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Addressing the digital divide - IT Management practices in rural NGHSOs

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Abstract

Non Government Human Service Organisations (NGHSOs) are owned by the community they serve. Staffed by a committee of volunteers representing its membership their primary mission is to serve those experiencing some form of social disadvantage. In the emerging information intensive climate, NGHSOs are increasingly under pressure to use information technology (IT) to underpin and transform traditional methods of service delivery, particularly given the advent of the NBN. There has been little research into the IT management practices of small NGHSOs, and more particularly those that operate in regional, rural and remote communities. This paper describes research that examines the key factors which shape the way small NGHSOs based in the Mid West region of Western Australia manage their IT.

Keywords:

Addressing the digital divide - IT Management practices in rural NGHSOs

Introduction

The Productivity Commission (2010) estimates that there roughly 600,000 not for profit organizations in Australia employing approximately 890,000 people. Of these they estimate that about 20,000 rely heavily on government as their main source of funding – most of these being in the human services sector (defined in the report as "those services that seek to improve individual and community wellbeing through the provision of care, education and training, and community services"). Many of these can be classified as Non Government Human Service Organisations (NGHSOs). In a NGHSO the community owns the entity and a committee of volunteers representing its membership is responsible for the principal decision making of the entity. There is no financial profit making motive in the mission of a NGHSO. A predominant theme in the mission of an NGHSO is the will to serve those experiencing some form of social disadvantage. These organisations provide an array of services to people experiencing disadvantage. The typical service mix includes:

•   direct services to clients - such as information and referral, advice, casework, advocacy and representation

•   law and policy reform- including responding to proposals to change law, identifying laws that unfairly disadvantage certain sections of the community, and working with Government departments to identify unfair policy

•   community education- including events to raise public awareness of issues, holding information sessions for clients, and developing the knowledge of other NGHSO service providers

•   community development – which includes identifying gaps in services, increasing capacity to provide services and developing service networks that underpin NGHSO work

Established small NGHSOs are predominantly managed by a paid worker under direction from a voluntary board of management. These committees meet on a regular basis and provide the governance to small NGHSOs. Their legal responsibilities are aligned to the Associations Incorporations Act 1987 and the various workplace and taxation laws in place within Australia.

These responsibilities, and their associated risks, combined with an increasingly complex private life can deter people from participating on the boards of small NGHSOs.

NGHSOs derive the majority of their income from fund raising, providing fee for service work, attracting corporate sponsorship, and/ or tendering for Government contracts and grants to provide services directed to a social need within their community. It is usual for larger NGHSOs to combine several of these strategies. Many smaller organisations are heavily reliant on a single source of income from Government for the majority of their cash flow. This can have a dramatic effect upon their sustainability. A change in policy or political intent can mean that an organisation no longer operates, or reverts to a voluntary operation due to loss of funding.

In the emerging information intensive climate, NGHSOs are increasingly under pressure to use information technology (IT) to underpin and transform traditional methods of service delivery. Much of the rhetoric driving the NBN rollout presents ICT and the NBN as a saviour of rural communities. The opportunity promised by the NBN has been touted as an avenue to create new futures for all Australians. Yet, as Perlgut (2011) suggests, much of the rationale behind building the Australian National Broadband Network has been dependent on a "build it and they will come" model, yet it is eminently clear from international experience that this not necessarily so. In particular, a portion of society remains estranged, "particularly the poor, indigenous, elderly, disabled or those living in rural or remote areas of Australia". An unfortunate consequence of the NBN rollout, particularly given its expected role in the delivery of government services, is the implication that those without the necessary ICT skills and access will fall further behind as the so-called digital divide widens. This paper argues that NGHSOs have the potential to help address this shortfall.

The concept of the digital divide has been acknowledged by a broad audience consisting of academics, IT industry experts, politicians and social welfare organisations (Strover, 2003). Willis and Tranter (2006) discuss the increasingly complex pattern of social stratification that has emerged as an impact of the introduction of IT and the potential it can create for a broadening of the existing inequities in society due to lag in take up. Several socioeconomic factors such as income, age,

disability, geographic location and education have been identified as continuing to negatively affect equitable access to the Internet in Australia. Organisational size is also seen as a contributing factor in poor IT capability as smaller entities are proven to be less likely to have the necessary resources, IT expertise, and implementation knowledge (Glaser 2007, p. 40). As detailed below, this observation has been similarly borne out in our own examination of NGHSO IT capabilities. Small NGHSOs predominantly manage their IT planning, development, maintenance and replacement through vendors. These vendors are external to the NGHSO and provide IT products and services, and as such the relationship can best be described as a sourcing arrangement. In regional, rural and remote locations in Western Australia the vast majority of these vendors are small businesses with either sole proprietorship or partnership arrangements.

