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IS effectiveness in Small Nonprofit Organizations

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Abstract

In the recent years, nonprofit sector has become an important part of modern society and small nonprofit organizations are the major part of nonprofit sector. However, Information Systems (IS) research in the sector has been limited, especially in the context of small nonprofits. In this paper, we attempt to explore the use of IS and IS effectiveness in the small nonprofit context. We also explore how small nonprofits have largely benefited from the emergence of affordable technologies. By using Zhang, Gutierrez, and Mathieson (2010) framework of IS effectiveness and current knowledge on the characteristics of small NPOs, we aim to reveal the constraints affecting small nonprofit organizations to effectively use IS. We believe that IS research in small nonprofits can contribute to the better understandings of IS in any organization. Overall, we intend to create the better understanding of IS-related issues in the nonprofit sector.

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1. Introduction

In this chapter, we provide an introduction to the background and a problem area of our research. Consequently, we come up with our research question and its purpose. We end this part, with study delimitations and short explanations of abbreviations we will be using in the thesis.

1.1 Background

Information Systems (IS) have been proven to be vital for organizational operation and management (Pilemalm, 2002; Somers, Nelson, & Ragowsky, 2000; Thong & Yap, 1996). Many of organizations are fully dependent on them (Peppard & Ward, 2004). They enable business organizations to significantly derive competitive advantage (Carr, 2004; Ives & Learmonth, 1984) and have a great deal of benefits (Hemmatfar, Salehi, & Bayat, 2010). Moreover, they drastically improve sharing and transfer of information across the organization (Newell, 2010). Due to these numerous benefits, businesses and other organizations, such as public agencies, private industries and nonprofits are increasingly implementing IS (Sieber, 2000). Consequently, there has been a growing interest for IS studies in different organizational contexts. Despite being an ‘information intensive industry’ (Deacon & Golding, 1991), IS in nonprofits remain relatively under-explored area (Zhang et al., 2010).

The number of nonprofit organizations around the world has increased steadily over the last few decades (Nations, 2010). Consequently, the nonprofit sector worldwide has become very important both socially and economically (Lester M Salamon, Sokolowski, & List, 1999). Parallel with the growing number, the number of organizations that are utilizing IS in nonprofit sector has also rapidly increased in the recent years (Burt & Taylor, 2003). Improving organizational capacity in terms of accountability (Hackler & Saxton, 2007) is the key-driver for NPOs to efficiently pursue their missions and desired outcome (Jaskyte, 2012; Nielsen, 2012). The implementation of IS enables NPOs to improve their performance in a number of ways such as service provision, communication and management (Jaskyte, 2012). In order to hold all the cards of IS utilization, it is inevitable to have IS effectiveness or success (W. H. DeLone & E. R. McLean, 1992).

1.2 Problem area

The number of NPOs that have already implemented IS or plan IS implementation has increased in the recent years (Burt & Taylor, 2003; Zhang et al., 2010). At the same time, the vast majority of research on IS effectiveness or success has focused primarily on the implementation and utilization of IS in the private and for-profit organizations (Sutanto, Kankanhalli, Tay, Raman, & Tan, 2008). Thus, a very little number of researches was focused on the nonprofit sector (Zhang et al., 2010). We are particularly concerned with a lack of research on the topic of IS effectiveness, especially for small nonprofit organizations. Small-sized organizations are the most common type of all the nonprofits (Angela Francis, 2012). The current proposition of IS research in the nonprofit sector indicates that these organizations represent a different context for the IS research. This is mostly due to their organizational goals and objectives in using the systems (Hackler & Saxton, 2007; Zhang et al., 2010).

IS penetration in the nonprofit sector has increased due to lower prices of IS and this made the technologies more accessible for NPOs (Zhang et al., 2010). Accordingly, different operating and financial conditions of nonprofit organizations (Burt & Taylor, 2003; Hackler & Saxton, 2007) make decision-making and allocation of their limited-budgets challenging (Straub & Morard, 2010). Nonprofits of small size represent an important context for IS studies since they represent the majority of nonprofit sector (Wing, Pollak, & Blackwood, 2008). Furthermore, small nonprofits have some unique characteristics that distinct them from nonprofits of other sizes and make them a unique environment for IS implementation. Lack of resources, circumscribed capacity and weak financial situation of small nonprofit organizations can restrict their opportunities to get the best technological solutions (Zhang et al., 2010). We assume that the characteristics of small nonprofits can significantly affect their attempts to effectively use IS.

1.3 Research question

Information systems are increasingly becoming a key solution for the improvement and development of any organization (Petter, DeLone, & McLean, 2013), including nonprofits (Zhang et al., 2010). IS effectiveness is the degree to which objectives of IS implementation are achieved and the extent to which targeted problems are solved (Hackler & Saxton, 2007). Therefore, effective utilization of IS seems to be the best answer for NPOs to improve the way they carry out their services. However, some particular conditions of small nonprofits might possibly affect their ability or willingness to achieve the effectiveness of IS. We assume that the conditions or characteristics of small nonprofits

often pose challenges to effectively use IS. Identifying the key factors that have significant impacts on IS effectiveness is important for overcoming these challenges. Our goal is to provide a valuable contribution to the IS research in this field which still remains defective. To conclude, we state our research question which is the following:

- *What constraints do small nonprofits face in achieving IS effectiveness?*

1.4 Purpose

In our study, we commit to identify constraints that small nonprofit organizations are facing on the path towards IS effectiveness. In order to identify these constraints, this research will study the characteristics or conditions of small nonprofit organization under the circumstances where IS have already been implemented and used by the organization. Even though, the organizations have already implemented IS, this does not guarantee that they will effectively use their systems. Our study will be based on the conceptual framework of IS effectiveness for nonprofit organizations (Zhang et al., 2010). A cognitive fit among three attributes (workers, tasks and technologies) originates the effectiveness or success of IS. Any constraints found could point out to the lack of components that belong to any of the attributes. The findings of this research will thus offer more insight to what can possibly constraint small nonprofit organizations from achieving greater IS effectiveness. This research can contribute to the future development of IS as the guidance for particular organizations with similar criteria and requirements.

1.5 Delimitations

Our research findings will be based on a case study of Swedish nonprofit organization called Tamam. Tamam is considered to be small nonprofit organization in the context of social service. Our research will be based on conceptual framework of IS effectiveness proposed by Zhang et al. (2010). The conceptual framework is grounded on a cognitive fit among three attributes and the influence of organizational and social environments. Our research will focus on identifying the constraints and factors that affect the use of IS and ultimately IS effectiveness.

1.6 Terms and definitions

The table below describes the meanings of the key terms and its definition that are going to be used in this thesis.

Terms	Meanings and Description
IS	Information Systems
IT	Information Technology
NPO	Nonprofit organization is any non-profit, non-governmental, voluntary citizens' group which is organized on a local, national or international level.
TTF	Task-Technology Fit
NTAPs	Nonprofit Technology Assistance Providers
TCP	Technology-To-Performance Chain Model

2. Conceptual background

In this chapter we explain the theoretical background of our thesis. We begin with the detailed description of nonprofits in general and particularly nonprofits of small size. Then, we include the use of IS and IS effectiveness to end the chapter.

2.1 Nonprofit organizations

Nonprofit sector is a combination of private, non-governmental, voluntary and nonprofit organizations and associations (Helmut K. Anheier, 2005). Nonprofit organizations (NPOs) have become an important part of modern society, participating in the development and regeneration of community in every part of the world (Helmut K. Anheier, 2005). In the past few years, this sector has become particularly important in the developed countries such as United State of America, the countries of Asia-Pacific and Europe (Helmut K. Anheier, 2005). However, this sector is not limited to the developed countries only. Nonprofit sector in Africa, Latin America, the Middle East, India and Central and South East Asia also has different kinds of organizational forms and activities (Helmut K. Anheier, 2005). There is a great diversity among nonprofit organizations around the world. For instance, European nonprofit sector consists of organizations that are mostly involved in welfare, health care, education reform and public-private partnerships (Helmut K. Anheier, 2005). According to Helmut K. Anheier (2005), the number of nonprofit organizations in certain countries is particularly high due to the large amount of immigrant population and growing economic development. Thus, nonprofit sector has become a major force for both economic and social field at local, national and international level (Helmut K. Anheier, 2005).

Nonprofit organizations are having a wide range of service, innovation, advocacy, expressive and community-building roles in various fields throughout the world (Lester M. Salamon, Hems, & Chinnock, 2000). Nonprofit organizations are driven by individual contributions and the motivations behind them (Helmut K. Anheier, 2005). These organizations tend to be more complex than business firms of comparable sizes (Helmut K Anheier, 2000). The income of nonprofit sector does not come from the sale of goods or services on the market, but rather from the voluntary dues and contributions of their members and supporters (Helmut K. Anheier, 2005). NPOs are faith-based service providers which are more efficient and effective at providing social and other services than governments (Helmut K. Anheier, 2005).

NPOs' characteristics differentiate them from other types of organization. Nonprofits as providers are defined as a highly integrated set of resources and activities geared to provide a service or closely related set of services to their clients (McNamara, 2009). Nonprofit organizations and their performance are highly dependent on the quality of their programs (Corps, 2003). They strive to have their programs sustained and delivered with a high quality and cost effectiveness (Corps, 2003). NPOs measure their results based on the impacts they make on their clients. Assessing impacts on their clients is particularly important aspect of nonprofit organizational activity (Helmut K. Anheier, 2005).

The common system of organizational management consists of six major parts: programs, governance, management, human resources, financial resources, external relations (Corps, 2003). The success of NPOs can be particularly determined by its governance (Helmut K. Anheier, 2005). Governance is the fit among organizations' mission, activities and performance. Attention to nonprofit governance has increased in recent years because of publicized nonprofit mismanagement (Helmut K. Anheier, 2005). Without an excellent board of directors and successful governance it is doubtful whether a nonprofit organization can attain its full potential (Herman & Renz, 1999). In addition, governance is more complex in charitable nonprofits for a number of reasons (Helmut K. Anheier, 2005). According to Helmut K. Anheier (2005), the governance of nonprofit organizations depends on serving purposes, history, geographic reach and mission of the organization. Moreover, governance is important for protecting the reputation and integrity of nonprofit organizations, including organizational planning, fundraising, public relations and other important functions (Helmut K. Anheier, 2005). Management is responsible for conducting day-to-day operations of the organizations and responsible for implementation of board's policies and plans (Corps, 2003). With the growth of nonprofits, there is an increasing need to rely on procedures and information systems in order to keep management informed and ensure right coordination of organizational activities (Corps, 2003). Making profit is not a goal of nonprofits' management. However, nonprofit managers still need to supervise individuals, and pay attention to daily operations just as managers in for-profit organizations do (Allison & Kaye, 1997).

In general, human resources are one of the most important aspects of every nonprofit organization. Human resource capacity includes the capacity to attract, train, manage and retain volunteers, paid staff and board members. Therefore, it is a major concern for nonprofit organizations and small organizations in particular (Gumulka, Hay, & Lasby, 2006). Motivation of nonprofit workers is often different than their counterpart in other sectors (Rosenthal, 2012). As a result, worker motivation

differentiates the governance of nonprofit organizations from for-profit and governmental organizations.

Financial resources of nonprofit organizations are highly dependent on individual donors, government aids, earned income ventures, institutional donors and board contributions (Helmut K. Anheier, 2005). External relations are essential for nonprofits. External relations of nonprofits include connections with government agencies and officials, business sector, community (Helmut K. Anheier, 2005). Finally, nonprofit organizations can be of a wide range of size, scope and sophistication (Allison & Kaye, 1997). The vast majority of NPOs are those of small size (Allison & Kaye, 1997). The governance of small nonprofit organizations is particularly different from those of other sizes (Helmut K. Anheier, 2005). In some cases, the governance overlaps between small and medium NPOs (Helmut K. Anheier, 2005).

2.1.1 Small NPOs

The major part of nonprofit organizations is small sized. Small nonprofits have less than fifty workers and an overall yearly income that is lower than 250k US dollars (Angela Francis, 2012). Accordingly, these nonprofits are small both in budget size and number of volunteers. Nonprofits of small size respond directly to the local needs and they are often run by local communities (Angela Francis, 2012). The impacts of NPOs' missions together with community engagement are crucial to build better neighborhoods and cities (Angela Francis, 2012). These facts demonstrate that small nonprofits play a significant role in the modern world. Better understanding of characteristics of small nonprofits is very important as they are different in many ways compared to those of other sizes within the same sector (Angela Francis, 2012).

Generally, nonprofits of small size have noticeably limited financial, human and technological resources (Allison & Kaye, 1997; Zhang et al., 2010). Budget shortages often pose difficulties in acquiring essential resources to improve the way they carry out their services (Zhang et al., 2010). Lack of professionals and skillful workers is also another inevitable consequence for small NPOs (Zhang et al., 2010). Allison and Kaye (1997) identify nine characteristics of small NPOs. They describe the meaning of characteristics as a set of broad generalizations. These characteristics are listed below:

1. Passion for mission
2. Atmosphere of “scarcity”
3. Bias toward informality, participation and consensus
4. Dual bottom lines: financial and mission
5. Program outcomes are difficult to assess
6. Governing board has both oversight and supporting roles
7. Third-party funding
8. Mixed skill levels of staff (management and program)
9. Participation of volunteers

According to Allison and Kaye (1997), the passion for mission is the greatest source of strength for nonprofits. The passion of the volunteers results in incredible creativity, energy and dedication for the organizational work among its members. Atmosphere of scarcity could be considered as one of the most important aspects of small nonprofits as they are often under-resourced (Allison & Kaye, 1997). They are limited in terms of resources such as money, skillful volunteers or board members. As a result of this limitation, NPOs may frequently have underdeveloped infrastructure. Furthermore, bias towards informality, participation and consensus with little attention to hierarchy represent the key characteristics of small nonprofit culture. The fourth characteristics of small nonprofits are the dual bottom lines of financial and mission. Financial capital and mission are fundamental factors for them. Internally, these two bottom lines influence several strategic decisions through the operational levels of the organizations. Externally, these two factors are the subject of concern among nonprofit stakeholders (i.e. funders, clients and community). The fifth characteristic is related to program outcomes of the organization (Helmut K. Anheier, 2005). It is difficult to assess them and this is often due to the limitations of evaluation capacity as well as a lack of standardized program outcomes in most fields. As the size of the organization is rather small, the governing board of NPOs has many roles mainly to have an oversight and to support their organizations in the possible ways.

Moreover Allison and Kaye (1997) state that many nonprofit organizations are heavily dependent on funding support from third-parties. However, their financial resources are allocated to particular purposes and can often be insufficient to cover administrative costs. Furthermore, volunteers and members have always been the most important force for nonprofits of any size (Allison & Kaye, 1997; Helmut K. Anheier, 2005). As small nonprofits often have limited financial resources, they cannot afford hiring a skillful manager or provide training for their staff. Individuals who volunteered or

worked for nonprofits often have mixed skill levels. Finally, apart from financial support, NPOs rely heavily on active participations of volunteers. The contribution that volunteers make to the organizations is crucial for their success. They provide important support to nonprofits, with their skills and commitments, especially since the work is done free of charge.

The most genuine characteristics of small NPOs are the group dynamics, requisite blending of roles and potential to involve the entire organization in many decisions (Allison & Kaye, 1997). Small nonprofit organizations often use talent and leadership of all of stakeholders, board members, staff, communities and clients (Corps, 2003). Effective governance is important for achieving goals of small nonprofits with limited time and resources (Allison & Kaye, 1997; Helmut K. Anheier, 2005). Finally, governance is important for protecting the reputation and integrity of the organizations, including organizational planning, fundraising, public relations and other important functions (Allison & Kaye, 1997; Helmut K. Anheier, 2005).

2.2 IS in nonprofits

2.2.1 The use of IS in NPOs

Nonprofit organizations have started their investment in IS projects since 1960s (Herzlinger, 1977). However they did it in much slower pace than their counterparts from other sectors (Zhang et al., 2010). Glasrud (1999) states that the major reason for this lag is the way nonprofit workers perceive working with people and working with technology. Despite the level of their computer-related skills, nonprofit workers tend to be focused mainly on helping people or making other positive impacts (Glasrud, 1999). This attitude left little space for the use and impact of IS on nonprofit organizations. However, the situation has been changing in the past years. Nowadays, nonprofits are rapidly adopting IS (Zhang et al, 2010). As a result, most of them use IS in order to provide services to their clients (Hopkins, 2010).

In past, nonprofits did not have the same environmental pressures to adopt IS as other organizations (Nitterhouse, 1999). Nowadays, nonprofit organizations are working in an era of greater demands, fewer resources and highly competitive environment (Hackler & Saxton, 2007). NPOs are forced to think strategically and to allocate their budget wisely in order to stay successful (Bryson, 2011). Many of them use IS to improve performance and overcome challenges from the external environment (Carr, 2004). The number of IS implementations among NPOs has significantly increased mostly due to

changes in nonprofits' operational environments and advances in low cost accessibility of technology (Zhang et al., 2010). According to Saunders (2009) there are two major reasons for the increased adoption of IS in nonprofits in the recent years: (1) a need for higher-quality of relevant information (i.e. organizational inputs and outputs) and (2) access to information about wider contextual forces such as economic policies and political climate. Boles (2003) lists three emerging, low-cost and easily-accessible technologies currently popular among nonprofits: cloud computing (useful for improving internal communication and storing information), social media (used mostly for external communication) and mobile technologies (offer a wide range of opportunities).

