Understanding Embedded Business Services

An input paper supporting the 5th Cycle of the Value Chains Community of Practice

This paper is a contribution by the Springfield Centre, on behalf of the FAUNO Consortium. The views of the author are not necessarily the views of SDC.

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Economic growth is critical for poverty reduction. Delivering higher rates of economic growth demands an increase in productivity and competitiveness in industries that matter for poor people – as producers, as employees and as consumers. Increasingly it is recognised that key determinants of improved productivity and competitiveness lie in improved knowledge, information and skills. Services are a critical means through which industry-specific information and knowledge is generated and transferred.

For this reason development agencies are investing considerable time and resources in understanding the role of services in fostering competitiveness, and particularly in understanding how intervention approaches can be improved to ensure the poor have access to services that they need (*right-sizing services that are relevant, affordable and appropriate*) when they need them (*access to services which is sustainable beyond any donor intervention*).[1]

Services, packaged within or bundled around commercial transactions between a buyer and seller are known as embedded business services (EBS). They are typically not as visible or as tangible as other service delivery mechanisms (such as fee-for-service, public services, social networks or media) and have therefore received less attention. However, interest in EBS as a credible mechanism for service delivery is gaining in importance, particularly as the limitations of other mechanisms becomes clear:

- Failing public services generally, and particularly in rural areas;
- Areas with thin markets and low economic activity limiting incentives for fee-for-services;
- Information within social networks getting stale and not re-invigorating;
- Tightly controlled media reducing competition for innovation.

This paper looks in detail at two practical experiences of understanding EBS within two very different value chains in Ghana and in Bangladesh. They demonstrate clearly that EBS are there, are many and varied and can be a critical source of information positively impacting on poor producers in very remote and structurally weak areas.

1. Practical embedded services experiences

This paper draws from recent practical experiences of stimulating embedded services in handicraft markets in Ghana, and vegetable markets in Bangladesh. The background and context for each case is outlined below.

[1] See Annex 1 for a wider discussion of the links between poverty and economic growth; the role of services in supporting economic growth; and the role of embedded services within value chains.

CASE 1: GHANA – EMBEDDED SERVICES IN HANDICRAFT MARKETS

This action-research project was delivered by Action for Enterprise (AFE). It was funded under DFID's Enterprise Development Innovation Fund (EDIF).

Export diversification through the promotion of non-traditional exports is a leading priority for Ghana. The handicrafts sector (baskets, ceramics and wood) has grown rapidly in Ghana, from a value of around $2.6mn in 1993 to more than $11.6mn by 2002. However, much of this growth has been founded on direct donor funded support within the sub-sector. Donor interventions were well embedded in key market coordination and service functions. As donor support has withdrawn over the years major cracks are appearing in the sector, specifically related to:

- **Quality control:** improving quality within the supply chain was a major focus for donors. Often this meant liaising with the export companies, diagnosing quality problems within the supply chain, and delivering direct training / capacity building interventions to suppliers.
- **Product design:** design is the leading competitive advantage of the sector. Donors typically paid for designers from target markets to come and advise directly on new designs. They no longer tend to do this and as foreign designers fail to show, export companies are rethinking the role of design services.
- **ICT and communication:** as the sector has grown and new markets are penetrated, export companies' are under strong pressure to communicate more effectively with their importing clients. Simply meeting once or twice a year at trade fairs is not sufficient. Investing in ICT (email, e-catalogues, digital imaging etc) is critical to maintain and build effective upstream supply chain linkages.

Improving services within the supply chain is clearly a major strategic challenge for the handicrafts industry in Ghana. The services in question, by their very nature, all affect more than one actor in the supply chain. Hence the project sought service solutions embedded within the supply chain.

CASE 2: BANGLADESH – EMBEDDED SERVICES IN VEGETABLE MARKETS

This project is being delivered by Katalyst. It is funded by a multi-donor consortium of SDC-DFID-SIDA.

This particular intervention concerns vegetable markets in Rangpur, one of the poorest regions of Bangladesh. The vegetable sector is important in terms of size. Around 60% of Rangpur's 1.6m rural households are estimated to be engaged in vegetable cultivation and a further 50,000 people are estimated to be employed downstream in the industry in trading, distribution and packing. Further, the sector is growing rapidly delivering per annum volume growth of around 5-6% (outstripping growth in agriculture as a whole in Bangladesh).

