Smart Fiche 32

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Value-addition and SME's: raison d'etre and lessons learnt

Introduction

Up until the early 1990s much attention was given to the role of nationalised or state owned food, including fish, production enterprises. Due to costs and shifts in world trade patterns many of these enterprises were sold off or abandoned. In parallel, populations were growing and becoming more urbanised. African food producing small and medium-sized enterprises (SMEs) were born largely as a result of these socio-economic changes and are now essential players in the value-chains that supply fish from point of harvest to the final consumer. A key intervention entry point for SME's is value-addition and how to make more from existing resources by tapping into new and higher value markets.

For various reasons traditional fish species have become scarce or expensive, yet the demand for cheap animal protein remains strong. Many fishermen have shifted focus to exploit other species, notably small-pelagics from rift valley lakes and inshore coastal marine waters. These species can be found in abundance and offer a nutritious source of low cost protein for millions of people.

This fiche describes work undertaken by the SmartFish Programme to support SME's in achieving value-addition (including by reducing losses). Particularly, SME's which rely on small-pelagic resources which are gaining a growing interest from the burgeoning middle class urban African consumer. The fiche also summarises a number of key lessons that could be used to inform similar work in the future, in comparable contexts.

The Fiche is designed for anyone interested in development support for SME's, especially those businesses which operate within the fisheries sector. It will be of interest to policy and decision makers, as it steers them towards key policy issues, as well as technicians who are responsible for "making things work" on the ground.

Value addition

Value addition is the process of creating wealth when selling a product, therefore value added refers to "extra" feature(s) of a product e.g. fish, that go beyond the standard expectations and provide something "more", even if the cost is higher to the consumer.

It may entail producing a fish product for a special or new market (diverting low-value fish from animal feed to a higher value human consumption market); changing the form of fish before it is marketed; changing how fish is packaged and labelled for the market; changing the way fish is marketed; or even adding a new enterprise to an existing one e.g. vertical integration such as a fishing business joining with a processing business.

A key feature of the market for fish and fish products and a driver of value-added products is the increasing demand from urban, middle class consumers, who are conscious of the health benefits of eating fish, see the benefits of convenience foods and have more disposable income. Catering for this group is growing retail food distribution sector consisting of large multi-national supermarkets and smaller domestic retail outlets e.g. mini-marts.

Fundamentally value-addition is achieved by one of more of the following:

- Improving end-product quality by applying better hygiene, handling and processing practices;
- Using technologies such as processing and preservation techniques, dehydration and drying technology, freezing technology, packing and labelling;
- Seeking out and supplying new domestic and regional markets;
- Achieving certification by food safety and standards bodies.

Value-added fish products should give a competitive edge to SMEs and value-addition is seen to have a number of benefits which, for the particular SME includes some or all of the following:

- Increase profit per product unit
- Access to more, different and new markets
- Increased turnover and business growth
- Product diversification
- New product development
- Improved product storage life
- Safer products and consumer confidence
- Consumer convenience and awareness
- Improved functionality e.g. health benefits, added ingredients e.g. salt
- Increased employment
- Benefits to other stakeholders in value-chains such as fishermen, input suppliers and retailers
- Foreign exchange earnings
- Revenue generation for government
- Promotes innovation and competitiveness
- Food and nutritional security for consumers
- Make more from the available scarce fish resource
- Reduction in post-harvest losses
- Ability to store and sell products in the off-season
- Improve a company's public image and the perception of the sector as a whole.

In terms of SME's and their growth/development, value-addition is normally achieved through a combination of capacity building in technical and business principles, market research, strengthened market linkages, investment in improved technology, better access to services and input supplies and operating in an environment with improved infrastructure. Value-addition occurs organically within SMEs and can be stimulated as an objective of government policy and development support. Nevertheless, SME's face a number of common challenges in attempting to improve product quality and added-value. These challenges include:

- Lack of capital and access to affordable capital
- Poor organizational and managerial capacities
- High investment costs
- Poor supporting services such as transport for distributing products
- Lack of packing material
- Lack of equipment
- Cross border trade issues such as differing standards, bureaucracy and informal costs
- Inadequate knowledge of and access to appropriate value-adding technologies
- Lack of market information
- Distance to market
- Weak certification services and high associated costs of certification absence of coherent policies to support such an undertaking, especially in rural areas
- Fraud

Policy makers are faced with the conundrum of balancing the promotion of added-value and increasing price of fish products targeting higher income consumers with the importance of access to affordable fish by low-income consumers.

SmartFish value-addition work

The IOC SmartFish programme has supported value-addition by SME's, government and regional trade bodies in a variety of ways and locations. Figure 1 summarises the different intervention entry points used during the course of the programme.

