Leveraging the Internet as a Global Buyer:
A Framework for the World Food Programme, UN

By

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ABSTRACT

Procurement, consolidation, international transportation, custom clearance and distribution are the main global logistics steps of an integrated supply chain. Business-to-business e-commerce can significantly alter the logistics of business supply chains, with significant implications for the geography, modal structure and values of transportation services such as speed, reliability, visibility and transparency.

Traditional procurement systems happen via complex, paper-intensive, approval and order process with high administrative cost and low economies of scale. These processes may include re-keying of information, lengthy approval cycles, a substantial involvement of financial and administrative resources, lack of transparency in the bidding process which ultimately would limit the benefits of volume procurement contracts and result in delays to end-users, i.e. losing efficiencies and precious time in a humanitarian relief program.

The purpose of the study within the Transportation and Logistics Division of The World Food Programme is to answer the following question: how can The World Food Programme leverage the internet as a global buyer that connects suppliers and service providers in a digital interactive base? The aim of the study is to pin-point which transactions can in the future be made with higher visibility and with a better management of information in order to take advantage of volume procurement contracts, integrate the process and reduce the cost of each procurement transaction. Determining a best practice with a new process and its benefits is the objective.
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"Not a day has gone by in the past year without a new independent trading exchange or vertical market-place emerging."

Scott Latham
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Glossary of Acronyms

B/L - Bill of Lading
BIMCO - Baltic & International Maritime Council
CCTI - Committee on Commodities, Transport and Insurance
CO - Country Office
EDP - Extended Delivery Point
ETA - Estimated Time of Arrival
FA - Forwarding Agent
FDP - Final Delivery Point
HQ - Headquarters
LTA - Long-term Agreement
LTSH - Landside Transport, Storage and Handling
MROs - Maintenance Repair and Operating items
MSP - Procurement and Contracts Branch
OT - Transport & Logistics Division
OTF - Freight Analysis and Support Division
OTL - Insurance and Legal Branch
OTS - Ocean Transportation services
RFO - Request For Order
RISI - Request FOR Insurance and Shipping Instruction
SI - Shipping Instruction
WFP - World Food Programme
WIS - WFP Information System
1 The Introduction

This Chapter points out the importance of leveraging the internet for the World Food Programme, a non-profit organization, emphasizing e-procurement capabilities.

1.1 The importance of leveraging the internet for a non-profit organization

Electronic commerce is rapidly transforming business as firms of all sizes join the internet economy. Companies are using the internet to enter new markets, increase supply chain efficiencies, create new value chains and meet the challenges of increasing competition and global markets.

Many global businesses are currently viewing business-to-business e-commerce as critical to their economic survival. Internet based exchanges are rapidly becoming a valid e-path across a diverse group of industries offering buyers and sellers benefits.

This study suggests that it is very important for a non-profit organization such as the United Nations agency, The World Food Programme (WFP), to recognize the potential of e-environment to improve its efficiency and response related to humanitarian relief operations.

Gaining supply chain efficiencies by leveraging the internet is what this study intends to emphasize. Three main internal logistics functions will be addressed. Purchasing, transportation and distribution. The other supply chain functions, typically synchronized
in industry such as warehouse management, product design, manufacturing are not included in the study.

Business-to-business (B2B) describes all online transactions between one business, institution, government or agency and another. The software that enables B2B e-commerce is referred to as an electronic procurement [10] (e-procurement) solution.

By automating the procurement process across the organization and by electronically transacting with suppliers and transportation providers the WFP can, as a global buyer, reduce non-value added administrative activity costs, increase information flow, accuracy, transparency, leverage volume discounts, improve lead times from order point to final destination, increase organizational effectiveness and eventually improve operation response, an obvious performance measure within a food relief organization.

“...e-procurement is a low-cost, high impact and relatively immediate method of achieving significant cost savings while dramatically improving service” [16]
1.2 Background of The World Food Program

1.2.1 Overview

The World Food Program became operational in 1963. This United Nation agency’s purpose is both to use food aid to stimulate and advance economic and social development in less developed, low-income and food-deficit countries and provide emergency food relief in disaster areas throughout the world.

More than 60 countries finance the humanitarian operations and development projects of the WFP on a voluntary basis. Funds received are not only used to purchase food and vital non-food items, but also for transport, handling and for administrative costs.

The majority of the products come from the USA and European Union. The products destinations are varied depending on the natural catastrophes areas; drought and crop failure areas; refugees or; displaced persons. The main help destinations regions are Sub-Saharan Africa, Latin America, Asia and Russia.

Distribution wise the WFP plays the role of providing transport and logistics expertise and assistance to ensure rapid and efficient delivery of humanitarian aid. There are two main modes used for distribution. Cargo can be shipped by ocean with or without containers or by air depending on the urgency of the matter.

Over the years, WFP has moved massive amounts of food and non-food items quickly into areas of urgent need. WFP’s transport and logistics strategies and policies have
evolved over time. The Program adopts a non-discriminatory policy when contracting for
transport services, all of which are made on a competitive basis with overall cost-effectiveness, efficiency and timely delivery being the main criteria.

1.2.2 The Transportation and Logistics Division

Time and voyage charters of ocean-going and coastal vessels, airlifts, airdrops, parachute
drops, barge operations, and mammoth road convoys are some of the means of transport
the Transport and Logistics Division (OT) employs to ensure the delivery of relief cargo,
on time, to inaccessible and conflict-ridden parts of the world.

In complex emergencies, the Program’s overall logistical support has become
indispensable to successful international responses. This has resulted in further demands
by the UN system, bilateral donors and Non-Governmental Organizations, for WFP’s
transport and logistics expertise and services.

The Division provides an integrated and seamless service for the timely and cost effective
delivery of food aid between any given origin and destination points. In essence, OT can
best be described as an in-house shipping, insurance, freight forwarding and trucking
company which is responsible for the overall strategic planning, establishment and
management of all transport and
logistics operations for the Program.
1.2.2.1 OT organization

To accomplish this role the Division is organized into four specialized functional units, namely, the Ocean Transport Service (OTS), the Logistics Service (OTL), the Insurance and Legal Branch (OTI) and the Freight Analysis and Support Branch (OTF).

1.2.2.1.1 Ocean Transportation Service (OTS)

The Ocean Transportation Service (OTS) is responsible for all ocean transport arrangements for the Program’s food aid shipments for both donor-supplied commodities, as well as for commodities purchased by the Program. WFP is a player in the international shipping arena, annually transporting about 3.3 million tons of seaborne commodities. During 1999, OTS arranged liner and charter contracts valued at USD 146 million. All ocean transport of food commodities is contracted on market terms.

The charter requirements are quoted to the international shipping market through a selected panel of international shipbrokers. While the panel’s composition is worldwide there is no exclusivity for any of them to any geographical area. This means that any broker on the panel is entitled to trade on any and every parcel that WFP puts on the market, irrespective of origin of cargo or its funding.

Ocean Freight contracts, whether charter or liner, are based either on the WFP Charter Party "WORLDFOOD" or the Non Negotiable Liner Way Bill, both approved by BIMCO, the Baltic International Maritime Council, of which WFP is an Associate Member.
1.2.2.1.2 Logistics Service (OTL)

The Logistics Service provides logistics capability to the Program in the planning and management of diverse landside surface transportation and air operations in support of both large scale, complex emergency relief operations, and development projects.

OTL’s main objective is to provide an efficient and cost effective logistics capacity for the landside delivery of all food aid entrusted to the Program by donors. However, as logistics operations have become more and more complex and demanding, WFP has increasingly found itself with the need to identify, initiate and implement infrastructure and equipment rehabilitation efforts to avail the requisite transport capacity for all relief traffic, and ensure speedy and cost effective delivery of relief food to beneficiaries on a sustainable basis. In addition, OTL provides assistance to countries in developing their own transport sectors.

The Service’s responsibility generally begins from the point where ocean transport terminates, and includes overland transportation of WFP cargo to landlocked countries. OTL arranges all contracts for WFP-operated aircraft and truck fleets, as well as providing routine support to WFP Country Offices, worldwide.

OTL has helped establish a mechanism to enhance emergency preparedness arrangements for the Program, which has contributed to WFP’s response capability to emergencies, and to implement complex logistics operations.
1.2.2.1.3 Insurance and Legal Branch (OTI)

OTI is responsible for arranging various insurance for WFP commodities, bilateral donations and various liabilities and responsibilities connected with WFP’s transportation operations by sea, land and air. The main objective of OTI is to provide the most effective loss recovery system in respect of WFP’s commodities, either by self-insurance or external insurance, and to ensure that damages and losses to WFP cargoes are kept to a minimum.

1.2.2.1.4 Freight Analysis and Support Branch (OTF)

OTF was formed in 1995 in recognition of the need to strengthen the Program’s capability to monitor, control and report on the considerable expenditure relating to Landside Transport, Storage and Handling. OTF provides management and technical support services to the Division in the analysis of policy issues, and in the development and implementation of policies and strategies, which fall within OT’s domain.

The Branch evaluates the need for transport-related statistics for the Division and the Program at large, and carries out transport demand forecasting and cost analysis; and assists with the cost/benefit appraisal of special operations and/or projects.

Apart from being responsible for OT sub-system data-base management functions, OTF is developing and introducing transport & logistics management information systems such as:

- a commodity tracking system (CTS);
• a transport contract management & payments monitoring system and;
• a Landside Transport, Storage and Handling (LTSH) cost estimation system.

1.2.3 Operational Capacity

By virtue of its large ship chartering program averaging around 200 vessels per year, WFP has, at any given time, several vessels afloat, thus enabling the Program to divert food aid to any emerging crisis at short notice.

A special unit - The Augmented Logistics Intervention Team for Emergencies must be mentioned at this point. It was created in 1995 within OT to enhance emergency preparedness arrangements for the Program. This has contributed to WFP’s readiness and response capability.
Chapter Two: The Literature Review

The purpose of the literature review is to demonstrate the relationship of the research carried out in WFP to the big picture – the e-environment that is substantially changing some of the transactions paradigms. An exploration of strategic options enabled by the internet such as e-procurement will attempt to show the relevance and importance of these services within an internet based information management system.

On a research, such as this, it is important to prioritize a range of options enabled by the internet and create a set of flexible and adaptable initiatives to implement a recommendation presented in Chapter Four.