However, growth in vegetable output has been due, entirely, to increased land areas planted – either "new" land released by irrigation or switching from other crops - rather than any increase in efficiency. In other words, growth has been achieved by doing more and not by doing better or more effectively. There is a major productivity problem.

Many and varied productivity constraints have been identified (infrastructure, land reform, finance etc). However, there is broad consensus in the sector that farming practices are deficient with regard to, for example, use of inputs (where dosage rates are commonly incorrect), planting techniques, and recognition and treatment of problems. Addressing the knowledge and information issue is critical for productivity growth and is therefore a focus for Katalyst.

In meeting this challenge, Katalyst analysed the following routes through which farmers can get access to the type of information they need to increase productivity.

- **Other farmers:** farmers like to go to other farmers for information. However, progressive and influential farmers still need to be able to access new information (on new approaches, products etc), raising the question of where this is likely to be found?
- **Retailers:** along with farmers, the main and most regularly used source of information is retailers. Typically, they sell a combination of fertilisers, pesticides and seeds and information is offered as a service embedded within these commercial transactions as a means of adding value to customer relationships.
- **Input Supplier:** input suppliers do undertake product demonstrations with farmers directly on an occasional basis but, in the main, their route to their final consumer is through retailers.
- **Government extension officers:** although most farmers are aware of the government extension service, few are regular users of their services. Their technical knowledge may well be respected but, for most farmers, they are essentially absent. The main beneficiaries tend to be larger farmers. The conclusion reached is that the ingrained incentives and culture of the extension service mean that it cannot be an effective deliverer of knowledge and information to small poor farmers.
- **NGOs:** there is an extensive NGO presence in rural Rangpur. They work with groups of "beneficiaries/clients" and provide a range of advisory and more tangible (seeds) support. Their coverage is limited and they depend upon further external funding for their continuance.
- **Media:** farmers may also gather relevant information from the wider media. However, newspapers are not widely read and while there are relevant advertisements contained within them there are few user-friendly articles on vegetable production. Similarly, radio and television coverage is poor and their content of limited relevance.

Katalyst decided that the best option to stimulate access to key information services was through the supply chain. Farmers network with other farmers, but networks are information poor. Farmers also turn to retailers for advice, but retailers are also limited in being able to update their knowledge over time. Therefore, in partnership with a leading input supply company, Katalyst supported a new training initiative to upgrade retailers knowledge in areas of identified relevance to farmers.

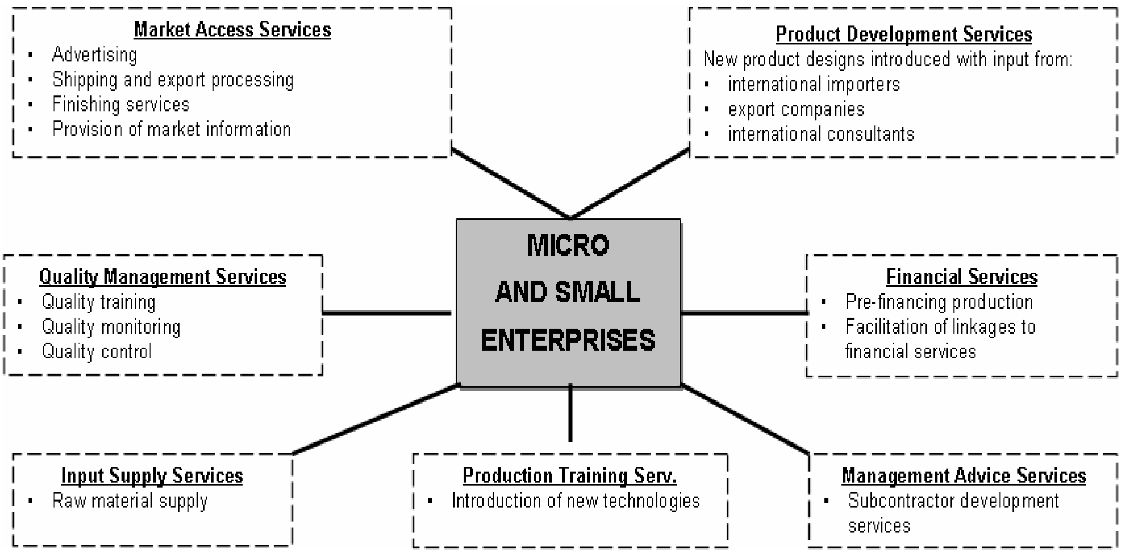
1.1 Some key findings

Below we present a number of key findings. Some seem glaringly obvious, but are often understated or insufficiently acknowledged.