Figure 1. SmartFish support to SMEs and value addition

Trade fairs have helped promote products and create linkages between buyers and suppliers. The introduction of improved technology such as raised drying racks has been aimed at helping SME's improve product quality and reduce losses. Encouraging the use of improved packaging and labelling, particularly for the retail sector has been a simple value-addition strategy. Investment in better harvesting technologies and processing facilities has been used to help SME's expand and meet higher standards of quality. Cutting across many of the interventions has been capacity building to boost knowledge and skills in both technical and non-technical production and trade issues. Harmonization of hygiene, handling and processing standards, streamlining cross-border trade procedures as well as the development of national trade strategy and the promotion of regional cooperation and networking amongst programme partners at all levels have also been part of the strategy. Moreover large campaigns targeting consumers raised awareness on nutritional value of fish and fish products, good handling and cooking practices including tips to identify good quality fresh and processed fish – contributing to the emergence of a market for higher added-value products.

General consumer demand for fish, both within Africa and in export markets has grown and prices have risen and fish that has been traditionally consumed within many African countries has become scarce and expensive. This has led to a growing interest in the utilization of various small-pelagic species of fish, both freshwater and marine. Historically much of this fish has been destined for animal feeds, but due to the expense and scarcity of fish such as tilapia more and more people of differing social status are now consuming cheaper, small-pelagic fish. Traditionally, small pelagics are sun dried, often on the ground, as a means of preservation and to aid distribution and storage. Opportunities to improve end product quality through better handling and hygiene practices as well as capitalising on the burgeoning urban middle class consumer market were key drivers of the programmes's involvement with SMEs. Three examples of direct programme support to SMEs are now described and used to highlight key learning and how this can be capitalised on in future development support: two (Zanzibar and Mafia Island) concentrate on marine small-pelagic value-addition and one (Uganda) focuses on freshwater small-pelagic resource from Lake Victoria.

Dagaa and Zanzibar

Anchovy (*Engraulidae: Engraulis japonocus, Stolephorus heterolobus, S. punctifer, S.indicus, S. comersonii, S. devisi, Thryssa aelama, T. setirostris and T. Vitrirostris*. 9 species in total) processing began in Zanzibar in 2006 in the North Region of Unguja & Wesha at Pemba. Anchovy are known locally as dagaa and after capture are normally boiled in salted sea water before being sun-dried and taken by boat and road to the DRC. The trade is largely controlled by DRC traders who advance funds to local fishermen and processors in return for the supply of the dried product.

Such products, usually dried on the ground and contaminated with sand and dirt, are low quality mass produced and taken off the island to theses external markets, notably DRC. This low quality translates into a low price for the producer. But also a low price for the consumer, which should not be ignored.

The income to local processors appears to be minimal. Meanwhile a large cost to processors is the fuelwood used for boiling the fish. Other challenges are the lack of infrastructure such as road, water, toilets and first aid services as well as good storage facilities. The remainder of fish are sold fresh into the local market for domestic consumption. At the time, there were no such packed and labelled products being produced in Zanzibar or available on the local market.

SmartFish support to market test value-added products and provide an alternative value-chain for dagaa producers, reducing a reliance on the low value export market, began in early 2014 with the provision of drying racks, drying trays, boiling pots, a gas burner, weighing scales, electronic balances, packaging computer equipment and training in handling and processing and value-addition. Attention was focussed on 5 fish landing and processing centres and selected processors at these locations. The main entry point for the support was the Department of Marine Resources which coordinated the activities. The work led to the production of a test batch of high quality products made from good quality raw material that had been hygienically produced, using drying racks, free of extraneous matter, packed and labelled for retail outlets. The product was test marketed in Zanzibar.

As the support was provided there was an attempt to unify the processors involved and create an association or group. UWADAZA was formed to represent the interests of dagaa processors and traders. The formation of such a group will facilitate access to various forms of support initiated by government and the financial sector and the group have an office and packing facility. The group uses 250,000 sh of their own funds as startup working capital, purchases and processes in one location (Maruhubi), supplies 3 supermarkets in Zanzibar, intended to explore markets for packed and labelled product in Dar es Salaam (DSM), would be supervised by the Department of Marine Resources for quality assurance of final products.

There is evidence that some carriers, processors, distributors are slowly changing their attitudes and behaviour after the training and there is now a group of skilled trained pool Fisheries Officers who can act as resource persons for the private sector in future. Some processors have seen the benefits of drying racks and are replicating the idea. Data collection has been improved as well as revenue collection and the Zanzibar Airport Authority has agreed to give the UWADAZA space for selling their products at the terminal.

