

## **A CONCEPTUAL SOLUTION TO eBUSINESS MODELS IN DEVELOPING COUNTRIES: POST-CRISIS DOMESTIC PROCUREMENT NETWORK TO FACILITATE HUMANITARIAN ASSISTANCE**

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### **ABSTRACT**

*E-business models vary between countries with different e-readiness; therefore developing countries should identify their own ways to do e-business. A developing country suffering from various crises may provide a niche market for doing e-business due to its specific demands. In many crisis-affected countries, demands for post-crisis humanitarian assistance are increasing and relevant domestic goods producers may become eligible suppliers for meeting such demands. However, there are missing links in the normal business cycle and these should be identified. This paper provides an analysis of demand and supply in a crisis-affected country in terms of post-crisis humanitarian assistance. It provides a conceptual solution to filling the gaps and strategic orientation towards implementation. Moreover, the conceptual solution suggested may have a fourfold effect on the countries' development.*

*Keywords:* e-readiness, post-crisis humanitarian assistance, domestic suppliers, procurement mechanism, ICT, capacity building, SMEs.

### **1. INTRODUCTION**

This paper is extracted from the author's contribution to the Integrated Programme of the United Nations Industrial Development Organization (UNIDO) undertaken in Sudan, prepared in February 2003<sup>1</sup>. There are many successful procurement networks doing e-business in many countries with different information infrastructures, but there is no really successful network in developing countries. The experience of the author is that it is not easy to implement an e-business project in developing countries and it is even more difficult to make it sustainable. Among the general information infrastructure problems, e-readiness is the most serious, but this does not mean that e-business activities should wait upon a country's e-readiness. This paper shows a way to diversify e-business models as specific market niche opportunities in post-crisis developing countries using the intensive activities related to humanitarian assistance; the case may be valid for many crisis-affected countries. The paper provides a brief demand driven and supply-growth (cf. Mankiw, 1997) analysis from which a conceptual solution, linking aid-oriented humanitarian assistance and economic development-oriented issues, is derived.

### **2. INCREASING DEMANDS FOR POST-CRISIS HUMANITARIAN ASSISTANCE**

Both short-term emergency humanitarian assistance and longer-term development aid are in high demand in many developing countries, specifically those that are affected by crises. Humanitarian assistance covers nearly all types of crisis ranging from natural disasters to

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<sup>1</sup> This paper presents neither any official position of UNIDO nor any opinion of any Government, but only the author's private opinion and proposal.

armed conflicts and other structural crises. The needs in these countries are huge and have led to intensive involvement of nearly all UN agencies and NGOs that deal with different aspects of humanitarian assistance.

It is understandable that, within the short term, organizations involved in and executing the assistance programmes will try to meet the demands through importing required goods based upon considerations of effectiveness, efficiency and emergency. However, in many crisis-affected countries, specifically in Least Developed Countries (LDCs), the crisis may take longer to resolve, therefore long-term aid will be required. But, if a country depends on aid for a long period and is not able to provide even basic goods for the daily needs of its people, this would be a new disaster. In this respect, one specific problem is that domestic producers, that may be able to act as suppliers, are not included or considered as potential suppliers and thus cannot take advantage of procurement opportunities.

In certain regions and countries, unexpected and complicated humanitarian crises occur continuously. Post-crisis humanitarian aid, therefore, is required on a long-term basis and emergency assistance becomes a long-lasting effort. A continuous emergency creates a stable market for goods to meet the huge humanitarian needs. Why, therefore, can domestic goods not be utilized? The question implies consideration of a substitution strategy, but one somewhat beyond the substitution industry theory from the 1960's (Gillis et al., 1996). The key point of this strategy is that increased capacity for self-relief will allow international aid to more effectively target emergency needs and issues. After all, humanitarian goods are, in most cases, products or goods that can be manufactured within these countries and the large scale of humanitarian needs will stimulate an increase in local economic efficiency. Also, domestic sourcing and facilitation of domestic production does not generate conflicts in either intra-industry trade among developing countries or even in inter-industry trade between developing and developed countries (Krugman and Obstfeld, 1997).