1.1.1 Embedded services are there…!

Provided informally, charged for within margins, and generally hidden from view embedded services are often overlooked in favour of other service options. Furthermore, it is unlikely that most suppliers of, or recipients of, embedded services would consider themselves to be engaged in the "embedded services market". Where business relationships are more strategic in nature, where stakes are high and where businesses are mutually reliant, embedded services can be decidedly formal, organised and represent a real and tangible investment in the supplier (eg subcontracting). In other cases, arrangements are more informal and represent a much less tangible investment (eg input retailers responding to questions from clients purchasing supplies).

The diversity of embedded services within what appear to be quite unsophisticated supply chains can be fairly staggering. For example, the following diverse range of services embedded within the handicrafts supply chain in Ghana were identified:



1.1.2 Embedded services are critically important

In Bangladesh, the importance of EBS is recognised by farmers who (from survey data) cite input retailers along with farmers, as their main and most regularly used source of information. The survey showed that 60% of farmers going to a retailer do so in search of a solution to a farming problem rather than to buy a specific product.

The Ghana case also highlights the importance of EBS. The dominant structure of production is subcontracting, mainly to organised groups of rural artisan producers. Given the nature of hand crafted products, much of the rapid industry expansion has been driven by increasing the number of artisan producers. As the majority of producers reside in very poor and remote parts of Ghana, industry expansion has been a highly significant source of income and employment for these communities (who have very limited choices or opportunities).

However, the inclusion of more producers has put a great strain on the quality management and control exerted by the export companies. In an effort to meet increasingly large orders and tighter supply deadlines, export companies feel they have little choice but to buy whatever product (even if they know they are likely to be returned as defective) is available. In addition to meeting orders, they are concerned that if they do not pay producers for their deficient products they may not be able / willing to supply next time (when the product might be fine).

As a result, an increasing percentage of shipped orders are being returned from importers as defective. At the time of the AFE project the situation was reaching critical. The importers were returning around 50% of each order and with patience wearing thin, were threatening to cancel orders and relationships. The exporting companies not only faced this pressure, but also they had been paying for stock that they could not sell and thereby putting massive financial strain on them.

Clearly unless quality management and control issues in the supply chain were addressed quickly and sufficiently the whole industry – upon which many thousands of poor rural producers were highly dependent – was in danger of imploding.

This problem was acutely recognised by the exporting companies. AFE agreed to work with six of the leading export companies to seek to help them design and "own" workable and appropriate quality management and control systems. Given the differences in supply chain relationships between the exporting companies, each of them designed solutions unique to them (albeit with very common characteristics).

The systems are based on an embedded service to suppliers. It does represent a real and tangible investment by exporting companies in their suppliers, but without such an investment the exporting companies have no business!. Having now had some experience in providing the quality management services the companies report some key findings:

- Exporters report increasingly consistent and good quality products from suppliers;
- Returns from lead buyers have declined markedly, and continue to do so over time;
- Inventory of defective stock is declining.

The firms interviewed all report that business is getting better. Their investment in embedded quality management and control services not only saved their businesses (and the livelihoods of thousands of poor artisans), but the investment has underpinned additional growth and therefore a highly positive return to investment.

This is a clear example of just how important embedded services can be to the survival and growth of a whole industry.

1.1.3 Embedded services can reach very remote poor producers

In Ghana crafts, access to international markets has resulted in net gains towards poverty alleviation. As mentioned, according to customs statistics Ghana's craft exports grew almost fivefold from 1993-2002. Since the mid-1990's, the number of craftspeople who are able to make a significant part of their income from craft production has greatly increased. The number of basket weavers, for example, has doubled and is still growing. For many perople, craft production is the only household income source besides agriculture. Particularly with regard to baskets, which are produced in one of Ghana's poorest regions, a large part of the population would face severe food shortages without the income generated from access to international markets.