According to Scott Alaniz and Robin Roberts [1], when companies look for means to streamline their entire supply chain, the first thing they think about is how to streamline the purchasing process. In fact, mainstream companies have been adopting e-procurement solutions and web technology platforms that make purchasing activities more efficient and cost effective. One driver of this trend is customization, which is the ability to produce products at the scale and speed necessary to provide individually configured (customized) products to other businesses and consumers in a short period of time. For example, in the last quarter of 1999, FORD announced a partnership with MICROSOFT to offer made-to-order cars over the internet. Also, recently the major car manufacturers announced the setting up of an exchange with their suppliers, implying that supply chain management would become a electronically-based reality.
From the above business-focused comments the reader might wonder, what is the liaison with a non-profit organization, whose aim is humanitarian relief. Internet solutions used to automate the procurement function for business represent an attractive investment opportunity for an organization such as the World Food Programme because, in providing these solutions to users, it significantly decreases the process lead time and increases responsiveness, essential features for a humanitarian relief organization.

E-procurement solutions facilitate companies’ purchases over the internet through the following four technology platform components\(^1\), that enable businesses to trade with each other directly or via a centralized trading portal:

1. Buy-side solutions that streamline the corporate purchasing process.
2. Sell-side solutions that streamline seller’s transaction processing activities.
3. Exchange and auction solution that enables the commerce portals to match buyers and sellers or conduct auctions over the internet.
4. Supply chain optimization solutions that enable the integration of supply chains and help buyers and sellers to collaboratively plan production, forecast demand and replenish inventory.

The first two solutions are enabled through direct transactions, while components 3 and 4 are enabled through a trading portal.

The object of this research, the World Food Programme, is a global buyer. While sell-side solutions have a great potential for cost reductions, the main focus of this research is
to target the buy-side transactions. A discussion of the trading portals available will be presented so that a complete picture can be transmitted and the final recommendations (presented in Chapter Four) understood.

Nowadays trading portals are product-oriented as opposed to supply-chain oriented. Net Markets\(^2\) such as e-chemicals, a chemical net market or efoods.com, a food net market, are integrated to a determined industry. Such product-oriented net markets do eliminate inefficiencies by aggregating offerings from many sellers or by matching buyers and sellers and, therefore, streamlining purchases of one type of commodity; however, the transportation of this product needs to be separately arranged to make the product arrive at its final destination. The manual link between the buying of the commodity and its correspondent transport to its destination implies a lack of supply chain coordination within the existing platforms. In Chapter Four a discussion of unifying order processing, food and non-food procurement, receiving, distribution and related logistics functions will be discussed and an attempt to conceptualize one integrated system to the WFP is presented.

According to Michael Capelis, the COMPAQ CEO\(^3\), integration of technology is a very important and challenging exercise that companies face. The supply integration concept drove the literature search to identify material relevant to trends that may affect how

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1 Source: Stephens Inc. Internet Research Team
2 As by Net MarketMakers definition: is an online intermediary that connects fragmented buyers and sellers. Although connotation may vary slightly, some synonyms are: informediary, metamediary, electronic markets. E-markets, internet markets, I-markets, vertical hubs, e-hubs, butterfly markets, vortex bussinesses, digital exchanges, online exchanges or fat butterfly.
3 During a conference call on April 20\(^{th}\), 2000 within the CEO Team's Value Chain Network Strategy Class.
businesses will be conducted in the future. "The Future of Purchasing and Supply: a Five-and Ten-year Forecast" [9] was a joint research initiative from the National Association of Purchasing Management, the Center for Advanced Purchasing Studies and A.T. Kearney, Inc. referring to the 2003 and 2008 horizons respectively. This research included trends of importance to organizations of all sizes, in all major industries – profit and non-profit – private and public. They recognized that the available information had been increasing at a tremendous rate:

"Many firms are already using the internet for information sharing and for accessing electronic catalogs. In the future the internet will be used to support demand-pull throughout supply chain. The internet will become a critical medium for accessing critical information. Currently security is viewed as a major inhibitor of internet use. Once security issues are fully addressed, purchasing transactions will explode on the internet. Order tracking, funds transfer, production planning and scheduling, receipt acknowledgments and other basis processes will be fundamentally changed by the way information can be transferred between supply chain members. The internet’s effect on the supply chain will rival the interstate highway’s impact on the transportation industry".  

At this point, still paying attention to the supply chain, Bob Lenn the Co-founder of Ariba Inc., defeats the concept of an internet seen as a gigantic linear programming tool that will optimize the world. Further he explains that the type of control you achieve and its

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4 Annex (2) presents the developed framework of the house of purchasing and supply by A.T. Kearney.
eventual efficiency need valid data inputs. He argues that while inside a company this can be achieved, outside the walls there is no mechanism that matches “proposal spaces” to other spaces such as “salvage space” or “auction space” and optimize these matches resolving inefficiencies through optimization.

2.1 Benefits of e-procurement

Going back to how all changes enabled by the Internet are affecting the role of procurement units within supply chain, Charles Waltner, author of “Procurement pays off” [3], mentions some immediate savings and efficiency gains from a procurement system. This author clearly states that one such application can reduce one of the company’s greatest expense points, referring to maintenance repair and operating or MROs⁶. One example given where the average cost reduction on operational supplies generated by e-procurement application is 5% to 20%

“...UNILEVER Corp., the $48 billion Anglo-Dutch maker of food, home, and personal-care products ranging from ice cream and tea to shampoo and deodorants, built its own

---

⁵ From the CEO Team’s Value Chain Network Strategy class, which is available on tape at the Center For Transportation Studies.

⁶ Direct and Indirect spend

At this point, a distinction between expenditures associated with purchases of goods and services is direct and indirect spend are concept commonly accepted. A direct spend item purchased consists of a good or service that becomes part of the end product. An indirect service or good are considered as not being part of the final outcome, although they are used to enable the former. As for WFP goods and services the clear division is made on food items or services to deliver this food to destination, considered direct spend, as opposed to enabling services and non-food items that are considered as indirect spend. The latter are sometimes referred to as MRO.

Conrad Nowikow, in “Revolution or e-volution?” [8], while referring to indirect goods⁶, believes that for an established large business, e-procurement of MROs is the simplest and lowest-risk way to explore what e-business truly means. He adds that far-sighted businesses identified that buying such goods electronically would avoid creating unnecessary infrastructure and large procurement departments to service a rapidly
online procurement system for centralizing the purchasing of computer equipment throughout its network of 300 subsidiaries operating in 88 countries. The application allowed UNILEVER to consolidate all its contracts with vendors, giving the company far greater purchasing power and driving down the cost of most gear by 20 to 40%.

UNILEVER spends $160 million a year on computer products, which adds up to $32 M to $64M in saving annually. The application cost just $200,000 to create, according to Martin Armitage, the Director of Global infrastructure for UNILEVER.”

In terms of efficiency gains, this same author mentioned an abyssal difference between a paper-based process and an electronic-based order system. In fact each order processed cost was estimated to be $50 to $150 in wages for the time spent to fill out paperwork, route purchase orders for approval, get executive approval, and other administrative tasks; while using e-Commerce One’s system would reduce those figures to $10 to $20 for each order.

Procurement systems let companies consolidate purchases, giving them power over suppliers, devolve routine tasks to other staff while actually increasing control to eliminate maverick\(^7\) purchasing and invoice reconciliation, according to Jonathan Turton in “E-procurement can save you time and money” [4].

\(^7\)Maverick purchasing is defined in this same article as a tendency to buy items personally from shops and claim the cost on expenses.
E-procurement systems promise to streamline operations, save time and cut costs for businesses. What other benefits does a global buyer enjoy from such a system? Transparency is one of the answers. Transparency in terms of price as the buyer is provided with all information and can easily compare prices in time, by region or among size of customer. Transparency in availability as in case of need “right now”; it is possible to know who has it. Transparency in terms of suppliers as the platform enables buyers to know who else makes the product or service they are looking for. Transparency in terms of product or service as some substitute products or services might exist, as it is described in Chapter Three (Some air cargo services can be delivered with other types of air operators, however, these are not yet in the WFP short list of suppliers). Finally, transparency in terms of processes as everything is documented automatically and choice of suppliers is a fact that could allow for committee purchase substitution, as these exist to make sure the process is accurate and fair.

At the end of the day a business to business platform has an impact on:

1. ordering, while reducing order cost, increasing sales per rep, allowing for quick substitution;
2. Inventory, while reducing parts shortages, shortening replenishment times, reducing time to shipment or making an earlier notice of demand;
3. Claims and paper returns by reducing paper processes, faster turn around, improving customer service and reducing scrap;
4. Billing by reducing billing cycle, reducing errors, improving cash flow and allowing for more complex pricing capabilities and;
(5) Customer service by having a better history of customer behavior, personalization, more accurate and measurable marketing campaigns.

From an e-procurement provider’s web site, Commerce One, enhanced profitability, complete control, point & click simplicity, total trust, bullet-proof security and full scalability are some of the benefits of using its services.

At this point a discussion on the existing portals or market maker models is important to provide the reader with a mental picture, that might be used to read the current WFP processes presented in the next Chapter.

Henry Blodget and Edward McCabe in their B2B market maker book, present four different types of market maker models: catalog, auction, exchange and community market makers. B2B market places can be classified into different trading models based on pricing for example. On one hand if prices are fixed we would be referring to an online catalogue; on the other hand market models involving dynamic pricing would be auctions or some exchanges.

2.2 Market Maker

A market maker typically aggregates a group of buyers and sellers on a virtual base where both have access and publish relevant industry-specific news, editorials, market information, job listings or message boards. This model benefits the seller to the extent that it provides a highly concentrated group of potential customers and it also benefits the

---

8 Source: Morgan Stanley Dean Witter Internet Research, Nov.1999.
buyer to the extent that a high concentration of products and services relevant to a certain area of business exists in a single place.

2.3 Auctions and Reverse Auctions

Auctions and reverse auctions are virtual bases that allow purchase and sale of unique items such as extra non-occupied place in cruise ships or used capital equipment. In auctions sellers usually post an offer to sell and buyers bid, resulting in an increase in price during a fixed period of time. In reverse auctions sellers usually compete for a buyer’s offer to purchase, which makes price decrease during the process set time frame. Once this virtual platform has achieved some critical mass, sellers attract more bidders achieving higher prices, and buyers found more suppliers at lower discounted prices.

2.4 Catalogue

A catalogue consists of digitized information on products available that provide buyers with a convenient only-point shopping over the Internet. This model suits markets where both supply and demand are fragmented. To sellers this virtual platform consists of a new sales channel with a lower cost structure and to buyers this represents enhanced panoply of product supplies and an opportunity to reduce procurement process costs.

2.5 Exchanges

Exchanges can provide both spot markets for commodities and electronic platforms for long term agreements. The former allows buyers and sellers to trade anonymously, which
can bring some advantages in terms of pricing at the end of the day and allow for immediate purchase needs from buyers.

Mohanbir Sawhney and Steven Kaplan, quoting from the recent paper “B2B E-commerce Hubs: towards a taxonomy of business models” classified B2B hubs into three main dimensions depending on: (1) the value creation mechanism (aggregator versus matching); (2) purchase situation (systematic versus spot purchasing) and; (3) bias of market maker (one-sided or biased versus two-sided or neutral).

