Social Entrepreneurship and Academic Research: Seeking Sustained IT in Non-Profits

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Abstract

This research demonstrates a collaborative project between the United Way in a major Midwestern U.S. city and academic researchers. This collaboration was facilitated and funded by a local social entrepreneur who is a United Way Board member. The goal of this collaboration was to scientifically identify the enablers and barriers of 67 United Way agencies to reaching information sustainability using a semi-structured interview methodology. The directors of all 67 agencies were interviewed. Our results indicated that most agencies were experiencing numerous barriers to obtaining needed information. This was due to many issues discussed in this paper. This research resulted in the United Way placing a Chief Information Officer or equivalent on the Board of Directors of all agencies.

1. Introduction

This research is a collaborative project between the United Way (an agency that coordinates fundraising and centralizes some resources for non-profit agencies in a United States region or city) in a major Midwestern U.S. city and academic researchers. The United way is an agency that coordinates fundraising and centralizes some resources for non-profit agencies in a United States region or city. This collaboration was facilitated and funded by a local social entrepreneur who is a United Way Board member. The goal of this collaboration was to scientifically identify the enablers and barriers of 67 United Way agencies to reaching information sustainability using a semi-structured interview methodology. We interviewed directors of all 67 member agencies. Our results indicated that most agencies were experiencing numerous barriers to obtaining needed information. This was due to many issues discussed in this paper. This research resulted in the United Way placing a Chief Information Officer or equivalent on the Board of Directors of all agencies.

1.1 Non-profit organizations and IT

Non-profit organizations exist to provide a variety of services not met by traditional for profit organizations or governmental agencies. The role of nonprofits has expanded over the last few decades, making them a vital part of the economy. According to the National Center for Charitable Statistics [1], there are over 1.5 million tax-exempt organizations in the United States accounting for 5.4% of the GDP. Overall, public charities reported over $1.41 trillion in revenues in 2009. This is up from 1.2 million organization in 1999 [1], showing significant growth in the nonprofit business. This trend is not isolated to the U.S. For example, in New Zealand there are over 97,000 nonprofit organizations, comprising of 5% of the nation’s economy [2].

When thinking about Information Technology (IT) for non-profit organizations, most people focus on issues of hardware and software. With the goal of understanding the path to sustainable IT in these organizations, this research focuses on what the information needs and strategies are of these non-profits, and the barriers and enablers of meeting these needs [3]. Once needs are assessed, the issues of tools such as hardware, software, networks, Internet access and presence, and mobile computing (amongst others) can be addressed.

The majority of the non-profits in this study have less than twenty employees. Very few have even a half-time dedicated IT person and most depend on some form of volunteer support to help with IT issues. One of the major requirements for non-profits is reporting to funding sources. However, most funding sources do not fund the resources needed to do this reporting [4]. Even though grants are sometimes available for hardware and software, there is virtually no funding made available for the considerable human resource time and skill needed to produce these reports [5]. This places the non-profits in a position where time is taken from the primary mission of the organization to gather and format performance reports to funding agencies [6][7][8].
Although the agencies in this study all received funding from The United Way, all of them received additional funding from at least one other source. Many agencies received tax money from city, state, and federal governments, and all of these had differing reporting requirements [9]. The organizations that are unable to provide quality information often lose out to competing nonprofits for private and governmental grants [10]. It is these reporting requirements plus the operational and strategic information needs of the nonprofits that were assessed in this study.

2. Information Assimilation Theory

The data analysis presented in this document is derived using the information assimilation theory [11]. The ability to assimilate information is the first step toward sustained Information Technology (IT). This theory demonstrates four stages of assimilation maturity (from lowest to highest) in for-profit organizations. These stages are outlined in Table 1:

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
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<tbody>
<tr>
<td>Automate</td>
<td>The goal of IT is to reduce headcount</td>
</tr>
<tr>
<td>Informate up</td>
<td>IT pushes information higher in the organization to centralize control</td>
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</tr>
<tr>
<td>Transform</td>
<td>The information produced from IT fundamentally alters the nature of the organization and possibly the industry</td>
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</table>