MAFITE and Mafia Island

Following a value-chain analysis, similar work was initiated with MAFITE, a small-pelagic fish processor group based in Kilindoni on Mafia Island in early 2015. This group of 7 active members formed following the attendance of one of the processors at a SmartFish trade event. They expressed a wish to become independent of the dominating DRC market and traders and certified by TFDA and to supply high quality dagaa products to domestic and export markets. Although the sector generates a great deal of employment, the poor quality of final products destined and demanded by the DRC market equates to low level of income for many stakeholders. Other challenges are postharvest losses during rainy seasons, the limited transport options between Mafia Island and the mainland as well as the lack of knowledge of processors of alternative market opportunities.

The programme financed the construction of a processing unit, drying racks and the provision of processing equipment as well as providing capacity building. Another key intervention was market research, focussed on DSM. This revealed a potential market for value-added packed and labelled products, primarily local supermarkets in middle class/better off areas of the city. A qualitative assessment was made to provide some insight into the potential benefits of the new improved facility and process. Selling price for the low quality product is 4000 to 6000 Tsh / kg. Whereas by packing and labelling in small packets (125 g) of a better quality product a price of 8000 to 16000 Tsh / kg can be achieved.

Kiyindi Women Mukene Processors Association

The Kiyindi Women Mukene Processors Association (KWMPA) was identified as an "emerging processor" relying on under-utilized resource and positioned to demonstrate positive change to other SMEs. The group is based in Kiyindi, a village on the Ugandan shores of Lake Victoria. Large volumes of mukene (*Rastrineobola argentea*), an indigenous small pelagic fish, are landed, processed and traded here. A large proportion of the product is sun dried and transported by road to Rwanda, DRC, Southern Sudan and Burundi.

Exchange between KWMPA and the programme started in July 2013. The group wished to expand the business, increasing the turnover and accessing new markets for sun dried and fried products. This would necessitate improving product quality, food safety and marketing skills and capacity. In response, drying racks, packaging and labelling equipment, a retail sales unit as well as technical advice and capacity building were provided. A key objective being to work towards achieving Uganda National Bureau of Standards (UNBS) certification.

By early 2016 KWMPA were at a stage where market access had improved with new markets in Kampala and other regions. The product range had been diversified and an estimated USH 6 million profit was being generated per month. The government of Uganda were highly appreciative of the positive visibility that the KWMPA group were giving to fisheries in the country.

Achieving UNBS certification would be a key next step in terms of moving the business forward, enabling access to large retailers and the regional retail market.

Lessons learnt

Experiences from these interventions as well as from other value chain intervention work were reviewed at a workshop in Mwanza in 2016. They are summarised as a set of learning that can be used to inform similar value-addition work with SME's in other locations.

Groups

Several issues relate to the group or SME, their stage of development and capacity. In the three examples given at the time of writing (Feb 2017) it is too early to say how far the interventions will contribute to increased income and employment generation.

However, the stage at which group has evolved to has implications in terms of how quickly the interventions can be taken up and put into practice. For example in a situation where a group is still in its infancy there are basic housekeeping issues which need to be sorted out for the group to function in an efficient and progressive manner. These issues revolve around unity, trust and having clear and coherent understanding of the group's objectives.

Dealing directly with the group which is a relatively unknown quantity to a program has its risks. Involving local technical specialists from government e.g. the Department of fisheries, can help include elements of quality control into the support process. However such involvement should ideally not lead to a situation where the group becomes dependent on outside individual in order to function and progress.

Understanding the broad range of capacity building needs at the early stages of an intervention will help: not only technical issues related to fish handling, hygiene and process but also non-technical capacity building requirements such as business as well as financial management, marketing and group organization, which go hand-in-hand with SME development and expansion.

Raw material

In order to produce high-quality final products the quality of the raw material e.g. the fresh fish must be good. Unfortunately, for various reasons such as vessel design, lack of proper fish boxes and ice, the seller's market when it comes to fish being sold point of landing, it can be difficult for an SME to consistently obtain high-quality raw material for processing. In other words poor on-board handling leading to poor quality raw material jeopardises the ability to produce good quality value-added products. Nevertheless, due to the higher value end products that can be produced, SME's can be in a position to offer fishermen a higher price for better quality fish, creating an incentive for improved harvesting and handling practices on-board vessels.

One of the biggest enemies of the small pelagic processor is rain. The introduction of rollers with tarpaulin at the end drying racks to enable to be covered rapidly during the onset of rain to protect it from becoming wet is seen as a major positive development in tackling the problem drying during rainy seasons.