The use of IS is as voluntary as user's participation in the nonprofit organizations (Misra & Golden, 1997). The most common motivation behind the introduction of IS in any organization is that the implemented systems are expected to bring increased productivity and efficiency in terms of organizational output (Iacono & Kling, 2001; Pilemalm, 2002). However, nonprofits are more devoted to the organizational mission involving public benefits, and are open-minded to more collegiality, task variety and autonomy (Zhang et al., 2010). Their ultimate goal is a fulfillment of their social mission and the creation of public value (Hackler and Saxton, 2007). Thus, nonprofit sector has different goals of IS adoption from other sectors, in the sense that they have different objectives and perspectives toward IS (Zhang et al., 2010). In nonprofit organizations, IS assists in providing more effective services through improved work processes (Boles, 2003).

The implementation and the use of IS often comes with a great number of challenges (Zhang et al., 2010). From the beginning, basic requirements, such as, IT capacity and technical infrastructure are prerequisites for the organizations to be able to use IS for any meaningful administrative purposes (Hackler & Saxton, 2007). Also, a considerable support of managers and board members is very important. IT resources and user participations (Pilemalm, 2002) are crucial elements in assessing nonprofit organizations' ability to implement and use IS (Hackler & Saxton, 2007). Furthermore, a large number of NPOs are facing variety of problems and obstacles, such as, resource constraints, limited budget, lack of training and technical support, political conflicts etc. (Zhang et al., 2010). According to Hopkins (2010), major resource constraints are funds, time and IT staff. As a consequence, there are many instances where nonprofits have difficulties in maintaining systems that were developed by their volunteers (Nitterhouse, 1999). In other cases, they spend large amount of money for equipment that is not used to its full capacities due to lack of IT staff (Nitterhouse, 1999). In today's fast changing technological environment, funders are also challenged. Gahran A. (2012) found that funders are not familiar with benefits of new technology trends, and fail to make effective technology-funding plans. It is inevitable to conclude that the path towards successful and effective

use of IS in nonprofits is full of barriers and challenges. When choosing an approach for the implementation of IS, these crucial elements can potentially cause failure should be carefully taken into consideration (Nielsen, 2012).

Other big obstacles are knowledge and expertise. They remain the major barriers towards successful use of IS in nonprofit sector (Boles, 2003). According to TechSoup Global survey (2012) that involved 10,500 nonprofits, 60% claimed that insufficient knowledge was the major barrier in technological advancement (Gobal, 2012). In this case, nonprofits often heavily rely on the outside assistance in order to overcome such problem. Hackler and Saxton (2007) state that nonprofits often need considerable external assistance in capacity building and the strategic use of IS. In this way, the organization can have better management of technological, financial and organizational changes. External assistance refers to external support from consulting companies or organizations that ultimately have experience in serving the nonprofit marketplace (Hackler and Saxton, 2007). Outsource consulting can be remarkably helpful for enhancing organizational IT-related strategic outcomes (Henderson & Venkatraman, 1993). Small nonprofits can receive help in form of staff training on common productivity software, receive software for examination and trial. In some cases they can receive help in terms of volunteers that help member organizations with certain projects (Nitterhouse, 1999). This outside assistance can also help small nonprofits to get consulting services for a reasonable fee, host a web-site, and provide a forum for executives and board members to discuss IT related issues with peers (Nitterhouse, 1999). Sensible use of external partnerships, joint ventures, strategic alliances, and key donor relationships to expand capacities and to achieve desired results are important components of nonprofit strategies (Moore, 2000). With the use of IS and help from experienced external sources, NPOs can bring their organizations to a higher level (Zhang et al, 2010).

2.3 IS effectiveness

The subject of IS effectiveness has been discussed for decades among researchers. It is an important phenomenon for both researchers and practitioners (Scott, 1995). While the costs of IS implementations are easy to identify, its benefits are difficult to assess due to the scope of IS impact (Aycaan et al., 2000). IS effectiveness is consistently reported as a key issue for organizational executives and has widely been used as a success indicator for the implementation of IS in both nonprofit and for-profit organizations (Thatcher & Oliver, 2001). The literature on organizational IS success reveals that there is no consensus among researchers on how best to measure it and the criteria

for effectiveness may vary from organization to organization (Thong & Yap, 1996). For instance, the IS success model of W. DeLone and E. R. McLean (1992) is most widely cited and it has been an important contribution to the scientific and academic studies among IS researchers. W. DeLone and E. R. McLean (1992) classified the measurement of IS success into six constructs: system quality, information quality organizational impact, individual impact, satisfaction and use.

However, as stated previously, IS effectiveness is rather a multidimensional and interdependent construct and its study demands the understanding of relationship of its dimensions (DeLone & McLean, 2003). Consequently, no single success variable is intrinsically better than other, so the choice of variables often depends on the objectives of the studies and the organizational context (W. H. DeLone & E. R. McLean, 1992). W. DeLone and E. R. McLean (1992) suggest that in order to develop a comprehensive model for measurement of IS effectiveness for a certain context, measurements should be selected concerning various circumstances. For instance, the structure, size and technology of organization, including individual characteristics of the system users. Some studies define IS effectiveness by judging from users' satisfactions or expectations (Grover, Jeong, & Segars, 1996; Thong & Yap, 1996) as well as an individual impact (W. DeLone & E. R. McLean, 1992). The beneficial impact of the systems that improves a quality of the output can also be used to measure IS effectiveness (Grover et al., 1996; Özkan, 2006). Some researchers claim that IS can only be called effective when the utilization of the systems has contributed to the organizational performance as a whole (W. DeLone & E. R. McLean, 1992; DeLone & McLean, 2003; Malik & Goyal, 2001).

2.4 IS effectiveness in NPOs

Since many organizations today heavily rely on IS (Peppard & Ward, 2004), their effectiveness is unquestionably important. The goal of IS implementation for nonprofits is to serve as a key driver in achieving greater organizational efficiency and effectiveness of the overall performance (Hackler and Saxton, 2007) rather than to dominate their competitors (Zhang et al., 2010). Hackler and Saxton (2007) define IS effectiveness as the extent to which IS ultimately assist NPOs and their workers to achieve their organizational goals.

In practice, effectiveness of IS in nonprofit organizations can be an important determinant of success of the whole organization. For instance, nonprofits that fail to effectively use IS often miss funding opportunities (Schneider, 2003). Without effective use of IS, they are often having troubles meeting expectations for proposed quality and record-keeping systems that both private and governmental

fundlers expect (Schneider, 2003). Furthermore, poor utilization of the system can have damaging effect on the organizations' reputation and weaken its social networks and ties (Schneider, 2003).

Evaluating system effectiveness is very important for the organization as it assesses potential problems and suggests further system improvements to better meet the organizational needs and goals (Davis, 2005). Despite its importance, there is a lack of interest or willingness to evaluate IS effectiveness in the nonprofit sector itself (Hackler and Saxton, 2007). According to Hackler and Saxton (2007), there are several reasons for this. First, IS are often an item in nonprofits not directly tied to the organizational mission. Lack of interest for IS effectiveness evaluation in some cases is due to the lack of trained staff members to use IS (Hackler and Saxton, 2007). Finally, addressing specific service delivery with IS may require many new organizational changes and design of new processes before evaluation is possible. This is a common problem of small nonprofits with less financial resources (Hackler and Saxton, 2007).

We have based our study on the success factors that are specific for context of nonprofit organizations. For this purpose we have used Zhang et al. (2010) framework presented on the Figure 01. This conceptual framework of IS effectiveness remains the most coherent body of knowledge on IS effectiveness in nonprofits. The core of this framework is based on the cognitive fit model developed by Vessey (1991). A perfect fit among the notions of workers, tasks and technologies originates IS effectiveness. This fit contributes to better individual performance and consequently enhances mission-related outcomes and, as a result, boosts up organizational performance. Moreover, framework illustrates that organizational and social environments of the nonprofits can influence or affect the use or implementation of IS. In the following text we discuss each aspect of the framework in-depth.



Figure 1: Conceptual Framework of IS effectiveness for nonprofit organizations
(Zhang et al., 2010)

2.4.1 Worker attribute

Working for nonprofit organizations is observably different than for those of other sectors. This is mainly because the conditions of nonprofits such as limited resources, (i.e. financial and technological capability) lower monetary compensation and job pressures. Many workers tend to seek employment in other sectors (Mirvis & Hackett, 1983). In addition, this sector faces a higher staff turnover than both the for-profit and government sectors, resulting in a constantly changing situation (Lester M Salamon, 2003).

According to Preston (1989) workers join nonprofit organizations in order to provide goods or services with the positive social outcome. They are more committed to organizational missions involving public benefits. They also seek more work-related challenges, job and task variety, autonomy and collegiality (Saidel & Cour, 2003). Lower monetary compensation decreases nonprofit ability to attract experienced and skillful workers (Mirvis & Hackett, 1983). It also decreases the possibility of having on-the-job training to improve their workers' skill levels. Lack of availability in terms of worker-related conditions means that nonprofits have much less control over workers' necessary skills.

Beside skills, user motivation is an important concept of a worker attribute. Altruism, or concern for the welfare of others, is the most common motivation for people to work for nonprofit organizations (Zhang et al., 2010). When it comes to the use of IS, workers can be motivated both extrinsically and intrinsically (Davis et al. 1992). Extrinsic motivation is related to the expected outcome of the use, such as reward or better job performance. Intrinsic motivation refers to the inner enjoyment worker feels when using IS. Thus, altruism-driven volunteers do not desire to work on IS-related tasks, if they are not directly related or contribute to the nonprofit goals (Zhang et al., 2010). As a result, the underlying motivations that draw workers to work for nonprofits can encourage or discourage workers to use IS.

Zhang et al. (2010) proposed a broad scope of skills needed in nonprofit sector. These skills include technical skills, domain skills, political skills and relationship skills. However, authors state that rather than skill-driven, nonprofits are generally volunteer-driven organizations. Workforce in nonprofits is more ideologically driven and intrinsically motivated. Nonprofit workers tend to be satisfied with the job most of the time even when they get paid less than their counterparts (Zhang et al. 2010). In addition, jobs in nonprofit organizations provide their workers with satisfaction, variety and more intrinsic rewards compared to other sectors (Mirvis & Hackett, 1983). Scholars argue that voluntary workers with different characteristics have specific perspective to the use of IS within their organization.

2.4.2 Task Attribute

There are only few studies regarding the difference between IS-related tasks of nonprofits and for-profit organizations. The results of the previous studies illustrate that there is not much difference between the two (Zhang et al., 2010). Saidel and Cour (2003) study on information technology and voluntary sector workplace found that due to increased adoption of IS in nonprofits, many of them face changes such as task migrations. Investments in new technology result in having staff that is often unable to respond to more skill demanding-tasks.

According to Zhang et al. (2010) volunteers perform the tasks only if they directly contribute to the organizational missions and goals. The cognitive fit will only occur if the organization has the capability to respond to the demands or resources of tasks' requirements (Goodhue, 1995) and also workers who have appropriate skills to perform the tasks and use the tools (Zhang et al., 2010, Goodhue and Thompson, 1995). Vessey (1991) list the following task requirements: information

(different tasks require different information presented in different format), skills (different tasks require different skills) and resources (some tasks require certain resources).

2.4.3 Technology Attribute

Zhang et al. (2010) list following dimensions important for technology attribute and those are technology capability, technology availability, technical skills required and time required for using technology. In acquiring IS, nonprofits are highly dependable on external sponsors (Corder, 2001). Many of NPOs have been increasingly adopting technologies in the recent years. However, a great number of them still perceives implementation of IS as not essentially important for the organizational advancement (Light, 2004). Nonprofit organizations, especially young ones, often do not recognize need or lack funding for IS (Light, 2004). Due to these reasons, a number of IS alternatives for nonprofits is indeed limited. With limited budgets, nonprofit organizations may often be unable to upgrade their hardware or software, buy computers or Internet tools, or provide technology training for staff to the degree of businesses.

Zhang et al. (2010) provide an example of open source software (OSS) as a common solution for nonprofits. This is mostly because OSS is capable of supporting a wide range of tasks and has a low acquisition cost. In some cases, NPOs are supported by other nonprofits offering services for IS/IT adoption (i.e. Nonprofit Technology Assistance Provider) as well as funding from donor assistance for IS investment. However, the problem occurs only when donors do not understand the long-term expansion and collaborations. Hackler and Saxton (2007) argue that outside assistance is crucial for boosting their technological capacity. Nonprofits have to be more extensive and judicious in using partnerships, collaborations and donor assistance especially for those organizations lacking resources (Hackler & Saxton, 2007).

2.4.4 The organizational and social environment

Organizational and social environment also have influence on IS effectiveness in nonprofits (Zhang et al., 2010). Most of the influences from these environments can be described as indirect. In many cases, it is indubitably important as they can affect the cognitive fit among workers, tasks and technologies. According to Hackler and Saxton (2007), external assistance is very important for capacity building and the use of IS in order to better manage technological, financial and organizational changes. Zhang

et al. (2010) list following factors that build up social environment: government agencies, donors, vendors, other nonprofits and service recipients. Saidel and Cour (2003) study found a strong relationship between nonprofit acquisition of IS and their relationship, or dependence on government. As far as donors and vendors are concerned, there are numerous examples of large companies from the IT industry donating hardware or software to nonprofit organizations. Certain nonprofits with the technological knowledge and skills are devoted to helping other nonprofits in more effective utilization of IS.

The organizational factors such as members, culture, leadership, goals, strategies and budget play significant roles in how effectively IS are used (Zhang et al., 2010). Needless to say that strong leadership with clear goals and strategies can definitely enhance the overall performance of organization's IS. The positive influences of organizational factors ensure the success of IS developments and deployments (Zhang et al., 2010).

2.5 The Cognitive fit

Cognitive fit theory was originally developed by Vessey and Galletta (1991) who proposed that the cognitive fit refers to the correspondence between task and information presentation format which ultimately leads to better task performance. The theory has been extended into different fields of studies to explain performance differences (Vessey & Galletta, 1991). The adoption of cognitive fit theory can be built upon a diversity of principles varying with the characteristics of the organization and problem-solving, but its dimensions remain within the context of people, problems, tasks and the field of interest. For instance, in case of information systems or data visualization this theory is based on technology involvement, worker and task (Vessey & Galletta, 1991).

However, other IS researchers also proposed similar theories relying on the fit of related notions with different focuses. Goodhue (1995) studied cognitive fit between task and technology support called task-technology fit (TTF). The theory refers to a degree that a technology assists individuals in performing their tasks (Goodhue, 1995). His study offered a better explanation of the linkage between characteristics of technology and task which explained the impacts of technology usage on individual performance. Later on, Goodhue (1995) has discovered that not only TTF, but also the utilization of technology can have certain influences on performance impact. In 1995, Goodhue and Thompson proposed a comprehensive model called technology-to-performance chain (TPC) which represents a more accurate picture of how technologies, individual tasks and utilization relate to improvements in

performance. The previous researches on the topic of cognitive fit have shown that cognitive fit theory can be used to explain performance differences in distinct settings (Staples & Seddon, 2004).

Irick (2008) expanded TTF with a critical concern on cultural prospect. His findings declare that technologies adopted can evoke different reactions among individuals with different cultural orientations (Massey, Montoya-Weiss, Hung, & Ramesh, 2001). Zigurs and Buckland (1998) argue that a good fit between tasks and technologies would result in a good group performance. They define performance as the accomplishment of group goals which are influenced by the act of individual tasks (Zigurs & Buckland, 1998). These evidences are in line with a cognitive fit proposed by Zhang et al. (2010) as a fit among workers, tasks and technologies together with the support of social and organizational environments lead to the achievement of IS effectiveness. Consequently, different cultural orientations and collaborations of the task performers can affect the organization in achieving IS effectiveness.

3. Methodology

In this part, we explain and motivate our research approach and strategy. We provide detailed description and present motivation behind each step we took in our research. In our study, we were guided by Zhang et al. (2010) conceptual framework of IS effectiveness for nonprofits. After the literature review we have also taken in consideration characteristics of small nonprofit organizations. These factors were included when we conducted the data collection part. Furthermore, we explain transcription and analysis methods we have used in our thesis. Finally, we make critical methodological reflections to our research.

3.1 Research strategy

The selection of an appropriate strategy is critical to the success of any research project. It must be driven by the research question as well as the current state of knowledge in the area being studied (Recker, 2012). Development of our research strategy was guided by the research question, objective and the extent of existing knowledge, as suggested by Saunders et al. (2009). Our study is interpretive in its nature and the interpretive research is based on the qualitative data (Bhattacharjee, 2012). Interpretive studies attempt to understand phenomena through the meanings that people assign to them (Walsham, 1993). They are useful for gaining an understanding of the context of information systems and the process whereby the IS influences and is influenced by the context (Walsham, 1993). We will study IS in the context of nonprofits and attempt to gain understanding of phenomena through the meanings people from nonprofit sector assign to them. People's decision-making and behavior is often highly contextual. Qualitative research methods are used to explore this very context, in order to explain why the phenomena occur the way they do (Recker, 2012).

Although, IS implementation and development in the nonprofit context have been discussed to some extent, the effectiveness or success of IS is relatively unexplored and not well understood area (Zhang et al., 2010). In this case, qualitative approach has numerous advantages as it can potentially reveal complex phenomena and lead to comprehensive, multi-perspective view (Recker, 2012). Furthermore, qualitative research is designed to help researchers to obtain deep understanding of phenomena of interest (Creswell, 2007). The phenomena is studied in the natural setting where it occurs, researchers collect data by themselves through a variety of techniques and finally interpret data.