When B2B are said to be divided into biased or one-sided as opposed to neutral or two-sided that brings out the very important question of who runs the electronic platform and how neutral can it be, how (if) is the trust relationship made between the service providers and the customers and finally what makes a B2B platform a valid channel for trading online.

From S. Kaplan and M. Sawhney definition, a neutral hub does not favor buyers over sellers or vice-versa. Biased hubs, on the contrary, favor either buyers or sellers depending on whom the channel power belongs to. When favoring buyers these market places act as a reverse auctioneers as explained previously. According to these same authors, reverse aggregators will be able to aggregate buyers not only for spot purchases, but also to negotiate long-term contracts with suppliers. In many industries, they suggest that reverse aggregators will have access to at least as large a market as exchange and
catalogs. As an example the WFP spends its MRO budget 60% in long-term agreement (LTA) and 20% on direct spot purchases.

From the above discussion the reader might be questioning what type of system would make sense to have for WFP transactions given the organization’s strategy and policy, that is conveyed in Chapter Three along with a detailed description of the relevant processes.
3 Chapter Three: The Current Processes

Since the research question on transactions have by now been posed, Chapter Three consists of an explanation and description of current processes within the units this study was targeting. The integration of the interviews in the World Food Programme, commercial firms and U.S. government agencies with the literature review is presented in Chapter Four.

The purpose of this research was to understand the transport, logistics and procurement activities its interfaces and supporting processes as they are currently being conducted. This study was conducted based on the results of a series of interviews held with MSP, ODP and OT staff members and logistics officers from WFP head quarters in Rome. In addition to describing the processes, this study presents ideas identified throughout the business process analysis on how WFP can leverage the internet in order to increase performance of transport, logistics and procurement activities.

There are four divisions part of a sequential process (figure 1) that allows food distribution to final beneficiaries. The RE division arranges resources either in-kind or money from donors

![Figure 1 - The WFP Sequential Process](image)

around the world. ODP is then in charge of matching the resources available to projects of distribution. Once the resources have been allocated to a certain project, MSP buys the
commodity needed. If the commodity is bought internationally and needs to be shipped, OTS manages the shipping from origin to destination ports. Finally, OTL is in charge of overland transportation to warehouses or directly to the final destination, where a mix team of OTL and Country office (CO) work together. This process can often take eight months to complete.

In case of need for food relief emergency, the process in these divisions overlap in order to reduce lead-time and deliver the food to the beneficiaries rapidly. Lead time is substantially reduced in these cases.

MSP and OT are the two divisions for which processes will be described in detail as both have a high percentage of contract activities within their processes accounting for a total of $1.086M in contracts that could be translated into B2B opportunities.

3.1 MSP, The Procurement and Contracts Division

The overall objective of procurement in WFP is the effective purchasing of goods and services to support WFP development projects and emergency operations. The specific objectives are to obtain the best value for expense incurred, effective and efficient use of resources in a competitive and transparent manner, and sound procurement processes that contribute to operational and strategic goals.

In WFP procurement processes are distinguished between food and non-food.
As the main procurement policy for food and non-food items is competition, i.e. at least three suppliers are invited to submit quotations, bids or proposals, regardless of how many offers are received. WFP would like to invite as many qualified suppliers as practical on an international basis, based on a pool of suppliers previously gathered. WFP operations are organized around 10 regional offices and 80 country offices. Certain country offices are coordinated by regional offices and others deal directly with headquarters. All procurement undertaken by the organization is subject to obtaining competitive quotations; it is a given that the most transparent mode to procure goods and services at the most advantageous cost and terms. However, there may be situations in which competition is not possible or practicable. In those cases direct procurement is used.

3.1.1 Non-food Procurement

There are three basic procurement processes used in WFP for non-food items. (1) “competition” as mentioned above; (2) “purchasing” that refers to the procurement actions undertaken on the basis of a purchase order for goods, equipment and minor services requiring limited personnel inputs for installation or maintenance and; (3) “contracting” or LTA (long-term agreement) that refers to the act of obtaining services to include technical construction, advisory and assistance through a contractual agreement between WFP and a contractor. The latter is of great importance to WFP as it allows for rapid response delivery from suppliers, without having to carry any inventory of any SKU.\(^9\) needed.

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9 Value explained in Chapter Four
10 Stock Keeping Unit, Less than 500 for non-food
Currently, 60% of WFP procurement processes are contracts (LTA), 20% are of competition type and 20% consist of direct buy, i.e. waving the competition process. From a statistical analysis the headquarters (HQ) total purchases sum a total of $36M from the organization world country offices (CO) total of $80M. From the $36M value, 50% are spent in goods and $18M in services. There is no data and, therefore, no visibility for the remainder $44M for other country offices. It is known that both HQ and CO share some suppliers; however, they buy independently up to a certain dollar amount. The clear opportunity for consolidation of buying on an e-bases platform will be discussed in Chapter Four.

MSP division functions begin with the procurement request processing after receiving a procurement requirement from either internally from ODP in case of food related purchases (as all food purchases are project related), or from any one within the organization worldwide. That is once the programming and basic support processes are in place (such as checking for fund availability or up-dating supplier database) the procurement process may start. Procurement of non-food can be related to both goods such as vehicles, electrical equipment, telecommunication equipment, office furniture or equipment or services such as transportation, printing and related services, utilities, consulting and maintenance. Currently the non-food procurement process is as follows (Please, refer to the flow diagram presented in Figure 2:}
Figure 2 - The Non-Food Procurement Process

- MSP issues purchase request, assigns a sequential number, while the finance division assigns a project code. These tasks are done manually on paper. MSP, at this stage, is
responsible for entering the data in the system PIC (Procurement Inventory & Control)\textsuperscript{11}.

- Issue tender to selected suppliers, which list is not always up-dated as it is not automatically maintained. Suppliers are contacted via fax, one by one. Solicitation is the mechanism used to communicate a procurement requirement and request an offer from potential suppliers.

Depending upon the type of procurement (goods and services), the need for discussions with suppliers, the complexity or the specificity of a requirement and the value of the commodity to be procured, a "request for quotation (RFQ), an "invitation to bid" (ITB) or a request for proposal (RFP) is used. Solicitations include all information concerning procurements. Except for an RFQ that can be requested orally, solicitations are written documents consisting of one or more pages. A brief description of these modes is included in annex A.

- Receive offers to a specific confidential fax number; on the deadline all offers are put in a sealed envelope. One day later after the offers are received there is an opening panel who sees the offers.

- Evaluate offers and select suppliers. MSP literally enter the information on the offers received onto the mentioned PIC system and sometimes produce a spreadsheet for tender comparison of suppliers before one of them is chosen.

\textsuperscript{11} PIC is supporting tracking and control of non-food purchasing and is used for tracking purchases in general. It is operated by procurement office only and integration with WIS (A supporting system for food procurement) for administrative and payment purposes needs periodical download operations. It does not assure a good level of information on payment done and it does not handle contracts. This system is operated only at headquarters level. The information on local procurement are transferred via mail or fax to a central office for registration onto the system. (Annex B)
• Authorize purchase commitment

• Issue of the purchase order or contract (in case of services) and contact the supplier usually by fax. Send a fax to other suppliers that have not been chosen. Wait until the contract returns back signed.

• Sometime, at this stage, there is a need for selecting superintendent (to oversee operations as a WFP representative). MSP sends a request for offers to at least three suppliers, receives their offers, selects the best one and issues the contract with that supplier.

• MSP receives all documentation from the suppliers (and superintendent), checks documentation, decides whether to accept and finally sends the documents to the payment unit.

3.1.2 Food Procurement

A brief introduction to food procurement is, at this point, necessary to give the reader the idea of some constraints existing in the process, that should be taken into consideration when trying to conceptualize an electronic function that would allow for such transactions.

Most of the food purchases are done in developing countries, which benefit the countries where it is made. Being the WFP’s primary task to distribute commodities received in kind imposes some constraints and a balance between a more cost-effective, more timely or providing more appropriate food supplies to beneficiaries. It depends on the current
availability of the required commodity in kind as well as in cash resources. The cost of transport must at this point be mentioned as cost of shipping commodities in kind is high and, therefore, local or regional purchases may make sense if the required food is available for sale. Even if the local price is somewhat higher than that of the world market or that of the donor of the commodity in kind, the final delivery cost may still prove to be advantageous.

A transaction based on cost effectiveness represents the cheapest cost obtainable from the lowest reliable bidder of quality food. It should entail lower costs than a purchase of the same food from the cheapest alternative source of supply taking into account transport cost to final destination. A note should be made at this point given the organization way of operating, the WFP does not purchase food in a developing country unless it is available surplus to levels that would satisfy local consumption and food security requirements.

In cases where a commodity can be purchased in a regular exporting country and is exported to another developing country, competitive bidding is used. This often entails international tenders issued by the WFP in the HQ to enable comparisons of delivered cost. In case a commodity can be purchased from non-regular export sources the country office concerned issues an invitation to bid addressed to potential suppliers within the region and a contract is awarded to the supplier of food at the cheapest delivered cost.
In order to economize on cash resources and maintain credibility over the efficiency of its procurement, WFP aims at obtaining prices as near as possible to those at international levels. When buying from developing or developed countries that is achieved, however, in most cases when purchases are made inside land, prices are usually well above world market levels. These situations make sense when the next nearest source of supply is still more expensive considering the transportation cost or if a rapid delivery is needed to a certain region.

Often the more timely the delivery, the more valuable food aid will be to the recipient, Timeliness of supply is essential in WFP operations, specially in emergencies. Delays can cause distress or obvious loss of life. Timely supply is, therefore, the selecting criteria in such cases.

Food acceptability is an issue as it is largely determined by consumption habits. A staple food bought locally or regionally can be more appropriate than a commodity shipped to a certain region. An habitual commodity is more useful to beneficiaries and is worth more to WFP in terms of resources transfer.

From the above mentioned, when examining the appropriateness of a proposed transaction, several factors must be examined in combination with each other. Some of the issues must be given priority according to circumstances.
The WFP buys mainly pulses, blended foods, rice, sugar, corn, wheat, wheat flour, salt and vegetable oils. For each of the products there is a range of 3 to 20 suppliers short listed. WFP usually buys in bulk or large packaging and in 90% of the cases the shipping division (OTS) charters the vessels to destination. The procurement process consists of the following steps:

- Dispatching, prioritizing and sorting RISI\textsuperscript{12}. MSP starts by checking on WIS\textsuperscript{13} for newly released RISIs. If there are no donor restrictions, a decision on whether the purchase should be local or international is made; RISIs are distributed among three divisions in accordance with delivery type; a new purchase number is opened and attached to a RISI; finally the RISI is hold for consolidation purposes and, therefore, is just released once enough quantity per item is reached.