The following figures indicate the scale of numbers of poor producers engaged in this market:

- In the basket subsector, an estimated 5,000 weavers in the Bolgatanga region depend on the export market for 90% of their sales.
- In the wood subsector, an exporter like Allround Marketing Agency works with 17 subcontractors representing a workforce of over 200 craftspeople from different regions in the country.
- In the ceramics sub-sector, the three ceramics exporters in the core group provide market access to 40 subcontractors with a total workforce of over 200 persons.

As shown above, thousands of producers are engaged in the export crafts sector in Ghana. They live and work from all around Ghana. What unites the vast majority of artisan producers is their poverty and their lack of alternative options for earning income. For them export crafts represents a real lifeline.

The embedded services provided by the export companies reaches down and impacts positively on all of these poor remote producers. Through various management arrangements the services "touch" each of the producers, helping them to understand and respond better to market demands.

Whilst not covered in detail in this note, a related embedded service – design and technology – has also been given more attention and investment by exporting companies. Engaging more proactively (using digital media to work up designs etc) with their foreign clients, exporters are better able to understand target market needs and to translate these needs to their producers. Through piggybacking on the quality management service platform, the exporting companies have also been able to deliver clearer information on design (eg new rectangular baskets) and technology (eg dyes, materials and weaving techniques for new designs) to their producers.

In Bangladesh the vegetable farmers in Rangpur may not be the poorest of the poor (eg landless labourers), but they are poor, and they are vitally linked with and important to the poorest of the poor (as employers of labour, and producers of foodstuffs). As mentioned, lack of access to information on, for example, farming practices and input use was a key underlying constraint to increased productivity.

Working with input suppliers to upgrade the knowledge, skills and confidence of retailers through an embedded information and training initiative Katalyst hopes to impact positively on farmer productivity. Whilst it is extremely difficult to measure and isolate productivity improvements in agriculture to one particular factor, Katalyst have made some investigations. These show that:

Table 1: Change in farmers' perception of retailers (baseline and post-training surveys)

Use of retailers as a source of advice						
	Baseline			Post-training		
Rated "best source"	3.52			4.32		
On a scale of 1 to 5 (1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5 = always)						
Satisfaction with retailer advice (%)						
	Seeds		Fertilisers		Pesticides	
	Baseline	Post-training	Baseline	Post-training	Baseline	Post-training
Rated "very good"	27	40	30	32	33	36

As shown above, farmers' image of retailers as a source of information has improved slightly. More farmers appear to see retailers as useful advisors on seeds, fertiliser and pesticides. Farmers' satisfaction with the service from retailers has improved significantly. The extra "professionalism", confidence and willingness to offer information that (at least some) retailers have derived from the training has been noticed and appreciated by their consumers.

Therefore, while it is too early to assess the final impact on farmer productivity, farmers' perception at least is positive.

1.2 Some key issues

In addition to some of the findings from experiences in Ghana and Bangladesh, a number of key issues also emerged. Some of these are discussed below.

1.2.1 Relationships

Relationships between buyers and sellers are critical to stimulating investments in embedded services. Relationships can be based on monetary incentives - the profit motive – or, in certain structures social incentives may prove almost as powerful.

Whatever the rationale, Investing in embedded services demands strengthening, and formalising, relationships between a buyer and its suppliers. Two main constraints may undermine this:

- Suppliers that are too small to warrant investment in an individual service. This was the case in Bangladesh. For input suppliers, building capacity of retailers as service providers effectively organises farmers into groups where services can be delivered collectively and more cost effectively than individual delivery models.
- If suppliers sell to a number of competing buyers, then it might not be in the interests of any one buyer to invest in embedded services if the benefits of that investment are likely to accrue to its competitors! This was an initial concern in Ghana, where suppliers often sell to several exporting companies.

Formalising relationships – contracting – means "locking-in". In some circles locking-in is seen to be a negative and bad thing. It reduces choice and dictates terms that are severe and one-sided some say. A counter view is that producers in these situations often face little choice anyway. It is better to be locked into a relationship that guarantees some degree of access to markets, than being locked out of relationships where you are important to no-one.