Demand for such domestic goods in both the short- and long-term is, in fact, increasing. On the one hand, the continuous occurrence of all sorts of crises is evident in many regions; on the other hand, the interest of donors for humanitarian support is shaky and varies according to political inclination. While uncertainty of international contributions hamper humanitarian assistance, structural crises in aid recipient countries continuously exacerbate their overall economic development.

### **3. THE FEASIBILITY OF FULFILLING DEMANDS BY DOMESTIC SUPPLIERS**

Can the capacity of domestic producers meet the demands described above? How can the domestic producers' capacities be fully utilized to fulfil the demands? In many crisis-affected countries, many industrial sectors are not ideally and fully ready for production of post-crisis goods, due to poor resources and poor information, which lead to poor capacity. In certain sectors, large firms do not dominate markets in all regions while powerful SMEs in these sectors may share certain market know-how. Considering that SMEs can adjust swiftly to produce goods driven by a market niche demand, one can identify another barrier, namely that of information access and supply: is the required information well collected, managed and disseminated and are SMEs, that could be involved as suppliers, able to access this information?

This barrier requires effective and efficient coordination among all agencies involved in post-crisis humanitarian assistance, together with the Government of the crisis-affected country. Through a neutral, coordination body with appropriate mechanisms and tools for networking, data collection and management, all relevant information resources could be integrated and disseminated to eligible domestic producers for their utilization. This "network" would not be a comprehensive one-stop-shop, rather a single-function, on-line procurement system serving domestic (sector-specific) producers (probably SMEs) of the

goods needed for post-crisis humanitarian assistance, managed by an off-line coordination body and mechanism. Once such a system is functional, domestic producers' strengths would be brought to bear on the demands of post-crisis aid and/or rehabilitation in a feasible, efficient and effective manner.

However, four major barriers may hamper the supply of goods: 1) existing industrial facilities may not have the capacity to satisfy the demand; 2) agencies dealing with humanitarian assistance may not have systematic information on the goods needed. If they have, they may not make it available, or they may not know how to convey it to domestic producers in an appropriate manner; 3) if information is available and reliable, eligible domestic producers may not be able to access it; and 4) a domestic producer or an SME may not know how to become an eligible supplier.

If the production capacity of domestic enterprises has been severely damaged through the crisis, the producer is unlikely to be eligible as a local supplier of required goods therefore, linkages between domestic post-crisis demands and domestic producers will have to be promoted through development of an enabling environment.

#### **4. MISSING LINKS: WHAT SHOULD DEVELOPMENT INTERVENTION FOCUS ON?**

Linking domestic supply with local demands for post-crisis humanitarian assistance will generate economic momentum that will, in turn, stimulate an increase in domestic productivity; but the link is missing. After reviewing demand and supply concerns, one can identify seven issues that contribute to the missing link. Before going further into this subject, we can look at the initiative of the ability and willingness of establishing links.

Who can coordinate the matchmaking that benefits national economy and humanitarian actions? Although industrial sectors, such as agro, food and textile industry in most developing countries have played key roles in national economy, they are suffering from various deep crises, lacking local demand. It is well known that many goods for humanitarian assistance are imported. Among them, goods in the field of food, fabrics, tents, and so on can be provided by national producers. If domestic producers can produce and deliver these goods properly and in a timely fashion, and if responsible humanitarian agencies purchase these goods, it will stimulate a reasonable domestic procurement cycle. In addition, it will build up the confidence of these agencies in local supply and procurement. No doubt, it will also rejuvenate certain ailing national industries. This leads to a specific request of the coordination structure focusing on encouraging the national production system, participating in the domestic humanitarian actions.

Who will conduct the matchmaking? Inevitably, there is ad hoc local procurement of goods for humanitarian assistance. If national producers are consciously, actively and systematically involved in the national rehabilitation program, both in the process of planning and providing humanitarian relief and in the period of post-conflicting construction, then in long run their involvement may eventually generate a positive economic momentum for national productivity. By reducing transaction costs and increasing outputs with a limited budget, relevant UN agencies and NGOs would surely like to increase their proportion of local purchases, while satisfying their local needs. However, in reality many problems may hinder the implementation of the good will from all parties concerned.