- Coordinating interested parties. MSP checks the product specifications in relation to the destination and identifies the delivery terms together with the logistics division.

- Issuing of tender to selected suppliers. MSP selects the suppliers from a list file, issues the tender to suppliers and sends a notice of the tender to a purchase committee.

- Receiving and opening offers from suppliers. A fax is sent to a confidential room with a fax with limited entrance. On the deadline all offers are put in a sealed envelope. Finally three persons open the envelope the day after the deadline.

\textsuperscript{12} RISI stands for Request for Insurance of Shipping Instructions. They are directed to the resources division (ODP), which depending on the case, either nominates a donor country or allocates funds from a cash donation. This document is then passed on to the procurement and contracts division (MSP).

\textsuperscript{13} WIS is a supporting food procurement from the notification of the request (RISI) to invoice registration and payment voucher. WIS is supporting the resourcing activities performed prior to the procurement and the administrative payment and accounting activities that terminate the procurement action.
• Evaluating offers and selecting suppliers. MSP prepares a spreadsheet with all the information about the tender and the offers. Within a purchasing committee, which meets the day after the envelopes were opened, evaluates offers and recommends a supplier.

• Authorizing purchase commitment. This task is performed by delegated officers that accept the recommendation and authorize the purchase.

• Inputting data in RISI. MSP inputs the final price obtained in the tender to the RISIs related to that tender (as each unit price in the RISI has been forecasted). In case the prices varies by less 10% the procurement can change the quantities purchased depending on the total funds committed for that RISI. In this case the programming function should change quantities and modify RISI.

• Informing supplier. MSP contact the supplier by fax and inform them of the tender results and to the winner the indication of the purchase terms.

• Issuing the contract to supplier. After MSP issues and sends the contract to the supplier, this signs and returns it.

• Advising Transport. MSP informs the logistics OTS division on the rates obtained in order to get some feedback from that division.

• Selection of superintendent. MSP sends a request for offer to at least three suppliers, receives them, selects the best one and issues the contract to supplier.

• Issuing technical documentation to the supplier.

• Receiving and accepting documentation. Documents are received from both superintendents and suppliers, they are checked and if in order are sent to payment unit for setting up commitment request.
3.2 OT, The Transport and Logistics Division

Once procurement is running, the transportation and logistics division (OT) is charged with the responsibility of the overall strategic planning, establishment and management of all transport and logistics operations in cooperation with country offices. To accomplish this role, and as mentioned previously, OT is organized into four specialized functional units: the Ocean Transport Services (OTS), the Logistics Service (OTL), the Insurance and Legal Branch (OTI) and the freight analysis and support branch (OTF).

The purchase of services in connection with transport and related activities is made, as described below, through a certain number of brokers, agents, suppliers in each unit, all with the objective of achieving timely delivery of commodities and the best market rates consistent with the required quality of service. The are seven major services purchased in the OT division: (1) transport by liner vessel, (2) transport by charter vessel, (3) overland transport, (4) air transport, (5) insurance, (6) services of WFP forwarding agents, charters’ protecting agents, freight forwarders, superintendents and chartering brokers and, (7) unloading, warehousing and ancillary services.

3.2.1 Ocean Transportation Service transactions (OTS)

OTS manages ocean transport for both donor supplied commodities and commodities purchased by WFP. As a rapid response mechanism, this division has several vessels afloat at any given time that enable WFP to divert food aid to any emerging crisis at short
notice. Transportation by charter vessel is, therefore, preferable as opposed to liners as it
allows for flexibility and eventually responsiveness to emergency situations.

The charter requirements are quoted to the international shipping market through a
selected panel of four main brokers as part of thirteen in total shipbrokers. Any broker is
entitled to trade every parcel that WFP puts on the market, irrespective of cargo’s origin.

In this division the contracting process (figure 3) for both liner or charter vessel starts
with a review of the shipping request SI, that is on the WIS coming from the procurement
(MSP) division, and follows as below:
OTS prioritizes and consolidates when possible (an attempt to consolidate automatically through WIS, however the results were not accurate)
Generates the Shipping Instruction and signs it

Distributes the SI to donors, forwarding agents at load points, country offices, Freight forwarder at discharge point and brokers.

Determines the availability of cargo for shipment by contacting either donors, suppliers or the forwarding agent

Determines whether the commodity is to be shipped as a liner or charter

3.2.1.1 Charter shipment process

In case a charter shipment is required, OTS:

- prepares market order and sends it to the panel of shipbrokers, who in turn access shipowners and receive the offers from them;
- receives the offers from brokers, compile them into a comparable spreadsheet and chooses the best offer;
- approves and negotiates with carrier until fixture is concluded at or below a rate level pre-determined, keeps record of the negotiation process on paper, review fixed charter rate using BIMCO’s Charter Voyage Cost Estimator;
- The broker issues three charter “Fixture Recap”, providing a description of the vessel, rate of freight, demurrage level and other main contract terms. These documents are sent by fax and e-mail to OTS/WFP, agents at load port, country offices, suppliers agents at discharge port and suppliers;
- Reviews the “fixture Recap” received from the broker, notes down rates; distributes this document both externally to: agents and suppliers at load port, to
any donor that requires that information, to the country office and to the agents at discharge port and internally to: OTS operations units to trigger monitoring of loading voyage and discharge, OTF for data entry into WIS, and OTL for eventual coordination in-land.

- Sends an authorization fax to shipbroker to sign charter party on WFP’s behalf, request a payee number in case of chartering with a new ship owner. The shipbroker then dispatches by mail copies of the charter party to WFP charterer’s agents at load and discharge ports and to the country office in the recipient country and a fax copy to OTS.
- Verifies and confirms charter booking

3.2.1.2 Liner shipping process

In case a liner shipment is required, a forwarding agent submits booking offers to shipping lines, receives and reviews proposals, selects and submits it to OTS, that then:

- Reviews the liner booking proposals and makes a recommendation of best offer;
- Negotiates freight\(^{15}\) and other conditions and makes note on the negotiation. At this point the forwarding agent prepares booking confirmation.
- Reviews and approves booking confirmation, prepares a notes to be kept in record and distributes the booking confirmation internally within OT being OTF in charge of registering liner booking and the transport commitment into WIS.

\(^{14}\) The Baltic and International Maritime Council as WFP as an Associate member.
3.2.2 Logistics Service Transactions (OTL)

OTL is responsible for the overall strategic planning and establishment of logistics operations, so that all cargo is received at the point where ocean transport terminates, and for overland transportation of cargo to land locked countries. OTL arranges contracts for WFP-operated aircraft and truck fleets, as well as providing routine technical support to country offices.

3.2.2.1 Overland transport and within country transport

Once OTS has raised shipping instructions as a modality of transportation, the commodity is shipped to a determined port and responsibility is handled to OTL. At this point suitable measures are taken to assure that the cargo is off-loaded in the shortest time possible and the lowest cost. It is less expensive to unload from ship directly into a truck for final destination. However, it is not common to be able to mobilize 400 trucks (25Ton each) to discharge 10,000 ton from a bulk carrier. Therefore, warehouse space is rented either in port, in town or inn country in a so called standard delivery point (EDP) and part of the cargo is moved to storage.

Vessel chartered must have their own discharging gear because some of the destination ports are not equipped with those unloading tools. Avoiding vessel demurrage and promoting vessel dispatch is achieved by rewarding the discharge service provider with

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15 The freight rates offered for shipment by liner vessels may be determined by a trade tariff or by prior negotiation between WFP and the shipping conference concerned for certain periods of time in certain trades. When no prior arrangements have been made, the final rate is negotiated in each case.
the fees paid by the ship owner in case the discharge process is done quicker than expected.

From the unloading port the cargo can be dispatched to a central warehouse either by truck or rail depending if the latter is available. For example Isaka’s central warehouse exists to serve Burundi, Rwanda, Uganda, DR Congo and Kenya (Annex F). The bulk commodity comes in at DAR-ES-SALAAM and is shipped in bulk by rail to Isaka, where both warehouses and mill facilities are available. Not only it is more economical to ship in bulk, but also it is translated in a lower vulnerability against infestation before milled. In fact the logistic postponement concept is applied as the grain is only milled when ready transportation to a certain destination is acknowledged.

Some of the grain commodities are also milled locally, in order to stimulate local work. That would depend on the emergency of the matter and local circumstances. After milled the flour is packed into marked bags and shipped by truck to further locations. As far as tracking is concerned, there are checkpoints in EDP where the number of bags is counted the number is compared with the previous checkpoint and the transport provider needs to pay for any loss incurred during that period\textsuperscript{16}.

The transport contracting process differs depending on the where the final destination is located. On one hand if commodities need to be carried through another country the transport contracting process is as follows:

\textsuperscript{16} Before this procedure was implemented, WFP had lost around 40\%. 

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- OTL prepares request for offer (RFO) based on shipping instruction, tonnage allocation per discharge points and booking information; sends the RFO to the CO and a pool of contractors that have previously been short-listed\textsuperscript{17} either by fax or e-mail.

- Receives and reviews orders from contractors using the help of a spreadsheet or a matrix generated by the transport Contract Management System (TCMS).

- Selects the best offer and further negotiates if necessary before the contract is finalized.

- Send award notice to selected contractor and the CO by fax or e-mail and rejection notice to the remaining intervening parties.

- Registers overland booking confirmation into WIS and, in case of advance payment, prepare instructions.

- Raises payment voucher for initial advance payment.

- Reviews consolidated delivery report prepared by the country office.

- Verifies loss and damages and evaluate who are the losses imputable to

- Reviews invoice

- Raises payment voucher for overland transport

On the other hand, if commodities are transported within the same country, country offices handle the whole process on internal transport arrangements and contracting. The same basic process is used and is as follows:

\textsuperscript{17} This short list is usually revised once a year.
The country office reviews internal transportation requirements

Prepares request for offer

Receives and reviews offers from a pool of contractors

Selects the best offer

Send an award notice

And rejection notice to remainder participants

Prepares land-side transport instruction

Dispatches consignment

Monitor internal transport

At this point the receivers review and endorse consolidated delivery report.

Verifies losses and damages

Pays forwarding contractor

Prepare local logistics contracting report and is then evaluated in a committee.

3.2.2.2 Air transport

Air transport is used when no other solution is feasible due to limited time frame for intervention, lack of infrastructures for surface transport, insecurity or any other reason preventing access by means of land transportation.

Based on the number of beneficiaries, the quantity of food to be delivered is calculated. Once these needs are defined in terms of both tonnage to be moved within a specific time frame from the location where goods are to the destination and quantity, dimensions, nature of commodity together with the distance to be flown, to define a short list of
aircraft types with the characteristics required. Currently that short list comprises 35 air operators including heavy lift cargo, helicopters, light aircraft which have further differentiation depending on whether they have cargo door or ramp loading.