1.2.2 Governance

Formalisation may lock in producers into unequal relationships. If this inequality is abused, exploitation can occur. Certainly, some small producers may indeed face exploitation. But often exploitation is a values judgement (and often based on foreign non-indigenous values) reached on limited analysis of the real and wider picture. In situations with very limited options it may be better to be exploited than to be ignored! There are two key points to emerge from this:

- Incomplete analysis. Often VCA looks too much at price margin differentials and not enough at costs that might explain the differentials. The "real" costs of EBS provision (costs of finance, chain coordination, transport, packaging, communications etc) might well be higher than imagined or realised. High margin differentials might well be explained by the actual costs of valid EBS provision rather than the all too easily reached conclusion of exploitation.
- Building on local structures. Exploitation, in economic terms represents a failure in competitive pressures. Many poor producers reside in areas where markets are thin and competition limited. Rather than replacing existing channels by "importing" new donor funded marketing channels, the real challenge must be to build better governance mechanisms into existing marketing channels. This could, for example, be through competition, through formal regulations, or through fostering information and building assertiveness for suppliers.

1.2.3 Capacity

As development practitioners our concern is to positively impact poor producers. As shown in this paper, EBS can be a route through which poor producers access critical information that helps them to improve their efficiency and generate a higher return from their production activities. However, effective EBS provision demands that real capacity and expertise resides within the embedded service provider. Often, it does not, with supply chains generally being weak, under-resourced and struggling. Therefore investing in and building capacity across the chain in order to offer better and more reliable opportunities for poor producers is a perfectly valid development objective.

Interventions may well legitimately need to work "beyond-the-poor" and with larger more formal organisations in order to build service systems that work for the poor.

In Bangladesh the input supplier was a leading international firm. However, it really had limited capacity and knowledge in the type of training design or delivery techniques demanded. Working with them to develop these skills was a key focus of the project. The firm co-invested heavily in the retailer training initiative and led the process. The investment was supported technically and partly underwritten by Katalyst. The results show clearly a major commercial return to both the input supplier and retailers in terms of increased sales (and as mentioned previously, an expected positive impact at the level of the farmer). As a result, the input supply company now has skills and expertise to build on, and a clearer commercial motivation to invest in further developing its supply chain relationships that impact positively on the farmer. Katalyst reports that this firm is actually gearing up further investments. Furthermore, having demonstrated the clear investment rationale and business model, Katalyst is now planning to divest this experience across the industry in a clear effort to encourage the "crowding-in" of other input suppliers to also invest in farmer knowledge and information services.

ANNEX 1

Setting embedded services in a wider market development and poverty context

A. Introduction

Tackling poverty is the main stated aim of international development agencies. Increasingly it is recognised that poverty cannot be reduced without delivering net positive rates of economic growth. The relationship between economic growth and poverty reduction is irrefutable. However, this does not automatically mean that improved economic growth performance means reduced incidences of poverty. The pattern of economic growth is equally important. Growth that is inclusive of the poor and which is positively disproportionate in favour of the poor is called pro-poor growth. Pro-poor growth is therefore essential for poverty reduction.

Increasingly it is acknowledged that the private sector is the lead driver of economic growth. However, the private sector cannot deliver in isolation. Governments are critical in ensuring an environment that is conducive to facilitating the private sector to deliver well. Governments also have a key role in investing resulting gains from private sector growth into the economy in an effort to reduce imbalance and promote equality and equity of opportunities and benefits to all its citizens. This role of government is clearly central to achieving pro-poor growth. However, the economic organisation of the private sector is equally as critical for ensuring pro-poor growth. A private sector that is shallow, disconnected and inaccessible for large numbers of poor people in any context is not one that promotes equality or equity, and therefore cannot deliver pro-poor growth.

Understanding the economic organisation of the private sector therefore is critical to understanding how it can better deliver pro-poor growth. At the heart of this understanding is the pervasive role of markets. Private businesses operate in markets – for sourcing inputs, and for marketing outputs. Markets that work for businesses support their growth, which in turn supports increased employment and income earning opportunities. The extent to which such opportunities are attainable for the poor depends on where the poor are in relation to markets and business. Hence "making markets work better for the poor" is increasingly being adopted as both an objective and approach for many development agencies.