Although for-profit and non-profit organizations have different missions, essentially, under social entrepreneurship theory [12][13][14][15][16][17][18], they should be using information in the same way [19]. For-profits use information and IT to make profit, while non-profits use these resources to maximize the mission of the non-profit. For example, a human services agency would use information and IT to serve the maximum amount of people, to sustain efficient daily operations, and to strategize the future of the organization [20][21]. In essence, non-profits can think like for-profit businesses without compromising their mission and use information and IT in the same way [22]. Therefore we believe that Information Assimilation theory is a viable lens to understand information use in non-profits. However, it is possible that very few, if any of these organizations will demonstrate “automating” behavior. Non-profits are typically resource scarce on both technology and people who understand and have time to utilize technology for the mission of the organization [8]. They are often working on a shoestring budget while trying to deliver maximum services, therefore it is unlikely they will use information to reduce headcount. In fact, it is possible they may use information to gain additional funding to raise headcount to provide more services, especially in the human services area of the non-profit sector.

3. Research method

This research is inductive and qualitative. We used Information Assimilation theory as well as the principles of social entrepreneurship to develop a semi-structured interview instrument. In addition, a question was added specifically about the support the agencies received from the United Way to enable the respondents to give feedback in a confidential and aggregated manner using the academic research team as interviewers and buffers. The respondents were the Chief Executive Officers (CEOs) of the 67 United Way agencies although the titles varied. Some of the titles of the top person at the agency were President or Director. Thirty seven of the CEOs were female and 30 were male. Additional organizational demographics are found in Tables 2 and 3.

<table>
<thead>
<tr>
<th>Number of Agencies per sector</th>
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<tr>
<td>Human services</td>
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<td>Health</td>
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<td>Misc.</td>
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<table>
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<th>Agencies by number of employees</th>
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<tr>
<td>Number of employees</td>
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<td>1-20</td>
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<td>20-50</td>
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<td>&gt;50</td>
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Each interview was performed in person and taped with the permission of the respondent per human subjects guidelines. The interviews averaged 45 minutes in length. The tapes were transcribed and analyzed both by agency and by question. This was done through the lens of information assimilation theory. The following sections summarize the findings of the study and use direct quotes as support and discovery.

4. Data analysis

Approximately 25% of the agencies showed transforming information practices per Information Assimilation theory. The remaining agencies (75%) showed primary indicators of informating up, although this was not intentionally for the purpose of centralization. The CEOs of many agencies took on
the role of information gathering and reporting, and the IT that went with it, so that they could keep their employees working directly on the mission of the non-profit.

4.1 Transforming agencies

One of the most important lessons that transforming agency executives wanted to convey was summarized by one director:

“The community generally views non-profits as running simple social services programs without much complication. In reality, our organizations are very complicated. We have over 89 different funding streams each with different reporting requirements. Non-profits need IT as bad as anyone else.”

Another transforming CEO stated that:

“All public funders, such as the United Way and the City (sic) Foundation, require different information. Our agency has approximately 100 funding sources at any given time and most likely none of them require the same information in the same format.”

How internal goals and performance metrics are set distinguishes transforming agencies from the others. One transforming CEO noted,

“To a large degree, external funding sources are driving internal measures. This is a function of the Golden Rule, ‘He who has the gold makes the rules.’ However, it’s important that external sources don’t control all the measures. We have our own internal goals and outcomes that are not limited by funder requirements.”

Similarly, another CEO stated,

“If you only do what the funders require you to do, your agency will become mediocre, quality suffers, and it costs you a whole lot in the process.”

Agencies at the leading edge of IT are acquiring and utilizing technology in ways that cut costs and improve services. These non-profits are discovering new ways to obtain the necessary software at reduced prices. When faced with a troublesome database, one executive noted,

“Extracting information from the database is hard, and we must find a better one at a reasonable price. We must be cost-conscious, and perhaps we should partner with other agencies to bring down the cost of software. Never pay retail!”

Another executive is relying on skilled volunteers to provide the staff with technology training. These executives understand the importance of IT in their organization, and also grasp the important cost-conscious environment of the non-profit sector.

One of the other benefits enjoyed by IT leaders in transforming organizations is the ability to accurately budget for future needs. One CEO noted that,

“Costs are based on current costs such as staff salary, supplies, and supervision. This information is already known or predicted through financial projections. We also list outcomes that are expected.”

