Chapter 33 HIV/AIDS Humanitarian Supply Chain Management: The Case of Zimbabwe

Talent Tatenda Chingono and Charles Mbohwa

33.1 Introduction

The Supply of Medicines and related commodities is the key to any successful health system, this insures the availability of essential commodities and equipment to enable testing, treatment, care and support. This supply chain is governed by the government and partner NGOs [3]. Most NGOs distribute the commodities to the countries' district and provincial hospitals and clinics. Patients would then collect the drugs from these hospitals and clinics. NatPharm, a government owned parastatal, is a major enabler of this as it caters and deals primarily with the general public seeking attention at general/government facilities [15].

Literature has shown that relief humanitarian commodities are always in short supply. HIV/AIDS in Zimbabwe and its associated or related circumstances such as food shortages require humanitarian intervention. In fact, 9 out of every 10 disasters that NGOs responds to are events that may have a major impact on areas of the world, yet do not get the media attention that other natural or ma-made disasters attract [1]. The crisis in Zimbabwe is a great example. This Southern African country has seen a 32 % increase in the number of individuals who do not have enough to eat, and 2.2 million Zimbabweans representing 25 % of the rural population needed help between January and March 2014 to avoid hunger/hidden hunger. This problem is a result of drought, which has led to a poor harvest and high food prices. The country is also in the region with the highest HIV/AIDS prevalence and fatality rate, this further complicates the situation.

T.T. Chingono (⊠) · C. Mbohwa

Department of Quality and Operations Management, University of Johannesburg, Bunting Road Conbas, Auckland Park, South Africa e-mail: ttchingono@uj.ac.za

C. Mbohwa e-mail: cmbohwa@uj.ac.za

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The major objective of this study was to determine both the specific nature of the humanitarian supply chain. Analyse and identify deficiencies and problems of a humanitarian logistics and supply chain management nature that exist in Zimbabwe.

33.2 Existing Literature Relevant to the Study

Auxiliary information uncovered that scholars have mostly dwelled on coming up with strategies aimed at introducing philanthropic logistics and supply chain management to Aid organisations. These basically wanted to make their operations quicker and cheaper. These researchers include Clark and Culkin [2], Davidson [4], Näslund and Williamson [12], Thomas [17], Van Wassenhove [24], Kleindorfer and Van Wassenhove [8], Thomas and Van Wassenhove [20], Tomasini and Van Wassenhove [21], Thompson [18]. Others recommended supply chain Analytics for philanthropic logistics conversion [16] also likewise keeps tabs on the significant part about philanthropic logistics, Networks to Africa done backing to the execution of the thousand years advancement objectives. These need additionally concentrated once describing those real occasions of the philanthropic act, starting with begin to complete. They likewise summarized their accomplishments [5–8, 10, 14, 17, 18, 23, 25].

33.3 Methodology and Research Design

The research survey was conducted in Zimbabwe. Most NGOs and other Organizations with their Zimbabwean head offices for in Harare were surveyed. Participation was voluntary, allowing all willing organizations to participate in the survey [11]. This minimized the element of bias in the sample of respondents. The sampling procedure by its nature was assumed to be random. Research involved administering questionnaires, conducting interviews and meetings with the relevant managerial, supply chain or logistics staff at head offices of willing organisations to identify and document weak points in the logistics and supply chain of HIV/AIDS commodities. 150 Questionnaires were distributed and 105 responses were recorded. Secondary data was also gathered so as to identify strengths and existing capacity in the HIV and AIDS commodity management, and determine improvements required.

33.4 Results and Discussion

Supply chains were mostly managed and sustained through close partnerships with suppliers. Electronic Data Interchange (EDI), Subcontracting and the use of external suppliers were also quite popular. Very few organisations used the Vertical integration method of supply chain management.

The success of organisation in managing their supply chain was also captured. Most organisations indicated that they were often successful, 56 % made this indication. This also tends to point out that in some cases, but fewer, their supply chain was not successful in providing the much needed aid to beneficiaries in good time.