B. Market Development – delineation and assessment

In one sense, market development has lingered around development circles for many years, being a key tenet of the so-called "market-friendly approach" to which most development agencies subscribe. However, its priority has tended to be broad macro-economic frameworks and rules of international trade and, while these are important, debate has often become stuck on the wider political issues surrounding these.

The more specific detail of how well (or, more often, how badly) particular markets are working – especially how the poor are affected - and the specific reasons for this situation are often neglected.

The key development objective then is market development. It is fairly easy to recognise when markets are not working well for the poor – high prices, poor choices, and limited opportunities. However, understanding the underlying reasons "why" markets may not be working well for the poor is a key development challenge. Tackling causes of underdevelopment rather than just their symptoms is after all what differentiates "development" from "relief".

Understanding markets is the first step. To do so requires that markets are delineated sufficiently to allow practical investigation. In the SED / BDS fields sub-sector analysis has been revisited as a leading tool for delineating and analysing markets. Likewise, in Natural Resource Management / Rural / Agricultural fields value chain analysis is being increasingly used as the analytical tool of choice.

Both tools delineate markets, and both provide an analytical methodology for understanding how markets are organised, relationships, performance, and constraints. Like any information gathering tool, simply using it is no guarantee of success. Just like any other tool – used in the wrong, inexperienced or inappropriately focused hands it will not likely yield much of value.

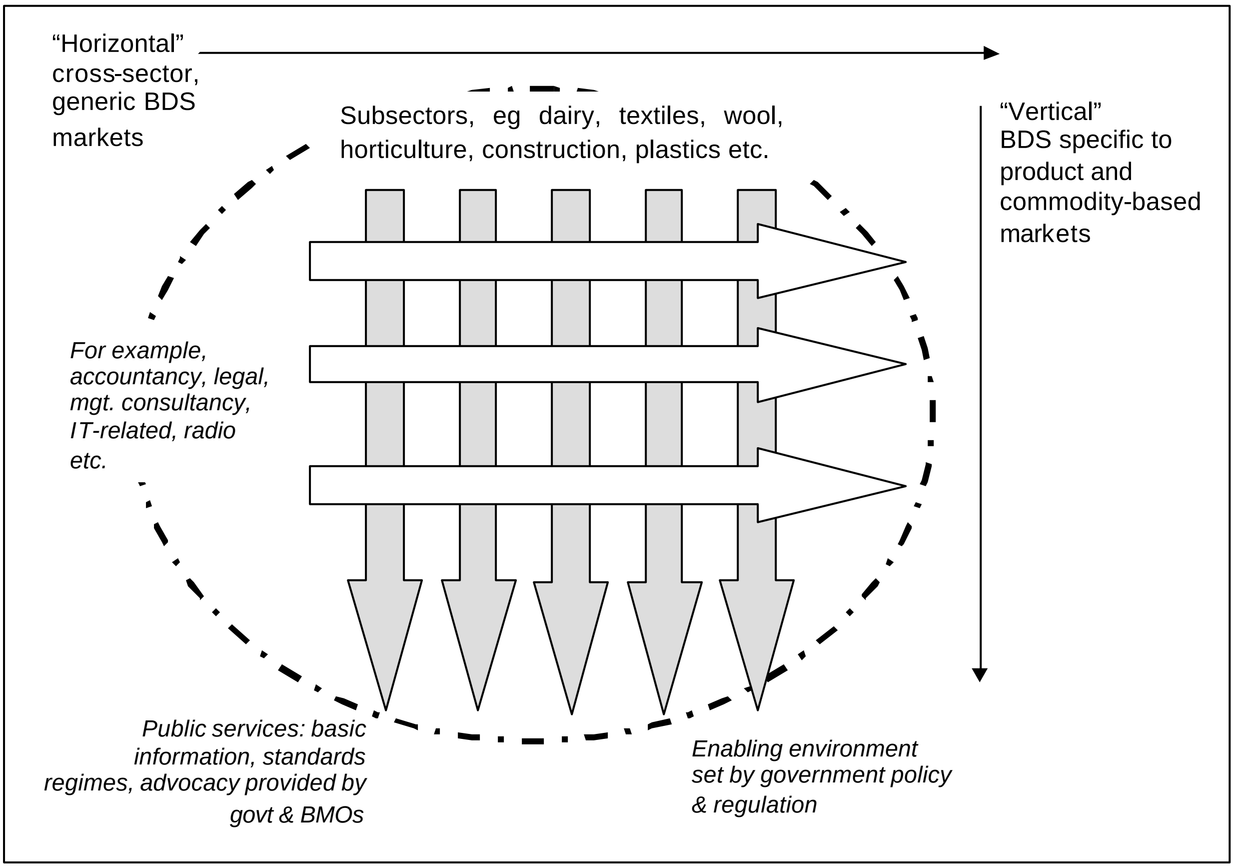
Increasingly VCA and SSA are being used not only to describe how markets are organised and performing, but as more an analytical tool for understanding why markets might not be working well (for some, or all). Understanding constraints to more competitive performance of markets is therefore important. However, understanding how these constraints can be addressed "systemically" – responding to local conditions, building on local market structures and systems, and defining indigenous solutions – is critical.