Many successful agencies are connected to a national organization that provides low-cost technical support.

“They charge us for the technical support, and we get training in person and through conference calls.”

One of the questions asked that was very revealing of where an agency was in the information assimilation process was: “Do you readily have the information you need to write effective funding/grant proposals or to make the case to extend existing funding?”

Successful directors often answered with positive, blanket statements such as:

“Yes. The first place we check for information is the Internet. This is done to determine what is already out there and if someone is already doing the program/service we would like to offer. To extend funding we check for outcomes, list program statistics, and list testimonials about the value of the program.”

These executives are ready for the next fundraising cycle and are equipped to marshal their information quickly and effectively.

Agency planning and budgeting processes face special hurdles in the non-profit sector. One transforming executive explained:

“It’s hard to make accurate projections because of funding instability. We’ve currently looking for more resources outside of United Way system, but they tend to be less secure. Furthermore, once an expectation of service has been created, it’s hard to stop meeting community needs, so some programs continue even after funding is cut.”

“Transforming” leading edge agencies are also adapting technology to meet the special needs of their clients and staff. One executive explained how a blind agency employee has designed and maintained their agency website utilizing software that has allowed him
to use computers through audio conversion of visual data.

Many transforming executives are frustrated with funders who specify funding for discrete outcomes. This has prevented agencies from approaching problems in a holistic, comprehensive manner. One executive commented,

“Neighborhood development, in a broader sense, is not funded. We tend to cram important programs, such as the food pantry, into the category of ‘education’ where it clearly doesn’t belong. We have to do logical gymnastics to make the connection between adequate nutrition and educational attainment. This shows a disconnect between our internal goals and funder desires.”

Leaders on the transforming edge of IT in the non-profit sector are chomping at the bit to get funders themselves to adopt useful IT. Although this problem still exists in the for-profit world, especially when dealing with governmental entities, the non-profit world lags behind. One executive noted,

“United Way reporting requirements are extremely time consuming. They should be filed electronically, and we should be able to submit our audits with the reports. Many forms are filled out by hand, and must go to three people before they’re ready to be submitted.”

This executive also stated,

“Funder reporting calendars could be synchronized. We run on a calendar year but our funders each have their own idiosyncratic fiscal year. In this way, funders keep making us go back to recount our yearly figures and we generate a lot of repetitive information that’s been submitted already.”

Another CEO noted,

“Would love to use more electronic records, but we are forced to keep paper records to meet licensing standards. Audits want to see paper records. Electronic signatures are only beginning to be accepted, some notes must be signed on printed form.”

Again, while gaining ground in the for-profit sector, digital signatures are far from universally recognized.

Transforming agency CEOs recognize that there is competition in the non-profit sector while also pushing their IT capabilities to facilitate information sharing across departments and agencies. For example, one executive noted,

“I’m interested in learning how other agencies have implemented their own IT programs, compensation levels in other organizations, how they structure their in-house IT staff, etc.”

The recent economic downturn has hit the non-profit sector very hard. Unfortunately, the decreasing pool of available funding has increased the pressure to withhold helpful information between agencies. One director remarked,

“It’s important to compare our services to those of our competitors; however, other agencies are very secretive about their outcomes and are unwilling to share information. It makes it very hard to benchmark progress. This secrecy is just part of this competition for dollars.”

Sometimes similar information barriers build upon within the agencies themselves. One executive noted,

“Our goal is to facilitate a seamless flow of information through the agency. By funding specific programs, funders have helped create information silos within each program. Staff working on only one program become isolated from other programs and sharing data becomes more difficult. A centralized database will break down barriers, but there is no money for the overhead required to connect people. Only the John Doe (sic) Foundation and the Jewish Foundation will provide this, because other funders afraid to fund overhead.”

In the example above, the ugly concept of IT as “overhead” once again rears its ugly head, just as it still does in many Fortune 500 organizations. While the 25% of our respondents who are using information to transform their organizations still express their frustrations in the above quotes, the roughly 75% of the agencies who are “informating up” have even more to say.