The current IT relationship management practices within most NGHSOs have been adequate until recent times, but it is increasingly emerging that the capacity of small NGHSOs to maintain their relevance and sustainability in the current ebusiness climate is a weakness. The IT management capacity across the Non Government Human Services Sector (NGHSS) is currently restricted due to limitations of resources and expertise. Accompanying these issues are service delivery pressures extending from increases in need and complexity of issue brought by consumers of NGHSO services. Another key issue is a high staff turnover rate nationally within this sector. As the Australian Council of Social Services argues (ACOSS 2012) attraction and retention of staff is the single biggest challenge facing not for profit services in Australia. The turnover is significantly higher than all industry average and perhaps reflects partly the traditionally poor remuneration in the sector. Recent decisions by Fair Work Australia to seek parity with industry standards are an important step but will take a number of years to implement (ACOSS 2012). There is constant pressure on NGHSOs to retain core skills across the board.

Optimistic IT innovation reports focus on the benefits of IT in enabling increased access to information and services for all people, and promoting equalisation and democracy. Other, less optimistic views identify the dangers of seeing the digital divide as a passing phase and warn against confusing access with use (Selwyn 2004, p. 348). They also link disadvantaged users' knowledge of

and ability to access social resources as significantly affecting their access (Jung et al, 2001). Others identify that efforts should be made to bridge inequities in access to IT. Organisations such as NGHSOs, libraries, local government, private business and schools have been identified as possible intermediaries and interventions in bridging access issues. They can provide a stable infrastructure to support end users adversely affected by the digital divide.

NGHSOs have an important role to play in supporting those affected by the digital divide. Yet such a role can only be achievable if the NGHSOs themselves have the IT capabilities and skills available. The article describes some of the IT management issues facing 3 rural NGHSOs and proposes some tentative solutions.

The Research Context

There has been little research into the IT management practices of small NGHSOs, and more particularly those that operate in regional, rural and remote communities. Many of the Government interventions targeted to reduce the effects of the digital divide include NGHSOs at the community point of delivery, but little consideration has been paid to prepare the NGHSOs themselves to address this client issue. The research described in this paper examines the preparedness for NGHSOs to fulfil this role by examining the IT management practices of three NGHSOs based in the Mid West region of Western Australia. The study also involves interviewing various governmental bodies that support the NGHSO's services, as well as three local IT vendors who serve these organisations.

The main regional industries for the Mid West include mining, agriculture, and fishing. The upturn in mining in the region contrasts with recent drought affecting the farming sector. In recent years the combination of these two factors has led to an increase in client demand for NGHSO services as costs of living increases consequent from the mining boom impact those disadvantaged by drought conditions.

The study involved the detailed study of 3 NGHSO's and 3 IT vendors based in the Geraldton region. The three NGHSO's were a resource centre, a telecentre and a counselling service.

The Resource Centre employed 28 staff involved in providing a range of legal, financial, and tenancy services as well as community support for the aged, disabled and disadvantaged. The organisation receives the majority of its funding from a range of state and commonwealth Government departments through tenders won for the provision of these services. It also generates income from non Government sources through sponsorship arrangements and fee for service activities. The resource centre also conducts some income earning activities and receives donations as it has status as a deductible gift recipient with the Australian Taxation Office. There is no specific IT or communications funding received by the organisation. These costs are expected to be written into the delivery of client service activity in the service provision contracts. The organisation purchases some of its simple IT capital items through income earned, and also applies to Lotterywest (a state managed funding body) for more expensive items.

The Resource Centre provides some of its services across the region, into the community of the two other NGHSO participants of the study. Outreach staff link into the WA Telecentre Network when assisting clients in communities outside of Geraldton where there is no scheduled visit to that community or when an urgent matter arises.

The WA Telecentre Network operates local Telecentres in many small communities. A Telecentre is an NGHSO with a funded mandate to provide access to telecommunications for community members and small businesses in the area. The outreach staff from the Resource Centre cooperate with locally based NGHSOs, such as Telecentres, to deliver education and awareness of services to the staff so that they may act as a conduit for their client groups. The modes of delivery for these include face to face, telephone, mail, e mail, and virtual meetings via video conferencing.

