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Additional Information:

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Metadata Record: [https://dspace.lboro.ac.uk/2134/30074](https://dspace.lboro.ac.uk/2134/30074)

Version: Published

Publisher: © WEDC, Loughborough University

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Market orientation for water utilities
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WHO REPORTS THAT for every eight seconds, a child in low income countries dies of a water related disease. Furthermore, as of 1994, only 46 per cent and 34 per cent of Africa’s total population were adequately served with water supply and sanitation, respectively (Warner, 1997).

One major problem leading to this sad phenomenon is the magnitude of funds needed to raise the water supply/sanitation (watsan) coverage, against the background of poverty in the low income countries. However, another major factor leading to the low coverage is institutional ineptitude in planning and managing the demand for public health services (Davey et al, 1996). Many water utilities in urban areas of the low income countries operate their systems with Unaccounted-For-Water (UFW) of between 36-62 per cent (Warner, 1997). UFW is a fraction of water produced but not billed for, and is a measure of the efficiency of the water utility. UFW is made up of physical system losses and commercial losses.

The high figures of UFW for the water utilities translate into high production costs with low sales. To compound the problem, many African water utilities do not even collect all the money billed for, leading to the ever-increasing arrears. As a result of the above-mentioned factors, these water utilities are too cash-trapped to maintain the existing infrastructure, let alone improve service levels.

Literature review
Various studies have been carried out in a number of low income countries to determine affordability and willingness-to-pay (WTP) for watsan services. There is a growing consensus that despite the poverty prevailing in the low income countries, many households are able and willing to pay for watsan services if the public water utilities are run along commercial lines (Estache, 1994). It calls for water utility managers to adapt a market orientation. The term ‘marketing’ is often misunderstood by those involved in the delivery of public health services. Marketing is considered in some quarters to be not only unprofessional, but highly unethical (Hallums 1994). Marketing is often mistakenly equated to promotional activities, and is considered by many managers in monopolistic water utilities as suitable only for industrial/consumer goods. There are many definitions of ‘marketing’. The following is particularly appropriate to water utilities:

Marketing is the means by which an organization matches its resources (human, financial and physical) to the requirements of customers and consumers in order to meet its objectives. (Willis et al., 1989 as quoted by Hallums, 1994)

Most water utilities in Africa are still being managed in the traditional civil service style, with little emphasis on the customers. Services are offered on a supply-driven approach, which in the view of the author is strongly related to the low levels of Willingness-To-Pay for services offered. On the other hand, market orientation is a business philosophy that places customers at the centre of the organization’s strategic focus (Day 1994). It advocates for a demand-driven approach in provision of services.

The concept of market orientation has its roots in the development of the marketing concept within both the marketing and management fields. The marketing concept could be traced as far back as the early 1950s. Peter Drucker (1954:37), one of the concept’s earliest proponents, argued that “…creating a satisfied customer is the only valid definition of a business purpose.” Market orientation is a business philosophy that seeks to implement the marketing concept and represents superior skills in understanding and satisfying customers. The following are the principal features of market orientation:

- An organizational culture that puts the customer’s interest first, while not excluding those of other stakeholders such as owners, managers, and employees, in order to develop a long-term profitable enterprise”. (Deshpande, Farley, and Webster 1993).
- The ability of the organization to generate, disseminate, and use superior information about customers and competitors (Kohli and Jaworski 1990).
- The coordinated application of interfunctional resources to the creation of superior customer value (Narver and Slater 1990).

Customer research: NWSC, Uganda
A descriptive survey study, carried out in 1995, examined the degree of market orientation of National Water and Sewerage Corporation (NWSC), a Uganda urban water utility (Kayaga, 1997). Using convenience sampling, a questionnaire was sent out to customers in all the service areas. Another questionnaire was filled by nearly all senior and middle managers of NWSC. Table 1 shows items included in the two questionnaires sent out.

Results and implications
171 customers and 22 managers responded to the questionnaires. The results were analyzed using a computer statistical package, SPSS For Windows. 46 per cent of the customers who responded were in the age bracket of 30-45
years, and a similar percentage had a household size of 5-10 people. 57 per cent of the respondents had no alternative source of water supply, indicating a big market potential for NWSC. 63 per cent of the respondents had house connections while 33 per cent had yardtaps. NWSC should endeavour to differentiate its products along service levels.