4.2 “Informating Up” agencies

In for-profit organizations, informating up represents a hierarchical, centralized information management strategy. In non-profits, informating up is often a default result of reluctance to have social services professionals using their time for information management rather than client care out of fear that this would de-professionalize the profession [23]. The belief by both the funders and executives in informating up agencies is that these non-profit organizations were built to serve people and social service workers are not serving the public in a visible way by sitting behind a desk manipulating data.
It is this perception that keeps these agency CEOs from taking a more transformative attitude toward information and IT.

The visibility of the social work being done becomes especially important when answering to funders. Many agencies cite an inability to spread their scarce resources as needed due to increasing specificity in where funders would like to see their money go.

“Funders want to target money to specific problems, but this specificity has a price in reporting requirements and there is no extra money to make up for these costs.”

These agencies believe that when performing the oversight function, if funders see that all of their money is going to pay social service workers to manipulate data, they will gain no satisfaction from their donations and possibly take their funds elsewhere next time.

Since non-profits generally lack the funding to hire additional staff to handle this clerical work, the directors consistently take it upon themselves to manage all incoming information. One director backed the decision to take on these clerical duties, rather than delegating the work to social services professionals or hiring more staff, by stating that when administrative costs are raised

“As we end up handling fewer clients, and have less time to market to new clients.”

As a result of this reluctance to have professionals in the field participate in information management, CEOs of non-profit agencies often become operational managers rather than strategists and visionaries. When asked to briefly describe their role as Executive Director/CEO of their agencies, directors whose agencies are in the informating up stage reported being in charge of direct, day-to-day operations and administrative duties as opposed to agencies in the transformative stage which were more likely to report responsibility for mission success, future planning, and leadership.

One “informate up” director who claimed to be “responsible for everything” cited that having “small agencies makes for a flat hierarchy, and executives are forced to be more involved in day-to-day operations.” While this example highlights the problems encountered by small agencies, in many cases the problems become compounded as the agency grows. As one director, who serves 150 to 18,000 clients per program, put it:

“The bigger the program gets, the more disorganized the information becomes.”

Our data showed no recognition by CEOs that better information in the hands of the social services professional (informating down) could contribute to improving outcomes and the furthering of their mission. Many share the same mentality that

“As it makes social work less fun if you bog down staff with annoying clerical work for the same horrible salary.”

Therefore, only about a quarter of the “informate up” agencies interviewed have attempted to “informate down” to their employees where the information may be more useful. These attempts were met by resistance by field workers who already feel overwhelmed and want to spend all of their time with clients.

So what comes of all this extreme centralization of information at the senior management level? The answer is information overload. With the majority of information being pushed upward toward the director and little to none being delegated throughout the organization, CEOs simply cannot filter information in efficient and productive ways. One director expressed such frustration by stating that the agency is

“… currently overwhelmed with data, we need the right data and ways to analyze it better.”

Another explained that there is

“… tons of information available, but the task of filtering it for usefulness is enormous.”

Without the ability to filter and analyze it efficiently and properly, incoming information becomes more hindering than helpful in furthering the mission of an agency. The quantity of information that pours into non-profit agencies in the form of emails, snail mail, faxes, phone calls, websites etc. is astronomical. The notion that top management alone is capable of making efficient use of this information is absurd.

As a result of information overload at the senior management level, difficulties in getting information in manageable and usable forms arise. In fact, when asked what additional information would significantly help in performing their mission critical duties, the most common response was information on how to better manipulate and/or format existing data. One director explained quite simply that

“… getting information is easy, manipulating information is difficult.”

Many believe that the information they have could be compiled in ways more useful to the staff “which would make them more productive.” Many also cite specific needs in order to do so. One of the greatest reported needs is for linked and efficient databases.
While agencies appear to be at different stages of development in terms of database sophistication (some do not even have one) one director’s comment summarizes the general sentiment:

“Information is scattered and hard to compile. Extracting information from the database is hard. Statistical analysis is practically impossible.”

Efficient and linked databases could significantly reduce the need for multiple entries in data collection, which is a source of great consternation in many agencies. The need for reduction of multiple entries is evident in this director’s comment that:

“Multiple records systems do not necessarily connect and double entry is sometimes required.”

One director is looking for

“…ways to combine our three databases so that they can be interrelated and produce reports drawing from all three.”