3.2 Research Approach

We find case study to be particularly suitable for a qualitative research. This is because case study is used for investigating a phenomenon within its real-life context especially when the boundaries between phenomenon and context are not clearly evident (Myers, 1997). Additionally, case study comes in handy when organization is the unit of analysis (Recker, 2012). Since we will study IS in context of nonprofits, case study will allow us to derive richer, more contextualized and more authentic interpretation of phenomenon of interest through its ability to capture a rich array of contextual data (Bhattacharjee, 2012).

Case study is widely used in IS research and its suitable for understanding the interactions between IT-related innovations and organizational contexts (Darke, Shanks, & Broadbent, 1998). This research approach is particularly appropriate for certain types of problems: those in which research and theory are at their early, formative stages and sticky, practice-based problems (Benbasat, Goldstein, & Mead, 1987). The experiences of the actors and the context of action are critical for exploration stages of knowledge building process (Benbasat et al., 1987). We believe a case study approach is well-suited for studying complex organizational processes that involve multiple participants and interacting sequences of events. To be precise, a single-case study is preferable in a case when the researcher wants to study previously unchallenged phenomena or issues (Recker, 2012). Finally, the case study method enables us to hold the complete and meaningful characteristics of actual events, such as organizational and managerial processes. That is why it is suitable data collection method for our research (Yin, 2003).

3.3 Site (Tamam)

We have chosen a subject for our case study based on the nature of our topic as suggested by Benbasat et al. (1987). Our study subject is Tamam, small nonprofit organization headquartered in Lund, Sweden. Tamam is a party-politically and religiously independent non-profit organization that works with children, youth and young adults. Their goal is to encourage diversity, anti-racism and young people's community engagement through variety of activities. They include meaningful leisure activities, promotion of equality in schools and encouraging young people's community involvement. Headquarter of Tamam is located in Lund, Tamam also has four local branches located in Malmö, Uppsala, Stockholm and Örnsköldsvik. There are also international associations that are part of Tamam family under the same name and concept of missions, such as, Tamam Albania, Mexico, and

Kyrgyzstan. These international associations act more as autonomous organizations, but with close connections with Tamam Sweden.

Tamam is different in the way that the whole organization is run mostly by youth or young adults with diverse backgrounds. Organizational goal is to break down the barriers that stand in the way of young people with different backgrounds, cultures and nationalities. Tamam is doing so by providing them with a chance to get to know each other, to exchange cultural experiences and become friends. Tamam's mission is to create new social spaces with a variety, homework assistance and recreational activities for children and youth. In other words, it strives to be a platform for young people's civic participation and encourage and support their own initiatives for international cooperation and exchanges. Additional information can be found on their main website.

Tamam is indeed no different from any other nonprofit in terms of organizational management and governance. Accordingly, Tamam has the same common elements that apply to their counterparts in nonprofit sector. Their organizational structure consists of Board of Directors, committees, volunteers and members. Tamam is leading by a national board called "Riksstyrelsen" while each local branch is an independent association with statutes and a board controlling local activities and volunteers. In terms of financial funding, each year, Tamam has to find at least 1,000 members in order to get monetary support from Swedish government.

Tamam in Sweden

Organization Overview

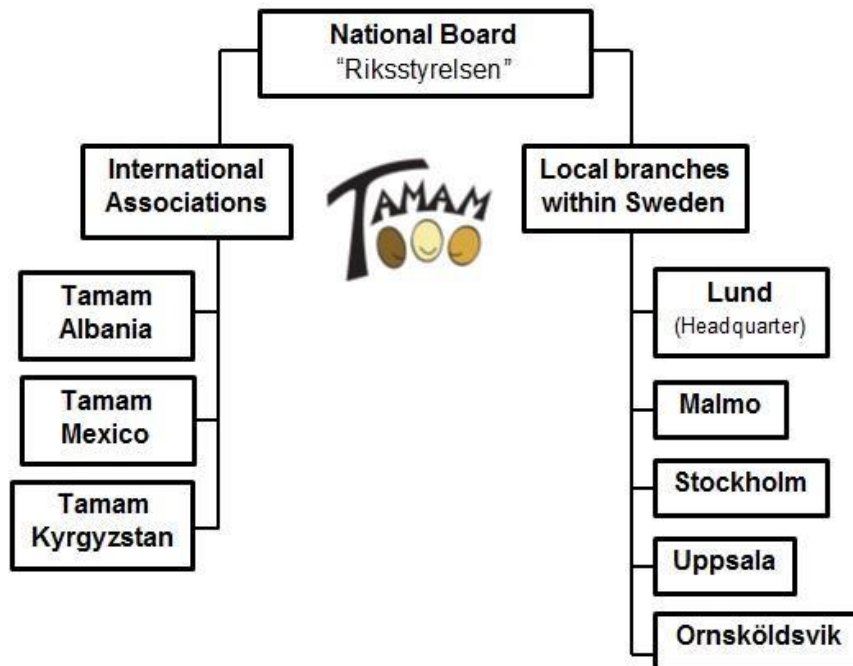


Figure 2: General overview of Tamam (Tamam Wiki, 2014)

The national board is supervising each local branch of Tamam within Sweden. The national board is authorized and supported by Swedish Government. The local branches in different cities are mainly working with local members and occasionally cooperate between branches for collaborative activities. However, the national board's main duty is to strategically organize the money received from Swedish Government and private donors as well as to provide supports for collaborative activities between local branches and other nonprofits. Each local branch is an independent association. The local board is responsible for the operations that happen within their local branch, for instance, daily activities. These activities include planning, organizing, and financing volunteers that are working towards Tamam's missions and goals. However, each local board consists of several local groups, while each group has one group leader and a few volunteers as showing in Figure 3: Local branch overview.

Local branch in Sweden

Organization Overview

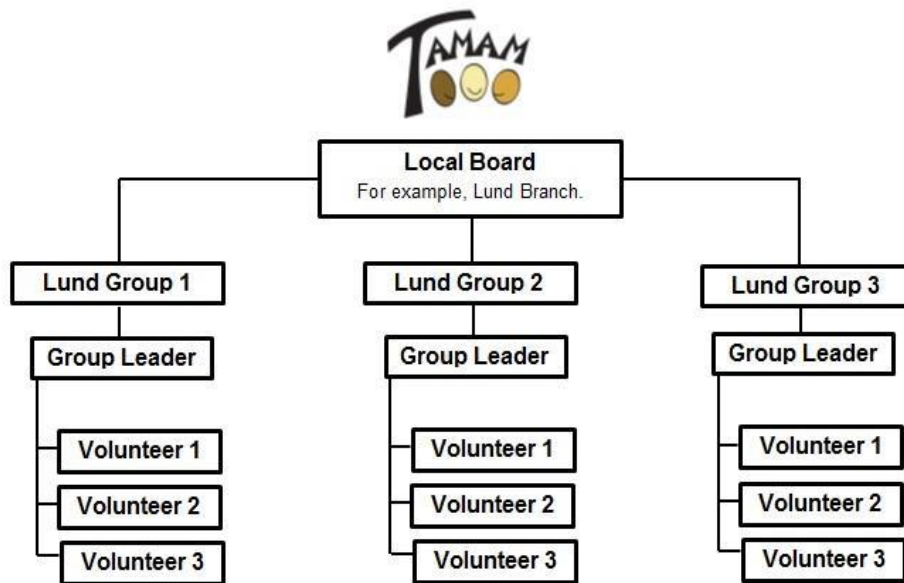


Figure 3: Local branch overview

3.4 Data Collection Technique

Qualitative interview is one of the most common and most important data gathering techniques in qualitative research (Bhattacharjee, 2012). S. Kvale (1996) defines the qualitative interview as "an interview, whose purpose is to gather descriptions of the life-world of the interviewee with respect to interpretation of the meaning of the described phenomena". The purpose of conducting an interview as a part of data collection in our research was to gather data that will improve our understanding of the constraints that small nonprofits are facing in achieving IS effectiveness from organizational members.

Semi-structured face-to-face interviews were conducted with the members of Tamam nonprofit organization. Semi-structured interviews often provide reliable, comparable qualitative data for researchers (Cohen & Crabtree, 2006). In addition, conducting face-to-face interviews allowed us to take advantage of body language, voice etc. (Opdenakker, 2006). Moreover, there is no time delay between questions and answers resulting in more spontaneous and honest answers. It also gives the researcher an ability to create better ambience and get more relevant information from the interviewee (Opdenakker, 2006). According to Saunders et al. (2009) semi-structured interviews are those where interviewer has a list of questions, but he is able to add or remove questions in order to make

improvisation. We have also considered Creswell (2007)'s suggestion of flexibility of research questions. This resulted in adding questions during the interview that seemed important and were left out in the first place. Author also states that interviewers should be ready with follow-up questions or prompts in order to ensure that they obtain optimal responses from participants (Creswell, 2007).

The technology, such as, audio recording was used to gather information as it is preferable and necessary technique in qualitative research (King & Horrocks, 2010). We have constructed the interview questions based on our theoretical foundation: Zhang et al. (2010) conceptual framework of IS effectiveness for nonprofit organizations in collaboration with characteristics of small nonprofit organizations. Interview questions were designed in a manner that would allow us to explore into the concrete experiences of the interviewees in order to gain insightful data from the interviews. It is a good practice to start an interview with some personal information about the interviewees (King & Horrocks, 2010). Thus, the first set of questions aimed at gathering general information about interviewees, their position in the organization, organization in general and influence of social environment. They were followed by the questions on the use of the system, important aspects of IS effectiveness. Therefore we have created questions that target these attributes and their correlations and fit.

3.4.1. Interview Guide

According to Brinkmann and Kvale (2005), the first step of semi-structured interview is to create the interview guide. The interview guide was used to assign a path for the conversations between the interviewers and participants. It consists of sets of potential questions that need to be asked in order to complete the data collection.

We understand that it is impossible to develop a complete interview script, as the researchers and interviewees may have different perspectives. Because of that, we considered flexibility to be an important feature of our interviews. Having flexibility in our interviews enabled us to interact with the interviewees, and to create the follow-up questions. This way, we ensured the effectiveness of our data collection and interview process.

The interview guide was crafted based on the interview questions. After reviewing the literature, we grounded our interview questions on the related literature, in which, we have compiled the conceptual framework (Figure 1) by Zhang et al. (2010). The framework consists of a number of related attributes that affect the effectiveness of IS within the organization. We used these factors as the theoretical foundation for our interview questions and guide. We took the characteristics of small nonprofit

organizations into account when creating interview guide. We formulated a number of questions from each of these attributes with the aim to identify the factors that constrain the organization in achieving IS effectiveness. As a result, we divided the interview into eight parts.

1. Introduction
2. Organizational culture and management
3. Information Systems architecture
4. Development of IS
5. Impact of Environmental changes
6. The use of IS
7. Workers
8. Tasks

Part 1 and 2: We started the interview guide with a short explanation of our research topic and purpose. The introduction also included the description of what Information Systems and IS effectiveness are. This enabled the interviewees to understand the interview context. Then, the guide started with a few simple questions regarding the interviewee's background and experience. In the next part, we used several questions based on organizational and social environment in order to draw the conversation into the context of management and culture.

Part 3 and 4: Furthermore, we formulated a number of questions about the architecture and development of IS in the organization. The purpose of these parts was to identify the role and the use of IS and the perceptions they have of IS tools. By using these questions, we expected to see the relation or difference between nonprofit sector in comparison to for-profit or governmental sector and ultimately to identify the factors that could have any effects on IS effectiveness. The questions involved the development process, initiation of IS implementation, strategic perspective and perceptions of members.

Part 5 and 6: We continued the interview with a number of questions on impacts and environmental changes as well as the use of IS. We aimed to identify the impacts that IS are having on both individual and organization including the changes that occur after IS have been introduced. As we wanted to learn more about the use of IS, we formulated a few questions to identify how members are using these systems and how the board members support or encourage their members to use them. In

this part, we also expected our findings to offer us a deeper insight into culture and IS governance of this organization.

Part 7 and 8: Workers and tasks are the main attribute in our conceptual framework. We formulated a number of questions that aim to capture the characteristics of Tamam's workers and their tasks, especially IS related. However, we closed the interview with open discussion as we asked the interviewees to freely add any details that could potentially be important for our research. The closing discussion allowed us to identify aspects that we have missed to cover. In the end, we informed the interviewees that we will transcribe the interview and send the copy to them via emails. Then, they had a chance to go through the whole interview transcripts and give us their permissions to use them in our research.

3.4.2 Selection of Interviewees

The richness and depth of qualitative research findings depends on the quality of sources (Polkinghorne, 2005). Consequently, selecting the right interview respondents is an important aspect of data gathering part of qualitative research (Bhattacharjee, 2012). According to Marshall (1996), selected informants are expert source of information and can provide high-quality data in a short period of time. From this perspective, we have chosen knowledgeable members with the longest experience in the organization as well as their proficiency with IS tools (Myers & Newman, 2007). While choosing interviewees, we have particularly considered their experiences and roles within organization (DiCicco-Bloom & Crabtree, 2006). In addition, it was important for us to acquire participants that are willing to openly and honestly share information (Creswell, 2007). Key interviewees are those whose social positions in a research setting give them specialist knowledge about other people, processes or happenings (Geoff Payne 2004). Therefore, our aim was to identify and choose key participants as they are particularly valuable sources of information to a researcher (Geoff Payne 2004). We have chosen respondents based on their knowledge and expertise to provide information we needed. Beside their knowledge and background, another important factor for choosing interviewees was their number (Seidman, 2012). When choosing interview respondents it is necessary to ensure that there are enough participants, in order to get adequate representation of different types of experiences (Seidman, 2012). When deciding upon the number of interviewees we have followed two criteria defined by Seidman (2012): sufficiency and saturation of information. For the sake of sufficiency, we have chosen 5 interviewees, all of which have had a rich experience. We

have also achieved the point of saturation of information, where we began to hear the same information that was already reported.

3.5 Data analysis

The early stage of data analysis has already started during the interview. We analyzed interviewees' reactions, the on-going conversation and created some additional questions as related to the context of the conversation. In fact, we already had included the concept of analysis when developing the interview guide and during the interview. After collecting all the interviews, next step was to prepare the data by transcribing the interview recordings into the written form. Then, we used the coding technique to reduce the amount of data. Later on, we started to perform detailed systematic analysis.

3.5.1 Transcribing

Transcribing procedure has no precise guidelines on how it should be carried out and it depends on the planned use and analysis of the transcript (Steinar Kvale & Brinkman, 2009). We have chosen to use verbatim style, however all pauses, laughter, expressed emotions, other voices were excluded. All the interviews were carried out in English, and there were no problems regarding the understanding and/or translating of the interviews. After the interviews were transcribed, we sent them to the participants via email. All five interviewees accepted the transcriptions and we had the permission to use the data. Steinar Kvale and Brinkman (2009) recommend performing transcribing as soon as possible after the interview is done. We have made the transcription within the next two days after the interviews to ensure that all crucial aspects were carried out with less transcription errors. Each transcription was done by each of the researchers and then cross-checked and discussed each other's work to increase the quality of the transcript. This was made in order to avoid biases and mistakes. By doing so, the transcription process helped us to better understand the conversations and ultimately contribute to more accurate details for later analysis.

3.5.2 Coding and analyzing

Once, the interviews were completely transcribed, we considered the total amount of transcriptions, and decreased the amount of data with codification and categorization. We used codification to extract

insightful meanings and important findings from the interviews. Then the process of data analysis was executed. The first step of data analysis was to take notes during the interviews. During the process, we analyzed the notes together with the interview transcripts. After this stage we discussed and compared the findings.

In order to explore a broad perspective from the interviews we have chosen the open coding (L.Berg, 1989). We carried out the coding by using the software called NVivo. This software allows making coding faster and due to the clear visualization coded data becomes more explicit. Richards (1999), argues that NVivo enables scholars to evaluate the processes by which the data can be explored. Accordingly, it also allows categorizing and structuring the coding. The transcribed interviews were coded independently in NVivo by each scholar. The approach we used for the coding is to add new aspects to the coding list during the process by attaching keywords and short descriptions to the pieces of text. We coded the transcripts based on the concepts that we used to create the interviews including the aspects of IS effectiveness that we found in our literature review. However, some pieces of interview text could not be categorized in a certain node because a single statement often contained different aspects. As a result, we categorized the overlapping statements in two coding categories. We coded five interviews separately because Steinar Kvale and Brinkman (2009) suggest that different perspectives of researchers can yield different interpretations. Following by a merged session where we found that the majority of the coding among us is the same. In many cases, we had different opinions on some statements. We solved this problem by discussing the content of the text coded to find a final agreement on coding. The next step was to classify the codes into different classifications such as “characteristics”, “cognitive fit”, “limitations” and others. This step was executed automatically in NVivo software. So in the end we achieved the summary of the coding with all nodes and quotes from the interviews. Below the table of nodes is presented in Figure 4.