The Telecentre described in this paper employs 2 part-time and one full time staff with a range of volunteer support. When first established in 1992 the original mandate of the Telecentres was to provide physical access to information communication technology for local business and individuals. The Telecentre, since its inception, has made several partnerships with private businesses, local government and state government to support services to the community. For example, it provides

banking services, community newspapers, venue hire and assists with broadband marketing. Government services provided through the Telecentre include Medicare, Centrelink and government supported IT education and training. The Telecentre derives the majority of its income from Government sources and has support with regard to operational expenditure on IT resources. However, like the Resource Centre it must apply for its capital upgrades expenditure. Like all WA based Telecentres, it is under increasing pressure to generate much of its own income and to become self sustaining in its own right. Limited non-government funding programmes help support the centre but it is far from being sustainable without the assistance of its current Government grants.

Telecentres do not only serve the disadvantaged, although that was their original remit. Many local businesses and individuals make use of the services provided by the centres. The Telecentre examined had ten personal computers for general public use as well as a further three that are networked, with one set up as the server for staff and volunteer use. The organisation also has two video conferencing units, one set up in a confidential room and the other in a meeting room that can accommodate up to 20 people comfortably. Through their arrangements with Centrelink, Medicare, and local bank there are public telephone and facsimile facilities set up and maintained by each of these organisations in confidential settings.

The third NGHSO examined was constituted in 1996 and provides personal counselling services to people in rural and remote communities. Previously the body delivered services in line with the Rural Financial Counselling programme, under which programme the organisation was originally set up. This Federally funded programme was designed to assist farmers and their families in dealing with financial hardship. The services provided have since been extended to beyond solely the farming community. In 2006 due to problems for many rural services in recruitment and retention of professional workers the service was centralised through an auspice agency in Perth and the organization handed funding back to the Government. The primary service delivered is now personal counselling. The single full-time worker has an outreach mandate and travels to surrounding communities to deliver services face to face. This organisation has a single source of Government funding for its counselling service. This places the organisation in a rather precarious position in

regard to its sustainability. The Management Committee has recognised this and is currently working toward broadening the sources of income through various responses to tenders and grant applications.

The client group of this organisation consist of people experiencing emotional or mental well being problems. These people fall into a situational social disadvantage that does not necessarily connect to traditional forms of disadvantage. The services provided include an outreach circuit to people in communities as far away as Mount Magnet, some 250km away. Many clients are from farming and town based communities, but increasingly the organisation is actively engaged in the delivery of its services to the Aboriginal community.

This organisation has a basic IT infrastructure. There are two personal computers linked together in a network, with one configured to act as a server computer in sharing a printer and access to the internet. The organisation also has a small photocopier, facsimile machine and telephone. There is no direct client access to the IT systems and it is rare that the IT is used for any purpose other than to support the service provider in dealing with administration, contract compliance issues and communication with other stakeholders. The organisation at the time was still using dial up access to the Internet even though broadband services have been available via satellite in the community for some time. Hard wired broadband services were made available in the community during the time of field work but this NGHSO had no intention of upgrading, preferring to wait until the initial teething problems had been resolved before disrupting their operational set up.

Each of the three selected NGHSOs (one based in Geraldton and two based in a small outback town), although carrying out a human service, operate differently in regard to their purchase and use of IT. Given that the three particular NGHSOs are engaged in a loose partnership to serve mutual clients it was surprising to see how differently they managed their IT systems and vendor relationships.

In all cases the NGHSOs depend very heavily on locally based IT vendors to maintain their equipment and to keep them current. Three vendors were interviewed to determine the particular role that they play. These vendors were an office automation company, a telecommunications vendor and a general computing equipment vendor.

Over the time of the study it became increasingly obvious that examination at the NGHSO/Vendor level could not provide sufficient "macro-level" detail to explain observed decisions and actions. The study was widened to include the major state level peak body for NGHSOs – this high level group was essential in understanding the macro level structures and their impacts on NGHSOs. The involvement of this peak body lead to a number of additional discussions with bodies such as the Department for e Government, Telecentre Support Branch, Community Sector Services, Small Business Advisory Committee members, and Non Profit Australia. The high-level contact was able to provide several key connections to such stakeholders operating at the macro level. From this interview the study took on a much broader awareness of the macro impacts.