The procurement process once again starts by understanding the services needed and sending a request for quotation to the short list of companies that have traditionally had a good record within the WFP. A deadline is set and by then, the analysis of offers start once they are collected from a fax maintained in a closed room for confidentiality. The main criterion for selection is price; however, other factors are taken into consideration. Terms and conditions as certain minimums are required in order to be a WFP operator: the number of persons in a crew; initial lease; accommodation constraints in case the destination is a desert place location where no infrastructures are available; insecure locations, i.e. whether there is an extra charge if there is any war risk; would the service include standard marking WFP/UN on the aircraft prior to arrival to destination and would that consist of an extra charge; insurance and other such as the ability to ensure the aircraft has the necessary equipment. As a result, a decision is made and the award is sent out by fax.

From the above question it is obvious that many intangible variables must be taken into account and the awarding process cannot be fully automated by any system. (Chapter Four)
Summary

From all the different processes that have been described in the different divisions at WFP and some of its units within the two divisions targeted, it is possible to draw a simpler common process from all of them (figure 4).

3.3 Common buying process

![Diagram of the Common Buying Process]

**Figure 4 - The Common Buying Process**

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3.3.1 Sourcing

Each WFP division unit facing goods or services needs, starts by a search within a short list of supplier available. Sourcing can be a problem not only because when the supplier’s base is large and fragmented it becomes difficult to send requests to everyone of them, but also because that supplier short list is up-dated once every year or six months, leaving many potential interesting participants out of the tender process. A solution that aggregates searchable suppliers would be very useful because it would decrease search costs for WFP as a global buyer and would give suppliers access to a panoply of potential contracts with WFP. It would be up to the supplier to subscribe to the WFP new
companies base, fill in the standard WFP questionnaire for the unit’s service posted on the Internet, and eventually enhance its characteristics, if necessary, in order to qualify for the short list of suppliers. This part of the buying process must also be viewed briefly from the supplier side as the latter has to take into consideration issues such as: its production schedule, throughput capacity, timing requirements, warehouse and inventory capacity and ability to mark all WFP bags.

3.3.2 Ordering

The ordering process involves further negotiation and placing the orders once the right commodity or service supplier has been selected.

1. Internal workflow cost to get a purchase order approved and,

2. Transaction cost to place the order.

These costs include negotiations on factors such as price and conditions that, as mentioned previously, vary depending on the WFP unit.

Both costs mentioned were not measured for any of the divisions or units studied in this research. Instead companies of similar transaction volume will be targeted to draw cost per transaction on a traditional system and on a e-based system.

3.3.3 Fulfillment

The fulfillment process part consists of getting the purchased product to the beneficiary, the transport service from origin to destination, finishing a maintenance project or
providing central operation coordination in-land for example. At this point visibility of the supply chain allows the buyer to better manage the whole inventory pipeline.

### 3.3.4 Replenishment

Country offices, often re-order the same product many times. One could assume that the replenishment process would tend to require less time and paperwork because the product as already been identified and a supplier has already been found. However, all constraints mentioned through the detailed process description, need to be taken into consideration (not only impositions from donors, but also because the opportunities for ocean transport and commodities are a function of market circumstances) and represent a second step to distribution of food commodities.

Having divided the buying process in such a manner, this study should present best practices within commercial firms and U.S. government agencies that will allow WFP to streamline the sourcing and ordering parts of that global buyer. This discussion will be presented in Chapter Four.

The reader should have in mind that whatever electronic-based procurement process may be suggested, there are some procurement functionalities common to all WFP units that are important to be considered. Therefore, a thought should be given for which transactions, which search processes for suppliers and other supply chain practices make sense to introduce and align with the WFP strategy and policy.
In terms of suppliers it would be interesting to have a system that allows for creation of supplier records and maintain them; evaluating suppliers; qualification of suppliers and maintaining price records and reports. In terms of information through interfaces among the several divisions involved in the process, the ability of maintaining a price list, product record, price estimation and reports would certainly be advantageous permitting accuracy and transparency. Finally the purchasing part itself, where creation and eventual modification of purchase request is obvious along with fund availability, approval and dispatch requests. Creation of tenders; selection of suppliers; approval of tenders; submission of tenders; evaluation of tenders responses and; the ability to report on this tender process should be a characteristic of a proposed system. To close the cycle, creating a contract, create a purchase order or having the ability to modify those and again approve them, close orders and send to payment unit are the main functions that a procurement system must be able to perform.¹⁸ Which external and internal transactions should be performed by an electronic system is a discussion held in Chapter Four.


“…when evaluating eProcurement solutions, there are many considerations beyond choosing the right software. As you transform your procurement function, you have to make sure that your suppliers are capable of supporting your new procurement model.”

¹⁸ According to the Coopers and Lybrand Practice, 1998
Chapter Four: Recommendation and Conceptualization of the WFP System

An integration of the interviews in WFP, commercial firms and US government agencies with the literature review is presented in this Chapter.

Analyzing the operating costs 1998/99 WFP (annex C) spent 47% in commodity, 36% in transport, 8% in direct support, 7% in indirect support and, 2% in other operating cost from $2.2B. From a total direct operating cost of $1.034B worth of commodities, only $230M of food and $80M non-food are bought by the WFP in the market; the remainder commodity amount valued at $724 is supported by donors. $792M is spent on transport from which 98% are services bought by WFP directly.

The above analysis points out from a total operating cost of $2.2B, there is a business with WFP worth $1.086B19 per year in transactions. Considering this value, the following question rises: should WFP set up their own exchange and profit from its cost reduction benefits?

4.1 The Recommendation

The recommendation is a construction of a private virtual market place20 that enables approved suppliers to bid on a large buyers business and enables more cost effective transactions under negotiated terms.

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19 ($230M+$80M+$776M=$1.086B)
20 Definition from NetMarketMakers.com/glossary
4.2 Conceptualizing a system

In order to be successfully deployed on an organization-wide basis, an e-procurement application must be simple enough to use so that all staff can easily access the system, locate required resources, and create a requisition quickly. That is specially important for indirect or MROs, so that not only purchasing professionals or highly trained experts can effectively use the system.

Despite the fact that professionals will always be needed not only for negotiation, but also for judgment of terms and conditions in direct items and contracts, the choice of a system is very important as mentioned by one of the prominent e-procurement companies.

“...Other applications come with unique and cumbersome user interfaces that rely on “wizards” to make navigation more manageable. Still others are built on technologies like client-side Java and, as a result, cannot be easily deployed throughout an enterprise”. [11]

The ability to support multiple buying offices within a single instance is an absolutely critical attribute for an e-procurement solution, if the organization is to truly deploy that solution including country offices. Currently, as mentioned in the process description in Chapter Three, country offices issue non-food item tenders to suppliers separately from the other CO and head quarters eventhought some of the suppliers are common. That means that some of the WFP buyer power is not being used to obtain better prices through larger orders.
From the above mentioned, it might be clear to the reader the existence of a great opportunity for consolidation for all offices orders through a virtual mechanism that coordinates the buying function. Such a solution would not only provide better prices, but also allow for better knowledge when negotiating with suppliers as information on what was bought in the past can be aggregated in one system.

The design of such a system must be aligned with the organization strategic position towards their suppliers; therefore, at this point it is important to refer to some concerns. There is a need to allocate levels of access to certain information. For example, suppliers should not be allowed to see who won the bid or the bids of others. Auctions are not being considered because cooperation with suppliers is a must and eventual coordination of a group of them is often necessary. Still the quantity of items ordered is not always known; when WFP issues a tender, often the number of items increases with time. From the above, trust is a must that needs to be kept in relationships with suppliers, because if people commit and then do not stick to their promise, a substantial amount of time and money may be lost.

There is an underlying assumption related to payment terms accepted by suppliers as opposed to just credit cards, as WFP uses the former payment solution.
4.2.1 Functions Currently Available in the Market

Currently most of the e-procurement providers available in the market offer a comprehensive procurement process from the request function to payment and reporting. These systems design allow for 8 basic functions:

(1) Selection of goods and services through a content program previously approved by the buyer organization, that makes products and services available to employees online. There are several ways employees can acquire the WFP-managed content. Both directly from an existing catalogue and off-catalogue (one time purchase) services and round trip services for ordering or configuring items from a supplier web site are available. Those include functions such as:

- easy navigation through commodity tree
- restricted access based on a user's profile such as commodity and supplier restrictions
- bookmarking of frequently ordered items as favorites
- specification of supplier description and other features about the desired item
- bring selected items into a buysite for automatic addition to a requisition.

(2) Creation and management of requisitions. Build a requisition with items selected from any of the search techniques described previously. It allows employees to create requisitions with the latest item information from suppliers. The buyer is provided with sourcing, tracking and managing requisitions. Some of the publicized features include: real-time connectivity to suppliers in order to check availability; attachments
for conveying more detailed information such as custom work and terms and conditions\textsuperscript{23} - with a purchase order to a supplier; accurate tax calculations if applicable; price comparison capability for some products across supplier inventories; personal requisitions; global requisitions template to help buyers publish standards for orders from all organization and; ability to cancel or change requisitions that have been submitted.

(3) Approvals. The system enables the organization to model the internal approval processes for control. Currently WFP uses the committee meeting mechanism, that is time consuming. The engine would include: (1) information such as spending limit, commodity, cost center and, supplier that can be triggered to set up a requisition. (2) the ability for a requisitioner to view the approvals through a graphical workflow map, that would need to be performed on a requisition prior to submission. (3) E-mail notification at any stage in the approval process. (4) the ability to assign reviewers who can be cc’ed on the requisition. (5) automatic removal from the approval inbox if a requisition has been canceled or rejected by one of its approvers.

(4) Creation of a purchase order. Upon approval of the requisition, purchase orders (PO) are automatically created and sent to the suppliers for fulfillment. This capability of routing PO directly to suppliers, releases the purchasing staff to concentrate on other work such as on negotiation with suppliers. The system would allow PO to be sent via fax, e-mail or XML transactions.

\textsuperscript{21} Such as: Ariba, Commerce One, Clarus, Concur, Elcom, Iprocure, MRO.com, Works.com or Right Works (Competitive profile comparison is included in annex D).
\textsuperscript{22} Designation used by Commerce One.
(5) Check status of requisitions and purchase orders by accessing “status” screens from the home page.

(6) Receiving. Either centralized at a supply dock or receiving goods and services at employees’ desks are options that can be configured to the system depending on the organizations’ needs.

(7) Payment initiation and reconciliation. This includes configuring specific payment types and terms, such as invoice and procurement card, for suppliers or users, and indicating this information on the purchase order. The payment information is passed to suppliers via a “secure” transaction. A reconciliation logic is also built-in the system so that an invoice file from an issuing bank or supplier can be imported and automatically reconciled to the corresponding purchase order. The cost associated with manual reconciliation and payment would, therefore, be reduced.