The supply of raw material, particularly small pelagic's, is usually seasonal in terms of the lunar calendar as well as over the course of a year. Hence, an SME may find that for short and long periods of time the supply of raw material dries up. This has implications in terms of running a business as well as maintaining facilities. Developing a simple business plan in the early stages of an intervention which maps out the production and market potential would help anticipate and calculate the implications of raw material supply issues and factor in how fluctuations can be addressed in advance.

Underpinning the sustainability of SME's involved in the post-harvest sector is the sustainability of the resource and hence predictable access to sufficient quantities of raw material. Clearly, uncertainty in terms of the proper management of small-pelagic fisheries will lead to uncertainties in the operation and profitability of post-harvest sector businesses. Uncertainty in its basic form will have a negative impact on medium to long term investment and the development of post-harvest infrastructure and services.

Marketing

One of the important aspects of any intervention to support SMEs is the linkage to market. Market research in conjunction with SME stakeholders is a key capacity building element of an intervention.

Access to proper and attractive retail packaging materials can be a constraint. Experience has shown that branded products sell faster and that presentation and packaging of products makes a difference as does the use of a bar code, which helps market access.

Many consumers have a low purchasing capability or power. This dictates the appropriate selling price for SMEs products and consequently the level or costs associated with value addition. The initial temptation can be to try to sell products for high price and maximise the profit margin which can lead to a slow product turnover. On the other hand setting a price that is more affordable to more consumers may be a more pragmatic strategy, that although this would mean a lower profit margin it would however lead to a potentially higher turnover.

A major step forward for many SMEs is to be certified by the relevant national food safety standards organisation. Such certification enables legitimate access to higher value domestic as well as regional markets. Becoming certified can be used as a target around which development support is designed from the outset. On the other hand the level of investment to reach the required standard can be high and the certification process time-consuming. Closer engagement with the relevant certification body as part of an intervention could be considered in future initiatives.

Finance

Most processors lack capital to construct/replicate racks and invest in equipment as well as boost the working capital required to increase turnover and expand production in response to new market opportunities. Two things in particular make this difficult obstacle to overcome. Firstly, access to affordable credit is difficult if not impossible to achieve. This is related to the ability of the borrower to meet lending requirements and the reluctance of many formal lending institutions to fund fisheries-related activities. Secondly, the lead players in SMEs understandably are reluctant to borrow money to fund the business. Consequently, in some situations this impasse can be reached and is difficult to overcome.

This issue is not new and has been recognised as a key development constraint. Consequently, programs to enable access to funding by SMEs have often been created and these should be considered as potential partners in light of the needs of target SMEs.

Networking

Although seen as expensive in the form of Trade Fairs, providing a forum for networking between like-minded SMEs as well as with market players is valued by some SME' as it helps to share ideas and experience. Future initiatives might wish to explore more cost effective networking mechanisms based on social media.

Infrastructure and services

Key challenges are linked to communication: poor market information flow, poor road networks, and lack of cold chain facilities, appropriate premises for processing, reliable and affordable electricity and the high cost of construction materials. Poor infrastructure hampers production leading to lower revenues along the chain as well as increased post harvest losses and hence loss of revenue and nutrition. For example the lack of electricity at landing sites makes it difficult to undertake proper product processing/packing. The absence of a proper water supply makes it difficult to maintain decent hygiene and sanitation standards.

Monitoring and evaluation

There should be good coordination between external project implementers and sectoral departments as well as sharing of information from M&E activities. Strengthen co-ordination between projects and governments, internalise recommendations from projects, integrate project indicators into government planning processes and joint project monitoring are all positive actions for future activities.

Conclusions

Value-addition for SME's provides an important entry point for development support and business development. Benefits include increased income, employment creation, improved food safety, food security, nutritional benefits and greater consumer confidence.

A review of experiences has identified a number of issues that can be used to inform similar work in the future. These revolve around the themes of: the group/SME itself, the capacity and how it functions; raw material quality and access; marketing, access to finance; networking; infrastructure and services; and monitoring and evaluation.

The fiche draws attention to some aspects of development support which practitioners, decision makers and technicians as well as SME's themselves can consider in more detail, in similar intervention activities, in the future.

However it should be noted that although promoting value-addition will benefit SMEs and certain consumer groups it may also at the same time lead to a diversion of inexpensive fish protein away from low income consumers. Hence, the promotion of value-addition must recognise the potential negative as well as positive benefits that can be generated. Policy makers therefore have a duty to put in place strategies that will balance out such negative food security outcomes. This is also why it is important to closely link concurrent work at field and policy normative levels.

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