C. Services within sub-sectors / value chains

In an increasingly complex world, information and knowledge are recognised to be key assets in allowing poor producers (and businesses generally) to get answers to the key questions that they face. Services are a critical means through which industry-specific information and knowledge is generated and transferred.

VCA and SSA have commonly underestimated the importance of the service content of sub-sectors. Services have been treated as a secondary consideration – overlays to the main sub-sector map. Now, the "arrival" of market development thinking and practice has allowed projects focusing on sub-sectors as diverse as green beans, dairy, wool, plastics and textiles to recognise the importance of services within them. Diagram 1 shows a graphic representation of services with sub-sectors.

Diagram 1: Services within Sub-Sectors



There are a number of routes through which knowledge and information can typically be accessed by producers in supply chains. These routes include:

- **Specialised fee-based services:** offered to SMEs as distinct services for which they pay a fee or via commission. This could include accountancy/audit, freight forwarding, advertising, legal advice, veterinary, equipment repair, business consultancy, technical information, conference organising, network brokering and product design.
- **Public business services:** including small business support services for more urban based businesses, and agricultural extension / rural enterprise services for more rural based businesses (including farms as businesses in this).
- **Informally provided services:** information, knowledge and advice available to SMEs through other business or social relationships. This could include information and advice on price, market and technology trends through social networks or mediation through traditional cultural mechanisms.
- **Media based services:** information, knowledge and advice provided through various forms of mass media (newspapers, TV, internet and radio).
- **Embedded services:** included within a commercial transaction for another product or service. This could include design advice offered by a retailer to a producer, livestock advice offered by a trader to a farmer and producer advice offered through

commodity supply chains, quality control provided by an exporter to a small processor.

Just as development agencies have been recognising the critical importance of services to improving competitiveness and delivering pro-poor growth, they have equally been concerned about the limitations of previous approaches for improving access to services for poor producers. This is true in many development fields. The emergence of BDS market development came entirely through recognition by development agencies in the SED field that traditional approaches were not delivering desired outcomes – outreach, relevance, impact and sustainability. Similar debates are emerging in related development fields, such as rural development, agricultural extension and livelihoods. All are recognising the importance of services, and all are in debate around ensuring that poor producers have sustained access to appropriate services that they need to improve efficiency and gain better returns from their production activities.

In rethinking approaches for promoting effective access of services to poor producers, there has been an increasing focus on the routes through which services can be provided. Whilst there are always some exceptions, getting effective public services to poor producers in weaker markets has proved more that just a little troublesome. Likewise, simply privatising public services and expecting fee-for-service providers to miraculously emerge and fill the gap has also generally proved short-sighted and ineffectual.

There have been some encouraging experiences emerging that capitalise on liberalised media markets and are building on these as effective conduits of collective consumption services. Informally provided services probably remain as the main route through which poor producers gain access to information. However, the networks in which poor producers are typically connected are often in themselves information poor and therefore strongly lacking.

In this context there has been an increasing focus on embedded services as a further possible route for ensuring poor producers have access to a range of services that will positively impact on the performance of their businesses.