(8) Reporting, usually indicated as one of the major benefits a global organization can expect from implementing an e-procurement system, due to the centralization of all of its spending data in one system. Ultimately this data can be used for negotiation of contracts with suppliers as it aggregates all spending.

23 For example it might be important to know whether the supplier has the ability to: (1) hold stocks for WFP; (2) deliver maintenance services; (3) time delivery; (4) deliver quality.
From point (8) one can deduce that the ability to support all the buying within a single platform is critical for an e-procurement solution if WFP is to deploy that solution all through the organization. The precedent examples were essentially MROs; however, if one thing about a service need such as a truck transportation service in Tanzania the same platform would serve the purpose. It would allow Tanzanian and the country's destination service providers to bid for the cargo transportation and eventually drive prices by increasing competition.

4.2.2 An Integrated System

Indeed, obtaining one integrated procurement system applicable to food and non-food items is doable and should be part of the design objective of the virtual platform to be architect to the WFP.

4.2.3 Other necessary system capabilities

There are other capabilities that should be incorporated in the system. The ability to manage a suppliers list where information on past performance, capabilities and general information is included for reference. WFP staff and officers use a short list of suppliers for every division, which is up-dated every six months or one year. If a questionnaire for supplier qualification were to be published on the web, WFP could retrieve this

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24 When international truck movement are concerned, regulations only permits carriers from both the country of cargo origin and destination to compete for a service, the other service providers from adjacent countries are prohibited to compete for this service.

25 This observation implies that suppliers and service providers are linked to the internet, which is not always a reality in some of the countries at which WFP operates. For service providers the internet link could become one of the requisites to qualify for a short list of WFP cargo service providers. In terms of food items, exceptions to the rule would need to be made in order to comply with WFP and UN policies and regulations on giving priority to certain developing project countries’ suppliers to fulfill an order for example.
information every so often and allow more companies on a global basis to be considered for WFP services. This idea is very much aligned with the WFP and UN policy on allowing companies from the whole globe to compete to deliver the good or service, by having access to the posted information. One of the OTL officers referred to this idea saying:

"Everything that can be employed to improve the short list, so that some air operators all over the world could know and participate in the bidding, would be very useful for WFP".

Maintain tender history is also a must, providing that the system already enables the whole tendering process from preparation to final quotation. Tracking WFP reference prices and post-purchase activities are other capabilities that should, as mentioned, be managed electronically in an automated form.

An example within food procurement will be used to give detailed information on what the system should be able to do: when there is a need to buy wheat, there are 200 suppliers of the commodity available to compete; however only 15 shall be considered and eventually invited to tender depending on the criteria price, speed and quality. From these 15 potential suppliers, 5 are left aside due to donor constraints that WFP must take into consideration. From the 10 potential suppliers left and knowing that the wheat's final destination is North Africa for example, then it makes sense to filter through the suppliers that are nearest to that destination and that have a certain specification of wheat. The real list of potential suppliers is then reduced to 8 suppliers for three different kinds of wheat.

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26 An example of questionnaire for aircraft operators is given in Annex E.
from five countries. The proposed WFP system must be able to do that sort, i.e. include this judgment in the process while filtering the suppliers from an up-to-dated short list. The example given above shows how some intelligence on the process and the market should be built in the system. Yet other functionality to be added to the WFP system should include the ability to recognize which alternative products might that country office in North Africa accept, combine it with transport cost from origin to destination, quality, pricing and time for delivery.

At this point the reader could argue that having such a system in place would imply losing the art of having the feeling for the market that changes everyday. Traders need this capacity – they time their purchases for when it is less expensive; but WFP is not a trader, WFP is a global buyer.

From the previous comment it is clear that while conceptualizing a platform for WFP, there is a trade-off between constructing a very simple system based upon price and dealing with very subjective features such as performance or delivery time. Designing the market capabilities to suit the kind of services and commodities WFP buys is not obvious as some of the non-specificity must be considered. As an example, a portion of food aid donated by the US must be carried on US-flag ships, so this constraint must be taken into consideration.

A system where goods and services needed by WFP are published on the internet can reach suppliers and service providers internationally. Equality to access information is
enabled as opposed to preference to certain providers. Advertising a cargo in the market and explaining what channels are available to place the bids brings some transparency to the private virtual market. All potential suppliers and service providers should be able to see the invitation posted by WFP; however, only the pre-qualified ones would have a password to enable them to bid.

At this point the reader must be aware of the fact that bids should not be seen by competitors, i.e. the virtual market place must be coded in such a manner that does not allow players involved in the bidding process to see each other’s bids. The reason for this is due to the fact that all relationships with ship-owners are critical.

Again the system must have the negotiation ability elements that can be exercised if needed.

4.2.4 Justification for the procurement capabilities

Building a unique virtual platform would allow to get rid of the current procurement process weaknesses while maintaining the current best practices.

It is important to give a password to the firms WFP wants to work with, i.e. after the pre-qualification process has taken place. In this business it is very valuable to know the people with whom you do business with. In fact background information, banking information and the ability to know whether the bidder has a strong financial background
or can be relied upon is crucial; therefore, a password is necessary to enter the bidding process.

Let us discuss concrete improvements as to some of the process’ procedures described in Chapter Three through a one solution to cover all of the transactions for procurement needs.

For non-food procurement for example, there were no procedures in place for selecting vendors which slow down the process. Maintenance of the vendors’ short list should allow more vendors to compete. A new system that provides standard contracts where possible, allows speeding up of the contract finalization process.

Within the Logistics Services units, the virtual platform would help design, obtain the tools to create and implement special intervention projects to overcome bottlenecks on the delivery chain in the fields by matching suppliers to a project faster from any geographical location. To fulfill the “preparedness” OTL function, the virtual platform would not only help reduce transactional costs, but also facilitate some stand-by arrangements by placing the orders on the mentioned platform. The platform could eventually contain some satellite imagery maps to help flight operations. Once again, having a short list of suppliers with the ability of integrating new suppliers (after they fill in a standard questionnaire published online) would also enhance the logistics capacity assessment. This function is mainly focused on road network, warehouse, ports, transport market and location of bridges.
For overland and inter-country transportation arrangements for example, there is no
database on port handling or storage costs or landside transport cost in the different
countries. The power of an electronic system where this information is handled relies on
the possibility of storing all information in a database. The same is applicable to access to
up-to-date information on the performance and reliability of forwarding agents.
Information on shipments chartered and charters arriving at different countries would be
available online, giving OTL and CO sufficient time for planning land transportation, as
that interface with OTL is not 100% reliable as OTL and CO are sometimes notified too
late of upcoming shipments or status of purchases and corresponding requirements for
overland and internal transport. Overall a one-point system would improve
communication with the CO and provide them with direct on-line access to transport
information from the time the shipping instruction is issued to the point food is delivered.
For air transportation, contracts in which some projects involve management of 12
airplanes and a budget of approximately $8 million per month, a virtual platform through
which contracts are made, would allow WFP to keep a database of invoice payments,
history of contracts, flight hours, fuel, tonnage delivered and costs per aircraft and
operations. Each WFP unit requires different features that should be incorporated and
standardized in the system.

This system should allow the integration with a number of back-office and ERP systems,
as it will soon be implemented at WFP27.
The tender process is done by fax, i.e. tenders are issued by fax and received by fax. Currently some of the units are trying to pass the necessary documents through e-mail, which is not necessarily a faster process. The virtual private platform would allow sending tenders to as many locations as configured with one mouse click.

Transparency, integrity and competence are the three elements laid out by donors to WFP. To foment transparency, the current WFP procurement process is delayed as transparency is mainly achieved by committee meetings, that are time consuming. Let us mention an example in which the benefits of the virtual private market as a time reducing mechanism are clear.

The food tender process takes six days distributed as follows:

- Two hours used to issue a formal written tender to supplier
- Five days for supplier to receive tender (usually sent out on Thursday or Friday and offers collected on Tuesday or Wednesday)
- Ten hours for the offer to be received by the internal auditor in a locked room and eventual transfer of offers to the procurement division
- One to one and a half hours needed to analyze the offer visually aggregated and presented in a spreadsheet, to take shipping unit and logistics and to call a meeting in which a committee, disinterested in the transaction, makes recommendations on what to buy or contract.

27 SAP will in the future be integrated throughout WFP head quarters.
The above are average time values. The tender process may take as little as 18 hours to complete or four weeks, depending on the emergency of the mater. How can the virtual private market overcome this ambiguity, might wonder the reader. The tender process in which WFP decides to buy, issues a tender, receives offers, selects a winner and authorization is given by HQ should only be time dependent on the deadline set up for bidders to respond, that is per se defined by WFP as all the other steps can be standardized and, therefore, executed quicker. There is no reason not to achieve at least the 18 hour constant process or possibly reduce it to a three hour process, eliminating the locked room step and internal audit (since the system is per se transparent) as well as the committee meeting. The system would, therefore, provide at least a 126 hour reduction to complete the process.

This substantial process time reduction made possible through a virtual market platform was also mentioned at the Military Traffic Management Command and Matson Navigation Co., where the system in place permitted a 678% reduction in time:

"MTMC, Matson Test Integrated Booking System

The Military Traffic Management Command and Matson Navigation Co., a U.S.-flag carrier, have successfully tested a system designed to speed overseas defense cargo movements by automating the ocean carriers’ respond to cargo offers."
In a test initiated in February by MTMC’s Defense Support Command and Matson, the Integrated Booking System reduced cargo booking turnaround times from as much as a day or more to a median carrier response time of 1 hour and 30 minutes, the MTMC said.

Overall time to book automated requests, from receipt in the IBS to delivery of a booking number to the customer, dropped from 39 hours to 5 hours and 45 minutes.

The MTMC said planned software changes will reduce processing times on IBS by relieving bottlenecks in the automation pipeline and permit simultaneous processing of multiple cargo booking requests to and from ocean carriers used by the military.28

For example while arranging charter shipping, the head quarters requires two recaps. Brokers should submit fixture recaps back to WFP. Currently it can be difficult to locate that information as the process is not yet done electronically. The new system would allow for that information to be captured automatically into WFP’s system and notification to be sent again automatically to all short listed parties once the mentioned recap has been reviewed and approved. Along the same lines, all information exchange with brokers, agents or other trading partners enabled by a private virtual platform would automatically input in the system avoiding any re-keying of information.

As a commercial benchmark, and although they are different from the virtual private platform that is being proposed for WFP, GoCargo.com, Celarix.com, FreightGate.com

28 Source: Shippers NewsWire ShipperNewsWire@Shippers.com, April 17th, 2000
and ClickMarine.com will be given as examples of online existing exchanges or more accurately defined as net markets.