Now let us list the gaps. Firstly, is the information required by all agencies (governmental organs, UN agencies, NGOs) dealing with humanitarian assistance in the process of planning and implementing these activities reliable, available and accessible? Is all information which reflects the needs available and accessible for national producers and relevant associations? Secondly, if the relevant information is reliable and available, is there a transparent and fair mechanism to match both sides and conduct the deals? Thirdly, if the information is reliable and available and the mechanism is functional, are all information and

information resources stored and linked electronically, collected object-oriented, managed effectively and efficiently, utilized optimally and, moreover, disseminated at an optimum level? Fourthly, is this mechanism systematically and acceptably established among all possible stakeholders in a shape of partnership? Fifthly, are the assumptions on the reliable information sources or channels realistic, believable and verifiable through these stages? Sixthly, as we know, humanitarian assistance is a politically sensitive issue. Should the Government like to intervene in the humanitarian exercises, is there a functional and acceptable indicator system to facilitate Government to make a fair decision? Finally, is such a solution to bridging the gaps affordable and feasible?

It is very important to enable humanitarian assistance in the developing countries concerned, with donors' contribution to overcome the problems reflected by the above seven sorts of questions. At a level of coordination of humanitarian efforts, a success story on donor coordination provided by EU research (Harvey, 1998): The success in aid given to Somalia can be attributed to the creation of the Somalia Aid Coordination Body. Bringing together the donors of the international community, this body played an important role in terms of coordination, planning and so on. One factor which could reinforce the positive impact of increased coordination is media coverage, which offers great visibility for donors. However, the case in Somalia focused only on fair distribution of humanitarian goods. The sustainable participation of a national production system via an effective national procurement structure was not considered in terms of this country-specific situation.

The fact is that there is no such system able to bridge all gaps existing in all crisis-affected developing countries until now, and the challenges the development intervention providers are facing are daunting. In the developing countries concerned, the linkage of national industrial sectors and humanitarian assistance activities via a public procurement system can be established due to its strong industrial basis. The linkage will give leverage to, and eventually facilitate, strengthening a satisfactory self-rescue and self-reliance production capacity. This may generate economic momentum, through the participation of national producers in the humanitarian goods market, contributing to national sustainable development. Furthermore, due to certain political considerations, an effective governmental intervention may be required for efficient relief activities. In order to make the above scenario possible, it is obviously also required to establish an effective and efficient information network (after the establishment of databases as the data sources) for the local procurement of products to support humanitarian assistance, technical assistance and development. The network established should address the problems of information flow and networking, information collection/utilization/management/dissemination in relevant governmental organizations, agencies and institutions dealing with humanitarian relief/assistance and further development.

In short, major gaps identified in the broken business cycle can be listed as follows:

*Gaps related to information infrastructure*

- No effective database which shows demand available for domestic sector-specific producers to access.
- No reliable producers' database available to agencies dealing with procurement of goods for post-crisis humanitarian assistance
- No SMART (Simple, Measurable, Agreeable, Reliable, Timely), effective, public, transparent domestic procurement system
- No physical and virtual linkage among relevant data resources

*Gaps related to institutional coordination*

- Lack of effective cooperation and coordination mechanism among agencies involved to systematically procure domestic goods for the post-crisis humanitarian assistance

- Lack of long-term and target-oriented plan and coordination between production sectors and organizations dealing with post-crisis affairs
- Lack of consideration to reducing high economic transaction costs by allocating goods

*Gaps related to third party service providers*

- Lack of more than critical mass of third party service providers through local supply chain
- Lack of neutral and local market-acceptable selection mechanisms from producer to supplier
- Lack of critical mass of qualified clients requesting third party services