Another agency states that

“We could use a better database that allows for more longitudinal tracking.”

Furthermore, some agencies are

“…open to shared databases with other agencies”

A major reason that linked and efficient databases are so widely desired is the increasing pressure of reporting requirements that many directors perceive. Non-profit organizations are required to fill out, what to some directors is seemingly endless,

“…paperwork for licensing that most for-profit organizations do not have to deal with.”

One director remarks that

“Reporting requirements are duplicative and onerous, which is aggravated by a non-user-friendly database.”

Another comments that the

“United Way reporting requirements are excessive and should be streamlined.”

According to another director, reporting requirements

“…could be streamlined if funders could agree on similar financial reporting measurements.”

Sometimes however, it is not only the information requirements that differ, but the format in which the data is required differs as well. In fact, many directors say that even when two different funders require the exact same information, more often than not it is requested in differing formats. Some directors believe that agencies might not be so turned off to reporting requirements were they to see exactly what is done with the reports after they are turned in, as seen in this director’s comment that

“Reports are a necessary evil, but it would be nice to know what they are used for.”

A non-information management issue that repeatedly came up among the informate up agencies was high turnover and burnout of professional staff, especially those doing on-site work. In non-profit organizations, where there is often little room for advancement due to the nature of agency infrastructures and little potential for salary growth due to the unstable nature of funding sources, employee retention is extremely low. People are initially attracted to non-profit work for its humanitarian appeal. However, this appeal quickly wears off as the strains of working for a non-profit set in. The issue of high employee turnover causes CEOs to become even more reluctant to informate down to these professionals. The time and resources needed to train an employee to properly manage data is not seen as time and money well spent by many of these directors. They would just as well work extra hours and become overloaded with information than invest money in employees that could otherwise be spent on programs.

When asked whether time-consuming clerical work gets in the way of their mission critical duties, one director responded that,

“The time consuming activities do not prevent me from accomplishing my mission critical activities, it just means that I work 12 hour days and on the weekends.”

It is precisely this self-sacrificing attitude that leads to a sacrifice of organizational efficiency and productivity.

Contrary to the fact that many directors are reluctant to pass information down through the agency, many CEOs have acknowledged that a lot of important information (including outcome information that gets them paid) is generated by field professionals and is often poorly reported due to bad manual processes.

Similarly, CEOs are reluctant to informate down to volunteers due to fear that information management will not be seen as a “fun” thing for the volunteer to do. Directors believe that if volunteers are not physically “ladling out soup and handing it to the homeless” they will not see the fruits of their labor and will be less likely to be a repeat volunteer. If a volunteer is trained to handle data and does not find their work rewarding, the time spent training them is
lost, as is the time the volunteer would have continued to donate had they done something more “rewarding.” One director states that it is difficult to “identify and retain quality volunteers.” As in the case of field social worker staff, important information is lost at the volunteer point.

5. Conclusions from data analysis

Table 5. Summary of findings

<table>
<thead>
<tr>
<th>Description</th>
<th>Findings</th>
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<tr>
<td><strong>Automate</strong></td>
<td>Not found in sample</td>
</tr>
<tr>
<td>The goal of IT is to reduce headcount</td>
<td></td>
</tr>
<tr>
<td><strong>Informate Up</strong></td>
<td>75% of sample</td>
</tr>
<tr>
<td>IT pushes information higher in the organization to centralize control</td>
<td>Perception that IT is not part of the organization’s mission.</td>
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<tr>
<td></td>
<td>Funders want to see all monies go directly to the mission, not realizing the data reporting requirements each funder demands different report style.</td>
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<td></td>
<td>CEOs of agencies often become operational managers rather than strategists and visionaries.</td>
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<tr>
<td></td>
<td>Extreme centralization of information at the senior management levels results in information overload.</td>
</tr>
<tr>
<td></td>
<td>Lack of appropriate databases, data manipulation tools, and IT staff.</td>
</tr>
<tr>
<td><strong>Informate Down</strong></td>
<td>Tried and failed in ~25% of “Informate up” organizations</td>
</tr>
<tr>
<td>IT pushes information down the organization to enhance information reach and usefulness</td>
<td>Perception that doing data gathering or manipulation via IT makes social work less fun, and bogs down staff with annoying clerical work for the same low wages.</td>
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<td><strong>Transform</strong></td>
<td>25% of agencies</td>
</tr>
<tr>
<td>The information produced from IT fundamentally alters the nature of the organization and possibly the industry</td>
<td>CEO’s understand organizational complexity and the role of IT.</td>
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<td></td>
<td>Internal goals and performance metrics are set.</td>
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<td></td>
<td>Agencies are acquiring and utilizing technology in ways that cut costs and improve services.</td>
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<tr>
<td></td>
<td>Agencies use skilled volunteers and staff from national organizations to supplement internal IT staff.</td>
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<td></td>
<td>CEOs have the data needed for funder reporting and know how to manipulate it.</td>
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<td></td>
<td>CEOs have “creative” methods to fund necessary IT when funders refuse to pay “overhead.”</td>
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While we suspected and found that we would not see the automate stage of information assimilation [11] in our sample of non-profit agencies, the data showed that approximately 25% of the agencies were in the transforming stage while the other 75% were in the informating up stage. There seemed to be a great deal of reluctance to informate down to social service professionals in the field, although the advent of mobile computing is starting to change this. To facilitate informating down, both agency CEOs and social service professionals need to change the perception that there is no place in social services for technology and to redefine their roles.