4.3 Examples

4.3.1 ClickMarine.com

ClickMarine.com is an online ship chartering exchange that shall start operations. It is announced as the only market place with full transaction capability in which are included: ship/cargo searching and matching; negotiation and fixing; charter party completion and; all content necessary to enable a chartering transaction. This firm presents several screens in which general information, transactions, ship details and passwords are introduced and enable the user to continue to the next screen. Screen such as “ships bidding for a cargo” or “negotiation screen” allow the transaction to be processed electronically. This firm included as benefits: 20 to 40% lower costs chartering, faster fixing, empowerment given access to information to more information and increased confidentiality as the system allows the control of who knows about the cargoes and positions.

4.3.2 GoCargo.com

GoCargo.com is an exchange service. The firm provides competitive prices to shippers. GoCargo.com shipper customers enter their shipment profile into the system (which includes shipment size, type of goods, point of origin, point of destination and preferred delivery time) and then allows shippers to choose among winning bids entered by carriers. Shippers enjoy complete transparency to carriers’ identities and prices.

[17]
Carriers benefit from the opportunity to compete based on brand name, specialization and past relationships. GoCargo.com is a free service to the shipper, but the carrier must pay.

GoCargo.com focuses on the spot market for marine cargo capacity and for longer-term contracts. The combination of GoCargo.com’s spot market services with contract services is powerful as it gives shippers a heretofore unavailable way to attract and review a large number of bids from carriers in a time-efficient manner.

Players are given a personal and secure password to log on at any time to create an auction for a new shipment, review their active auctions or accept the bid that’s best for them.

This firm’s system allows players to optimize their sales strategy by targeting the shipments that are most profitable for their business.

4.3.3 eraterequest.com

(e)raterequest, like GoCargo, operates an online exchange. It is focused on providing the lowest rates for shippers through an auction. For example, a shipper can specify the price it wishes to pay for a given shipment, and within 24 hours, (e)raterequest will deliver the contact information of the lowest-cost carrier. Note that shippers using the (e)raterequest service cannot view the two or three lowest bids submitted for their request; they can only view the lowest rate, and are totally blind to the identities and prices of other bidders. (e)raterequest is a free service to the shipper, but the carrier must pay.
raterequest focuses on the spot market for marine cargo capacity where quality is not an issue.

4.3.4 FreightGate.com

FreightGate.com was the first to enter the online maritime cargo space in March 1999. FreightGate initially launched as a transportation portal, seeking to build a broad user base of shippers and carriers with information services, transport tools and news. Today FreightGate.com has its online exchange for carriers and shippers.

FreightGate.com’s portal includes: a business directory of shippers and carriers; a shipment tracking utility; shipping schedules; news and chat; detailed rate sheets; updates on the regulatory environment; a reference guide which includes port and ISO codes; and a currency, volume and weight conversion calculator.

FreightGate.com requires that shippers enter their requests at a preferred price, and then allows carriers to review the bids. Carriers then pay an undisclosed percent of the total bid price to the firm. In addition, FreightGate.com generates revenues from banner ads.

4.3.5 Celarix.com

Celarix.com provides a marketplace, iExchange, on which carriers and shippers can link. Shippers can submit requests for container space at a given price and then review several offers proposed by carriers. Like GoCargo.com, Celarix.com is careful to underscore that
iExchange is not an auction, as it discloses the identity and bid of several carriers, thus giving full choice to shippers while allowing carriers to compete on more than price. Celarix.com also allows shippers to request bids only from certain preferred carriers as opposed to making their request accessible to all relevant carriers. Celarix.com does not charge for its iExchange service.

Celarix.com has a special product: iSuite is a supply-chain management system that manages the information flow attendant with all maritime cargo shipments. This information is extremely valuable to service-intensive retailers and other shippers who are working to increase inventory turns, manage retail stock and meet seasonal shipping needs.

Celarix.com markets iSuite directly to a major shipper and then uses the shipper’s leverage and embedded relationships with carriers and other supply-chain participants to drive the Celarix.com methodology into the entire supply chain.

For shippers, the Celarix.com Marketplace offers a secure, vendor-neutral environment to buy transportation services online, lowering costs and reducing the inefficiencies of traditional manual processes. Instant, one-to-many communication allows shippers to negotiate privately with vendors of choice, or openly with all providers in the Celarix.com network - on the spot or for the long-term.

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30 Still according to George J. Dennis et al [3]
This firm provides the tools for the carriers to capitalize on the e-commerce revolution. Target communications to specific trading partners in private negotiations, or offer excess space to the entire marketplace: carriers pick the audience. Negotiate annual contracts or create short-term, spot contracts quickly using the pricing and workflow tools. By leveraging the speed and efficiency of the Internet, service providers can lower operating costs, improve customer service and attract new business.

4.3.6 e-transport.com

E-Transport.com is an online transportation exchange. Buyers and sellers of transportation services can conduct their business electronically. e-transport.com offers a two-sided business model the so called "neutral switching station". E-Transport.com allows each end of the link to use their preferred data format and their preferred transmission means - whether EDI, XML, custom flat file, or JDBC. That means that once tied into e-transport’s network, the players can continue mapping data and using the same business process that they have been using. In this model, shippers and carriers can electronically negotiate service contracts or spot rates, and database that information. They can use the firm’s browser to enter shipment details, book cargo, generate documentation, rate and audit bills, and track their shipments.

The Celarix.com iExchange presented above is an approximation to the system WFP should architect, as it allows both bidders, previously selected and incorporated in a short
list, to present their tenders, and the WFP units to view all competing options and choose the one that is most suited for the circumstance, whatever the criteria may be\textsuperscript{31}.

Yet another example, the FEBEES, introduces one very important feature that should be part of the WFP system: the ability to match the commodity with its correspondent transport to its destination in one step, allowing for the goods and its freight to be tendered and coordinated in a unique platform.

\section*{4.3.7 FEBEES}

An example from the U.S. Agency of International Development transportation office State Department, denominated FEBEES (Freight Electronic Bid Entry & Evaluation).

The main purpose of FEBEES is to standardize and automate the receipt and analysis of carrier ocean freight bids. The recipient faced with freight and commodities requirements, issues tenders to both commodity and freight suppliers and the system analyses the bids and gives the lowest cost option. This so called conference system consists of eighteen different screens that have to be filled by the carrier once his profile is pre-approved to be short listed. Each one of them receives a password necessary to access the system.

Once the recipient sends their freight tenders to the outside market, carriers are able to view the entire invitation or can select a certain range by destination. The data required for input into the system is:

\textsuperscript{31} Price, prior performance etc.
This system also allows carriers to input minimum or maximum tonnage requirements and additional charges for extra load or discharge ports.

Once bidders complete all the screens and send over the web before a set deadline, the freight forwarders will have three days to evaluate the bids to see if they meet all requirements. The system allows for discussion and changes if required and the owner of the system can amend the bid. The FEBEES does not allow for further discussion of rates though.

The FEBEES system eliminates one of the steps of the process as it matches the suppliers commodity bids with the Ocean freight bids and outputs the lowest cost obtained. Prior to this system the Ocean carrier had to bid twice and the business needed to find where to buy the commodities based on where they are purchased, and then one week later, buy the freight. Mr. Bob Goldman, at The State Department from the Agency of International Development, emphasizes that the elimination of one step towards a one step-only system will lower cost and contribute to the integrity of the procurement process.

**Brief description of FEBEES**

The set of 18 screens starts by welcoming to the FEBEES system and then allows:
1. for characterization of carrier and vessel;
2. to view invitation and select the trade route;
3. to show processed commodity invitation;
4. selection of load port;
5. to select invitation and new bid;
6. to edit bid;
7. to select bid parameters;
8. to select bid price;
9. for load port premium and capacity constraints;
10. for load port call count;
11. to discharge port and count;
12. volume premium;
13. transshipment and;
14. steamship bid log.

4.3.8 Discussion

Would systems such as this one make sense for WFP?

To a certain extent, some of the transactions\textsuperscript{32} described in Chapter Three could be transported into such a format. However some negotiation capabilities would have to be introduced before acceptance and eventual purchase. Throughout the commodity procurement process to the charter vessel transportation and other contract units,

\textsuperscript{32} Specially in the OTS division
negotiation in several stages is of benefit to the WFP. Therefore negotiation (specially the last negotiation) should be enabled through the architected system.

Choosing the right system can, according to Charles Waltner in “Procurement Pays Off”, be:

“...difficult and confusing because these systems currently available include software applications, services and hybrids of the two. Some are designed for specific industries or product categories, while others are more generic. And fee structures include license payments, monthly charges, and transaction fees.”

These comments bring us to brief discussion on how to obtain the software. WFP can either build its own system like the US government agency is doing with FEBEES or outsource these services. Given the policy and responsibilities of such a system the issue of ownership is important in this case and WFP should own such a virtual private system.

4.4 Cost of Existing Applications

As far as investments in e-procurement applications are concerned, Erica Rugullies, a research director at Giga Information Group, says the software licenses for these tools run $1,000 to 10,000 on the low end from such vendors as Trilogy Software Inc.; $70,000 to 300,000 for midrange deployments from such vendors as Concur technologies Inc. And Clams Corp.; and $500,000 to $4 million for high-end e-procurement software from such vendors Ariba Inc. And Commerce One Inc.
A list as well as a competitive profile of e-procurement companies are enclosed in Annex D.

4.5 Change Management Considerations

To finalize Chapter Four some crucial issues must be taken into consideration relative to all the benefits enabled by a virtual private market.

According to Nowikow Conrad, in his article “Revolution, or e-volution” [8] the importance of a good prior negotiation to sustain the technology improvements is essential.

“E-procurement is only a tool, it is not a panacea of bad contracts, and the change management challenges should not be underestimated”.

While referring to MROs, the same author alerts to the necessary careful management of change:

“Unlike most IT systems, which have small user basis, e-procurement brings wholesale change. In a procurement department, it will be a large change for a small group as staff shift from administration to supplier management. For the rest of the company, it will be a small change for a large group as anyone buying indirect goods will have to start using a web browser instead of a fax and telephone. But don’t underestimate this – changing
user behavior is crucial since, however good the contracts might be, results will not be seen if they are not used.”
Chapter Five: Conclusions

In the last Chapter conclusions are drawn and an explanation of the benefits and recommendations about a possible change in the current practice is provided.

The question of building a virtual market platform for WFP transactions is per se valid given the substantial number of necessary transactions and dialogues in the nature of the business. From a US$2.2 billion total direct operating cost, 49.1% consists of commodity and transport costs directly bought or contracted by WFP in the market. Leveraging the Internet to gain a closer alignment with suppliers and country offices, to integrate the supply chain, and to take advantage of the possibility of reducing transaction costs is an opportunity a virtual platform can facilitate. Therefore, embracing the change is an interesting option, as a 10% to 15% cost reduction is the conservative estimated impact on the transaction cost incurred by WFP.