According to the sample, most connections were metered, and were being read on a monthly basis. However, more than half the respondents did not know how meter readings are taken, although 55 per cent kept records of meter readings. NWSC should involve customers in the billing process, for better results. 87 per cent of the respondents received their bills monthly, which are mostly handled by the Area Manager and Accounts Officer. Customer interface staff should be empowered to handle their complaints, so that senior officers could have more time to carry out critical functions of management.

Most customers (70 per cent) paid their water bills by depositing cash onto NWSC bank accounts, a method which most of whom (73 per cent) described as satisfactory. About 50 per cent of the respondents received water supply for at least eight hours, while 20 per cent received a 24-hour supply. This was considered satisfactory by most customers, in view of the erratic nature of power supply in the country. Only 21 per cent of the sample reported their pressure being low. Furthermore, most respondents reported the water supply as clear (86 per cent), but fewer (52

### Table 1. Items included in the questionnaires sent to managers and customers of NWSC

Source: Kayaga, 1997
per cent) perceived the water quality as good, while 35 per cent thought it was fair. The customers' perceptions coincided with those of the managers, 95 per cent of whom thought that the technical quality of water services was satisfactory or better.

About 70 per cent of the customers sampled reported that they did not receive prior notice when there was breakdown of services. 43 per cent of the respondents had ever had their supply disconnected due to non-payment and half of them claimed they had not received ample notice before the disconnections. This is a manifestation of poor functional quality. NWSC managers confirmed the anomaly when 73 per cent of them scored the item "information dissemination to customers" as either poor or below average, while 77 per cent perceived "information collection on customers' needs and wants" as either poor or below average.

78 per cent of the responding customers perceived the reconnection fee as abnormally high. Only 42 per cent of the sampled customers were connected to the central sewerage network, and nearly all of them thought the sewerage charges were on the high side. These factors show that NWSC is providing sanitation services that are too costly for the majority of the urban centres to afford. Furthermore, only 13 per cent of the responding customers thought sewer maintenance was being well managed. This perception was confirmed by NWSC managers, only 13.6 per cent of whom thought the technical quality of sewerage services was good.

Most NWSC managers (at least 60 per cent) scored the following aspects of operations as either poor or below satisfactory levels: pricing structure; social marketing; publicity; personal selling; sales promotion; advertising; external customer participation in the management of the organization; several aspects of internal customer philosophy; customer focus management; customer acquisition and retention; complaints monitoring and handling; information collection on, and dissemination to customers; corporate image; and technical quality of sewerage services. NWSC was perceived by most managers to be doing a good job in the technical quality of water services; service accessibility to customers; and aspects of internal customer concept such as working environment, and creation of team spirit.

When customers were asked to give recommendations for improvement of services provided by NWSC, the following aspects were highlighted by at least 20 customers: reduction of service charges (75); improvement of service standards (43); extension of service coverage (41); improvement of systems maintenance (36); reduction of connection fees (33); reduction of re-connection fees (32); education of customers about bills (28); abolition of minimum charges (23); involvement of customers in NWSC management (21); and improvement of customer care (20). All these aspects call for adaptation of market orientation by NWSC management.

**Conclusion**

There is empirical evidence that market orientation of public health services has improved the organization's performance (e.g. Hullums, 1994). The case study conducted in Uganda showed that the operating environment is ripe for market orientation in the public health sector (Kayaga, 1997). Water utility managers in low income countries should take up the challenge and develop a customer orientation in the delivery of services, for better corporate performance. This includes, among other aspects:

- Carrying out research to establish means and ways of enhancing cost reduction and cost control in aspects such as choice of technology, design criteria, effective Operation and Maintenance (O & M), and decentralization of operations.
- In addition to enhanced technical quality, water utilities should improve the corporate image and functional quality of their services. These factors have been identified to enhance WTP for watsan services (Evans, 1992).
- Carry out consumer research to differentiate the services, i.e. provide the required service levels and standards for each demographic segment.
- Evolving a system for information collection on customers' needs and wants; information dissemination to customers; and complaints monitoring and handling.
- Enhancement of external customer participation in service design and promotion; systems' maintenance; service quality evaluation and monitoring; policy making; and price setting.

A market orientation, however, cannot be accomplished unless the organization embraces an internal customer philosophy, which is sometimes termed as internal marketing orientation. Cook (1992) points out that the quality of service delivered to external customers is often determined by the quality of service employees offer each other. It is therefore imperative that Engineers, the principal professionals involved in watsan sector, should take time off to examine 'software issues' of service delivery if their prime objective of public health provision is to be fulfilled.

**References**

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