[Insert Table 1 here]

Results

The environment that the NGHSOs operated in was found to be complex and transient in nature. As detailed in Table 1 above each NGHSO differed significantly in their approach to IT adoption and usage. None of the organizations had a plan for IT capital renewal and all accessed Lotterywest funding for their IT purchases (see below). Two of the three depended significantly on vendor relationships to keep their systems up-to-date. Western Australia, being one of the larger more sparsely populated states in the world, has specific challenges in maintaining and developing IT. Vast distances and poor communications infrastructure compound the difficulties involved in effective servicing by vendors. Travel time to smaller towns and communities substantially increase costs even for trivial IT issues. This issue is exacerbated by the limited resources of a fragmented non Government human services industry sector. Each organisation had developed its manner of coping with this unconsciously and none had developed a tangibly strategic approach to IT management.

All three NGHSOs had included operational costs of IT into their budgets but no holistic allocation for asset replacement was evident. This is a historically linked issue with the sector growing on the back of volunteers to help community members to deal with adversity. The relatively recent business practice of outsourcing Government human service delivery through a tender process appears to have

entrenched this asset replacement issue as tenders are won, in part, through competing for specified

service delivery on value added within a set contract price. Seeking asset replacement within a tender

would often tend to make the tender uncompetitive and are thus left out. There is also a strong intent

to provide as much client access to services through direct human contact – often for small NGHSOs

the only "in kind" value that can be added is commonly linked to human endeavour. Such an

approach also limits IT expenditure claims in tender contracts.

Many grants and tenders are released consequent to Government sponsored demographic research and

are tied to specific outcomes identified by Government. When a small NGHSO agrees to deliver

services under such an agreement the funding received is tied to that cause. In Australia there are

very few opportunities for gaining Government funds for the core operation of an organisation. This

is seen as an overhead cost to be kept to a minimum by providers of funds. The impact of this is that

NGHSOs often neglect to budget for organisational development due to the pressure to prioritise

expenditure for direct service delivery. IT expenditure is part of this overhead cost. Most

organisations graft their IT budget from several funding contracts if they have the luxury of multiple

sources of financial support. For single income source organisations this is a delicate matter as there

is a greater implied pressure from the funding provider to keep overheads to a minimum.

In Western Australia there is a strong preference to refer a NGHSO to Lotterywest to apply for grant

funds for capital IT expenditure. As detailed in Figure 1 the process by which NGHSOs decide on

new IT purchases is illustrative of the complexity involved. With claims being generally for several

thousand dollars the temptation is often to continue with out-dated equipment.

[Insert Figure 1 here]

This reactive approach to the management of IT was found to be a major weakness for all three

NGHSOs. All vested a huge reliance on the advice of their respective vendors to shape and develop

their IT infrastructure. In positioning IT, the study found that the small NGHSOs in the sample were

heavily influenced by short term perception of operational need. All three identified IT as important

in their achievement of their organisational mission yet there was little evidence of a strategic

connection for IT. Cost was a major barrier to the IT innovation and was unanimously cited by study

participants as a key factor in shaping the IT management relationship. It affected NGHSOs

significantly as the contract imperative of delivering direct services to people experiencing

disadvantage was perceived to outbalance the search for innovative delivery mechanisms. Limited

funding was directed to staffing service provision positions. The funding for IT related expenditure

was shared amongst the different sources of funding that each NGHSO attracted. None of the study

participants had attracted any source of recurrent funding specifically for IT operational expenditure.

Such contract-based support of IT funding clearly worked against any strategic IT initiatives.

The vendors in the study were all found to regularly and significantly provide pro bono support in an

array of areas to a broad section of the NGHSOs they served, but little awareness of the extent of this

was observed in the NGHSOs in the study. Vendors were ideally positioned as change agents for

NGHSOs yet were rarely, if at all, included in NGHSO initiatives.

NGHSOs are ideally placed to provide the direct support to people in the digital divide by, for

example, linking them to services available via the Internet or in providing education and support in

direct personal use of IT tools to achieve this. Yet it appears to be that the NGHSOs themselves are

prone to being in the digital divide themselves as their resources are limited and training possibilities

rare. This risk significantly limits their ability to achieve their mission and also that of the macro

level stakeholders seeking to implement projects involving citizens with limited access to IT.

Discussion

Small NGHSOs face unique challenges as compared to their counterparts in small to medium private

sector organisations. The complex and ill defined environments in which they operate complicate

their supportive role. To exemplify; firstly NGHSOs are incorporated under a separate section of the

Association Incorporations Act 1987, meaning that they are owned by the community rather than an

individual, partners or a group of shareholders. Profits are not shared; instead these organisations are

mandated to "break even" with any surplus income being dedicated for further work in the

community. It is a breach of their incorporation to devote any profit to an individual. As the

Productivity Commission (2010) report on the NFP sector suggests such a policy works against seeking the cost savings inherent in effective IT usage.