WFP has in place a process evaluation in which the management services division in headquarters may, from time to time, conduct procurement evaluations in selected regional clusters and country offices. The purpose of a process evaluation is to report some strengths and weaknesses of the procurement and logistics function in the office and to make a recommendation. The author recommends using this procedure to look at the procurement function globally, i.e. including headquarter and country offices and strengthen the procurement function by aggregating needs, consolidating them on a virtual base, so that some economies of scale, and eventually better rates from suppliers, can be gained.
According to Bob Lenn, the Co-founder of Ariba Inc., this constant adaptation to rapidly changing competitive landscapes is providing what he called "60-60 relationships", where both suppliers and buyers believe they are getting the better deal.

The benefits of a virtual market would not only have a cost reduction impact, but also enable the organization to augment responsiveness in some divisions' units, by shortening the procurement process for most of the WFP units studied by approximately four days on a regular basis.

Finally, instead of four main brokers that choose the carrier they are going to give the freight to, the decision can be made in house knowing that the cargo is being allocated to the most cost-effective carrier that participated in the bid on a world wide basis.

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34 US$1.08 billion
6 Bibliography


7 Annexes
7.1 Annex A – Brief Explanation on Different types of Solicitation
(Source: WFP)

7.1.1 Request for Quotation
A request for quotation is an informal written or oral solicitation commonly used for low value procurement. RFQs can be used the competitive purchase of goods not exceeding $20K at HQ, and $5K in regional or country offices, when prices for catalogue items or goods readily available on the market are requested or requirements and technical specifications are very clear and precise.

Quotations are always awarded on the basis of the “lowest price, most technically acceptable” evaluation concept, and without discussions with the suppliers/vendors. The deciding factor in determining whether to use a Request For Quotation or a Request For Order is to ask the question: are discussions with suppliers anticipated?

7.1.2 Invitation to Bid
An Invitation To Bid (ITB) is a formal solicitation document commonly used for the competitive purchase of goods exceeding $20K at HQ and $5K in regional or country offices, when technical specifications are very clear and precise and WFP staff know exactly what the requirements are.

7.1.3 Request for Proposal
A Request For Proposal (RFP) is used in competitive and direct procurement of goods and services which are likely to require discussions between WFP the right to enter into discussions with one or more suppliers. Although WFP reserves the right to award without discussion when using RFP mode of solicitation, it is rare an award to be made without WFP entering into discussions.
7.2 Annex B – Current System technical Architecture

Source: WFP
7.3 Annex C – Chart of Direct Operating Costs 1998/99

- Indirect Support Cost: 7%
- Direct Support Cost: 8%
- Other Operational costs: 2%
- Commodity Cost: 47%
- Transport Cost: 36%
7.4 Annex D – A competitive Profile comparison between e-procurement providers

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Source: Stephen (it:)

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<td>Supplier-managed</td>
<td>Hub-and-spoke</td>
<td>43 for MRO.com, 75,000 Licensed Users for EAM product</td>
<td>Java</td>
</tr>
<tr>
<td>Extensity</td>
<td>Travel expense reporting and management and billable time capture</td>
<td>License fee and subscription fees</td>
<td>Buyer pays license fee and optional subscription fee for marketplace access</td>
<td>Third-party and/or buyer managed</td>
<td>Hub-and-spoke via partnership with CommerceOne to resell access to MarketSite, other marketplaces pending</td>
<td>50</td>
<td>Java</td>
</tr>
<tr>
<td>works.com</td>
<td>Procurement of operating resources</td>
<td>Transaction-based service fee for each order placed and commission on goods purchased</td>
<td>Buyer pays service fee and merchant/vendor pays commission</td>
<td>managed by works.com</td>
<td>Hub-and-spoke</td>
<td>850</td>
<td>Java and C++</td>
</tr>
<tr>
<td>RightWorks</td>
<td>Procurement of operating resources</td>
<td>License fee or subscription fee for enterprise, transaction-based fee for Portals</td>
<td>Buyer Pays</td>
<td>Buyer Managed, Seller Managed, and third-party managed</td>
<td>Hub-and-spoke, and supports trading exchanges</td>
<td>7</td>
<td>Java</td>
</tr>
</tbody>
</table>

Source: StepStone Inc.
7.5 Annex E – Example of the Questionnaire for Aircraft Operators

<table>
<thead>
<tr>
<th>Annex</th>
<th>Example of the Questionnaire for Aircraft Operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>NAME OF COMPANY:</strong> ____________________________</td>
</tr>
<tr>
<td>2.</td>
<td><strong>ADDRESS OF HEAD OFFICE:</strong> ______________________</td>
</tr>
<tr>
<td>3.</td>
<td><strong>TELEPHONE NO. OF HEAD OFFICE:</strong> ________________</td>
</tr>
<tr>
<td>4.</td>
<td><strong>FAX NO. OF HEAD OFFICE:</strong> _______________________</td>
</tr>
<tr>
<td>5.</td>
<td><strong>TELEX NO. OF HEAD OFFICE:</strong> ____________________</td>
</tr>
<tr>
<td>6.</td>
<td><strong>PLACE AND DATE OF INCORPORATION:</strong> ____________</td>
</tr>
<tr>
<td>7.</td>
<td><strong>DATE OF COMMENCEMENT OF BUSINESS ACTIVITY:</strong> ___</td>
</tr>
<tr>
<td>8.</td>
<td><strong>PAID UP CAPITAL AS OF 31 DECEMBER 1998:</strong> ______</td>
</tr>
<tr>
<td>9.</td>
<td><strong>DETAILS OF PRINCIPAL SHAREHOLDERS AS OF 31 DEC 1998</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Name</strong></td>
</tr>
<tr>
<td>10.</td>
<td><strong>SUMMARY OF YEARLY ACTIVITIES:</strong> 1998 1999</td>
</tr>
<tr>
<td></td>
<td><strong>No. of Pax:</strong> Cargo Articled: (MT)</td>
</tr>
<tr>
<td></td>
<td><strong>Area of Use:</strong> ________________</td>
</tr>
<tr>
<td></td>
<td><strong>In addition, WFP would prefer receiving the company’s financial statements for these years.</strong></td>
</tr>
<tr>
<td>11.</td>
<td><strong>NAME AND DESIGNATION OF PRINCIPAL EXECUTIVE OF COMPANY (ATTACH AN ORGANIZATION STRUCTURE.</strong></td>
</tr>
<tr>
<td>12.</td>
<td><strong>PRINCIPAL ACTIVITY OF COMPANY (TRADING, TRANSPORTATION, FREIGHT, FORWARDING, SHIPPING AGENCY ETC.)</strong></td>
</tr>
<tr>
<td>13.</td>
<td><strong>NAME AND ADDRESS OF YOUR PRINCIPAL BANKS (PLEASE PROVIDE LETTER OF SUPPORT FROM BANK ON FINANCIAL STATUS AND CREDIBILITY OF YOUR COMPANY)</strong></td>
</tr>
<tr>
<td>14.</td>
<td><strong>NUMBER OF FULL-TIME STAFF IN HEAD OFFICE:</strong> ______</td>
</tr>
<tr>
<td>15.</td>
<td><strong>OTHER OFFICES:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Country</strong></td>
</tr>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>16.</td>
<td><strong>LIST FIVE MAJOR CLIENTS IN 1997 AND 1998:</strong> ______</td>
</tr>
<tr>
<td></td>
<td>1.</td>
</tr>
<tr>
<td></td>
<td>2.</td>
</tr>
<tr>
<td></td>
<td>3.</td>
</tr>
<tr>
<td></td>
<td>4.</td>
</tr>
<tr>
<td></td>
<td>5.</td>
</tr>
</tbody>
</table>

**17. NUMBER AND TYPE OF AIRCRAFT OWNED:** |
| A. | B. | C. |

**18. NAMES AND LEVEL OF EXPERIENCE OF FLIGHT CREW:** |
<table>
<thead>
<tr>
<th>Name</th>
<th>Command</th>
<th>Time in std.</th>
<th>Type</th>
<th>License</th>
<th>Cert. CAA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
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<tr>
<td>4.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**19. OPERATORS USUALLY SUBCONTRACTED/SUBLEASED:** |
| **NAME OF FIRST OPERATOR** |
| **NUMBER AND TYPE OF AIRCRAFT OWNED** A. | B. | C. | D. |
| **NAME OF SECOND OPERATOR** |
| **NUMBER AND TYPE OF AIRCRAFT OWNED** A. | B. | C. | D. |
| **NAME OF THIRD OPERATOR** |
| **NUMBER AND TYPE OF AIRCRAFT OWNED** A. | B. | C. | D. |

**20. IF YOUR COMPANY LICENSED TO CARRY OUT CUSTOMS AND AIRPORT CLEARANCES OF CARGO? YES/NO** |
| IF NO, PLEASE STATE NAME AND RELATIONship OF COMPANY THAT PERFORMS THESE FUNCTIONS ON YOUR BEHALF. |
| IF YES, PLEASE PROVIDE RELEVANT DOCUMENTATION. |

**21. DO YOU HAVE LEGAL LIABILITY INSURANCE? YES/NO** |
| IF YES, PLEASE GIVE DETAILS OF COVER. |

**22. DO YOU HAVE INSURANCE COVER FOR PASSENGERS AND GOODS BEING AIRLIFTED BY YOUR OR SUBLEASED AIRCRAFT? YES/NO** |
| IF YES, PLEASE GIVE DETAILS OF COVER. |

**23. ARE YOU CURRENTLY INVOLVED, OR HAVE BEEN GIVEN NOTICE OF INVOLVEMENT, IN ANY LEGAL ACTION INVOLVING A SUM IN EXCESS OF USD 10,000.00? YES/NO** |

**1 HEREBY CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE TO THE BEST OF MY KNOWLEDGE AND I AGREE THAT FURTHER DOCUMENTARY PROOF WILL BE PROVIDED IF REQUIRED.** |

**SIGNATURE:** ____________________________ |
| **NAME IN FULL:** ____________________________ |
| **DESIGNATION:** ____________________________ |
| **DATE:** ________________ |
7.6 Annex F – The Great Lakes Region Map: Major Transport Corridors For Emergency Operations
7.7 Annex G – List of Interviewed Officers and Staff at WFP, that generously shared their Knowledge

Chris Nikoi
Ramiro Lopes da Silva
Pierro Terranera
Dierk Stegen
Treena Huang
Bill Hart
Gil Breuil
Jeffrey Marzilli
Christopher Huddart
Raili Reini
David Katruud
Lena Mendonca
Francesca Caponera
Pravene Agrawal
Yoop Mankield
Michael Mercaddo
Jack Nkemba
Mie Kataoka
Barbara Van Logchem