*Gaps related to domestic producers' weak capacities*

- Lack of ability to work with agencies dealing with post-crisis humanitarian assistance and to become reliable partners of these agencies
- Lack of ability to develop products, manage (quality of product/service, production, resources) enterprises, and meet sector-specific market niches in the post-crisis situation
- Lack of ability in using ICTs to do e-business as a whole (through a full business cycle)

Any solution to filling one of these gaps can already contribute to the progress in dealing with post-crisis humanitarian assistance and development. Overcoming these gaps will make sector-specific producers stronger, make national economy more efficient and improve the business infrastructure. After all, post-crisis humanitarian assistance would then contribute to national industrial development, while stronger domestic suppliers would make post-crisis humanitarian assistance more effective and efficient. Furthermore, it is within the mandate of a development agency like UNIDO. In general, a conceptual solution to this subject for any development agency is that a feasible project addressing some of these gaps be prioritised by a country and by an agency.

Experience from a number of developing countries in terms of humanitarian assistance illustrates vividly that the intervention of an external agent acting as a catalyst to facilitate the emergence of local government business flow and its implementation can be significantly impeded by any implicit factor. The potential implicit factor may come from organizational structure, information and its flow channels, procurement conventions and principles, trust and security, production capacity, financial bottlenecks and infrastructure. Based on these experiences, a highly effective method of initiating successful interventions aimed at a functional national procurement information network is to establish a national humanitarian assistance coordination body with the involvement of UN agencies and NGOs.

## **5. A PROPOSED SOLUTION**

As a multi-pronged strategy, this conceptual solution will, by overcoming the gaps identified, systematically improve national and international coordination on a local basis and will facilitate governmental intervention that may eventually be needed in the effort of making humanitarian assistance effective and efficient. This solution will ensure that needs for products or goods that may be provided by domestic producers are reflected in the humanitarian relief actions fed back to those governmental organizations who are responsible for relevant national industrial sectors' development. Therefore, it may contribute to the national economic development by utilizing national supply to meet national demands, which have been identified in the humanitarian assistance programme. On a large scale, this solution

will strengthen capacity for the relevant sectors, of domestic suppliers in the long run, and will stimulate strongly the national economic development in those countries where the supply curve is much lower. The lifting of the supply curve may create a much higher economic impact as it will reinforce national productivity. This forms the core value of the conceptual solution. Last but not least, this solution will lay down an excellent information infrastructure in two terms: physically, an information network will be connected among institutions involved via Internet; virtually, a consultancy mechanism among institutions involved, for effective leadership and cooperation in humanitarian assistance and development, and a mechanism for governmental or public procurement of goods related will be established. Both will upgrade the e-readiness, from a very limit perspective, of relevant Governments and strengthen Governments' decision-making capacity in both short and long term for their countries.

This solution can be briefly described as: The establishment of a post-crisis domestic procurement network to facilitate humanitarian assistance. The solution includes:

- 1) Identifying and assessing (establishing or collecting if required) all information resources through the local supply chain in the specific sector
- 2) Integrating all relevant information resources from the national stakeholders, UN agencies and NGOs regarding humanitarian assistance on a secure and dynamic business platform via ICTs
- 3) Based on available information, creating proper coordination, decision-making and execution on relief and rehabilitation demands, actions and services accordingly transferred into a designated information flow via ICTs
- 4) Establishing a reliable, realistic, transparent, effective and public procurement system, taking into account the status of e-readiness in these crisis-affected countries
- 5) Strengthening and building up domestic producers' capacities in the identified gaps prioritised by involved parties
- 6) Establishing a locally acceptable selection standards of suppliers from producers and providing training on the implementation the standards
- 7) Systematically mobilizing eligible national producers in line with humanitarian relief actions to meet the identified needs by creating long-term strategic partnerships
- 8) Gradually establishing a distributed national backbone procurement network to electronically link post-crisis demands with eligible domestic suppliers
- 9) Demonstrating and facilitating selected suppliers in international business development and other markets.

The solution emphasizes capacity building for good governance of agencies dealing with post crisis issues, for industrial sectors, for the public-private or public-business dialogue/relationship/partnership development and for a long-term enabling information infrastructure (Gong, 2001).