Attribute	Nodes
Workers	<ul style="list-style-type: none"> - Skills - Background - Expertise - Motivations for volunteering - Motivations to use IS - Activeness - Position and responsibility
Tasks	<ul style="list-style-type: none"> - General Tasks - IS-related tasks - Task distribution
Technologies	<ul style="list-style-type: none"> - IS Accessibility - Capabilities - Availabilities
Organizational Environment	<ul style="list-style-type: none"> - Culture - Technological investment - Management (i.e. administrative and financial) - Impacts from goals and missions - Members - Leadership
Social Environment	<ul style="list-style-type: none"> - External connections - External assistances (i.e. vendors, donors and other nonprofits) - External collaboration - Challenges and opportunities
Others	<ul style="list-style-type: none"> - The use of IS (i.e. problems, barriers) - User perceptions and satisfaction towards IS - Characteristics of small NPOs - IS implementation - Technological investment and future plan - Awareness and acceptance of IS - Limitations

Figure 4: Table of Nodes

3.6 Research quality

3.6.1 Reliability

One of the most important characteristics of the research is its quality. We were aware of its importance from the phase of choosing the problem area and research question to the phase of writing up the study and presenting research results. A case study research is often being considered to be lacking in rigor (Yin, 2003). This was a major concern for us, since without rigor, research loses its utility (Bell & Morse, 2008). We have followed Recker (2012)'s guidelines that assure rigor in qualitative research. Our first concern was to assure that our research is reliable. Reliability depends on whether individuals upon considering the same data would reach the same or similar conclusions (Recker, 2012). For its sake, we assured that all the concepts from our theoretical background are nested in the scientific literature on the topic of our research and they can easily be reached. Furthermore, our research strategy consists of well-known and commonly used techniques and tools. Our interview questions were derived from our conceptual background and were formed as open-ended questions to ensure rich and detailed answers. We assured not to influence answers of participants in any way, and that the whole interview process was recorded using high quality audio-recording technology. For the purpose of collecting and coding empirical data and referencing it is very helpful to use special-purpose software tools to support qualitative research (Darke et al., 1998). In our study we have used EndNote and Nvivo for referencing and coding processes.

3.6.2 Validity

Qualitative research is valid if the findings of study are true and certain (Guion, Diehl, & McDonald, 2011). In order to achieve this, research findings should accurately reflect the situation and they should be supported by evidence (Guion et al., 2011). In order to achieve this, we allowed participants of the study to go through our findings and made sure that there is understanding and agreement on empirical findings between researchers and participants. We have also used investigator triangulation as a method for establishing validity in our research (Guion et al., 2011). We have coded interview transcripts separately, and then compared results in order to gain a deeper understanding on how each of us viewed interview findings. Finally, we came up with the same conclusions and in this way increased our confidence in the findings. Also, because inferences from case research are highly contextualized, it may be difficult to generalize them to other contexts or other organizations (Recker,

2012). However, we assured that we provided detailed and rich description of the research context so that other individuals can assess the extent to which it matches those of other fields of research.

3.6.3 Bias

Walsham (1995) state that interpretive researchers are presenting “their interpretation of others people interpretations”. Since the whole study is basically our interpretation, its quality is affected by the issue of biases to some extent, and that is the common feature of interpretive research (Darke et al., 1998). Generally, we were aware of two common types of biases: our effect on events and the behavior of participants at the site and our own beliefs, values and prior assumptions (Darke et al., 1998). We were aware of the subjectivity of the data collection and analysis processes. The quality of inferences derived from our case depended on our integrative powers (Darke et al., 1998). To ensure that our study quality is not heavily jeopardized due to biases, we relied on reviews of our peers and supervisors and aimed to be objective throughout the whole study.

3.6.4 Ethics

As in any other social science, ethics plays an important role in IS study (Recker, 2012). IS research can potentially be subject to wide range of potential ethical issues (Kock & Davison, 2003). Since, our chosen method of data collection was the interview, ethical considerations in our research mainly focused on the data collecting process when dealing with the interviewees. We followed the ethical criteria when conducting the interviews as suggested by Bhattacharjee (2012). First, we informed respondents with some potential information on our study, regarding their participation in the research. For instance, who is conducting the study, for what purpose, what outcomes are expected and who will benefit from the results. Members of Tamam organization were fully informed on all above mentioned aspects of the study, whether or not they wish to participate in the study.

Recker (2012) notes that it is necessary to consider the extent to which participation in the study is voluntary and it is not exerting physical or psychological stress or damage to participants. In addition, it is important to ensure the participants on how the data will be protected in terms of anonymity or confidentiality, as required. Participations in our study were completely voluntary and participants were aware that they are allowed to withdraw from the study at any point. While we couldn't assure anonymity in our study since we were doing the face-to-face interviews, we offered confidentiality of

the data to the participants (identity of participant cannot be identified from any form of research disclosure) (Recker, 2012). However, the participants allowed the researchers to disclose their identities over the results. As we believed, this information is important to the participants, so that they can express their understanding and knowledge liberally.

4. Empirical material

In this chapter, we will present the empirical findings. Apart from conducting the interviews, we had a chance to participate in one of Tamam's annual board meeting. We have observed how board members made decisions towards their missions, goals and activities. However, we were not allowed to take notes during the board meeting. Moreover, we questioned some volunteers in order to explore their opinions, experiences and personal perspective towards IS within Tamam which will also be reported below. The gathered data will be presented together with the transcripts.

4.1 The role of IS in Tamam

The participants describe how IS play a significant role in their organization, especially on their daily tasks (T3:63). They describe how their organization cannot function without IS as they are the tools to communicate between branches (T3:39). According to the participants, IS have become the force that influences the advancement of Tamam (T2:42). In total, we have found that there are only a few systems that are being used organizationally. These systems were created by their volunteers and by hired a third-party company. The existing IS were initially created to respond to recurring issues (T2:28). These systems were developed by considering the ease of use and the objectives of having them (T2:30). As far as the users have basic computer skills, no additional IS knowledge or skills are demanded in order to use them (T2:64 & T5:42).

Furthermore, they explain how the entire organization relies on IS for different purposes. For instance, the interviewees explain that they have to communicate to each other all the time (T1:25), as they always have to ask who is willing to perform certain tasks (T2:42). Within Tamam, members, workers and volunteers use IS mainly for communication purposes (T3:39). Participants also emphasize that without the use of IS it would be impossible for them to communicate throughout the organization (T2:42). Additionally, IS is being used to store organizational documents and it has also been used as a knowledge library for newcomers (T5:20). Participants also explained that efficient communication contributes to a better and faster task performance and IS is an easier way of retrieving information (T1:41).

4.2 IS development

Interviewees claim that a lot of work has been already done towards IS development, such as integration of the systems (T2:42). However, IS related work is basically done if someone is interested in doing it. For instance, there was an enthusiastic volunteer in Tamam who first started using a Google drive and Wiki (T3:17). Some volunteers state that current IS needs to be improved as some features like graphical work cannot be executed properly (T5:46). This happens due to the fact that Tamam is a small, young and developing NPO (T3:55). Moreover, Tamam has no support from external parties in the context of IS (T2:76 & T2:10). In addition, Tamam is experiencing difficulties in IS advancement because they want to use the cheapest products, in order to save money (T3:19). Some interviewees claim that its often challenging to work with some IS tools, because in some cases it is hard to find information. This is due to a large amount of data and poor structure (T1:47). On the other hand, workers who have more IT background state that the IS which are used in Tamam are very easy to use understand (T2:30 & T2:64). In general the IS development part can be summarized as a developing tool within Tamam, which helps its members a lot in way of coordination. However the structuring and regulation needs improvement.

4.3 The use of IS in Tamam

Tamam currently has several kinds of IS that are being used within the organization: Tamam's website, social media (i.e. Facebook and Twitter), Google Drive, Wiki, Tamam App for member registration and email. The existing IS are mainly used for supporting information distribution and communication within the organization and work on different documents (T2:14 & T4:10). Tamam has been using their systems to keep all the records of their missions, associations and activities in many different formats (i.e. PDF, word, excel, and other office files). They are using their app and website as the platforms to fill out when new members are enrolled (T5:52 & T5:14). Their website and social media have been used to increase internal connections and to retain public relation (T5:14). The internal communication and information exchange within and between branches has been done mainly over email and phone calls (T1:17).

4.3.1 Email

Email is extensively used for internal communication within the organization among board members, group leaders and their volunteers (T4:8). It is particularly important for distributing tasks among

volunteers (T2:44). The tasks distributed through emails are various from activities and projects to informal everyday task (T4:44). In addition, organization members are highly encouraged to actively use emails (T4:28). The list of emailing group is particularly important as interviewees claim that the group email is the most common choice to distribute information and documents (T2:22). All volunteers are at least introduced to group mailing systems upon joining the organization (T2:48).

4.3.2 Facebook

Facebook in Tamam is commonly used for both external and internal communication, including promotion among potential volunteers and service recipients. Together with email, it represents the most used tool in the organization (T2:54). Organization is highly dependent on Facebook (T3:81). One interviewee notes that easy access made Facebook attractive to the organization (T3:81). In general, Tamam members recognize the value of presence on social platforms (T3:19 & T3:73). Facebook groups are perceived as useful tools for communicating among project team members or branch members regarding different activities (T3:37). However it has been challenging to get members to start using Facebook groups (T3:45). Furthermore, one interviewee expressed discomfort in having to obligate newcomers to create Facebook profiles in order to be present on the social network (T2:54). Facebook groups are divided according to geographical location or on-going projects (T2:12). Facebook is also being used to promote Tamam's activities, goals and purposes and ultimately attract new volunteers and members (T2:44).

4.3.3 Wiki Tamam

The Wiki was developed by a former member who had enthusiasm for technological development of Tamam (T3:17). The Wiki was created by using Google sites' free service called "Project Wiki". It is used for many purposes within the organization, such as, to access and share documents, to store organizational information and to collaborate on team projects. Formal documents and contact details are the most common information that can be found on the Wiki (T4:44). It is a knowledge library that keeps records of activities, different kind of forms and contacts. One of the reasons for its introduction was its availability and generalizability (T3:77). Despite Google Drive which was initially created for the board members, the Wiki is meant to be used to cooperate between board members and volunteers (T3:37). However, certain issues such as accessibility and a poor structure of the site pose challenges

in its successful utilization. Access to wiki is allowed to all the members but a person needs to be approved by admins first in order to be able to gain access (T3:37). In terms of accessibility, each position has different access level. Some can only access Wiki to download documents and search for information, while board members can additionally edit documents and upload information. According to interviewees, many volunteers feel unmotivated to seek for permission to this tool and end up not using it. Another significant problem is a poor structure of Wiki. Searching for desired information can often take significant amount of time (T1:47). Some members can spend hours searching for the right information, just because they have none or little experience with using Wiki (T1:47). Although, training sessions have been provided for newcomers, their interest in using Wiki has not increased.

4.3.4 Website

Tamam uses their website mainly to promote and represent their organization. In order to retain public relations people can register their email on the website to receive newsletter updates (T2:16). Tamam's blog is used to tell the story about their missions and services. Their website and member system called "MyClub" was developed by a third-party company and it is being used to keep all the records from their member's registration. The website was created by using WordPress, which is an open-source blogging tool (T2:16). MyClub is connected to their website and mobile application. Even though their website provides five different languages: Swedish, English, Albanian, Russian and Spanish, it needs some improvement, as the language level is not suitable to Tamam's target group, children and youth (T3:73). Since its establishment, the website has rarely been modified or improved (T3:73).

4.3.5 Google drive

The purposes of using this technology are file sharing and collaborative editing. Tamam organizational members use it for keeping and editing important documents and files (T5:22). In the beginning, the organization did not have a single platform for keeping and editing documents (T2:30). The documentations and files were kept on the personal computers of each member and collaborative editing was impossible (T2:30). Managing documentation was rather difficult and Google drive seemed to be the right solution for the organization members. Both the Wiki and Google drive were

initiatives of one IT enthusiastic member (T3:17). It was perceived as a good solution as it is easily accessible and free of charge (T3:19). It is used mostly among board members and people that are actively involved in the organizational activities, and it is not available to regular volunteers (T4:22). The drive is structured in such way that each local branch has access to their own folder and to some of the collaborative folders (T2:58). While members of the national board and active volunteers with long experience with Tamam have access to the whole drive (T2:58).

4.3.6 Others (Twitter and App)

As we have mentioned earlier, Tamam has outsourced the development of their app to a third-party company. The app is only being used for the member registration. It enables new members to sign up through their mobile devices (T3:31). Although, the interviewees did not mention Twitter at all, we have found that Tamam has their own Twitter account and they regularly post news and updates via their Twitter page. From our observation, we conclude that there is, however, no sign of feedback or repost from their members.

4.4 IS effectiveness in Tamam

4.4.1 Tasks

Tamam is rather limited in terms of human resources. All five interviewees explained that one member may have to respond to many tasks apart from their main duty (T2:6), especially if they are in the board of directors (T5:26). For instance, one of the interviewees is a chairman, and her main duty is to resolve different organizational issues, and at the same time, she is a mentor for members and volunteers (T1:8). All interviewees claim that information is the most important for their tasks and it would be impossible or difficult to perform missions without the right information in the right format (T2:22). Since Tamam is a social servicing organization its goals and missions are focusing more on servicing their recipients that mostly are youth and children (T3:55). All interviewees explain that they use IS mainly to communicate among volunteers and recipients, including handling of documentations and files (T2:14). The interviewees said that IS-related tasks are simple and there is no need for highly sophisticated computer skills (T4:42 & T5:42).

The volunteers often lack background that would be beneficial for the tasks. However, the volunteers can choose to perform tasks based on their willingness (T5:26). Only in few cases, the volunteers can be asked to perform certain tasks depending on their expertise and experience (T3:109). For example, one of the interviewees explains that one of the board members is responsible for financial matters because he has experience in finance and is willing to spend his time on the task (T1:13 & T5:66). Apart from volunteer contribution, the organization provides other resources that are needed for the task execution, such as budget, facility and material (T1:13).

4.4.2 Worker

For Tamam, volunteers are the power source for their operation, as there are only three employees that actually get paid by the organization (T3:39). One of the employees notes that people who are hired to work only get paid 50% or less of a normal salary (T2:12). The interviewees also describe the diversity of backgrounds of their volunteers, most of the volunteers are students of different majors (i.e. humanities, engineering and social sciences) (T2:62 & T3:97). The interviewees explain that they do not have any criteria or preferences for people who want to join Tamam and are interested in becoming volunteers. One of Tamam's problems is the presence of the volunteers, since anybody can participate in their social activities, but it is not mandatory for the volunteers to stay active. As a result, active volunteers are less than one third of all the members, while the rest of them are participating occasionally (T3:91). Some of the volunteers join the organization and stay only for a short period of time (T5:12), which leads to a lack of volunteers every once in a while (T1:79). The most active volunteers are those who take the position of a group leader or higher positions in the board of directors. They are also responsible for distributing information to the volunteers (T2:18). The interviewees explain that the more active their volunteers are, the more they tend to use IS tools (T3:63).

We have found that there are different kinds of tasks within Tamam and each of them require different skills. Interviewees note that their volunteers are mainly students from different fields of study, which means each of them has distinct domain skills, such as, engineer, economic and humanities (T2:62 & T5:62). In terms of technology-related skills, they do not have any skillful IS volunteers or employees. Most of the volunteers only have basic computer skills and are only capable of using the systems that they are already familiar with.

Since we have participated in one of their board meetings and spent some time with their volunteers, we found that relationship skills turned out to be a basic requirement for workers in the nonprofit sector. Working in a small nonprofit organization means that the relationships among volunteers, workers and board members represent a small society (T3:95) and communication plays a significant role within their organization (T3:39). We believe that without the relationship skills, one will not be able to work or communicate with other volunteers and ultimately cannot be a part of Tamam. When it comes to political skills, we analyzed and concluded that normal members are well aware of goals, procedures, and how to occasionally take part in some activities which means they have none or very low political skills. Active members, in contrast, are more familiar with organizational management, Tamam's culture, and administration. They usually have both relationship and political skills.

When questioned on the motivation of volunteers and how this affects the use of IS, the interviewees said that people start to volunteer for different reasons. For instance, some of them need practical experience, some volunteer for an entirely altruistic reason, and some of them just want to try something new and interesting (T3:97). When it comes to the use of IS, interviewees point out that there are two main things that can encourage volunteers to use IS. The first one is recognition of IS, some of the interviewees said that some volunteers do not use IS because they do not know about it (T5:44). The second one is the activeness of volunteers. If a person wants to participate in Tamam activities regularly, it is inevitable for them to stay in touch with group leaders or fellow volunteers, and to do that, they have to use IS (T2:52). The interviewees also said that it is very difficult, almost impossible, to get their volunteers to start using IS (T3:45), if they have never used it before.

4.4.3 Technologies

When it came to technologies in Tamam, we considered its capability and availability, as well as skills and resources required to use it. From our participation and observation of one of the board meetings, technologies (e.g. IS, mobile devices and IT) play a significant role in Tamam's operations, but according to the interviewees, their organization has no future improvement plan for technological development (T3:27). The interviewees expressed that they have enough IS capabilities to deal with their regular tasks (T1:25), but the systems could be improved in many reasonable ways (T3:115). Accordingly, the existing systems have recurring problems mainly because most of the volunteers can use IS, but none of them have enough knowledge or skills to improve or set up new systems (T5:80). The participants said that the existing IS have poor structure (T4:46) as well as a couple of system

malfunctions which they are struggling with (T2:74). The interviewees, who are involved with maintenance of IS, said that the reason they chose to use Google Drive, Wiki and Facebook is mainly, their availability. As these systems are cheap, easy to use and simple to implement (T3:19), most of the volunteers are familiar with them (T3:77 & T5:42). There is no need to provide a training session to new volunteers (T1:45), rather than just introducing them to the available IS that are being used within Tamam (T4:24). These IS are just simple platforms which do not require any specific hardware or high capacity computer to be used effectively (T1:74), and the interviewees did not mention any problems regarding the computer requirements of their IS. According to the interviews, the main problem is that some of the existing IS are poorly structured (i.e. Wiki and Google Drive) which makes it harder for the users to find specific information if they are not familiar with the systems (T1:47). Another aspect are the basic requirements for the technology, in order to join Facebook group volunteers need to have Facebook account and the same principle applied for Google Drive and Wiki (T2:28). However, the interviewees also mentioned the different accessibilities of their volunteers. For instance, Google Drive cannot be accessed by volunteers, in contrast, local board members and national board members can access. In fact, local board members can only access the files that are related to their local branch, while national board members can access any files because their responsibilities cover the whole organizations (T2:58).