Most organisations were satisfied with their methods of supply chain management but in planning for the future, most organisations intend to start implementing third party logistics and vertical integration, this was the case for mostly for those that were not satisfied. The main advantage of the vertical integration is the increased control, to increase or reduce production, at will, so there is more supply chain coordination.

From the 105 responses recorded, more than 75 had a logistics department present and around 15 did not. Logistics is that part of the supply chain process that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customers' requirements. It is pivotal for Humanitarian organizations to have such a department which ensure goods reach their intended destination in good time. Most organizations also had a clear logistics plan. It also has advantage of quick analysis, and can incorporate the complex tradeoffs.

The major benefit that was recorded was that of flexibility and being able to predict future requirements. This helps ensure sustainability of the supply chain. Other notable benefits included better quality information and more accurate costing.

Most participants indicated that they faced a serious problem when it comes to skills shortage, vendor support and integration with customers system, but these were rather rare when compared to responses of those facing a little problem mostly in Hidden cost.

Most organisations plan to introduce the standard package of e-business as everyone is equal on this platform, when you are interacting with your clients or vendors using e-business, it is difficult for them to tell how big your business is. With a professionally developed and maintained website, any small organization can look as impressive on the Internet as the large corporations do. It is a level playing field that helps create opportunity for small organizations.

Important measures that must be promoted and implemented include closer cooperation between companies, improved information provision, better infrastructure and more funding and support amongst others.

Generally forecasting and quantification for national HIV/AIDS commodities is mostly done by the AIDS and TB Unit with assistance from Natpharm. It is normally driven by funds available for procurement and final quantities to order. This is mostly not accurate as there is no systematic process for forecasting national commodity requirements.

Government is encouraged to establish a well-defined and sustainable systematic process for forecasting and quantifying national commodity requirements. Better and more accurate forecasts will only happen when important logistics data on supplies distributed to victims is collected and reported on a routine bases.

According to the survey, the facilities resupply quantities are determined digitally through computer. Currently, most donors are using their own procurement mechanisms to bring HIV and AIDS commodities into the country. These are not well coordinated thus they impose the risks of duplication and gaps in commodities availability. It is of great importance that procurement is coordinated centrally through information sharing among different NGOs, government and donor agencies. This can be done through encouraging information sharing via the already existing Procurement and Logistics Subcommittee or via the National ARVs programme. Procurement of commodities should also be coupled with other functional members of the logistics system, including forecasting and quantification, inventory management and calculating stock status, within the pipeline at all times. Procurement was mostly driven by the availability of funds hence more funds should be made available to organisations such that risks and possibilities of stock outs and defaulting are reduced [16].

Most Organisations indicated that they did not have adequate storage space and space for future expansion. Most organisations had 24 h security guards and lock and key. In some key areas there are security cameras. Unannounced audits of High value goods especially of HIV/AIDS Commodities, normally quarterly were also noted. In store, high value goods are caged in a section of storage and in transit, truck cabins are locked.

Good handling of the goods limits loses and breaking of the stock. Good TC management in the room. Losses and theft are minimised due to the handling procedures implemented. Regular stock take for fault moving items and FIFO for stock management. Regular stock taking to reduce stock theft. Stored under recommended condition. Storeroom maintained in good tender care. In most facilities there was good security for stored and in-transit goods, some even have cameras and Bio-metric systems. To reduce expiries, the IT system is configured to pick items whose expiry is nearest. Zimbabwe seems to be doing well in terms of security and storage, but one could also note that it was over emphasised at most International organisations. The security was more like that of a military camp, with armed guards and strict procedures restricting access to responsible personnel who could assist in the survey. One could deem this an unnecessary expense. These funds should also be channelled to the humanitarian cause.

Most organisations relay and use their own facility managed transport. This also enables them to have more control of their supply chain. Most organisations do not have adequate carriers to cover a nation-wide campaign or relief programme with the average number being 5. The box plot also explains further carrier management in surveyed organisation. Most respondents had between 3 and 8 carriers. Half of the participants had less than 5 (Figs. 33.1 and 33.2).