A special part of this solution is bringing the national eligible producers into the humanitarian needs market in order to strengthen their production capacity and generate new opportunities for them to be partners of other investors or a part of global value chains or a part of international trade. This will leverage and eventually facilitate a strengthening of satisfying self-rescue and reliance production capacity. It may generate sustainable economic momentum through the participation of national producers in the humanitarian goods market, improve national and international coordination locally and systematically, upgrade the productivity of the specific industrial sector due to its sector-wide institutional capacity building, facilitate governmental intervention that may eventually be needed in the effort of making humanitarian assistance effective and efficient, and lay down an excellent

information infrastructure from certain aspects. In addition, eventually strengthened production capacity may make these countries possibly integrated with global value chains.

This solution may serve as a success story of technical assistance covering UN agencies' and NGOs' activities in humanitarian assistance, country-specific needs in crisis-affected countries, donors' interests, and UNIDO's mandate, all in one go. No doubt, it also will maximally increase the donors' impact. Eventually, this will greatly increase national and international investor awareness of domestic needs and capacity in crisis-affected countries.

## 6. DISCUSSION

The solution is based on the good will to facilitate national economic development. Therefore, the solution, undertaking the same features as other technical assistance activities, is not able to cover all aspects that a pure business-oriented procurement network should. Tricky points lie in the prioritisation of the identified gaps upon the possibility of funding, willingness and delegation. It will, no doubt, lead to many open questions for discussion.

- *Political aspects:* Is there a convincing political will to make governance related to post-crisis humanitarian assistance transparent? An effective and efficient procurement network may require a reduction in transaction costs. By reducing transaction costs, the relevant organizations or agencies may have to be reengineered. Are they ready for that change?
- *Economic aspects:* Countries are different, although early industry is the most frequently identified sector - but their qualities and quantities vary. Is it worthwhile to establish the procurement network if there is no critical mass of domestic producers in stock in the identified sectors? Costs of building up the capacities of domestic suppliers may be much higher than the one supplier that aid may need.
- *Legal aspects:* Beyond the off-line institution, the procurement network consists of many vivid e-activities. Is there any legal framework to protect the e-activities?
- *Managerial aspects:* Who should operate the procurement network? Should the entity that owns and/or runs the network be a subsidised governmental affiliation or a neutral third party? Which way is more realistic to make the whole mechanism sustainable in various crisis-affected countries?
- *Technical aspects:* Who validates the procuring request and producers' data? Is there a reliable e-trust building process or mechanism? Is there a functional and secure information infrastructure to guarantee procurement conveniently and successfully for all parties involved in the system?
- *E-readiness:* Is there any critical mass of clients who are willing and able to be involved in the network? How far should business models derived from those in developed countries be diversified upon their own e-readiness in developing countries?

These open questions are still derived from the aspects of technical assistance and development intervention. The clear answer should come from objective-oriented fact-finding missions. The 9-point intervention module provides a conceptual solution to the 7-point gap, hindering implementation of utilizing the momentum of post-crisis humanitarian assistance into the long-term economic development in a crisis-affected developing country.

## 7. CONCLUSION

Realistic targets for e-business development projects in developing countries should be set bearing in mind the degree of e-readiness in any given country. Upgrading the e-readiness of a country as a whole is a luxury that can be only afforded by the country itself. Therefore, e-

readiness in this context is limited to the scope of “soft” aspects, such as institutional and governmental readiness. Diversification of existing e-business models depends upon the reality that makes projects sustainable after the withdrawal of external assistance. In many developing countries, the most effective way to make an e-business entity or project sustainable is to identify a market niche. Post-crisis humanitarian assistance is a huge project. To achieve a long-term goal, agencies involved in humanitarian activities should identify certain keys to success, which are able to leverage the external aid effectively onto the domestic economic development. This paper indicates a key chain in the missing linkage of humanitarian relief and domestic economic (sector-specific) development. Moreover, the paper provides a feasible solution to a delicate situation. The most important feature of this solution is that its implementation may create many positive effects on its domestic economic development.

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