4.4.4 Organizational and Social environment

4.4.4.1 Organization environment

We found that Tamam is not different from other voluntary-based nonprofit organizations in terms of organizational culture. There is feeling of friendliness and general welcoming atmosphere among members. The interviewees explained that the operations within Tamam are based on willingness (T2:68) and tasks are rarely distributed as a sort of assignment from board members. Tamam's organizational culture is very informal. For instance, responsibilities and tasks are distributed in a way that everyone chooses the ones they prefer (T2:68). Volunteers are willing to perform tasks that can contribute not only to a greater good of service recipients (T2:60), but also for the existence and development of Tamam (T3:113). Most of the changes, improvements and activities are influenced by volunteers, with the support from local board and ultimately consensus from Tamam national board of directors (T3:17). Although, the organizational culture is informal, leadership still plays important role

after all. National board of Tamam is responsible for overall administration and they have absolute authority over local board and volunteers (T3:57). Their job is to make sure that volunteers receive the support they need to perform their tasks well. They also make important decisions such as visionary plans, policies, goals and cooperation between branches and other NPOs (T3:119). One interviewee states that responsibility of the volunteers depends on their position. For instance, the president of Tamam national board is responsible for most of the things that happen in Tamam.

The informants said that their biggest funding comes from Swedish government which provides them with money for each member they have (T1:13). The national board is responsible in dividing this funding to local branches for different purposes. The priorities are those activities which are directly tied to the fulfillment of their mission and goals (T1:15). Investing in technology advancement is not on the budget list (T3:27).

4.4.4.2 Social environment

Tamam cooperates with other organizations such as with Tamam Albania and Kyrgyzstan and other organizations with similar profile and goals (T3:93). However this cooperation is mostly based on the projects and workshops and rarely related to the other aspects of nonprofits (T3:51). Nonprofits usually assist each other on the matters directly related to their organizational goals. There has never been reported any kind of assistance or cooperation in terms of IS (T2:76). Organization is mostly funded by the government funding and to a smaller extent by private donors and membership fees (T2:8 & T1:13). Except government funding, Tamam does not aware of any kind of external assistance and cooperative opportunities, which could be directly tied to the effectiveness of their IS.

Chapter 5: Discussion

In this chapter, we will analyze our empirical findings based on the conceptual background of our study. First we provide a detailed discussion on the characteristics of small nonprofits. Then, we analyze empirical data based on Zhang et al. (2010) conceptual framework of IS effectiveness for nonprofits. Finally, we outline and explain the most significant constraints that nonprofits face in achieving IS effectiveness.

5.1 Characteristics of small nonprofits

Our findings on characteristics of Tamam are very much in line with characteristics that Allison and Allison and Kaye (1997) have identified for small NPOs. We found that Tamam's volunteers are mainly youth adults who are seeking the opportunity to help people and gain new experience. These volunteers are very passionate about their mission to encourage diversity, anti-racism and community engagement of young people. These are the key drivers and the ultimate motivators for their dedication. Passion of the volunteers differentiates worker motivations in nonprofit sector from organizations of other type as suggested by Rosenthal (2012). Altruism is their main motivator for doing something good and to help others. Furthermore, there is bias towards informality and tendency towards consensus among volunteers. Even though, there is a certain hierarchy within Tamam, the dominance remains casual and there is generally a feeling of informality in relations between the organizational members. All operations in Tamam fall under the free will of the volunteers, from task distribution to the everyday communications. There is a common feeling of friendliness among volunteers which can limit decision making, task distribution and performance.

There is also an atmosphere of scarcity as the organization mainly relies on government funding. The Swedish government usually provides enough financial resources to maintain organizational activities and operations. Tamam also has the dual bottom lines as missions and financial matters which is in line with characteristics of small NPOs by Allison and Kaye (1997). As the main goal of Tamam is to carry out efficient services for children and youth recipients, most of the budget is distributed to the activity part, leaving Tamam with rather underdeveloped both organizational and IT infrastructure. In addition, organizational volunteers and members tend to invest their time rather than their money as the main source of contribution towards organizational missions and goals. In terms of program assessment, Tamam has no standard for the quality of service delivered; this is mainly because of limited organizational capacity to evaluate their activities. The agreement of the local or national

board members determines the launching of activities proposed and the continuity of existing activities.

Another important characteristic of small nonprofits is related to its worker. The number of active volunteers is surprisingly low which means that one active volunteer, especially the members of governing board, is often responsible for several tasks. Board members are responsible for the governance of small NPOs. However, they also have to perform general voluntary work such as fund raising, organizing activities or do the bookkeeping. Another characteristic of small nonprofits that we have recognized in Tamam is a third-party funding. Tamam relies heavily on the restricted government funding, as it rarely receives donations from private donors. Furthermore, volunteers of Tamam have mixed skill levels and expertise. Most of them have no formal training for certain responsibilities. Organizational capacity is a barrier for hiring skillful workers and providing volunteers and workers with proper training. Members come with a wide range of skills and interests. Because of that, Tamam does not have much control over volunteers' skills. Since, Tamam relies heavily on the active participations of their volunteers; they have to welcome anyone who is willing to contribute to the goals of the organization. Importantly, most of the volunteers are young people who are often limited with time as they have to keep the balance between voluntary work and other responsibilities, such as school or work.

5.2 Organizational and social environments

In terms of organizational environment, organizational culture plays the most significant role affecting the use of IS. According to the data we have collected, communication plays the most important role in the organization. Therefore, the communication is considered to be a sense of nonprofit community and one of the most important reasons for the IS adoption in small nonprofits. We have found that goals and culture of the organization define the direction of IS development. For instance, the organizational goals of Tamam are focusing on serving a greater good of people and involving less in technology. This has resulted in a complete absence of goals regarding IS.

The existing systems were initially developed by the enthusiastic members who had a personal interest in IT/IS. Many of our interviewees have confirmed that they are aware of the benefits of having IS tools. In addition, most of the volunteers are encouraged to use the system. However, only few of them actually use it on the regular basis. We have found that these aspects are in line with the fact that the perception of the volunteers towards IS can affect their perspectives and ultimately the way they use

IS as suggested by Zhang et al. (2010). Our findings have shown that IS tools are perceived as a perfect complement to manage information and communication within Tamam. The volunteers have confirmed that IS can improve their operation efficiencies and help them to accomplish their missions and goals. However, without the encouragement and support from leadership, volunteers are losing interests in developing IS and they hardly find any ambition for future improvements. In terms of finance, our first assumption was that the limited budget might be a common obstacle for small nonprofits to adopt IS. The finding has shown that lack of money was not a main barrier for the organization. It is rather because they do not want to divert their budget from providing services to the development of IS. We found that the way the budget is prioritized to be particularly unfavorable for deploying, developing and utilizing IS.

In general, social environment influences the deployment and the utilization of IS in nonprofit sector (Zhang et al., 2010). In most cases, small nonprofit organizations lack financial resources to hire experienced IS consultants from external sources to manage IS project. Even though, external assistance is very important for capacity building and the development of IS, in case of Tamam we have found that they have no connections with any external stakeholders in the context of IS. Tamam only has certain relations with other nonprofits for occasional collaborative missions and activities. We found that social environment stakeholders, such as private donors, NTAPs, other nonprofits and governmental agencies, have not had any impacts on the implementation of the existing systems at all.

5.3 Cognitive Fit

The core origin of the IS effectiveness for nonprofit context is the cognitive fit among workers, tasks and technologies (Zhang et al., 2010). Worker attribute consists of worker skills and motivation to use IS. In case of Tamam, we have found that their workers and volunteers have sufficient skills to use the existing IS and to perform certain IS-related tasks. However their skills are not sufficient to develop or implement the systems. When it comes to the motivation, Zhang and Gutierrez (2007) state that people who volunteer for the nonprofit organizations are often willing to perform any task as long as it contributes to the success of organizational missions and goals. The same principle can be applied to Tamam's active volunteers. They are willing to use the systems in order to be a part of Tamam society or to perform their tasks which involve the utilization of IS. In contrast, there is a lack of motivation among less active volunteers. Unmotivated and inactive volunteers refuse to use IS and this ultimately affects the existence of the cognitive fit within Tamam.

Technology attribute consists of capabilities, availabilities, technical skills required and time required. From our literature review, we found that technologies such as cloud services, mobile applications and Social networks offer nonprofits a great deal of opportunities such as external and internal communication and managing documents. These technologies have become a solution choice for nonprofits of small size. In Tamam's case, the adopted systems, such as, cloud services and social networks are the common tools that are available on the internet with affordable price. All existing technologies being used within Tamam are simple and quite common for internet users nowadays. These IS tools do not require any proficiency in IS to be able to use them. The advancement of technologies today allows the volunteers to use and access these systems from their smartphone, tablet or any computing hardware. In general, the only requirement to use these technologies is a good internet connection. Our study shows that the technological capabilities are sufficient to satisfy demands of organizational IS-related tasks. Interviewees agreed that most of the tasks do not need any advance systems. Their problem is not to get more advanced systems, but rather to improve the existing simple one. This means that the capabilities of the currently used technologies are sufficient for their tasks.

The next element of the cognitive fit is tasks. They can require different information, skills and resources. The intention behind all the tasks, questions and communication is to get the right information. For instance, volunteers and workers use IS in order to get the right information for their responsible tasks. Another important aspect of task attribute is the required resources. In case of small nonprofits, both national and local board members are responsible to approve which activities and tasks should be implemented. Their approval depends partly on availability of resources. This means that the organization only approves the tasks for which they can afford required resources.

However, the cognitive fit among workers, tasks and technologies may exist after all. Vessey and Galletta (1991) argue that the cognitive fit exists when workers achieve the best task performance when their problem-solving skills fit both the task and the technologies provided to support performing the task. In the case of Tamam, the volunteers and workers get to choose the tasks that they want to perform and have the ability or problem-solving skills to complete them. Most of the organizational tasks are simple and do not require a high degree of competency to perform them. The existing technologies are also simple to use and Tamam has enough technological capabilities to deal with their tasks. However, Tamam is limited in terms of skill proficiency of their volunteers and that can affect the organizational capacity to achieve the best performance. The advancement of the existing technologies are comparable with skills proficiency of Tamam volunteers and workers. We found that the technological capabilities of the organization could be improved, if the workers have

proficient skills that can perform more complicated tasks. Then, the organization would have implemented more advanced systems, and in return the organization may ultimately have greater technological capabilities to handle more complicated tasks and consequently achieve a better task performance.

5.4 IS effectiveness of Tamam

According to Zhang et al. (2010), IS effectiveness depends on whether a nonprofit organization can support sufficiently motivated volunteers or workers who have the right skills to use the right technologies for the right tasks. Moreover, they claim that limited budgets, lukewarm top management sponsorship, insufficient training and technical supports can be the obstacles for nonprofits to implement IS. We have found that limited budget may not be an issue after all. First, the advancement in IS together with low cost accessibility make it easier and affordable for nonprofits of any size to initiate their IS project. Second, the finding shows that limited budget is not the problem for implementing IS. The national and local boards divide their budget into several parts and there is one part for the purpose of project initiation. For instance, Tamam has outsourced development of their website and membership system called “MyClub” to a third-party company.

We found the organizational environment to be the source of the main problems that affect the initiation of IS projects. The findings show that national and local board members have positive perception of the benefits of using IS. In addition, they encourage their volunteers and members to use the systems that are available to them. For instance, board of directors support the use of IS by initiating introductory IS session to motivate newcomers to use their systems. The problem within the organizational environment of small nonprofits is activeness of their volunteers. In such circumstances, most of the inactive volunteers leave after a short period of volunteering. From the findings, we understood that this problem is indeed related to the underlying motivations that encourage volunteers to work for nonprofits. Zhang et al. (2010) suggested that the motivation for volunteerism may encourage or discourage their volunteers to use IS. For instance, in Tamam’s case, we found altruism to be one of the most important motivations for volunteers to join Tamam. Furthermore, the organization has no precise standardization to what extent that top management of nonprofits should motivate their volunteers to use IS. Also the impacts of their encouragement are dependent on many factors, such as, the presence and activeness of volunteers as well as the culture of organization.

The fact is that the volunteers and board members recognize the usefulness of IS. However, their perspectives and actions toward IS development often collide. This is mainly because the organizational culture is very informal and all the volunteers are working under the feeling of voluntary basis. Because of that most of the volunteers do not use or prefer not to use IS. In addition, there are no plans or tactics towards the advancement and development of IS. As a result, Tamam generally views IS projects as an undesired burden since they cannot estimate the result of initiating a new IS project or a full commitment to improve the existing one.

Since, Tamam does not have any incentive or compulsions from their social environment, any influences regarding IS would largely come from their organizational environment. From our discussion, we conclude that the conditions of their organizational environments do not support the use, the implementation and the development of IS at all cost. Despite the existence of the cognitive fit among workers tasks and technologies, IS effectiveness for Tamam remains absent.

5.5 Constraints of small nonprofits

A high volunteer turnover

Small nonprofit organizations rely heavily on the participations of their volunteers (Zhang et al., 2010). In order to achieve IS effectiveness, it is important that top management encourages their volunteers and members to explore the use of IS. However, it is impossible to motivate the volunteers to use IS if they refuse to continue volunteering. Small nonprofits have much less control over volunteers' willingness to continue their participation, thus, a high volunteer turnover becomes one of the most significant constraints towards IS effectiveness.

Lack of motivation to use IS

Altruism is the main motivator of voluntary workers. Most of the volunteers are more ideologically driven and intrinsically motivated. Consequently, they are focused primarily on the fulfillment of their mission. Most of their activities and services involve working directly with people. In such circumstances, volunteers are not desired to use IS. They tend to minimize their involvement with technology if the use of IS does not contribute to their tasks and missions. This results in a low extrinsic motivation to use IS. In addition, many of the volunteers have social science background. Most of them know very little about technology and might not be interested in working with IS.

Therefore, intrinsically motivated volunteers are very rare. However, we found that these particularly enthusiastic individuals are responsible for most of the Tamam's development in terms of IS.

Moreover, we also found that the level of motivation of volunteers' to use the IS correlates to the level of their activeness and involvement in the organization. More active volunteers are more willing to use the existing IS. Volunteers that participate occasionally, particularly avoid to use IS, if these systems are not already integrated into their daily life.

Lack of expertise and skills regarding IS

As mentioned before, recent emerging technologies, such as cloud services, mobile applications and Social networks, offer nonprofits a great deal of opportunities and pleasant offers. These technologies provide the ease of use function, simple installation and implementation for affordable price. Unfortunately, small nonprofits have very little options over volunteers' skills levels. Thus, they are often unable to ensure that their workers have necessary skills to use certain IS. Even though, the volunteers that have sufficient skills to use certain IS. It is explicit that they need the volunteers or workers with a higher IS competency to develop and maintain the existing systems. However with a lower monetary compensation, it is difficult for small nonprofits to hire skillful IS workers. Offering their volunteers prized training to lift up their skill level is also not a plausible alternative for small nonprofit organizations. Lack of sufficient IS expertise and vision towards IS development lead to unstructured and poorly maintained systems affecting user satisfaction and their perceived usefulness.

The absence of organizational goals towards IS

The most outstanding characteristic of small nonprofits' culture is that the volunteers are very passionate about their mission. They are focusing primarily on achieving the organizational goals. Therefore, small nonprofits tend to prioritize their budgets mainly on fulfilling and supporting their social mission. Diverting valuable resources to operate and to fund IS project is seen as a skeptical choice that may interfere with their mission. This is generally because small nonprofits rely heavily on external funding and often have limited budgets. As a result, small nonprofits' budget is particularly unfavorable for initiating IS project. Another aspect of this absence is greatly related to the influences from top management. Top management of small nonprofits acknowledges that IS play a significant role in accomplishing their social missions. Nevertheless, they may not have technological vision towards IS advancement, if they do not have sufficient skills and expertise in the field of IS. Thus,

organizational goals towards IS initiation and development become scarce and contributing to the slow acceptance of IS within the organization.

The impacts of organizational culture

The organizational culture in small nonprofit organizations plays the most significant role controlling the use of IS. We found that small nonprofits have a very informal culture that based on voluntary simplicity. A general feeling of friendliness within the organizations poses challenges to board members and group leaders in motivating their volunteers to use IS and ultimately to the actions of leadership. However, a weak support from leadership can disinterest volunteers in using IS. Consequently, the enthusiastic members with personal interests in IT/IS may hardly find any ambition for future improvements of IS project.

Chapter 6: Conclusion

6.1 Research questions and purposes

The main purpose of our study was to identify constraints that affect small nonprofit organizations in achieving IS effectiveness. Our study has also included characteristics of small nonprofits which have a strong effect over IS effectiveness. We have identified a number of constraints and other factors that affect the presence of cognitive fit among workers, tasks and technologies. We have also explained their causes and impacts on IS effectiveness for small nonprofits. Our study based on the conceptual framework of IS effectiveness for nonprofit organizations. The research was conducted to answer to the following question.

“What constraints do small nonprofits face in achieving IS effectiveness?”