Also for the majority of small NGHSOs a substantial amount of their income is derived from Government contracts won by bidding on a fixed price contract as against the open tendering that is common practice in the private sector. This tendering process has been applied to the NGHSS for several years and has shaped the sector significantly. There has been widespread debate between the NGHSS and Government in regard to how this competitive short term tendering impacts on how the sector operates. Certainly tendering works against the inclusion of the cost of training or equipment replacement. Also, an unfortunate side effect to an increasingly competitive culture is the reluctance to share information between welfare groups – this reluctance also affects the ability to share IT infrastructure and knowledge. As the Productivity Commission (2010) NFP report suggests "Not-for-profit organisations (NFPs) face greater constraints on improving productivity than many for-profit businesses. These include difficulty in accessing funding for making investments in technology and training, lack of support for evaluation and planning, prescriptive service contracting by government, and in some cases resistance to change by volunteers, members and clients" (p. 226).

The client group of NGHSOs is predominantly people affected by poverty or disadvantage. Such a client group are more likely to be directly impacted by government policies and subject to government surveillance to ensure compliance As Ravensbergen and VanderPlaat (2010, p. 392) suggest "Consequently, survival strategies based on a lack of trust and a keen awareness of power differentials may be much more pervasive among those who share the experience of living in poverty. There may be considerable reluctance to engage with those in power who, as agents of the welfare state, have such control over so many aspects of everyday life". The supportive role that NGHSOs play in serving their client groups suggests that they need to be well informed and to react swiftly to any Government legislative or strategic change. One of the emerging opportunities to serve people experiencing disadvantage lies with IT. IT has a crucial role to play in supporting the knowledge accumulation and dissemination role of the NGHSO.

Conclusion

Many e-government initiatives provide little recognition of the role of NGHSOs in providing services to the disadvantaged. Many government plans omit the NGHSO sector in its modelling, and only recently has the NBN project started to recognize the importance of local community support. Government planning tends to recognize Government to Government, Government to business and Government to citizen, but there is no mention of where the NGHSS fits into such a model. The important role that the NGHSO can play in acting as an advocate to Government for people experiencing disadvantage is often ignored. An insistence on a Government to citizen model that omits satisfactory support arrangements will only increase the danger of an increasing digital divide.

The findings clearly also support the notion that it is the vendor who is central to the ability of small NGHSOs to access and leverage IT tools to achieve their missions in serving their communities. Although the connection to influential stakeholders in communication networks greatly enhances the ability of the personnel working within a small NGHSO to leverage IT tools, and shapes what is asked of a vendor, it is still the vendors with their expert specialist knowledge who implement the request.

The development of capital community assets has tended to be the focus of government initiatives in the recent past with little attention being paid to providing infrastructure to support service delivery. There is however potential for this to change with the Royalty for Regions program whereby State Government have committed to providing substantial funds to rural regions for improving services. Benefits are beginning to flow through to the communities. Recent political events, both in State and Federal government, are leading towards a greater commitment from government to improve rural services. This holds out hope to the sector. Similarly the current rollout of the NBN provides an opportunity to host new ways of knowledge dissemination and support for the disadvantaged. It seems sensible to develop the necessary NGHSO skills and infrastructure to properly make use of the NBN potential for improving the life of the disadvantaged in the region.

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Factors Impacting on NGHSO IT Practice	Resource Centre	Telecentre	Counselling Service
Primary IT infrastructure purpose	To support the organisation	To support the community clients	To interact with the funding body
Cost related issues	Minimal capital budget, No specific IT related service delivery funding	No capital budget, Vendors are remote, Receives specific IT service provision funds (Telecentre, 1st and 2nd Click, Bank, Centrelink)	No capital budget, No training budget, Vendors are remote
E Government strategy awareness	Minimal, Aware that strategy exists but unable to discuss in any depth	Connected through Telecentre support branch	No
Broadband Internet connection	Yes	Yes, Reseller of Internet Service Provider products	No, Still on dial up
Bulk purchasing project awareness	No	No	No
Lotterywest awareness	Applies for capital IT equipment grants	Applies for capital IT equipment grants (Telecentre specific fund)	Applies for capital IT equipment grants
Connection to change agents	Minimal, Vendors, Lotterywest,	Fair, Vendors, Telecentre Support Branch,	Poor, Lotterywest