Another conclusion from the data analysis is that data storage, access and manipulation is one of the primary information issues keeping agencies from transforming. It was expressed that once data is collected (if it is able to be collected in an efficient and timely manner) it needs to be manipulated and measured. One agency needs all data that clients provide to be accessible to the staff in charge of measuring the data and this is not always available. Time was indicated as another factor that limits the correct manipulation of data. Correct software and updates need to also be available to get the job done. Since there are so many constraints on the measurement and manipulation of data, many believe the outcomes are not always accurate and usable. Most agencies find that measuring the outcomes of programs also needs to be done but is susceptible to the same constraints. It becomes very difficult to measure the actual effectiveness of services. These can be short-term and long-range with the latter being the hardest to obtain. Some agencies report an information overload instead of deficiency. In these cases time is an issue and all the information cannot be processed bringing about the same inaccurate results. All the information gathered must also be effectively organized and linked to draw conclusions.

6. The United Way and social entrepreneurism

Per human subjects requirements the research data from this study was presented to the United Way management and board of directors in aggregate form with no agencies individually identified. All agency CEOs were also invited to this presentation. The presentation of this data by an objective third party research team seemed to generate some honest discussion between the United Way and the CEOs of its member agencies. As discussed earlier, one of the United Way board members funded this study and is a
social entrepreneur with his own foundation. His for-profit entrepreneurial experience is in technology. After viewing the data from this study, he began a campaign to put a for-profit Chief Information Officer (CIO) or equivalent on the board of every United Way member agency in the city. The United Way and the agency CEOs both welcomed the knowledge of how to effectively use information and what technology was needed that these CIOs brought to the individual agency boards. Within a year, all United Way agencies are expected to have a CIO on their board.

7. Limitations and future research

This data, although from 67 non-profit agencies, is only representative of non-profits associated with an umbrella fundraising organization such as the United Way. This sample did not include non-profits outside the single Midwestern U.S. where the data was collected nor does it represent the state of IT and non-profits throughout the world. This paper represents a small portion of the overall data collected during the interview process, and although the data was a priori viewed through the information assimilation lens, there may be other relevant theories that help explain our findings. One issue not discussed in this paper but brought up in the data was the need for some type of shared services organization, possibly hosted by the United Way that would provide needed databases and other technology, IT training services, and training on how to manipulate data. This research team is currently engaged in following up on the work being done in this area. In addition, this data although rich, is strictly qualitative. To strengthen the nomological validity of this study we are following up with a quantitative study and hopefully others will attempt to further pursue this research area. Reaching the “transforming” stage of information assimilation is only a first step to sustainable IT for non-profits. Another important step is the inclusion of IT executives on the boards of non-profit organizations where they can share their vast knowledge of IT and information use. We do believe that the three way collaboration between a scientific academic research team, a driven technologically advanced social entrepreneur, and a one city branch of the United Way is a successful and important example on how to further IT and social entrepreneurship.

8. References