6.2 Implications of findings

The constraints identified are closely tied to the characteristics of small nonprofit organizations and the impacts of their organizational environment, including certain recurring impediments of the organization itself. We have identified the following constraints:

- A high volunteer turnover was positively identified as a constraint, mainly because user participation is a crucial element for small nonprofits in implementing and using IS.
- Volunteers of small nonprofits are very focused on their mission and they often refuse to use IS if it does not contribute to the organizational goals. Together with the absence of top management support, this leads to lack of motivation to use IS.
- Low monetary compensation makes it very difficult to hire workers with high competences or to provide priced training for the volunteers. The organizations often end up with lack of expertise and skillful IS workers.
- The allocation of their resources mainly focuses on their activities and services. Lack of technological visions towards IS from top management has resulted in a considerable organizational impact as the organizations have no clear goals towards IS initiation and contributing to slow development of IS.
- Small nonprofits have very informal culture even though, there is an organizational hierarchy. A general feeling of friendliness often impacts the actions of leadership leading to many

consequences affecting the use of IS. Ultimately, the informal culture has become the obstacle for the development of IS.

We have also found that there were some aspects of our findings that could be improved within small nonprofit organizations in order to effectively use IS and to make the existing systems fully functional. Even though, social environment can significantly influence the use and the adoption of IS, we have found that small nonprofits have very little influence and support from social or external environment. This barrier is particularly unfavorable in terms of IS development. Many researchers suggest the significance of external assistance in providing supports for small nonprofit organizations. The external assistance includes providing training to improve skill proficiency of the volunteers and enhancing the strategic use of IS within the organization. As a result, we believe small nonprofits can remarkably benefit from improving the cooperation and connection with social environment.

6.3 Future research and limitations

Our study was conducted based on a small nonprofit organization operating in a social service context and involved four long-term volunteers and one employee as data sources. All participants were Swedish native speakers and the interviews and discussions were conducted in English. Our research and the interview script was based on the concepts of IS effectiveness for nonprofit organizations by Zhang et al. (2010). It is possible that studies in different contexts of NPO and based on different concepts of IS effectiveness using a larger number of participants may have different perspectives in terms of constraints towards IS effectiveness.

We have done our best to complete this research, although, only few studies have been done on the topic of IS effectiveness for nonprofit organizations. Particularly, no IS research has been conducted in the context of small nonprofit organizations. We argue that conducting IS research in nonprofit organizations can make significant contributions in several ways. The contributions include help in exploring the new theories that are grounded within the nonprofit context and theories that are based on such factors as volunteerism, mission driven actions and other particular conditions. Significantly, the researchers can treat the findings of our research in small nonprofit context as special cases of organizations of small size which may have limited budgets and resource constraints. The nonprofit sector emphasizes altruism, cooperation and ideology that may advance our understanding of why and how voluntary workers contribute to developing, using and deploying IS.

Appendix A: Interview Guide

As we have given you a short introduction of what Information Systems is or what can be called as Information Systems (IS). Here is a short description of IS:

“Information Systems is the application (systems or software) of information technology to support the major functions and activities of either a private sector business or public sector institution”

We have been studying with the development of IS in nonprofit sector for the past week and we have found that nonprofit organizations, in which operate in different business environment, represent a different context of IS study. In our research, we consider effectiveness of Information Systems as:

“the extent to which IS assist nonprofit organizations and their workers to achieve their goals.”

Our research aims are to identify the constraints that affect nonprofit organizations in achieving IS effectiveness. The researchers who conduct the interviews will also consider the characteristics of small nonprofits as the possible aspects of the constraints. Notice that additional questions regarding the characteristics may be necessary during the interviews.

Introductory Questions:

1. What is your position in TAMAM?
2. How long have you been working with TAMAM?
3. What responsibilities do you have in TAMAM and what are your main tasks?

Organizational culture and management:

4. Do you think Tamam has any influence or support from external supporters?
(i.e. donors, government agencies, vendors or other nonprofits)
5. In terms of financial management, how do you prioritize your budgets?

Information Systems architecture:

6. What kind of IS tools do you have in your organization?
7. How important are information systems in your organization?

Development of IS:

8. What role does IS have in TAMAM?
9. What strategies does Tamam have regarding investment and development of IS?
10. What was the reason for investment/adoption in IS in the first place?
11. Have you personally participated in IS development?

Impacts and Environmental changes:

12. Do most of TAMAM volunteers know about information systems?
13. What impact does IS implementation have on your organization?
14. Does IS implementation influence the quality of TAMAM works, and if so, in what manner?

The use of the Systems:

15. Do all the members have access to information systems?
16. Do you have any training sessions for your members?
17. What would be the reason for TAMAM volunteers to start using IS?
18. How many of volunteers are actually using it?
19. What can be the reasons that some volunteers don't use it?
20. Which IS tools have been used more than others and why ?
21. Have you faced any challenge or problem regarding the use of IS?
22. How important is the security for TAMAM systems?

Workers:

23. How many volunteers do you have in Tamam?
24. What can be the reason that volunteers start working in TAMAM?
25. What kind of backgrounds do your volunteers have in professional field?
26. What kind of skills do your volunteers have?
27. What kind of skills do you think necessary to have in order to use IS effectively?
28. What do you think about your volunteers' perception about IS?

Tasks:

29. How do you distribute works in your organization?

(For example, volunteers' background, knowledge or skills they possessed)

30. Do you have any problems in dividing different tasks or duties to your volunteers?
31. What kind of tasks in your organizations does IS support?
32. Do you think your organization have enough technological capabilities in performing IS-related tasks?

Appendix B: Interview transcriptions

Interview transcription 1 (T1)

Date of Interview: 5th of May, 2014

Duration: 25 minutes

Interview format: Face-to-Face

Transcribed by: Nikita Pyshnyak

Transcription checked by: Tawanrat Kwampaiboon and Stefan Jevtic

Transcription date: 6th of May, 2014

Participants of the Interview

Researcher 1: Nikita Pyshnyak

Interviewee 1: Olga

1	Nikita	- What is your position in TAMAM?
2	Olga	- I am the chairman for the board
3	Nikita	- How long have you been working with TAMAM?
4	Olga	- For the whole Tamam?
5	Nikita	- Yeah
6	Olga	- For about 2.5 years.
7	Nikita	- What responsibilities do you have in TAMAM and what are your main tasks?
8	Olga	- Well, actually I am responsible for usual things that chairman does, organizing things, working out different issues, I have to be there for the members and volunteers (in the board) so that they could contact me.
9	Nikita	- Ok.
10	Nikita	- Do you think TAMAM has any influence or support from external supporters (i.e. donors, government agencies, vendors or other nonprofits)? Do you have any supports from these organizations?
11	Olga	- We have some support from Lund authorities, it's Lund's governmental organization. And we also have like National Board which helps us a lot.
12	Nikita	- In terms of financial management, who is responsible for this?
13	Olga	- Well, it one of our members Lucas. He has all kind of financial responsibilities for our organization in Lund. But we also get a lot of financial help from Swedish Tamam Ricks, which we call in Sweden "Riksstyrelsen". They earned money from the government which gives money support to all organizations who have more than 1000 members. And then we got the money from governments for each member.

14	Nikita	- And do you have priorities in spreading money within the organization? For example this year we need to fix this, and IS doesn't need that much funding this year?
15	Olga	- Well, we are experiencing lack of money. But the priority is always for group projects and money goes there for different activities.
16	Nikita	- What kind of IS tools do you have in your organization? (Any open source, vendor software) You were talking about Wikis for example before the interview?
17	Olga	- Yes, we use Wikis, which is opened for all members. There are different forms that you need, contacts to the board and other things. And we have Google drive, where we have our meeting notes. And we use e-mails a lot too (mail groups).
18	Nikita	- So you do not have any database in that case?
19	Olga	- I don't use it, but I know that David, who is working with membership, he uses some sort of database.
20	Nikita	- What role does IS have in TAMAM? Are you influenced by using IS?
21	Olga	- You mean all of them (Wiki, Website etc.)?
22	Nikita	- Yeah
23	Olga	- I think we are using it a lot on board but volunteers just use the mail
24	Nikita	- How important to have IT/IS support in your organization? Does it give much help?
25	Olga	- Yes it helps a lot. It would be very difficult to do our job without emails. We communicate a lot via these technologies.
26	Nikita	- What is your organizational vision towards technological improvement? (Future Plan)
27	Olga	- Yes it would be great if we could do that. It will be much easier to find information instead of spending hours on searching documents from old board.
28	Nikita	- What strategies does Tamam have regarding investment and development of IT/IS? I mean do you have any support or encouragement from your leaders?
29	Olga	- We have office people whom we can ask regarding any IS problems and also some personal from the main board. However I cannot say that we are having any strategies regarding IS development for now.
30	Nikita	- What was the reason for investment/adoption in technology/IS?
31	Olga	- Well, I think the system was in use before I started working here. But I use Is for searching information that can help me. Some things that I can give to volunteers and/or group leaders , so that I don't have to email them by myself I just go to this Wiki or to Google drive.
32	Nikita	- Have you personally participated in IS development?

33	Olga	- Unfortunately no, as I've told you I started working since the time all ISs were implemented.
34	Nikita	- Do most of TAMAM volunteers know about information systems?
35	Olga	- Well, I think most of them have heard about the Wiki but they don't use it
36	Nikita	- What impact does IS implementation have on your organization? Maybe it makes any improvements for Tamam?
37	Olga	- Yes, sure, because we have a lot of data from our branch organizations in Uppsala, Malmo and with Wiki we can switch information by using the same forms and that's good I think.
38	Nikita	- So you can enter and see any kind of information in Lund?
39	Olga	- Yes, and also we have access to National Boards
40	Nikita	- Does IS implementation influence the quality of TAMAM work, and if so, in what manner?
41	Olga	- Yes, it helps a lot in organizational and personal structure, allows to perform tasks faster.
42	Nikita	- Do you have any training sessions for your members?
43	Olga	- Well, these systems are quite easy-to-use, so we don't have any training sessions.
44	Nikita	- What would be the reason for TAMAM volunteers to start using IS?
45	Olga	- It should be easier for group leaders; they don't have to hand everything. And volunteers would get more abilities to understand what are they doing and why.
46	Nikita	- What can be the reasons that some volunteers don't use it?
47	Olga	- Well, when I started in Tamam it was like a lot of talking about Wiki but I don't think that everybody understood it back then because it's a bit confusing, it's hard to find information and you can spend hours for example just for asking group leaders the board number, if you don't have enough experience in using Wiki.
48	Nikita	- Do you encourage your volunteers to use the systems? And do volunteer choose whether to use Wiki or not?
49	Olga	- No, they don't have to use it if they don't want. It's just like an Information place
50	Nikita	- Which IS tools have been used more than others and why?
51	Olga	- The thing is Wiki is for all volunteers and members and the Google drive is more for the board and the office, so we have a lot of document that only we have access to. So in the board we use Google Drive more than Wiki but the members should use the Wiki more.

52	Nikita	- Have you faced any challenge or problem regarding IS usage?
53	Olga	- Well, frankly yes, because in Wiki it's hard to find information
54	Nikita	- Really?
55	Olga	- Yeah, I think so. It has a structure but it's not so easy to work out.
56	Nikita	- But can you ask some members for help or how do you manage this?
57	Olga	- Yes the Board office people know how to work with it.
58	Nikita	- How important is the security for TAMAM information systems?
59	Olga	- Yes, the security issues are very important but we don't have things that are unsecure, it's like forms or information that you can google.
60	Nikita	- But maybe you need to protect your database with information that you have about your members
61	Olga	- Yes, the information about members is protected, so you don't have phone numbers and social numbers available for everyone.
62	Nikita	- How many volunteers do you have in Tamam in general?
63	Olga	- Well, it's hard to say. I actually don't know.
64	Nikita	- Do you know maybe how many of them are in Lund?
65	Olga	- Around 50.
66	Nikita	- What can be the reason that volunteers start working in TAMAM?
67	Olga	- Hopefully they want to help our kids in order to achieve a better society and it's a great opportunity to meet different kind of people and be in different situations.
68	Nikita	- What kind of backgrounds do your volunteers have in professional field?
69	Olga	- A lot of our volunteers are students in all different categories. We have like teachers, we have engineers, people who study economics, so it's a very, very big mix.
70	Nikita	- But the biggest part of them are students?
71	Olga	- Yes, they are.
72	Nikita	- What kind of skills do your volunteers have?
73	Olga	- I don't have that they have so much professional skills, it more like leadership or some skills in sports or something like that.
74	Nikita	- What kind of skills do you think necessary to have in order to use IS effectively?
75	Olga	- Well, our systems are quite easy to use as I have mentioned above so it's not a big deal for our volunteers to cope with this technologies. But it could happen if we were using more advanced system.
76	Nikita	- What do you think about your volunteers' perception about IS?

77	Olga	- It's hard to say. Because when I was a group leader it seemed for me that volunteers do not use IS. Maybe that was because they don't have that much opinion about that. But hopefully I think it's a good thing.
78	Nikita	- Do you have any problems in dividing different tasks or duties to your volunteers?
79	Olga	- Well, it's like when we have a new volunteer we have a board meeting and we ask in which group do you want to be a volunteer so that they could choose, but we also try to put people where we are experiencing lack of volunteers. And for example if it's a person who is active in sports we try to get him involved in related fields.
80	Nikita	- So it's like you meet and discuss these issues all together?
81	Olga	- Yes.
82	Nikita	- Do you think your organization have enough technological capabilities in performing IS-related tasks?
83	Olga	- I think some improvements regarding IS would be good. It could save some time, make the work more effective.
84	Nikita	- Ok, thank you very much.
85	Olga	- Thank you too.

Interview transcription 2 (T2)

Date of Interview: 13th of May, 2014

Duration: 45 minutes

Interview format: Online interview (Skype)

Transcribed by: Tawanrat Kwampaiboon

Transcription checked by: Stefan Jevtic and Nikita Pyshnyak

Transcription date: 14th of May, 2014

Participants of the Interview

Researcher 1: Tawanrat Kwampaiboon (L.)

Researcher 2: Stefan Jevtic

Researcher 3: Nikita Pyshnyak

Interviewee 1: Petter

1	L	- So, what is your position in TAMAM?
2	Petter	- I am treasure in Tamam Malmo board and I'm also doing the booking thing for Tamam. But I should say that I used to be a chair person in Tamam and work as an organizational developer as well.
3	L	- How long have you been working with Tamam?
4	Petter	- I've volunteering with Tamam for four years now. And I've been working with Tamam for two years as an employee.
5	L	- What responsibilities do you have in Tamam and what are your main tasks?
6	Petter	- Well, as a treasure in Malmo board my main task is to take care of economy, do the booking thing and stuff like that. But as a part of Board member in general is to plan for the future plans and activities in Malmo branch. Like what are we going to do, where shall we find volunteers and stuff like that. We are actually smaller than the department in Lund, which is the biggest one.
7	L	- Do you think Tamam has any influence or support from external supporters?
8	Petter	- Well, we get our money mainly from the Swedish Youth board, this is the organization that resolves such questions. That's where we get all our money from, it's like around 1.1 million Kroners every year. And then we do get a little bit from private donors that donate every month. And around 20,000 of our annual income is from membership fees. 70% of which goes to the local branch and their members. But municipal branch can also apply for some grants and some funds.
9	Stefan	- Have you any support regarding IS from external parties?
10	Petter	- Well, actually not. We use third party software but we never had any support from such organizations in IS sphere.
11	L	- In terms of financial management, how do you prioritize your budgets?
12	Petter	- Nationally the budget is prioritized, firstly in terms of organizational environment. We can use it only in Sweden and connect it to local branches so even though we have branches abroad it still has to stay in Sweden, that money for abroad can be only got

		<p>from private donors. All the money has to support the local branches activities and work. And that is done in several ways, we have different funds that local branches can apply for like Initiative fund and an Office support fund. They give us money to pay the rent or to buy some office materials and stuff like that. And there is an International cooperation fund which is for helping in exchanges, travelling etc. And there is also a educational development fund which helps volunteers to perform their projects very quickly. That's around 20,000 SEK of the budget. And then quite a big portion goes to salaries. We have two persons who are working for 50% each, and I'm doing the booking and get 2000 SEK per month. And also the last portion of our money goes to the local branches straight, so that they can use it for their activities. And concerning IS, there is not so much money going for that, I think we have around 30,000-50,000 SEK connected to PR.</p>
13	L	- How important are information systems for your organization?
14	Petter	- It's very important I'd say, otherwise it wouldn't work at all. It connects the local branches, the International board, volunteers, because we need to communicate with each other and meet each other, we can't be in the same place at the same time, so it helps a lot. So it's all about communicating with each other.
15	L	- What kind of IS tools do you have in your organization?
16	Petter	- We're using WordPress for our web site and blog, so they are both connected and then we use Facebook pages for national and local branches, as they are different. Then most of the local branches have Facebook group for the volunteers. And also some local groups have FB groups for their participants and stuff like that. And we also use mail chat to send the news letters. It's basically for people who signed up for our web page's newsletter mails.
17	L	- Do you have any database and what kind of database do you have?
18	Petter	- Well, we use a lot of e mail groups for internal communication, which is in Google. Every single active group in Tamam is in Google, we use their e mails. For example the National board can e-mail to volunteers just by using the group email. So everybody is supposed to have Google mails. And we also have for the different boards, we also have one for National board and for local board together, so if they need to communicate we use that one for example. So that's our main tool of communication in the organization apart from the FB groups.
19	L	- Yeah, and what about the database.
20	Petter	- We don't use databases. It's only for people who send newsletters and we have our membership register, but we only use it when we have big meetings with each other. And since as we are an organization where everyone can join us for free but can be not active and they also work with children at all in this case there is so much information to be delivered... So we haven't used the DB in that way.
21	L	- What role does IS have in TAMAM?
22	Petter	- I think it's like an organizing role. You have to be in an email group for example. If you are not then you will not get any information, and then you're going to miss a lot. So it's very important to make sure that you get the whole information.

