanda
Black	6	—	—	05a	Snap beans – bush	Uganda
Snap beans	—	—	6	05b	Snap beans – climbing	Kenya
				06a	Navy – small white	Ethiopia
				06b	Navy – large white	Madagascar
				07	Yellow/browns	DR Congo

Besides production constraints, a cluster of market constraints were identified for the three market levels: limited quantities, lack of seed promotion, poor seed quality, packaging costs, lack of market information/skills, post-harvest handling, price fluctuations, transport, and taxation. While some of these factors are related to policy, the network could easily handle others, such as breeding for market classes in collaboration with NARS institutions based on comparative advantage (table 1).

The promotion of products developed by the research institutions is still considered very weak, and usually leads to the new technologies being neither accepted nor adopted, especially if not developed in partnership with end users. The research institutions do not always understand that advertising and promotion (as done by Coca Cola, beer companies, and other industries) could create new markets for their bean products. Few tools have been used in dissemination of technologies, and these only rarely. The lack of funds has been advanced as the reason for not promoting research technologies, relying instead on inefficient state extension services. There is a need to discuss a little bit about advertising and promotion—sometimes described by marketing experts as meaning the same thing—which are so important in disseminating the developed technologies.

Advertising

Advertising puts your message in front of potential (and actual) consumers so that they are disposed to buy from you. Why use advertising?

- Advertising can stimulate and increase short-term sales.
- It can attract customers' attention and helps to convince them to buy your product or service.
- It gives your product and your enterprise the right image.
- It can not only attract new customers but also helps keep actual (or former) customers.

In agricultural research, seed sales have been advertised in Malawi, resulting in significant impact on communities around the country. However, in many SSA countries, seed companies fail to advertise their products, leading in most cases to the failure of their enterprises.

Promotion

It is vital to tell your customers about your products. Promotion helps to create an awareness of your product. It involves informing people about your organisation and products (new technologies) and persuading them that they should come to you, not to your competitors. Promotion can be considered as the area where agricultural institutions in the region have failed. As mentioned above, this has always been explained by lack of social scientists and funds, but the consequences are that we end up with ignorance of the developed products, failure of acceptance, and lack of adoption.

Moreover, the almost complete lack of partnerships in the development of products has had a negative impact on the acceptance of the products or services. In fact, several breeders or scientists in the region who develop new technologies rarely involve end users, and some remain reluctant to involve end users in technology development and/or selection. The absence of a multi-disciplinary environment also leads to developing insufficiently packaged technology that is rejected. There is a need to promote the technology as a package. Several options for promotion have been used in different countries, resulting in wider adoption of the products, including variety, cultural practices, or cooking methods. Worldwide, tested (used) methods (which can be used individually or combined, depending on their cost effectiveness) include the following:

- advertising (TV, papers, posters, radio, videos)
- brochures and catalogues
- field days
- churches and mosques
- markets
- print media
- drama
- administrative meetings

Being market-led in practice: What is marketing?

Maintain quality/price relationship

Always listen to customer

Remember the need you are satisfying

Know your customer

Explain *benefits* not features

Talk to your customers

Involve all staff in marketing

Needs not wants

Grow your market share—profitably

CONCLUSIONS

Market research, as explained in this paper, can now be considered as demystified; it is no longer a magic potion that scientists should fear. On the contrary, it will help us to visualise appropriate markets for products that we are developing to benefit consumers, communities, scientists and their institutions. The objective of marketing is to satisfy the consumer while making a profit. The most important key for our success is the social and economic impact arising from the adoption of our products. To this end, partnerships and multi-disciplinary approaches are essential for customer-focused organisations like ECABREN.