Relief agencies most used their own fleet and it will also mostly be a truck load. No participants indicated that they use rail or ocean transport. Rail as tends to be slow and ships cannot be used as the country is landlocked.

A large number of participants indicated that most supply chains were complex and long as it need at least ten contact point from the source of aid to the victim. Reducing these would help their operations to be faster and smoother (Fig. 33.3).

Most organisations that participated in the survey agreed that Reliability was most important to improve as this will ensure that victims receives their much



Fig. 33.1 Box plot of carriers managed



Fig. 33.2 Type of transport used

needed drugs and commodities on time and every time. This also ensures that no patient defaults and becomes resistant to treatment (Fig. 33.4).

A moderate number of respondents indicated that availability is also important to improve. More than 26 supported this point, they insist that drugs should be readily available for them to distribute in time before patients default (Fig. 33.5).

Transit was also of substantial importance to some organisations. This might be through immigrations or on the road. These indicated that some immigration laws need to be modified in order for commodities to move faster. Others needed more



Fig. 33.3 Importance of improving reliability



Fig. 33.4 Importance of improving availability

carriages and some suggested that some major roads need to be maintained and repaired (Fig. 33.6).

Most organisations indicated that whenever they had received commodities from donors/source they always delivered in time. Thus they indicated that this was the least important to improve (Fig. 33.7).

More than three quarters valued the importance of improving expense above 5. This might raise some questions as one might argue that most if not all of their commodities are from donor organisations. This might be expense in relation to their day to day operational overheads and also in labour remuneration (Fig. 33.8).

Customer service/victim also must be improved greatly if the fight against the epidemic is to be won. In some instances some donors were considered to be the customer by most NGOs and they tried to meet stringent regulations in Order for them to continue receiving aid to distribute (Fig. 33.9).



Fig. 33.5 Importance of transit



Fig. 33.6 Importance of on-time delivery



Fig. 33.7 Importance of expense



Fig. 33.8 Importance of customer service



Fig. 33.9 Importance of visibility

Visibility of the supply chain also needs to be greatly improved such that managers can fully know and understand where goods are and where there are needed mostly. The goal is mainly on strengthening and improving the supply chain by providing real time data on commodities location to stakeholders, including victim/customer.

Organisations are embarking on new efforts to remain relevant and competitive in the market and find it necessary to manage their knowledge capital. Knowledge management practices are concerned with the creation, capture, handling and transfer (sharing) of knowledge held by individuals within the organisation. These activities provide extra value to the organisation in addition to its core functions, and would require involvement from an organisational wide perspective to truly deliver universal benefits. Identified Gaps:

- NGOs are more passion driven with lack of the "know how" and a need for hand-holding by more experienced organizations
- A need for capacity building for upcoming and new NGOs
- · Financial challenges, with a need to build credibility to potential funders
- There is no credible NGO platform (e.g. forum)
- The tendency of working in silo and competing instead of complementing each other's work
- Underestimation of the importance of research, and documentation

Identified opportunities

- · Experienced NPOs to mentor new and upcoming organizations
- Establishment of a regulated body without government dependence

33.5 Conclusions and Recommendations

The success of humanitarian operations is hard to measure. Economic success is the standard performance measure in the pro-profit world. For non-profit organizations this evaluation is more complex, considering difficult-to-formulate elements such as unmet need fulfilled and more tractable ones like cash flow. Keeping complete track, control and accountability of the humanitarian programs and their outcomes is challenged by the high urgency and pace of this type of operations, and time for analyzing and recording is usually tight [3].

Increased humanitarian aid is necessary, but so too is a move to a more proactive emergency approach based on a recognition of the severity of the crisis in all its forms. Donor agencies and governments and must try and ensure that the provision of humanitarian aid remains distinct from political processes. Their policies towards Zimbabwe must not be implemented at the expense of the humanitarian imperative to ensure that Zimbabweans have unhindered access to the assistance they need to survive. The government of Zimbabwe must give humanitarian agencies the space and support they need to function independently [3].

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