23	L	- Can you say that using IS for Tamam is more like an internal communication?
24	Petter	- Yeah, definitely. We have a Facebook page that we use to communicate externally and I think we've been rather bad in using it, I mean we work a lot but it was not the best way for external communication at that time. But for "outside world" it is good.
25	Nikita	- And what about Wiki? You have it, right?
26	Petter	- Yes. And I actually made the Wiki
27	Nikita	- Cool! Can you tell about it? How it improves IS usage?
28	Petter	- Yeah. The Wiki... We started using it before we implemented Google Drive. So we needed volunteers to be able to access the documents and that is particularly board members to be able to access like the volunteer policy and receipt forms and stuff like that. That was the main target for that. We also wanted to use it as a game DB, if volunteers have games they could put them there, but it hasn't been used that way as not many people put games there. And it was mostly been used for storing important documents. It was planned to use by board members and group leaders. The problem is, since it is based on Google system. In order to access it you have to have Gmail account, because of the Google mailing list. So have to be sort of in the system to access it. That created barrier for many people because of it's too complicated registration structure.
29	L	- Ok, so what was the reason for you to create Wiki?
30		- We didn't have a single platform for documents, we were sending the documents all over the place. And it was always someone's computer and we had problems with old versions of the documents. But now we started using Google Drive, which has quite a strict file system. But I think that for some people it's still challenging... the problem with Wiki is when you have to download the document you have to click Upload, so people not always have the latest version and it needs to be updated, but the Google Drive is in your computer, so just need to click on a right folder and upload it.
31	L	- What is your organizational vision towards technological improvement?
32	Petter	- I would like it to be more streamlined. I would really like it to be more structured on the Google Drive, as there is a lot of trash that is not needed. And I would like to work on implementing the e mail group's culture for the local branches. Because I don't think that Facebook works as a way of Internal communication in Tamam because people not always get notifications from groups etc. So I think the best way is to get the local branches in use of e mailing groups in a more consistent way.
33	L	- What strategies does Tamam have regarding investment and development of IT/IS?
34	Petter	- That's I'm not sure at the moment because I'm not in the national board anymore. I am more like on a consulting side, they ask me things
35	L	- Do you have any support or encouragement from your leaders?
36	Petter	- I think yeah, if it's not very expensive.
37	L	- Do most of TAMAM volunteers know about information systems?
38		- I think most of them know about FB, for the rest I'm not so sure.

39	L	- Do you think they know about Wiki?
40		- Some. I think the most active volunteers, the group leaders.
41	L	- What impact does IS implementation have on your organization?
42	Petter	- Of course, I'm going to say it's great. But it was more frustration at that moment, because the systems were not coordinated with each other. In the beginning there was a one big Yahoo group, because Tamam was so much a Lund based organization in the beginning and then it started growing. And I don't think that this kind of growth would have been possible if we didn't have any IS. Because we wouldn't have been able to coordinate everyone and everywhere. So I think it helped us to grow.
43	L	- Does IS implementation influence the quality of Tamam work, and if so, in what manner?
44	Petter	- I think it does, Facebook is used to reach participants to activities, which is the key of what we are trying to do, to get people to come there. And one more the simple thing is the weekly e mails for volunteers. Local branches send them to their volunteers and they see what's going on, what's the plan etc.
45	L	- Yeah, and you feel like you are a part of organization.
46	Petter	- Exactly. You know how to communicate. And I think it's very important for the sense of community and identity with the organization.
47	L	- Do you have any training sessions for your members?
48	Peter	- We have for board members, yeah. Mainly we teach them how e mailing groups work and why they need to update them, why it's so important. Because otherwise volunteers won't get the information. We used to have training sessions regarding Wiki. How it works, how to log in, how to create pages etc. It was mainly for board members. But lately I don't think we had that much.
49	L	- What would be the reason for TAMAM volunteers to start using IS?
50	Petter	- I mean, for Facebook they start using it because it's very easily accessible but e mails... we make sure that they are in the list first and then they get started. So I think volunteers that are using it are doing it because of... for example they have a group meeting or something like that and also to communicate with each other.
51	L	- What can be the reasons that some volunteers don't use it?
52	Petter	- Well, I think it depends on how active you are, how much you need to communicate outside your weekly group.
53	L	- Which IS tools have been used more than others and why?
54	Petter	- Facebook and the e mailing groups are the most used ones. I'd say e mail groups by the boards and FB by most volunteers. And I think that FB because it's easily accessible.
55	L	- Have you faced any challenge or problem regarding IS usage?
56	Petter	- Yeah, definitely. It's like board members don't understand why volunteers need to be in e mailing groups, making sure that people are finding the right groups. Because there are

		so many of these that it's sometimes hard to understand which one you should use.
57	L	- How important is the security for TAMAM information systems?
58	Petter	- I think it's quite important. Because we have stuff that... I mean it's not like we have a lot of sensitive stuff but still sometimes we don't want to share the meeting time and date publicly. Because if you are not part of it you shouldn't know where it is. To avoid wrong people, to avoid people who are targeting our kids or something like that. That's why it is important, and that's why we clean people from the e mail groups who leave Tamam. And on Google Drive we have different access levels for different groups. Only the National board and me and office people can access all of the parts of the system. But each local branch can access only some public folders and the local branch folder. It's not like we need super-secret data, it's more generally for people who have access.
59	L	- What can be the reason that volunteers start working in TAMAM?
60	Petter	- Well, I think because they want to get involved and have new contacts and maybe to make contribution in what we are doing, to help people.
61	L	- What kind of backgrounds do your volunteers have in professional field?
62	Petter	- Well, I think that most of people start volunteering before they get the professional background. Majority of our volunteers are students. And the backgrounds of all of them is mixed, the main part are from humanities field but we also have quite a few engineers and stuff like that.
63	L	- What kind of skills do you think necessary to have in order to use IS effectively?
64	Petter	- I think the first thing is not to be afraid of the system, because a lot of volunteers have problems to start using IS because they think that they won't manage this. Because if you don't understand for example the hierarchy of e mail groups it's going to be tough. And more, I think it's quite easy to use our IS for everyone because you don't have to have any specific knowledge.
65	L	- What do you think about your volunteers' perception about IS?
66	Petter	- I think most of them haven't reflected on it. And I think it's useful to use IS for them at least with the FB groups. They understand it's useful to communicate with each other. But it also depends on their level of engagement
67	L	- How do you distribute works in your organization?
68	Petter	- It's based on what you want to do. So this is why we're a volunteer organization. It's not a skill based distribution but rather "word based" distribution
69	L	- Do you have any problems in dividing different tasks or duties to your volunteers?
70		- Maybe sometimes, but I think it's more on time rather than skills
71	L	- What kind of tasks in your organizations does IS support?
72	Petter	- Well, we use for example a Google form; we use it when we want our volunteers to sign up on Google and to sign up for educations and stuff like that. And for board meetings we also use Google drive to make the agenda before the meeting so everyone could contribute. And it's also for creating fliers and stuff like that, we have logos and

		different formats of logos (jpeg, jpg etc.).
73	L	- Do you think your organization have enough technological capabilities in performing IS-related tasks?
74	Petter	- I think the biggest flow that we have is in our register membership. Because after the end of 1 st December we close the register and we have to clean it, and people have to sign up again in order to get the grand that we get from the Youth board every year. And there is an issue in that system, once you delete the members... even if they join they recognize the user from the deleted database and says "No" this member has quit, so they can't reregister so I have to exploit the last register from last year and then completely remove it from the database before they could reregister. And that is a very big limitation.
75	L	- And finally, do you support any other nonprofits or do you have support from them?
76	Petter	- We don't have any support, we can support only initiatives of some people, like make different events but it's not exactly the support of external or internal manner.
77	L	- Ok thank you very much. Do you want to address anything else regarding the use of IS within Tamam?
78	Petter	- I don't think so. Thank you, good luck.

Appendix C: Transcription 3 (T3)

Date of Interview: 5th of May, 2014

Duration: 40 minutes

Interview format: Face-to-Face

Transcribed by: Tawanrat Kwampaiboon

Transcription checked by: Stefan Jevtic and Nikita Pyshnyak

Transcription date: 6th of May, 2014

Participants of the Interview

Researcher 1: Tawanrat Kwampaiboon (L.)

Researcher 2: Stefan Jevtic

Interviewee 1: Fillippe

1.	Stefan	- What is your position in Tamam?
2.	Fillippe	- I am one of the employees. So I work as an organizational developer. And we are three people who are employed at the moment. So I am doing most of the executive work and I am in contact, so doing everything that volunteers on the board can do more or less.
3.	Stefan	- And how long have you been working in Tamam?
4.	Fillippe	- Since January. So I am quite new.
5.	Stefan	- What responsibilities do you have in Tamam? And what are your main tasks?
6.	Fillippe	- As, I've mentioned a bit before that I work with most of the executive work being done on board, decide the visionary and then I implement it and do what they want to do. So for example they say: we should have a workshop for volunteers. And then I implement it so we have this workshop, then I plan it and implement it. If we get questions from externals, like students who want to work with Tamam then I am in charge for those things. But I also work with bank issues. I also work with Facebook home page, I fix the home page. So it's like...
7.	Stefan	- Several duties for one person
8.	Fillippe	- Yeah. Exactly.
9.	L	- Yeah, because you are basically contacting people from different areas, like external people like us and also fix problems within Tamam. And also connect between executives and volunteers and board members.
10.	Fillippe	- Yes. I am a spider of the web.
11.	Stefan	- Ok, let's move to the next question. Now about organizational details. Do you think that Tamam has influence or support from external parties like donors, governmental agencies, vendors or other nonprofits? Maybe in context of IS
12.	L	- Do they influence you. Do you have any initiatives from any external environment regarding IS?
13.	Fillippe	- No. We don't
14.	Stefan	- Maybe some conferences?

15.	Fillippe	- So you mean that they say we only have to make this and this and this, it's like some helps.
16.	Stefan	- Yeah, like support from external environment.
17.	Fillippe	- Hmm, I think almost everything being done in Tamam we do it ourselves. So for example if we take Google drive and Wiki that's because we had one volunteer, who was very interested in those things. And then he created it. And you know if he got any influence from abroad from something else from external... I don't know, but probably!
18.	Stefan	- And one more. So would you say that social environment doesn't have impact on IS inside your organization?
19.	Fillippe	- Of course, I mean, like Facebook. We are on Facebook, because we noticed that it's the easiest way to get in contact with people. And that's of course what we can feel from the outside. But when it comes to drive or Wiki etc. I think we feel that we need some way to do this in a good way but why we used the Google drive and the Wiki because it's the cheapest and the easiest way .
20.	L	- And one more. Stefan mentioned about conferences. Because I learned that there are so many big organizations that support small nonprofits in different countries. And they often have conferences that are made in order to suggest how can such organizations improve something. And sometimes they suggest that this technology will help you. Do you have that kind of supports?
21.	Fillippe	- Hmm. That's really interesting. I mean we are definitely willing to do that with time but now when it comes to external communication we have more connections with Erasmus Plus. For example, to do like exchanges and the Youth Board which is the authority that we get our money from. But when it comes to external communication that's more or less. We're just on the flow. Maybe we should go to such companies.
22.	L	- Ok, so what kind of tools do you use for internal communication? Like Wiki, Google drive, maybe website and social media that you use for external purpose
23.	Fillippe	- Mostly it's a Facebook and emails, we are doing weekly emails and then it's like texting and calling a lot. Because that's how you can get in contact quickly. But we also have a lot of Facebook groups!
24.	L	- Ok, in terms of financial management how do you prioritize your budget?
25.	Fillippe	- Yeah, it's a big board that does the budgets and we have annual meeting. And we have big... we call them "potter" in Swedish, well something like slots. So the biggest slot we have is the initiative slot and that can be everything more or less, but it's activities with youth. And that's the biggest one, so you can apply for that to the board and say that we want to go somewhere and then they say "OK", look through the details and accept it. And then we have quite a big slot for the rents of the different offices. You can see the budget if you want to.
26.	Stefan	- Is there anything about information technology?
27.	Fillippe	- No, we don't put that really in the budget. Because again, maybe we should, but for us it has always been the main issue to get more money as possible for the youth than the internal communication. And in that case it goes second or third or forth
28.	Stefan	- If you get more members would you consider expansion?

29.	Fillippe	- I mean what we pay for is that we can have the web page and the member system. So we basically pay for the web site which is WordPress and then we have Myclub, which is our member system, like if you get the member everything gets in there, and that's also the way we communicate; and we pay for that one
30.	L	- Is MyClub connected to the apps?
31.	Fillippe	- Yeah, exactly, they are connected to the apps and they are also connected to the homepage, if you become the member of it. And then everything goes into Myclub. It's www.myclub.com
32.	L	- So it's a third party who take care of the apps and web-site?
33.	Fillippe	- No, we pay the money so we can get the system, but it's without persons. We don't have any people doing this. And I just take care of it or the board takes care of it, or anyone who has that possibility. But it's more or less just a system that we pay for. And then we also pay for some email addresses, like Lupia.
34.	Stefan	- Ok. So, what kind of IS tools do you have in your organization? We mentioned it before a bit.
35.	Fillippe	- So, ok if we start from the biggest one then it's the Google Drive. It's were we have all papers and then goes the Wiki, which is like more for... if you want to get the receipt paper or if you want to apply for the money
36.	L	- Can you also explain who has the access to these tools?
37.	Fillippe	- The Drive, all the boards have access to. And we as workers also have access to it, the Wiki, everybody can have access but they don't because they have to apply for the access and then it takes a process. But everyone should have access to it. And then we use different Facebook groups and everybody has access to those, there are some that are closed but you can just apply for joining the group and wait for the response. And then we have emails. And I think email, especially when it comes to big weekly email from Lund that is about all the activities being done and different things that people need to know. And then I think it's callings for meetings in the office, saying how this is being done and so on.
38.	Stefan	- And how would you describe the role of information systems?
39.	Fillippe	- It is very important. Because if we don't have communication then we have nothing more or less. It's like if we don't have volunteers and youth then it's going to be only me, Allis and David that are employed.
40.	Stefan	- So, it's very important but you don't spend much time on it.
41.	Fillippe	- Exactly. Maybe that happens because when we see that we have youth to work with we understand that we don't need super advanced internal communication. Otherwise we could shut people out. That's why sometimes the easiest way is just to call. Because then you will know that you have a contact.
42.	Stefan	- But do you think that introducing some kind of IS would improve the quality of work or volunteers satisfaction?
43.	Fillippe	- I think, especially when it comes to board it's very important, but when it comes to volunteers and participants it has to be something that they are already using in their daily life. If they are not using it in their everyday life they won't probably start using it here just because they are part of Tamam.