	For isolated specific government projects	Lotterywest	
Connection to change agent aides	Very limited, Vendor for broadband Internet products	Limited, Telecentre Network Coordinator	No
Connection to opinion leaders	Vendors	Vendors, Telecentre Managers, Committee member	Committee member

Table 1:   Comparative Factors Impacting On NGHSO IT Relationship Management Practice
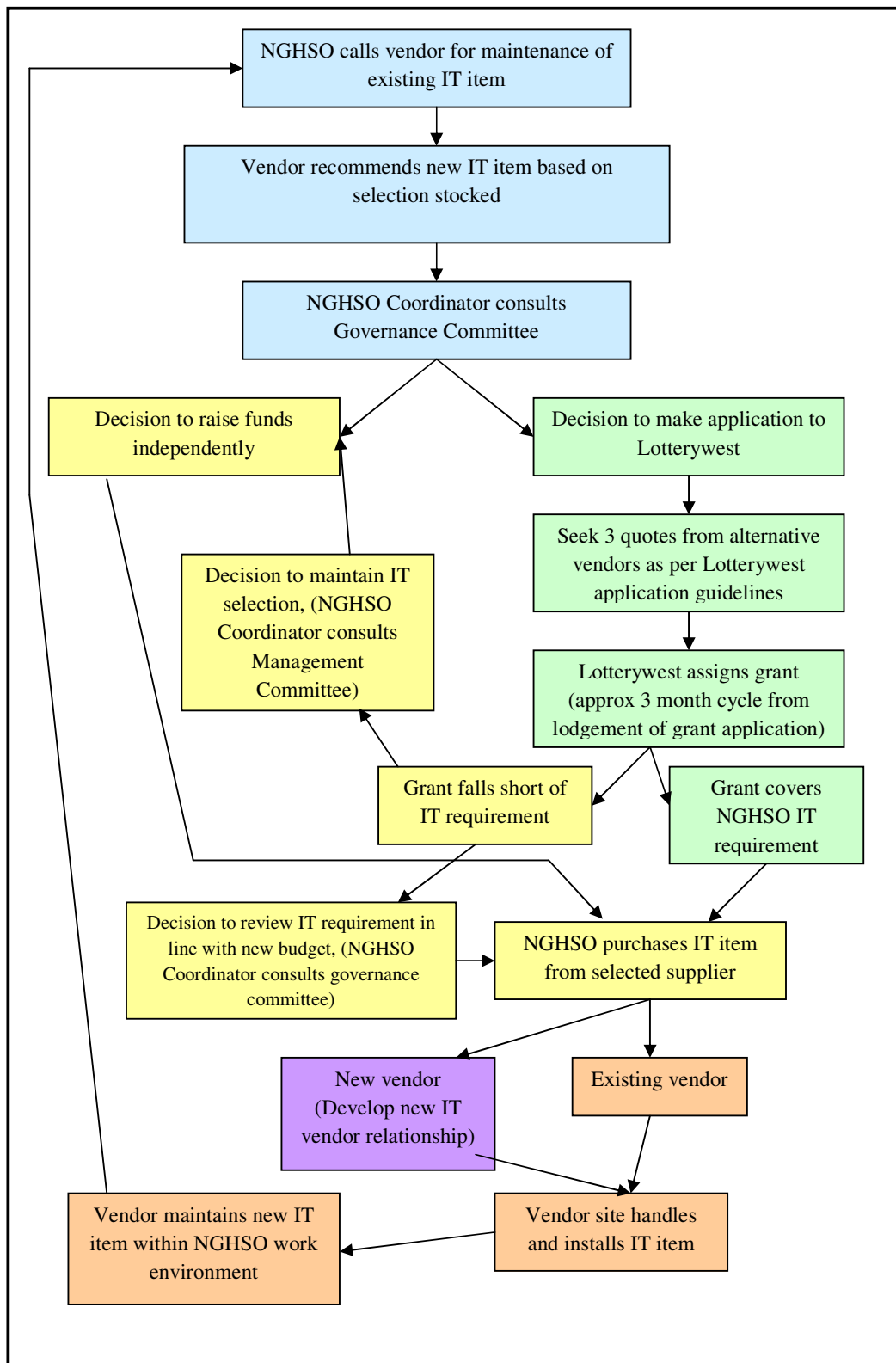
Figure 1:   IT Replacement Cycle Showing Impact on Vendor Relationship