44.	Stefan	- But have you experimented with this? I mean you never know until you try.
45.	Fillippe	- That is true but I think from my own experience it was very difficult to get people in Wiki or to get people in Facebook groups.
46.	Stefan	- It's motivational problems.
47.	Fillippe	- Yeah. So it's for them like... I want to go once per week to do this activity and I am not interested in doing anything else. And that's why the emails or calls are easier to use for them, because it's already integrated in their life. So that's the easiest way to get in touch for them.
48.	Stefan	- Ok, so what strategies does Tamam have regarding IS development? You more or less answered...
49.	Fillippe	- Yeah. Well, we want to, but we don't know how. It's like not because we have lack of money, it's more because we don't know how will it affect our organization and what benefits will it give to us. And more we if we get a lot of money in the system that will not be integrated in peoples' life then I think it will be useless. Because it's not like that people are hanging here every day like a day to day work, it's more like people coming, people going. And it will be like, so now we have the whole day of introduction of the system, like Wiki for example, I do it with every new member, but then they leave the day after. And then I have to start it again with new volunteers.
50.	Stefan	- But for example literature says that it's a common thing that larger organizations help smaller ones, by sharing IS tools with them or some companies donate the technologies that they don't need. Do you know about this?
51.	Fillippe	- Well, I mean, we get a lot of support from different organizations for different things. And we get it all the time, this house for example. And it's a lot, there are many people who are helping us. But when it comes to Is we don't have any suggestions. And I think that's due to many reasons and maybe it's because of the size of Tamam.
52.	Stefan	- The size of Tamam?
53.	Fillippe	- Yeah, exactly. And also connections. I don't think that we have so much connections to the IT which means that they probably don't know that we exist.
54.	L	- Maybe it's because you work in social scope.
55.	Fillippe	- Yeah, exactly so we focus more on people. And there are so many different parts in Tamam need to be developed, because we're still so young. And when I started working I thought that this needs to be done better and then, and then someone new comes and has interests in other spheres than they start improving this and that. So it's like we're growing gradually but irregularly. Because it depends...
56.	Stefan	- It's unpredictable.
57.	Fillippe	- Yeah, exactly. But sometimes when Big board (Main board) says that this, this and this is important in that case even though if you don't want to do it, you have to.
58.	Stefan	- What is a Main board? Where is it?
59.	Fillippe	- It's all over Sweden. The president, she's sitting in Stockholm or in Uppsala actually. And then we have one in Malmo, one in Nepal and then another one in Uppsala, so they're a bit

		spread out.
60.	L	- Okay and can you tell us now for how long have you been using different IS?
61.	Fillippe	- I think, it's hard to say because when the Google Drive started it was like someone started it to put things there. But then it became that we officially started to communicate with it, I think it was about two years ago. And the Wiki came a bit earlier.
62.	Stefan	- Do the most of the volunteers know about the system?
63.	Fillippe	- I think most of them know about the Facebook groups and about the weekly emails. And I think that most of the volunteers who have been active or more than six month have heard about the Wiki, especially here. Because when you borrow a car for example then you would say "Check the Wiki" because you have to book it via Wiki. And all contacts and phone numbers we have on Wiki. So I think that many of the volunteers heard about this. But it's actually a very good thing, it's a bit ugly but it has the things that you need on as a daily basis.
64.	L	- What impact does this system have on your organization? I mean Wiki and Google drive.
65.	Fillippe	- I think that the Google Drive is for those who are super involved and that are hired or that really want to dig into deep. And then it's good I think. It makes an impact that everybody can see. But it's quite difficult to use when you are beginner, because it has so much... different types of boxes that are a bit chaotic and stuff.
66.	Stefan	- Do you have some problems with it? Like finding things.
67.	Fillippe	- I mostly search. But there are different kinds of access, so if you are a Board member in Uppsala then you don't see everything from the main office. So everything from office... we have a lot of things.
68.	L	- So you have access level?
69.	Fillippe	- Yeah.
70.	L	- If you are part of Lund you can access only Lund's folders. But if you are Lund member can you access Malmo members?
71.	Fillippe	- No, no. Then you have to go through Malmo. Sometimes it happens for example if we are doing the same project together. So we share that. Because it's a very big spider web. How everything is connected and who gets the access to who. That also can be confusing sometimes when it's things like in general in office and then someone from Stockholm has access not to the Lund board....
72.	Stefan	- How about external impact – Facebook page or TAMAM website for example?
73.	Fillippe	- I think Facebook page is the most common to get first contact with people. I would like to add that our website needs improvement – Swedish language level is very complicated since we work with children. We have new volunteers that are just passing by, and some of them are emailing.
74.	Stefan	- What would be the reason for TAMAM volunteer to start using system?
75.	Fillippe	- Contacts are one thing. Wiki is the most important and has many questions and answers. For example – who is in Malmo board? Where to get contacts? Drive is for board members only

		and only they use it.
76.	Stefan	- Why did you start using these tools?
77.	Fillippe	- Because they are cheap and many have used them before.
78.	Stefan	- How many of volunteers are using the system?
79.	Fillippe	- Facebook a lot, at least checking it, for activities. The wiki, hard to say. I would say that board members do it, and maybe some volunteers. They can't use wiki until they ask. As soon they send request they are permitted.
80.	Stefan	- Have you faced any challenge or problem regarding the use of the system?
81.	Fillippe	- Besides that I've mention before I think that I don't like that we are dependent on volunteers having to use Facebook. Even though it's the easiest thing, I think it is bad. If they are not on Facebook, we don't want them be force to use. I think that's a problem, but I can't figure out something that is easier than that.
82.	Stefan	- How important is the security?
83.	Fillippe	- Since we are NGO. The most important thing is transparency. Only thing we keep secret are communication with youth, such as children problems.
84.	Stefan	- What is the average age of volunteers?
85.	Fillippe	- From 22,23 to 25,26. The ones that have to most responsibilities are older. President is 28.
86.	Stefan	- When was Tamam established and by who?
87.	Fillippe	- TAMAM was established 2008, by guy named Philip.
88.	Stefan	- How many members you have?
89.	Fillippe	- Around 1200
90.	Stefan	- How about active volunteers?
91.	Fillippe	- About 60-70 very active, around 200 that come and go and 1000 of all participants.
92.	Stefan	- Do you have any connections with other nonprofits?
93.	Fillippe	- For example, two organization are friends – TAMAM Albania and in Kirgizstan. Besides that there are a lot of local nonprofits with similar goals that cooperate with us.
94.	Stefan	- How developed is nonprofit sector in Sweden?
95.	Fillippe	- It is very developed. People tend to make different types of organizations, like unions, nations, NGO's. It is important to be part of a team, and a lot of resources are available. There is a strong civil society.
96.	Stefan	- Why people start working in TAMAM?
97.	Fillippe	- For different reasons. It is connected to their study topic and they need practical experience. Some have entrepreneurial motivation. Some of them start for altruistic reasons. In Lund is mostly students and same is for Uppsala. In Stockholm its mostly people that are working.

		Sometimes they join because it's close and convenient and they just feel curious (example of engineering students).
98.	Stefan	- What kind of background do you your members have?
99.	Fillippe	- It's a big mix. Some have social background, some are engineers. It's a wide list of different backgrounds. Some of them want to practice languages.
100.	Stefan	- What kind of skills the volunteers have?
101.	Fillippe	- Recently we have many engineering volunteers, but it wasn't always like that. People usually don't feel like they need to use anything.
102.	Stefan	- What do volunteers think about the system?
103.	Fillippe	- I think they think it's boring. The ones that are in Wiki, think it's very good. The ones that are not, feel they are missing something.
104.	Stefan	- Have you tried to solve this problem?
105.	Fillippe	- We started with workshops here recently, and as a part of workshops I try to introduce them with wiki.
106.	Stefan	- The national board wants all volunteers to use it?
107.	Fillippe	- Yes.
108.	Stefan	- How do you distribute works in organization?
109.	Fillippe	- I ask who wants to do it. Everything is on voluntary basis.
110.	Stefan	- Does national board distribute work?
111.	Fillippe	- Sometimes.
112.	Stefan	- But you have problem with that?
113.	Fillippe	- Usually there is no problem, because everyone here wants Tamam to survive so everyone has feeling of responsibility.
114.	Stefan	- What is your opinion about your organization capability for this system?
115.	Fillippe	- It could be much better. We have a good ground to do it, but we don't know how to do it.
116.	Stefan	- Where do you see Tamam system, especially regarding technology?
117.	Fillippe	- The dream of course is to have communication systems about which we won't have to think about. Everything runs smoothly. And we could explain everything in two sentences. But that's utopia.
118.	Stefan	- Do you have formalized goals and vision?
119.	Fillippe	- Visionary goals are made on national level and local. There often visionary meetings, sometimes very long. In office we also have such discussion.

120.	Stefan	- Alright, this is the end of our interview. Do you have anything else to address?
121.	Filippe	- I think I covered everything.
122.	L	- Thank you so much so much for your time.
123.	Filippe	- Thanks

Appendix C: Transcription 4 (T4)

Date of Interview: 5th of May, 2014

Duration: 20 minutes

Interview format: Face-to-Face

Transcribed by: Stefan Jevtic

Transcription checked by: Tawanrat Kwampaiboon and Nikita Pyshnyak

Transcription date: 6th of May, 2014

Participants of the Interview

Researcher 1: Stefan Jevtic

Interviewee 1: Sara

1	Stefan	- What is your position in Tamam?
2	Sara	- I am vice chairman, second person in the organization.
3	Stefan	- And how long have you been working in Tamam?
4	Sara	- Two and a half years.
5	Stefan	- What responsibilities do you have in TAMAM and what are your main tasks?
6	Sara	- At the moment, I'm in the board, so I'm responsible for the interns, and making sure everything works, I'm responsible for the contact with the group leaders and check that everything is ok.
7	Stefan	- What kind of IS tools do you have in your organization? (Any open source, vendor software) - Do you have any database and what kind of database do you have?
8	Sara	- We use emails a lot within the board, blog to inform volunteers, wiki is a place is to put a lot of useful information such as contacts.
9	Stefan	- What role does IS have in Tamam? - How important to have IS support in your organization? - What is your organizational vision towards technological improvement?
10	Sara	- The email system is the main for communication, drive is full of important documents, wiki is place to get information, lookup if they need it.
11	Stefan	- What strategies does Tamam have regarding investment and development of IT/IS? - Do you have any support or encouragement from your leaders?
12	Sara	- \. We will have intern that has good IT skills next semester. We want to improve IT competence. I would say that current issues satisfy our needs, except small issues.
13	Stefan	- What was the reason for investment/adoption in IS? - Was this decision made only by organizational members or was also influenced by third parties (i.e. donors, governmental agencies or other nonprofits)?
14	Sara	- I don't know about that, they have already existed.
15	Stefan	- Do most of Tamam' volunteers know about information systems?
16	Sara	- They know about email system, as most of our communication is done that way. Some of them know about wiki, but not all of them, and the drive is for communication within the board. Most of them are familiar with website and the same for Facebook.

17	Stefan	- What impact does IS implementation have on your organization?
18	Sara	- They have good impact. Email is fast for communication and allows discussions. Wikis and google drive is used for old documents such as policies.
19	Stefan	- Does IS implementation influence the quality of Tamam work, and if so, in what manner?
20	Sara	- We use emails. We use Facebook and blog and we integrate them all to make sure everyone is informed. They are very important. They certainly do.
21	Stefan	- Do all the members have access to information systems?
22	Sara	- They do. Maybe not everyone knows about Tamam website. Normal volunteers don't have access to google drive.
23	Stefan	Do you have any training sessions for your members?
24	Sara	- New members are briefly introduced with the tools.
25	Stefan	- What would be the reason for Tamam volunteers to start using IS?
26	Sara	I don't know actually. Normal volunteers go to group leaders and group leaders contact board members.
27	Stefan	- What can be the reasons that some volunteers don't use it? - Do you encourage your volunteers to use the systems?
28	Sara	- They could not know about it. We try to encourage them to use emails, but other than that no.
29	Stefan	- Which IS tools have been used more than others and why ?
30	Sara	- Emails, then google drive, then wiki.
31	Stefan	- Have you faced any challenge or problem regarding IS usage?
32	Sara	- Mostly if we get a lot of emails we have a lot of information. Also finding stuff on wiki.
33	Stefan	- How many volunteers do you have in Tamam? [overall]
34	Sara	- I don't know. Around 1000 members, participants and volunteers.
35	Stefan	- What can be the reason that volunteers start working in TAMAM?
36	Sara	- They want to work with kids, they agree with what we stand for.
37	Stefan	- What kind of backgrounds do your volunteers have in professional field?
38	Sara	- Typical Tamamer is someone who studies social science, human rights and is around 20-25, and they stay around two years.
39	Stefan	- What do you think about your volunteers' perception about IS?
40	Sara	- Sometimes it seems that they are not committed to the way we communicate. They don't have need to use it.
41	Stefan	- How do you distribute works in your organization?

42	Sara	- Mostly based on your interest. Certain skills are not so necessary. Its more about having fun where you are.
43	Stefan	- What kind of tasks in your organizations does IS support? With particular tools such as Facebook, Wiki, Website, Google Drive.
44	Sara	- Like informational – about activities, projects, telling people about events, both formal and informal. Within the Wiki you can find information notes such as formal documents, permissions.
45	Stefan	- Do you think your organization have enough technological capabilities in performing IS-related tasks?
46	Sara	- It could always be better. Wiki can be structured better and volunteers need to be better informed about it. They whole organization is responsible for information technology initiatives. Google drive can also be better structured.
47	Stefan	- Alright, I'm closing the interview now. Do you have anything else to address?
48	Sara	- No, I don't think so.
49	Stefan	- Thank you for your time.
50	Sara	- You're welcome.

Appendix C: Transcription 5 (T5)

Date of Interview: 5th of May, 2014

Duration: 37 minutes

Interview format: Face-to-Face

Transcribed by: Stefan Jevtic

Transcription checked by: Tawanrat Kwampaiboon and Nikita Pyshnyak

Transcription date: 6th of May, 2014

Participants of the Interview

Researcher 1: Tawanrat Kwampaiboon (L.)

Interviewee 1: Thomas

1	L	- What is your position in Tamam?
2	Thomas	- I am secretary in TAMAM board. I am responsible for our meeting protocol and for their recording. I also keep track of our resources such as wiki, Google drive, Facebook page. I am also responsible for participant forms.
3	L	- And how long have you been working in Tamam?
4	Thomas	- I've been member for around 14 months, but active board member for 2 months.
5	L	- Do you think TAMAM has any influence from any external parties?
6	Thomas	- I would say not much. We never had any pressure from outside world, and we do what we want.
7	L	- In term of technology? Do you have any donor that would support some project for example?
8	Thomas	- No, we never had.
9	L	- How do you prioritize your budget?
10	Thomas	- The first thing is to pay rent for building and salaries. Apart from that we spend money for our projects. A lot of money is left for other activities like trips.
11	L	- One of your problems might be volunteers?
12	Thomas	- It is a problem that not many members stay for long. But it is not economical problem.
13	L	- What kind of information system you have?
14	Thomas	- Google drive folder that we use extensively for different documents. We also have webpage and wiki where different boards have their documents. For volunteers we have facebook groups. Most discussion is done on Gmail.
15	L	- All the systems are free? You don't pay for them?
16	Thomas	- Yes.
17	L	- Who created wiki?

18	Thomas	- I'm not sure. It's been around for few years.
19	L	- What role does Information Systems have n TAMAM. Do you think its important?
20	Thomas	- I think it's very important. There are a lot of people that come and leave. When new members come, they don't have any knowledge on how to do things. Many of these documents are acquired through information systems. They are very important.
21	L	- You use them more to store data?
22	Thomas	- Yes and to collaborate, create and modify documents.
23	L	- Does Tamam have any vision for technology?
24	Thomas	- We don't have any real plans. Just we don't like wiki at the moment. It doesn't work very well and its not structured. The same for drive. We are currently working to solve this. But there is no clear vision about it.
25	L	- What about technical skilled members that are responsible for technology aspect of organization, do you have any?
26	Thomas	- We don't have. We have board members, that have some extra responsibilities. For example I'm more in charge of it that other members, but I don't have any background in it.
27	L	- You don't have any investment in technology?
28	Thomas	- No.
29	L	- Does national board want to have good information systems? Do they pay attention to technology?
30	Thomas	- Yes. But haven't had any direct messages on that topic.
31	L	- Do most of volunteers know about systems that you use?
32	Thomas	- I don't think so. I'm not sure actually. Facebook probably. We tell people about wiki as well. But I think people don't look at it. I did the same when I was only a member. They don't use much except Facebook page.
33	L	- Do you think using information system can improve quality of your work?
34	Thomas	- I hope so. I can't give any example. Perhaps it can give us opportunity to communicate better.
35	L	- Do all the volunteers have access to information system?
36	Thomas	- They have to webpage and wiki.
37	L	- Do you have any training session on how to use system?
38	Thomas	- No, just 5 min of explanation.
39	L	- How many of volunteers are actually using the system?
40	Thomas	- I have no idea. Not many.

41	L	- You use a lot of google drive. What would be the reason for board members to use it?
42	Thomas	- It's very simple and convenient. It's easy to upload documents. We are familiar with it from private life.
43	L	- What can be the reason that some volunteers doesn't use the system at all?
44	Thomas	- Maybe they don't know about it. Or maybe they don't feel need to feel more involved.
45	L	- Have you faced any challenge or problem to use the system?
46	Thomas	- Google drive is not optimal either. You can't do much graphical work.
47	L	- What about security issues?
48	Thomas	- We have just few documents for which we have security concerns. If something would happened to our documents, we would have a lot of work to do, but we will not suffer any economic damage.
49	L	- You have app as well?
50	Thomas	- We have third party system for that. But I don't know more about it.
51	L	- How do you ask members to apply ?
52	Thomas	- They can sign paper or do it through app. For us it's the same.
53	L	- How many volunteers do you have?
54	Thomas	- In Lund we have around 30-40.
55	L	- And the whole Tamam?
56	Thomas	- Around 1000 members.
57	L	- What can be the reason for volunteer to start working?
58	Thomas	- They want to volunteer. For some is fun, sounds interesting.
59	L	- What kind of background they have?
60	Thomas	- They are students, 90% of them. More of them are from social sciences and more of them are women.
61	L	- What kind of skills your volunteers have?
62	Thomas	- Most of them are humanitarians, teachers, have skills in teaching and educating. Also, many of them don't have relevant experience. Like engineers.
63	L	- What kind of skills are needed to use the system effectively?
64	Thomas	- If you can use computer, it would be fine. Drive is the most complicated thing.
65	L	- What about financial staff?

66	Thomas	- We have treasurer. He has economic background.
67	L	- What is your volunteers perception of the system?
68	Thomas	- Many of them don't have opinion except on Facebook page. But I guess It's probably positive.
69	L	- If you had some alternative, do you think volunteer would use it?
70	Thomas	- Might be. I don't know.
71	L	- How do you distribute work in organization?
72	Thomas	- Everyone in board has different tasks. We have group leaders that are link to volunteers. Someone is in charge to contact schools. Treasurer deals with money.
73	L	- For instance, guy that handles financial stuff does it because he has background in it?
74	Thomas	- Yes.
75	L	- Do you have problems in dividing tasks?
76	Thomas	- Problems might be that there is something they should do but they don't have time. Usually we just have general responsibility and it might be problem. It's not always super clear who needs to do what.
77	L	What kind of tasks can information systems support?
78	Thomas	- For example, We can set up a list of volunteers. Then how much money we have for certain projects. List of different responsibilities we have in the organization.
79	L	- Do you think your organization has enough technological capability?
80	Thomas	- We have capability to use it but not to set up a new system.
81	L	- Can you afford licensed software?
82	Thomas	- We could afford it but we are not sure if we need it.
83	L.	- Thank you so much. I think that was all we have for the interview. Do you want to address anything else?
84	Thomas	- Ah, nope. Thank you.

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